THE TRIBES.....
ON MY FRONTIER
BY EHA.........
THE TRIBES ON MY FRONTIER. AN INDIAN NATURALIST'S FOREIGN POLICY. SIXTH EDITION.

BY E. H. AITKEN (E.H.A)
AUTHOR OF "A NATURALIST ON THE PROWL," "BEHIND THE BUNGALOW"

ILLUSTRATED BY
F. C. MACRAE

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PREFACE

THESE papers were written during the Afghan War, and made the débüt in the Times of India. They come on the stage again in answer to what vanity fancied was an encore. Perhaps it was the voice of the Scotchman crying, "Ong-core! Ong-core! We'll hae nae mair o' that."
# CONTENTS

<table>
<thead>
<tr>
<th>CONTENTS</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A Durbar</strong></td>
<td>I</td>
</tr>
<tr>
<td><strong>The Rats</strong></td>
<td>11</td>
</tr>
<tr>
<td><strong>The Mosquito</strong></td>
<td>24</td>
</tr>
<tr>
<td><strong>The Lizards</strong></td>
<td>33</td>
</tr>
<tr>
<td><strong>The Ants</strong></td>
<td>44</td>
</tr>
<tr>
<td><strong>The Crows</strong></td>
<td>55</td>
</tr>
<tr>
<td><strong>The Bats</strong></td>
<td>64</td>
</tr>
<tr>
<td><strong>Bees, Wasps, et hoc genus omne</strong></td>
<td>75</td>
</tr>
<tr>
<td><strong>The Spiders</strong></td>
<td>85</td>
</tr>
<tr>
<td><strong>The Butterfly: hunting him</strong></td>
<td>95</td>
</tr>
<tr>
<td><strong>The Butterfly: contemplating him</strong></td>
<td>106</td>
</tr>
<tr>
<td><strong>The Frogs</strong></td>
<td>116</td>
</tr>
<tr>
<td><strong>The Bugs</strong></td>
<td>126</td>
</tr>
<tr>
<td><strong>The Birds of the Garden</strong></td>
<td>135</td>
</tr>
<tr>
<td><strong>The Birds at the Mango Tope</strong></td>
<td>147</td>
</tr>
<tr>
<td><strong>The Birds at the Tank</strong></td>
<td>158</td>
</tr>
<tr>
<td><strong>The Poultry-Yard</strong></td>
<td>172</td>
</tr>
<tr>
<td><strong>The White Ants</strong></td>
<td>184</td>
</tr>
<tr>
<td><strong>The Hypodermatikosyringophoroi</strong></td>
<td>193</td>
</tr>
<tr>
<td><strong>Etcetera</strong></td>
<td>207</td>
</tr>
</tbody>
</table>
# LIST OF ILLUSTRATIONS

<table>
<thead>
<tr>
<th>Illustration</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>NATIVES SHIKARRING DUCKS</td>
<td>Frontispiece</td>
</tr>
<tr>
<td>Defiance</td>
<td>13</td>
</tr>
<tr>
<td>An Anxious Moment</td>
<td>19</td>
</tr>
<tr>
<td>A Detachment</td>
<td>39</td>
</tr>
<tr>
<td>The Pursuit of Pleasure</td>
<td>42</td>
</tr>
<tr>
<td>Amongst the Philistines.</td>
<td>60</td>
</tr>
<tr>
<td>Family Affection</td>
<td>71</td>
</tr>
<tr>
<td>Sport Second to none</td>
<td>97</td>
</tr>
<tr>
<td>For Life</td>
<td>123</td>
</tr>
<tr>
<td>Outwitted</td>
<td>141</td>
</tr>
<tr>
<td>The Mango Tope</td>
<td>151</td>
</tr>
<tr>
<td>Roast Kullum Looming</td>
<td>161</td>
</tr>
<tr>
<td>The Sergeant</td>
<td>177</td>
</tr>
<tr>
<td>Liberty</td>
<td>209</td>
</tr>
</tbody>
</table>

**FRONTISPIECE.—NATIVES SHIKARRING DUCKS.—** The wild ducks, familiar with floating gourds, are unsuspicious of the natives, who wade towards them covered by a chattee, or earthenware vessel, very like a gourd, and draw them under water by the legs.
IS June in Dustypore. Fancy a scorching wind that seems to gather the heat together, and rub it into your cheeks and eyes, clouds of dust that nearly hide—the landscape I had almost said, through force of habit, but I mean that wide expanse of negativeness into which the sun is striking his almost visible rays till the air distinctly quivers and trembles under them; no ice, no resource except “thinking on the frosty Caucasus,” or sitting behind those rheumatic
and agueferous devices, tatties and thermantidotes. Bombay people do not know what heat is. The only thing to be complained of at this time in Bombay is a certain tendency to liquefaction. Chemically speaking, one gets deliquescent about the end of May. The melting mood is strongest during the morning walk; at the end of it there is little left of one but a pool of water. But abjure walking, court the sea-breeze, or sit under punkahs, and the climate of Bombay is balmy. These are the signs by which any one may know hot weather. When you take a change of raiment from the drawer and it feels like fresh-baked bread, when you put on your coat and it settles like a blister on your back, when returning to dinner from the evening constitutional you feel as you step through the doorway that you are entering a limekiln, then the weather is getting hot. In such weather every Oriental whose hard fate has not made him a punkah-puller religiously enjoys his midday nap, and so about noon a quiet as of a Scotch Sabbath comes over the land.

Just at that time when all is stillest and sleepiest, I hold a levee, for a house is like the shadow of a great rock in a weary land, and to its blessed shelter, as the sun grows fiercer and fiercer, all the neighbourhood "foregathers."
The choicest place, of course, is that moist spot at the back of the house, under the pomegranate-trees, where the bath-water runs out into the ground. The fowls have taken possession of that, and are fitting themselves into little hollows scraped in the cool damp earth. The next best place is the broad verandah, with the elephant-creeper oppressing the trellis. Here long before noon the birds begin to come together. Up among the rafters first I generally detect a social lark* sitting solitary and speechless; then down among the roots of the creeper, hopping idly about, turning over a dead leaf here and there, and talking to one another in querulous falsettos, come a dozen dingy-brown "rat-birds,"† feeble folk, which keep in flocks, because they have not back-bone enough to do anything singly. They are just miniatures of the "Seven Brothers," only there are no differences of opinion among them. A little later on, two or three well-breakfasted mynas drop in and assume comfortable digestive attitudes. The myna is the most proper of birds, respectable as Littimer himself. In his sober, snuff-brown suit and yellow beak, he is neither foppish nor slovenly, and

* Calandrella brachydactyla.
† The striated bush-babbler (Chattarrhea caudata).
his behaviour is stamped with self-respect and good breeding. Nevertheless, he is eaten up with self-admiration, and, when he thinks nobody is looking, behaves like a fool, attitudinizing and conversing with himself like Malvolio. But in public he is decorum itself. He sets his face, too, like a flint, against every form of vice, and is the abhorrence of the mongoose, the wild cat, and all the criminal classes.

On one of the beams of the roof is a meek turtle-dove that coos patiently, so that his spouse may hear him as she sits upon her two white eggs in (of all places for a nest!) the prickly pear hedge. Their nest, consisting of three short twigs and a long one, was first built on one of the rafters, but it was dissipated by that painted iniquity, the squirrel, out and out the most shameless ruffian that haunts the house. See him lying flat on his belly upon the stone step, crunching a crust of bread, stolen of course. This is tiffin. For breakfast he had a dozen or two of the tender shoots of the convolvulus which I have been pruning and watering to make it grow. And his conscience does not trouble him! He should die the death if I could make up my mind what manner of death would best befit his crimes. Of all my guests there is not one more dainty, or more modest (with so much to be vain of), than the hoopoe, which
sits unostentatiously in a corner, with even its gorgeous crest folded decently down. Every minute or two it trots out to one of those cup-shaped little hollows in the dust, where the ant-lion lies in wait. Once a poor ant slips over the treacherous edge of that crater, it has as much chance of coming out again as Empedocles from Etna. It may struggle to keep its footing on the slippery bank, but the unseen monster below jerks up showers of sand, and soon sand and ant go rolling down together, where the outstretched grey jaws lie waiting in the dust. The hoopoe knows exactly what is there, pokes its long beak down into the funnel, fumbles about for a moment, and pulls out the slayer of ants, to be swallowed like a pill.

Along with the birds a pretty green lizard used to come every forenoon, shikarring ants and other insects, but it was breakfasted on yesterday by that sinister-looking butcher-bird which now stands on the floor of the verandah, with legs straddled, like Apollyon in the Valley of Humilia-
tion, and mouth agape, gasping from the heat. With his pale grey mantle, snow-white breast, and black "points," the butcher-bird would be handsome, but for his villainous eyebrows and generally assassinous aspect. Nothing living comes amiss to him, from the sparrow, if he can surprise it, down to the large fussy black ant, which comes hurrying along, to catch the train or something, with its tail cocked over its head, till it is suddenly arrested and introduced into that *atram ingluviem* where a dozen of its fellow-citizens have gone before it. *Crêmes aux fourmis* must be as good as the Frenchman thought it. Now, wherever this bird comes, comes also a smaller bird, with the same white breast, the same shaggy black eyebrows, and the same brigand look, and it stands close by and shrieks and hisses and heaps opprobrious epithets on the other. This is a cousin of the bird it vilifies. *Lanius* is the surname of both; the Christian name of the big one is *Lahtora*, and of the other *Hardwickii*. (It was named after one General Hardwicke, poor man! but he did nothing wrong.) And as the little one hisses out its impotent rage, it cocks the stump of a tail which was once long and flowing as that which adorns the objects of its wrath. Short as the stump is, thereby hangs a tale, and I happen to know it.
One Sunday morning, not long ago, Hardwickii was busy murdering some small creature at the foot of a tree, when Lahtora spied him, and came gliding gently down, and, before he was aware of any danger, he was knocked over on his back, with those sharp claws imbedded in his snowy breast, and that murderous beak hammering his head. He hit back most pluckily, and shrieked piteously. *Arcades ambo*, thought I, and declined to interfere. Still, my appearance on the scene created a diversion in the little butcher’s favour, and with a desperate struggle he freed himself and was off, but, like Tam o’ Shanter’s mare, without his tail. *Hinc ille lachrimae!* At the sight of his oppressor the bitter memory of that morning comes upon him, and, as he glances back at the place where the tail should be, he can no longer contain his feelings. The “poor dumb animals” can give each other a bit of their
minds, like their betters, and to me their fierce or tender
little passions, their loves and hates, their envies and
jealousies, and their small vanities, beget a sense of fellow-
feeling which makes their presence society.

The touch of Nature which makes the whole world kin
is infirmity. A man without a weakness is insupportable
company, and so is a man who does not feel the heat.
There is a large grey ring-dove that sits in the blazing sun
all through the hottest hours of the day, and says coo-coo, 
coo, coo-coo, coo, until the melancholy, sweet monotony of
that sound is as thoroughly mixed up in the cells of my
brain with 110° in the shade as physic in my infantile
memories with the peppermint lozenges which used to
"put away the taste." But as for those creatures which
confess the heat, and come into the house and gasp, I feel
drawn to them. I should like to offer them cooling drinks.
Not that all my midday guests are equally welcome: I
could dispense, for instance, with the grey-ringed bee which
has just reconnoitred my ear for the third time, and guesses
it is a key-hole—she is away just now, but only, I fancy, for
clay to stop it up with. There are others also to which I
would give their congé if they would take it. But good,
bad, or indifferent, they give us their company whether we
want it or not; and from any point of view it is strange that Europeans in India know so little, see so little, care so little about all the intense life that surrounds them. The boy who was the most ardent of bug-hunters, or the most enthusiastic of bird-nesters, in England, where one shilling will buy nearly all that is known, or can be known, about birds or butterflies, maintains in this country, aided by Messrs. B. and S., an unequal strife with the insupportable-ness of an ennui-smitten life. Why, if he would stir up for one day the embers of the old flame, he could not quench it again with such a prairie of fuel around him. I am not speaking of Bombay people, with their clubs and gymkhanas and other devices for oiling the wheels of existence, but of the dreary up-country exile, whose life is a blank, a moral Sahara, a catechism of the Nihilist creed. What such a one needs is a hobby. Every hobby is good, a sign of good and an influence for good. Any hobby will draw out the mind; but the one I plead for touches the soul too, keeps the milk of human kindness from souring, puts a gentle poetry into the prosiest life. That all my own finer feelings have not long since withered up in this land of separation from "the old familiar faces," I attribute partly to a pair of rabbits. All rabbits are idiotic things, but these
come in and sit up meekly and beg a crust of bread, and even a perennial fare of village moorgee cannot induce me to issue the order for their execution and conversion into pie. But, if such considerations cannot lead, the struggle for existence should drive a man in this country to learn the ways of his border tribes. For no one, I take it, who reflects for an instant, will deny that a small mosquito, with black rings upon a light ground, or a sparrow that has finally made up its mind to rear a family in your ceiling, exercises an influence on your personal happiness far beyond the Czar of all the Russias. It is not a question of scientific frontiers—the enemy invades us on all sides. We are plundered, insulted, phlebotomized under our own vine and our own fig-tree. We might make head against the foe if we laid to heart the lesson our national history in India teaches, namely, that the way to fight uncivilized enemies is to encourage them to cut one another's throats, and then step in and inherit the spoil. But we murder our friends, exterminate our allies, and then groan under the oppression of the enemy. I might illustrate this by the case of the meek and much-suffering musk-rat, by spiders, or ants; but these must wait till another day.
DUST gives place to mud, and scorching winds to cool damp breezes, and the ground begins to blush with green, and giant frogs come out of their graves in the ground, bleached to a fine brimstone yellow, and celebrate their obscene saturnalia in the flooded fields, when the paddy-bird stalks solemn among the puddles, and the crow, expelled with opprobrium from the verandah, sits on the dripping bough, with a dank "droukit" look, each feather of its bedraggled tail leading an independent, schismatical existence, then the tribes that
infest our borders discover man’s use in the scheme of the universe. He builds houses to shelter them from the rain. And the first to make this discovery are the rats. In dry weather most of these gentry live out of doors, but the first heavy, steady, soaking rain is the signal for a general invasion. First of all in the evening, after dinner, I spy one perched in the venetian blinds of the window, and it spies me; so my machinations against its life come to naught. The same night as I lie awake, dreamily anathematizing a mosquito, while the measured music of the frogs

"Beats time to nothing in my head,"

noises from the dressing-table invade my ear. First there is a mysterious scraping sound, which old experience tells me is the candle being chewed; next the eau-de-Cologne bottle and Kemp’s Equatorial Hair Douche are upset; and now the pincushion is being vigorously disembowelled. This ceases, and presently I am conscious that something is scrambling energetically up the mosquito curtains. I launch out wildly, and a heavy body falls to the ground with a flop. Within half a minute a fierce rasping noise comes from the foot of the door; for doors are intended to facilitate passage from one room to another, and the construction of
most doors is faulty from a rat's point of view. I hiss and clap my hands, and there is a moment's pause: I know the brute is looking at me over the point of its insolent nose. Then again it falls to, in the name of the Prophet, rasp, rasp, rasp. A well-aimed slipper will stop proceedings for five minutes or more, but I have only two slippers. This night must be endured. Next night a trap is set, and, instead of the criminal for whom it was intended, it catches a gentle-looking white-breasted rat, with large soft eyes, and tender pink feet. For there are rats and rats, and a man of average capacity may as well hope to distinguish scientifically between Ghilzais, Kuki Kheyls, Logar Maliks, Spigwals, Ghazis, Jezailchis, Hazaras, Logaris, Wardaks, Mandozais, Lepel Griffin, and Kizilbashes as to master the divisions of the great race of rats. Nature has been prodigal of them. India alone produces at least seventeen kinds, besides fifteen varieties of mice. There is the black rat, the brown rat, the field-rat, the tree-rat, the bandicoot, and so on, to the lovely fawn-coloured Jerboa rat, with its satin-white breast and tufted tail, which wrought such ruin to the crops two years ago. Two of these, *Mus rattus*, the black rat, and *Mus decumanus* (from *decumanus*, a tax collector), the brown rat, have attached themselves to man, and how to detach them
is a question which all the ingenuity the world has produced, from Archimedes to Mr. Edison, has left unanswered. The black rat was indeed got rid of in England by the introduction of a greater nuisance, the brown rat; but there is no greater nuisance left now, so that road is shut. The black rat was the aboriginal race in Britain, and tradition says that the same ship which brought us the Prince of Orange brought also the first brown rat. From that day the natives disappeared, as the red Indian, or the Maori, disappears before the face of the white man. A black rat is now a great curiosity in England; they have all been slaughtered or scattered. A good many have of course found refuge in such a colluvies nationum as Bombay, where they haunt outhouses and servants' quarters. But the brown rat meanwhile spreads before the Scotchman and the crow, and possesses the earth. And a monster of iniquity it is. In fertility of resource and energy of execution it has no rival when evildoing is concerned. Its appetite is most glut-tonous, and everything is food to it. Bread and cheese, beef and mutton, the horse's grain, candles, canaries, soap, pigeons' eggs, fiddlestrings, the in'ards of the harmonium, all contribute to the maintenance of its nefarious carcass. And it will not be suppressed. Every man's hand is against it
and still it prospers. It sets at defiance gins and traps, cats and dogs and poisonous pills.

Now, all these are good, but in my opinion it is better to take the field in person against them. When I see the tail of a rat disappear behind a box, I quietly shut all doors and windows and stop up all holes, then arm myself with a good supple cane, and advance upon the foe. Its present situation is a good one. A sweeping stroke between the box and the wall can scarcely miss. But it does not wait. At the first sight of me it makes for the hole it gnawed in the door, and finds it stuffed with a towel! While it is tugging like a maniac at the towel there is a chance; but canes miss rats amazingly, and it is off to each window and door in turn. As soon as it has grasped the idea that escape is impossible it changes tactics. Driven with difficulty from one trunk, it dives under another. There is nothing for it now but hot pursuit; press it hard; rats are short-winded. It soon gets blown, and rests behind the box again. A sweeping whack with the whole length of the cane ought to annihilate it, but only breaks a leg, and an able-bodied rat can always spare a leg or two, so it is away as nimble as ever. But the blow has had a good moral effect. It gives up the Fabius Cunctator strategy, and the chase becomes
exciting. From box to box it scurries, with me at its heels raining blows on the floor and choking myself with dust. Then it is up the bed-post, down again, up the book-case and behind Webster, where it regains its wind before I can dislodge it, from shelf to shelf like a monkey, across to the almirah with one bound, and then nowhere! I mount a chair and reconnoitre the top, lay my face to the ground and explore the bottom, peer behind, but it simply is not. While it was sitting behind Webster it thought on a tunnel which it had excavated last year through the back of the almirah. After much pondering I decide to open the almirah, and sure enough it bounces out of a nest of neckties, and, lighting on my foot, clambers like a lamplighter up my pantaloons, happily on the outside. An agonized spring which an adult kangaroo would be proud of, flings it to the middle of the floor, and ere it can recover itself and reach any shelter, I swoop like a falcon on my prey, and a dexterous flick with the point of the cane rolls it over. The great malefactor's course is run, and the convulsive wagging of its tough ropy tail makes a rap, rap, rap on the ground.

This is royal sport and satisfies many cravings of a nature snubbed and kept down by civilization. No doubt civilization is a good thing for man as a moral and intellectual
AN ANXIOUS MOMENT.
being, but it is very hard on the genius of the body, the spirit which had its halcyon days before the pithecoïd monkey developed into the anthropoid ape, and the anthropoid ape looked higher. And the games and sports which we devise for our relief all fail in this, that they have no worthy end in view. The means is itself the end, an arrangement which is always demoralizing. A man who uses dogs to worry useful jackals and harmless hares to death is not only doing no good, but he must be case-hardened if he feels no gnawings of remorse when the deed is done and the excitement is over. But remorse will be hungry indeed before it gnaws a man for taking the life of a rat. In rat-hunting the end is a positive virtue, and the means are most laudable, more humane certainly than cats and poisons, and infinitely more so than that instrument of cruelty, the abominable iron rat-trap.

But, if it is a virtue to make war on the rat, it is none to confound friend and foe, and offer upon the altar of ignorance and prejudice another little animal which, with palpitating heart and tremulous nose, ventures into the house in these cold, wet nights. I refer, of course, to the musk-rat. "The unfortunate nobleman who now languishes in Dartmoor jail" has not been more ill-used and mis-
represented than this poor creature. It is not a rat at all, neither Mus this nor Mus that, but Sorex caeruleus, which means the heavenly shrew. And, if it is not a rat in name, it is still less that villainous thing in nature. It wants none of your provisions, and wanton destruction is not in all its thoughts; its sole purpose in the house is a friendly one, *videlicet*, to hunt the loathsome cockroach and the pestiferous beetle. It is charged with diffusing an unpleasant odour, and there is undoubtedly some truth in this; it can be very unsavoury at times. But that is not its normal state; it is the fruit of vexation of spirit. An unpersecuted musk-rat is most inoffensive. In short, that quality which brings the meek little animal into such bad odour, so to speak, is the defensive armour with which Nature has provided it, and every time you hunt a musk-rat you justify the provision. Lastly, one small fault may well be overlooked in view of the many amiable virtues that adorn its character. While the rat, after a night of crime, spends the day in a sanguinary *fracas* with its own brothers in the ceiling, and the mother squirrel has to retire into the woods and bring up her family in secret, lest their own papa should eat them, the days of the heavenly shrew are passed in sweet domestic harmony. As night comes on, the pair venture out of
their hole and meander along together, warbling to one another in gentle undertones. Or perhaps the little ones at home are growing up, and their mamma brings them out to see the world. The first-born takes hold of her tail in its teeth, its tail is grasped by the next, and so on to the little Benjamin at the end, and thus the whole family, like a hairy serpent, wriggles away together—a sight, I admit, to make one's flesh creep; but, looked at in a proper spirit, it is a moving spectacle, full of moral beauty; and as for the callous man who can see no beauty in it and would lift his unfeeling stick to sever such a "family tie," I say with Horace,

"Vetabo sub iisdem
Sit trabibus, fragilemve mecum
Solvat phaselum."
DO mosquitoes bite? The question has exercised me much, and it is painfully clear to my mind that modern science has made it more difficult to answer than it was before. Formerly it was thought right to believe that everything in nature had a definite use. To be was not end enough; there must be a raison d'être; and the reason, should, if possible, have to do with the welfare of man, who, as everybody knew, was the Lord of Creation. Holding this faith we could explain mosquitoes in many ways. Mr. Phil Robinson is, perhaps, guilty of flippancy when he asserts that they were intended to teach man humility; but there is much in favour of
another view to which I leaned, until modern thought upset me, namely, that these and several other little animals, which ought not to be named in refined society, were designed to promote a healthful use of Nature's currycomb among a large class of people who are too much accustomed to regard water only as a means of quenching thirst. And, if all our explanations were proved to be wrong, it would only show that we have still to discover the right one, and we should be gainers in humility. But now Huxley has abolished teleology, and Darwin has proved to the satisfaction of every one who is disposed to agree with him, that no characteristic in any animal can be explained by its being beneficial to some other animal; for only those peculiarities are maintained and developed which are advantageous in some way to the animal itself, and give it a pull over others in the struggle for existence. And so we are plunged in a mire of perplexity. For what possible gain can it be to a mosquito to gorge itself on my life-blood until its wings almost refuse to carry it, and it can just sail slowly, like some great crimson balloon, with the wind, positively inviting me to imbrue my hands in my own blood, and avenge the wrongs of countless nights of woe? Insects, as every one knows, or ought to know, require no food in
their winged state—at least, the flimsier kinds do not, such as flies, and gnats, and butterflies. They have done all the serious business of life, the eating and growing, in their grub state, and when they dress up and come out into the world, to enjoy a few days of vanity before they die, they have no proper mouths, only a sort of tube for sipping light refreshments. But supposing that mosquitoes do require nourishing food, the great difficulty still remains. Why can they not bleed us painlessly? Why make us pay fees in anguish for the operation? It can be no advantage to them that we wince and jump when they sit down to dine. Who would thank anybody for inventing a pump which should tickle the earth so horribly as to bring on earthquakes whenever one went for water? The traveller who invented the original vampire bat understood matters better, and made the horrid monster fan its victim gently with its ample wings, that he might the more sweetly sleep on into the sleep of death. So, from the Darwinian standpoint, mosquitoes ought to have developed some sweet narcotic fluid, some natural *rosalpinus*, which would produce the most exquisitely pleasurable titillations, and make the fat man hasten to resign his back, sore vexed with prickly heat, to their soothing ministrations, and his soul to sweetest dreams. I hold that Darwin, weighed
THE MOSQUITO.

in the balance against the mosquito, is found wanting.

Another minor sub-difficulty is that mosquitoes are always most venomous where they can scarcely ever have a chance of biting—in pestilential swamps and jungles inhabited by such impenetrable pachyderms as the wild elephant and the rhinoceros. Among rank weeds in deserted Bombay gardens, too, there is a large, speckled, unmusical mosquito, raging and importunate and thirsty, which will give a new idea in pain to any one that visits its haunts.

To come to the description and history of the animal, the mosquito is not the same as the buffalo, though it is said that a young lady who had just landed in India fled from a herd of those peaceful domestic antediluvians and asked if they were not the dreadful mosquitos of which she had heard such tales. The mosquito is only a little insect with two wings and six legs. The wings are for flying with, and four of the legs for walking with. The two long hind legs are connected with the suction apparatus and are of the nature of pump-handles. Of course, the anatomist, prying with his microscope, will deny this; but the microscope comes from *micros*, small, and *scopein*, to see, and no one who relies on it can grasp a large idea. Anybody may satisfy himself by watching a mosquito at work and noting
the action of the pump-handles. The suction apparatus looked at microscopically, contains a whole set of surgical instruments: looked at large-mindedly, it is simply the tube of an artesian well, and is used in the same way. When a mosquito settles on you it pricks up its ears for a moment, to make sure that there is no danger near, and then walks about slowly, probing for a soft place. When it has found one, it fixes the tube and begins to drive it home. Then is the moment to smite it.

Mosquitoes are of many sorts. There are common grey ones; and small, speckled, sl. rill-voiced ones which sing an overture and then tap the outside edge of your ear; and
large droning ones, which are found, like the best mangoes only in Mazagon and some other parts of Bombay; and queer ashy ones, which stand on their heads and bore into you like a bradawl.

As to its history, all the "promise and potency" of the future mosquito lay at first in a minute egg floating on dirty water. From this came forth an execrable shape, bristling all over with hairs, breathing through its tail, and progressing by a series of wriggles, bringing its head and tail together first on one side, and then, with a jerk, on the other. So, by making ends meet, it twisted itself through life for a fortnight or more, feeding day and night on the impurities of the water and growing prodigiously. Then it floated for a while, eating nothing, but meditating a change. When at last internal arrangements were completed, the skin at the back of its head split open, and the mosquito looked out, snuffed the fresh air, drew itself cautiously out of its case, and glided gaily over the water on a boat made of its own skin. Then it sailed away into the air and joined the throng

"As th'ck and numberless
As motes that people the sunbeams,
Or likest hovering dreams."

Then, as dawn began to light up the eastern sky, they swarmed in through every open window, and took shelter
among the folds of hanging coats, inside boots, in the pocket of the dressing-gown, in the chambers of the sola topee; and there they are! And what is to be done?

Well, by dusting and sweeping, and burning incense and folding all hanging clothes, you can make them very unhappy; and, for your own protection, you can make yourself utterly abominable to them by anointing your hands and face with toilet vinegar, or even eau-de-Cologne. But it is clear that the thing to do would be to come upon the sanguinary hordes in their earlier stages, and nip them in the bud, cut them off while they are only mosquitos in posse, not in esse. And this can be done, for, when a house is much plagued with them, it may be set down for certain that there is a factory on the premises. The first thing to do, then, is to make a tour of inspection. Go to the back of the kitchen and see if there is not a small cistern, or a tub sunk in the ground, connected by a short pipe through the wall with the arena of all Domingo's professional operations, a veritable Dead Sea, where baleful streams run in, but nothing runs out. There, in the inky fluid, on which a filmy scum floats, whose rainbow radiance is broken only by the spluttering of the bills of happy ducks, you will find them in writhing swarms, sixteen to the superficial inch, fast
ripening towards malefaction; and you may spill their lives not by tens or hundreds, but by quarts and gallons.

But all means of prevention are more or less disappointing, for after all it is ordained that mosquitos shall bite us. What is wanted, then, is some cure, or antidote, for the bite—and there is only one, of which I am the original discoverer. A bigoted old Brahmin, who never tired of unmasking the inherent badness of everything English, once admitted to me in a moment of candour that in one point we were better than his countrymen. "If a Hindoo," he said, "invents or discovers anything, he keeps it secret and makes all the profit he can out of it, and when he dies, it dies with him; but if an Englishman makes a discovery, he publishes it and the world gets the benefit." So I will divulge my antidote for mosquito-bites. It is inoculation. The idea is curiously supported by analogy, for Dr. E. Nicholson, in his book on snakes, speaking of the confidence with which Burmese snake-charmers handle the
terrible *Ophiophagus claps*, says that they certainly have some remedy, and he believes it is simply gradual inoculation with cobra poison. Such experience as we have points in the same direction. The griffin gets up in the morning with his face like a graveyard, a monument for every bite; but as his blood becomes accustomed to the poison, these violent effects cease. Probably the remedy has never been fully tried, but its success is certain. So, if any one is much tormented by mosquitos, all he has to do is to dispense with curtains and let them bite him freely for a year, or two or three years (I am not certain how long it will take), until his constitution becomes mosquito-proof, and then for the rest of his days he may defy the most trumpet-tongued and asp-envenomed of the bloodthirsty race.
THE LIZARDS.

August.

One peculiar feature of life in India is the way we are beset by lizards, and nobody seems to notice it. We all come out to this country more or less prepared to find scorpions in our slippers, snakes twined about our hair, and white ants eating up the bed in one night, so that in the morning we are lying on the floor; but nobody warns us to expect red-throated hobgoblins clambering about the trellis, and snaky green lizards prying about the verandah at noonday, and little geckos visiting the dinner-table at night. Perhaps, because they are not very pestilent enemies nor very useful friends, shallow-minded people do not think
them worth notice. But a contemplative spirit feels that it
would starve without many things which are of no use in
the gross sense of the word, and there is much matter for
chastening meditation in lizards. If the whole race of them
could be wiped out of the earth to-day, exchange would
neither rise nor fall, but has not the poet said,

"M’n are we, and must grieve when even the shade
Of that which once was great has passed away”?

And lizards once were great. They were the aristocracy of
the earth. Not in the last century, nor in the Middle Ages,
nor even when the Memnonium was in all its glory. In fact
the whole of the “Address to a Mummy” feels like a toy
sentiment to a mind which has been wandering away into
the golden age of lizards. From that distance of time the
score or two of paltry centuries that may have passed since
the mummy dropped a halfpenny in Homer’s hat make a
point like one of the fixed stars. They do not subtend any
angle on the retina of the imagination. What a strange
world there must have been on this same earth of ours in
those days! Did mosquitos as large as sparrows, with
voices like tin trumpets, infest the swampy wastes and
torment the drowsy megalosaurus, and did the winged
lizards, like flying foxes, hawk them in the dusky forest? Did the mild *iguano*don, when it has done browsing on a tuft of maidenhair fern about the size, say, of a clump of bamboos, turn round and waddle away into a hole, as its successors do to-day on the plains of Guzerat? As I see them hurrying to their burrows at the sight of me, and think that possibly when the world was young I might have been glad to rest from the heat of the sun under the shadow of one of their mountainous ancestors, my mind goes back to my ancient Goanese cook. He was only a *maistry*, or more vulgarly a *bobberjee*, yet his sonorous name recalled the conquest of Mexico, or the doubling of the Cape. The mouldy beaver in which he went to church seemed to know it, and clung desperately to a worn-out respectability. I could not pass any of those ruins of ancient forts or massive churches which lie around Bombay without feeling as if he were murmuring to himself *quorum pars magna fui*. And the fact was that he was thinking of a savoury curry for my breakfast!

The lizards likewise are the wreck of a great past. They had their day; perhaps they abused it; at any rate the great unresting wheel has gone round, and that which was up is down. The commonalty do not seem to feel it much.
They have parted even with pride, and make the most of their circumstances. But all the descendants of great families, the crocodiles and alligators and even iguanas, are a prey to melancholy. They maintain a dignified spiritlessness which is affecting. Who can look on that anachronism, an iguana (I mean the large monitor which Europeans in India generally call an iguana, sometimes a guano!) basking, four feet long, on a sunny bank, without

"Revolving in his altered soul
The various turns of chance below"?

It may well be sad when man, upstart of yesterday, is watching his opportunity to catch it, that he may eat its flesh and make tomtoms of its skin, tomtoms which for many a night to come shall give birth to the din of that music which "hath charms to soothe the savage breast" and horribly to excruciate the civilized one. The iguana, or gorpud, has been put to other uses, too, and has a name in history. The old tutelary Brahmin of Singhur, if he is still alive, delights to show sahibs the spot where the Marathas tied a strong light rope round the loins of a huge gorpud, and waited until it had clambered up the rocky face of the fortress and wedged itself into some rugged fissure; then
while it clung as they can cling, one sinewy mountaineer after another bound his waistcloth more tightly round him, and climbed the rope in silence, laughing in his sleeve at the astonishment in store for the vigilant Mussulman garrison.

Like all races whose greatness is a memory, lizards are sensual, passionate, and cruel. Sensual first: a lizard lives to eat, and there never seems to be any time in its life when it is not looking out for food. And passionate next. Two sparrows will squabble and scuffle until they get so intricably mixed that, when they separate, it is quite an open question whether they have got their own legs and wings, or each other's; and two ants will fight until they die in each other's jaws, and a third comes up and carries off the whole jumble for the food of the community; but for an example of devouring rage go to the big garden lizard, which the children in India call a blood-sucker. See it standing in the middle of the road, its whole face and throat crimson with wrath and swollen to the bursting-point with pent-up choler, its eyebrows raised, and its odious head bobbing up and down in menace of vengeance. And the explanation of the whole matter is that another smaller lizard snapped up an ant on which it had set its heart. Nothing will appease it now but to bite off the offender's tail. This will do the
latter no harm, for a lizard’s tail is a contrivance for the saving of its life, planned on exactly the same principle as the faithful Russian slave who threw himself to the wolves that were pursuing his master’s sledge. I once saw a fierce scorpion catch a lizard by the tail and plunge its sting into the wriggling member; but before the venom could circulate to the lizard’s body, it detached its tail and ran away grinning. The scorpion went on killing the old tail, and the lizard began growing a new one.

This was one of those little house lizards, called geckos, which have pellets at the ends of their toes. They are not repulsive brutes, like the garden lizard, and I am always on good terms with them. They have full liberty to make use of my house, for which they seem grateful, and say chuck, chuck, chuck. They are low-minded little plebeians, no doubt, and can see nothing in a satin-white moth with vermillion trimmings except wholesome victuals; but one must put up with that, for they do good service. At this season, when the buzzing pestilence of beetles and bugs is on us, they tend towards embonpoint, but they bate nothing of their energy, nor seem to get near the limits of their capacity. They hold that the Bombay Gas Company was established for their accommodation, and there is scarcely
A DETACHMENT.
a gas lamp but has its guardian gecko, fat with moths and mantises, dragon-flies, grasshoppers, crickets, and cockroaches, even hard-shelled beetles, but not blister-beetles. These would irritate their little insides, for the sake of which alone they live.

The only genteel member of the family is the green lizard. Its manners are graceful and unassuming, and its external appearance is always in harmony with the best taste, while it does not betray that ceaseless hankering for provisions which stamps the rest of them. It is timid and retiring, but as the sun grows hot in the forenoon you will hear it rustling among the leaves (virides rubum dimovere lacertae), then it will come softly up the steps, behind the calladium pots and along the wall of the verandah, and perhaps, if you keep very quiet, into the drawing room. It does little good, eats a few ants, perhaps, but it enjoys itself and does no harm, and I have always had a leaning towards the green lizard.

I do not know whether I should class the chameleon among my frontier tribes, for the only one about my territories was born near Ahmednugger and is a state prisoner with me like Yakoob Khan. His residence is a canary cage with green muslin all round it to keep in the flies which I
provide for his maintenance. Here, clutching a twig, as if he were the fruit that grew on it, he lives his strange life of motionless meditation. Till a late hour in the morning he sleeps, sounder than a ramoosée or chowkeydar; nothing will wake him. At this time his hue is a watery greenish yellow. When the sun begins to warm the world, then colour slowly comes back to his reviving limbs, and he appears in a dark earthy brown.

Through the day this is his livery, varied sometimes with specks of white and sometimes with streaks; but when the afternoon shoots its slanting rays through the bars of his cage, surrounding him with chequered light and shade, then he catches the same thought and comes out in vivid green with leopard spots upon his sides. Then, when night comes on, the same deathlike paleness again overspreads his torpid frame. Philosopher as he is, the chameleon requires food, and since he is too slow to go after it, he brings it to him. As his ball-and-socket eyes roll this way and that way, one of them marks a large white butterfly walking up the bars of his cage, and he forms a purpose to eat it. He unwinds his tail, then relaxes the grasp of his broad palms one at a time (for he is extremely nervous about falling and breaking his bones), and so he advances slowly along the twigs until
he is within six inches of his prey. Then he stops, and there is a working in his swollen throat; he is gumming his tongue. At last he leans forward, and opens his preposterous mouth, and that member protrudes like a goose-quill steeped in white birdlime. For a moment he takes aim, and then, too quick for eye to follow it, the horrid instrument has darted forth, and returned like elastic to its place, and the gay butterfly is being crunched and swallowed as fast as anything can be swallowed when tongue, jaws, and throat are smeared with viscid slime. But this part of the process is inconceivably vulgar, and we may well leave the chameleon to himself till it is over.
GORY battle has been fought in the bath-room, and the field of carnage is appalling to look upon. For some days past, curious, crabbed-looking, reddish-brown ants have been gathering in a lump about the mouth of a small hole in the floor. This means always that a new colony is to be founded. I have no objection to colonies in the abstract, but to see a teacupful of crusty little brutes heaped up on the floor not a yard from your tub has a tendency to make you feel uneasy, so I endeavoured to discourage them by dashing the "tin pot" full of water at them and sweeping the whole body away in
a flood. But any one who engages in a battle of obstinacy with ants should practise to suffer defeat gracefully, for he will have to suffer it. They put me to the trouble of keeping up this tin-pot practice for three or four days, without letting me feel that I had put them to any trouble at all. Swept away into the jaws of destruction, they were back again in an hour with a few more. At length the emigrants appeared, great lubberly things, fully an inch and a half long, with wings, and not a notion of how to use them. The room was soon full of them, crawling over each other, or making blundering essays at aëronautics, which inevitably ended in a butt against the wall. This brought on a fit of brain fever, in which they spun on their heads like teetotums, or went sliding with a buzz-z-z! along the floor. Then the squirrels got scent of the affair and came in to munch them up, and the lizards swallowed them, and the hamal swept the residue out to the chickens. So the colonizing scheme collapsed. To return, however, to my story. There is in the same room a settlement of those large black ants which come into the house at this season and garrison cool damp corners. They are truculent, hot-blooded ruffians, and will stomach no provocation, so it is little wonder that the two parties came into collision, especially at a time of such national excitement.
as always attends the ceremony of seeing an emigrant party off. The battle began in the evening, and I was there as special correspondent for the World. The black ants were few in number, but terrible in their onslaught. They fought singly. I watched in particular one of gigantic build and fearful aspect, as it charged and charged again through the seething masses of the enemy, leaving a trail of writhing or stiffening victims in its course.

At last its own fate came. In a heedless moment it stumbled over a wounded foe, whose jaws at once closed, and closed for ever, on its leg. Reeling backwards, it fell into the very midst of three or four more, and hope of escape was
gone for ever. They threw themselves on it like demons, and though it rolled on its back amputating and decapitating until limbs and heads and headless trunks strewed the ground, all the fury of despair was of no avail against the numbers that continued to heap themselves on it. At length its struggles grew feebler and feebler, its ponderous jaws opened and shut slowly, like some animate rat-trap sighing for rats, and its life ebbed away. The scene was Homeric, and I felt like breathless Jupiter watching Hector on his fatal day, when he felt the movings of pity, yet let fate take its course. This was an epitome of the whole struggle. It must have raged all night, but neither side got a victory. In the morning each was in quiet possession of its own ground, and the fruits of the battle were many hundred corpses and a moral.

Solomon has advised us, or most of us, to go to the ant and consider her ways, and it is good to follow his advice. Her ways repay consideration. But it is of vital importance that we go to the right sort of ant. What a lesson, for instance, in malice and all uncharitableness would one learn who went to the red ant which infests the corrinda-bushes on Matheran and Khandalla, or on the slopes of Elephanta Island! Malice, hate, fury and fierceness, wrath and rancour,
acerbity, and, in fact, every feeling which is out of harmony with "sweet reason," seems to have been boiled down, and its quintessence extracted to compose the blood which courses angrily through the hot veins of this creature. As you pant up the red-dusty path, startling the jocund hill bulbul, with dandy topknot and crimson whiskers, from its breakfast among the berries, the red ant hears you afar off and hurries along the outermost branch, to the very point of the very longest leaf, and there stands on tiptoe, dancing with impatience to bury its jaws in your flesh. And what a knowledge it has of our geography! What an instinct for detecting tender places!

Industry is not to be learned from these. I believe they lead idle lives and live on the milk of their flocks and herds. In the month of May, when the *corrida*-bush is in fruit, I have often noticed with pain that the choicest berries were in possession of a garrison of red ants, which had enclosed them in a sort of chamber by drawing the surrounding leaves together and joining them with some spider’s-web fabric which they spin. This is not for the sake of the fruit. They are not frugivorous. It is for the sake of the downy white *aphides*, or plant-lice, on the fruit. These *aphides* yield a sort of nectar, which is as delicious to an ant as camel’s milk
to an Arab. But other ants are content to milk the unresisting little cattle whenever they find them; the red ants domesticate them.

The ant to which Solomon sent sluggards was plainly the agricultural ant which lives in the fields. A space of ground round the mouth of its hole, about as wide as the hat of a padre whose views are just beginning to get ritualistic, is always cleared, like a threshing-floor, and covered thick with the husks and chaff of the grain stored inside. These holes are the gateways of great cities, and from them broad well-beaten roads lead away in all directions to other distant cities. Late and early these roads are thronged with crowds of busy ants. As I sit and watch them on a sunny morning, the primitive ryot stops shrieking at his perverse byles, and for a moment puzzles his foggy brain to guess what I am doing. He believes I am on the scent of hid treasure, but his more intelligent neighbour says I am simply illustrating the inscrutable ways of the sahib.

I confess I lean towards Sir John Lubbock's view that ants are gifted with reason like ourselves. There is no objection to explaining the wonderful things they do by instinct, but only a new meaning will have to be invented for the word. The instinct which a weaver-bird shows in
building its wonderful nest belongs plainly to a different genus from the quality which enables ants to "vote, keep drilled armies, hold slaves, and dispute about religion," as Mark Twain says they do, or even to talk. They certainly do talk about as freely as we do. I once killed a centipede, and very soon a foraging ant found it. He, or rather she, surveyed it carefully, estimated the horse-power requisite to move it, and then started off homewards. Meeting another ant, she stopped it and said something which, for want of a microphone, I did not hear, and hurried on. The second ant made straight for the centipede and found it without any trouble. Now nothing can be plainer than that the first ant told the second where to go. "Glorious windfall! Dead leviathan about two miles from here. Keep straight on till you come to a three-cornered pebble, then turn to the left and you will come upon three grains of sand and a straw. Climb the straw and you will see it. It is big enough to be seen a mile away." Well, the second ant, when it had found the centipede, did not hurry home. It just sat down and waited till the first one returned, with a vast gang of labourers; then each seized a leg of the centipede, and soon the stupendous mass was moving along merrily.

But not only has each species of ant a language in which
it can talk to other ants of the same species, but each nest, or clan, has clearly its own brogue; for an ant knows at once whether another ant belongs to its own nest or not. The ants of one nest murder those of another: it is a point of honour with them.

There is no mode of life that men have tried which one race of ants or another is not pursuing to-day. Besides those which are agriculturists and herdsmen, some keep slaves to do everything for them, some live by hunting or plunder, while others quarter themselves on us and subsist by confounding meum and tuum. These last, of course, concern us most. About Bombay there are two kinds of them, one black and the other brown. They are both small, and most people confound them, but in nature they are antipodal. There is not any figure or simile which can even dimly shadow forth the extent of their oppositeness. Chalk and cheese are the same article by comparison. That ignorance should prevail on this point, even among persons who have undertaken the responsibility of housekeeping, is distressing, for it borders on criminality. In a healthier state of public opinion a young lady would not be considered "eligible" who could not converse freely on the difference between the black and the brown ant. That difference in its essence is
this, that the one is tolerable and the other intolerable. If one must go more into detail, the brown ant is thickset, heavy, slow and phlegmatic. It will eat, more or less, everything in the house except, perhaps, kerosine oil. It will gnaw a cold leg of mutton, carry excavations into the heart of a loaf of bread, dig a tunnel through the cork of an olive-oil bottle, for the sake of getting drowned in the oil, and organize a regular establishment for the work of carrying off the seed in the canary's cage. And, once in a thing, it cannot be got out. Add to this that it smells unsavoury and tastes nasty, and you have the brown ant. The black ant is slender, nimble, and sprightly. Its chief business in the house is to remove dead cockroaches, crickets, &c., and where I am there is generally a plethora of dead cockroaches, crickets, &c. All day foragers scour the house in search of these. They do tamper with the sugar sometimes, and, in fact, show a leaning towards sweets in general; but they do not spoil what they cannot eat. They do not stick, as a rule, in the jelly, nor drown themselves in the ginger syrup. Lastly, there is a feud between them and the brown ants, and the two will scarcely live in the same house. Clearly, then, it is sound policy to make an ally of the black and discourage the brown.
The latter is not an easy task, but I can recommend dropping kerosine oil into their holes.

The large black ant, already mentioned, is more or less a house ant also. I do not like it. The way it cocks its tail over its head is offensive, and it has a cantankerous temper. Then its officiousness and consequential airs are simply insufferable. It is perpetually quarrelling with a straw or getting insulted by a feather.

Of all the various species of these wonderful little beings there is not one, I think, that impresses you more than the hunting ant. It is, unfortunately, not a house ant. It just invades the house at times, does its short sharp work, and is gone again. In these expeditions they always march in column, three abreast, with rapid steps and terrible earnestness of purpose. Not one wanders or lags behind. Sugar entices them not; stores have no attractions for them. Straight as General Roberts they make for some ancient trunk in whose chinks and crannies the outlawed cockroach and overgrown cricket have long skulked secure from my avenging slipper. Now their hour is come. With the rapidity of perfect system a guard is stationed at each hole and crevice, and then the main body of ants pours itself into the box. Then begins a panic. The cockroach,
wild with terror, rushes headlong to the nearest outlet, and is collared by the guards and stung to death almost before it has time to realize the situation. The frantic crickets break into coruscations of agility which would enable one who has never seen an *aurora borealis* to realize it. But all is vain. Within a quarter of an hour the ants are marching out as they marched in, three abreast, with rapid steps; but now, with drooping limbs and trailing antennae, cockroach and cricket, cricket and cockroach, follow the long column in funeral procession.
THE CROWS.

September.

ONCE distinguished himself by making a remark about Dryden. He said that nothing ought to be written on the illustrious poet's tomb except the single word Dryden, since to those who knew him that word would convey the whole, and to those who knew him
not no words could convey more. So I think I might stop with the title of this paper—

"THE CROWS"

—bus. What is there that can be said about them? Have they not sufficiently cast a shadow on our lives, left their black mark on our pleasantest memories, yea, even their scars on our dispositions and tempers? Yet it is impossible to pass them over. I can call up no vision of Indian life without crows. Fancy refuses to conjure up the little bungalow at Dustypore in a happy state of crowlessness. And if the mind wanders away to other times and distant scenes, the crow pursues it. 'It is sitting impudently in the hotel window, it is walking without leave in at the open door of the travellers' bungalow, it is promenading in front of the tent, under the mango tope. Only when in thought we go back to happy rambles away from the hum of men,

"Where things that own not man's dominion dwell,
And mortal foot hath ne'er or rarely been,"

is the horrid phantom absent. On the breezy hill-top, with its scented grass, its ferns and wild flowers, down in the solemn ravine, where the "Whistling schoolboy" tunes its
mellow throat and the clucking spur-fowl starts away among the rustling leaves, or over the varied woodland playgrounds of the butterfly and bulbul, you meet no crow. The air is too pure and the calmness too sweet. The crow is a fungus of city life, a corollary to man and sin. It flourishes in the atmosphere of great municipalities, and is not wanting in the odorous precincts of the obscure village innocent of all conservancy.

Many of our frontier tribes have unpleasant traits of character, and in some the catalogue of vices is long and the redeeming virtues are few. But the crow differs from them all in that it is utterly abandoned. I have never been able to discover any shred of grace about a crow. And what aggravates this state of things is the imposture of its outward appearance. It affects to be respectable and entirely ignores public opinion, dresses like a gentleman, carries itself jauntily, and examines everything with one eye in a way which will certainly bring on an eye-glass in time, if there is a scrap of truth in the development theory. But for this defiance of shame one might feel disposed to make allowances for the unhappy influences of its life; for, in truth, it would be strange if a crow developed an amiable character. Even a consistent career of crime must be less
demoralizing than the aimless vagabondage by which it maintains itself. It begins the day by watching the verandah where you take your *chota hazree*, in hope to steal the toast. When that hope is disappointed it wings its way to the bazaar, where it contends with another crow for the remains of a dead bandicoot flattened by a passing cart-wheel. Then, recollecting that the breakfast-hour is near, it hurries back, not to lose its chance of an eggshell or a fish-bone. On the way it notices a new-fledged sparrow trying its feeble wings, and, pouncing down ruthlessly, it carries the helpless little sinner away to a convenient bough, where it sits and pulls it to pieces and affects not to hear the pitiful screams of the heartbroken parents. Later on it is watching a little stream of water by the roadside and plucking out small fishes as they pass, or it is vexing a frog in a paddy field, or it has spied a swarm of flying ants and is sitting down with a mixed company to supper. For another instance, take the following which I myself witnessed, and say if anybody could have a hand in such a transaction and preserve his self-respect. A large garden lizard had wandered unwisely far from its tree, when two crows observed it and saw their advantage. They alighted at once and introduced themselves, like a couple of card-sharpers. Then the lizard
THE CROWS.

also took in the situation, and, wheeling about, made for the nearest trees. "Not so fast," quoth one of the crows, and with three sidelong hops, caught the tip of its tail and pulled it back again. Then the lizard reddened to the ears with offended dignity, and swelling like the frog in the fable, squared up for a fight; for lizards are no cowards. But the crows had not the least intention of fighting. They remained as cool as cucumbers and merely took up positions on opposite sides of the lizard. The advantage of this formation was that, if it presented its front to the one, it had to present its tail to the other, and so, as often as it charged, it was quietly replaced on the spot from which it started. Now, to be continually making valiant rushes forward and continually getting pulled back by your tail must be very discouraging, and after half an hour or so the lizard was evidently quite sick of the situation. But as its spirits sank the crows' spirits rose. Their familiarities grew more and more gross, they pulled it about, poked it in the ribs, cawed in its very face and finally turned it over on its back, with its white breast towards the sky, and were preparing to carve it, when suddenly the squirrel gave a shrill warning, a panic seized the hens, and the two miscreants had just time to dart aside, one this way and one that, as a kite, with
whirlwind swoop, dashed between them and bore away the lizard in its talons. They stared after it with a gape of utter nonplussation,

"And my internal spirit cut a caper,"
as the poet sublimely says, for I could not have slept at night if those crows had enjoyed their disreputable meal.

I do not know about the Afghans, but a policy of masterly inactivity will not do for the crows. Their peculations and insolence always extend to the limits of your toleration, and they keep themselves acquainted with those limits by experiment. I go in for keeping up my prestige with them. I shoot a crow once a month or so and hang it up in terrorem. This has such an excellent effect that no crow ever sits on my window and gives three guttural caws in the caverns of its throat, with intent to insult, as they do at other people's houses; nor are their evening convocations holden on my roof.

In April and May crows make nests of sticks and line them with coir, or horsehair abstracted from a mattress, or even with soda-water wire stolen from the butler's little hoard! In these they bring up three or four callow criminals in their own image. I make all such proceedings penal
about my premises, for the claims of a hungry family will drive crows to even more reckless wickedness than their own inbred depravity. They will appropriate hens' eggs, murder nestling pigeons, attempt the life of the canary, and every now and then startle you with some entirely new and unthinkable felony.

Most young things in nature are engaging. We grow more unlovely as we grow older. What is prettier than a downy chicken, a precocious kid, a young mouse not an inch long, or that little woolly image of comfort, an infant rabbit, when it first shows its round face at the door of its nursery? But new-fledged crows are a staring exception to the rule. They are graceless crudities, with glazed eyes and raw red throats, which they show you about three times a minute, when they open their mouth to emit an inane caw. They should be put to death offhand.

All the above remarks refer of course to the grey-necked crow. To make them applicable to the large black crow, they must be discounted ten to fifteen per cent. There is some sturdiness of character in the black crow; it is a downright, above-board blackguard, and my feelings towards it have some semblance of respect.

There is yet another species of crow, which has never
been named or described, though it is by no means rare in Bombay and other towns. It is very like the common crow, and might, indeed, pass for that bird, but for two marks by which it may be distinguished at a glance, viz., a prominent corky wart, which grows right across the bridge of its nose, and a certain sense of shame which seems to pervade all its proceedings. I have written a full account of its appearance and habits under the name of *Corvus corticiger*, but I am deterred from publishing the paper at once by a suspicion which has crossed my mind that Mukkun, the *mussaul*, may, in sportive mood, have manufactured the species out of a captured common crow and a soda-water cork.
THE BATS.

September.

"Eye of newt and toe of frog,
Wool of bat and tongue of dog,
Adder's fork and blind worm's sting,
Lizard's leg and owlet's wing."

WITCHES seem to hang their caldron from the lamp-hook in the centre of the ceiling, and every now and then it boils over. The "tongue of dog" is wanting this morning, and the wing is a sparrow's,
not an owlet's, but the rest of the ingredients seem to be as per recipe. In these materialistic days it is taken for granted that the witch in question is a rat; but that at least is a delusion. No rat in the flesh could get to a hook situated in the very middle of a smooth ceiling unless it had wings, and we have been spared winged rats. I protest in all conscience they are bad enough with four legs and a tail. No; few eyes have rested on the embodiment of hideousness from whose foul repast these crumbs have dropped. The demon bat does not go forth to do its deeds of darkness until the shades of night are falling, and as soon as

``The cock, that is the trumpet to the morn,
    Doth with his lofty and shrill-sounding throat
    Awake the god of day,"

it retires, like a guilty ghost, to its dark haunt among the rafters of some deserted godown. But in the small hours of the morning I have risen, when I heard its jaws at work,

``Feeding like horses when you hear them feed,"

and, quietly shutting the windows, have made it a prisoner, and in the morning there it was, hanging from the hook, its hyæna eyes glaring at me and a restless tremor playing over the thin membrane of its enormous ears. Very microphones
those ears are, fit to catch the gentlest rustle of the feathers of a dreaming sparrow. Another pair of little trumpets of semi-transparent skin, like subordinate ears, rise from the nose, to gather the faintest odour of the sleeping prey as it floats past upon the air. To this extraordinary detective apparatus the demon bat adds a pair of ample wings of the softest vellum, on which it glides noiseless and ghostlike among the trees, or up and down the verandah, under the eaves of the roof. It scents a sparrow asleep, with its head cosily buried in its wing. The sparrow has a dream, a dreadful dream; it starts and raises its head and gives a piercing shriek, and the curtain falls. The sparrow is now hanging limp and lifeless from the jaws of the shadowy spec re, which flits in at the window and up to its favourite hook. In the morning two wings are lying beside the flower-vase upon the table, and perhaps a beak, for though the demon bat eats the head, skull and all, before any other part, it often leaves the beak. If the hamal is up before his sahib in the morning, he sweeps the remains away, and no one is a bit the wiser. That a sparrow's wings should occur on the table does not strike him as a phenomenon requiring explanation, especially if he found frogs' feet or a mouse's tail, or the remains of a little bat, on the same spot the morning before.
The demon bat has a miniature, very much inferior to itself in size and ugliness, which I hold responsible for the grasshoppers' legs and wings of death's-head moths which I find about one particular corner of the dressing-room. I caught the transgressor once almost flagrante delicto, and sentenced it to be put under chloroform and examined. On recovering from the effects of the chloroform it was set free, for I abhor taking life needlessly. Jerdon puts this and the demon under different genera, and calls the one Hipposideros and the other Megaderma. It does not appear to me that they should be classed among bats at all. They seem rather to be a sort of incarnations of Satan, and might serve as models to Gustave Doré illustrating "Paradise Lost."

When we speak of the bat we generally have in mind a little animal which spends the day in crevices about the caves, or in chinks of the window sunshades, squeaking and quarrelling on a small scale with its neighbour, and at dusk sallies forth after mosquitos. With its wrinkled face and small peering eyes it is a type of the race, a very estimable, inoffensive, and humdrum race. Beyond this in their praise it would be affectation to go: their virtues are not of the striking sort. One feels grateful to them, of course, for their unostentatious labours in keeping down mosquitos, small
beetles, and flies, but Dr. George Smith could not make a biography out of them. No animal abhors the honest light of day more cordially than the common bat. Even *Lucifuga blatta*, the cockroach, will creep out from its hiding-place under the table when it smells that the lid has been left off the butter-dish; and as for the owl, that bird of night, I never saw one yet, any hour of the twenty-four, which had not a very large round eye fixed on me. But a bat in daylight feels worse than Hercules when he put on the coat with which his spouse presented him and suffered prickly heat. The prophet who says that the people will cast their idols to the moles and to the bats must have been a naturalist. Nature furnishes no more striking figure. Terminus and Priapus will lie neglected and half buried in the earth, obstructing the burrowing mole, while the Lares and Penates will be put away with other rubbish in some old lumber-room or garret, heavy with the smell of long-unmolested bats.

Catching bats with a butterfly-net and examining them is a good pastime for cold weather evenings. There are more kinds of them than I can tell the use of, small ones and smaller ones, largish ones with yellow breasts, pug-nosed ones and others with more prominent snouts, some thick
and podgy, and one slim fellow with wings so long that they have to be folded a dozen times, more or less, before the animal can accommodate them about its person. This last is the one which you sometimes see shooting through the sky at express speed, chattering to itself in a shrill key. It is not to be caught with butterfly-nets or any such gins.

But after all, what have we to do with these? Of all the wild-fowl included under the name of bats, the only one that really comes into the foreground of Indian life is the fruit-bat or flying-fox. This animal has what I consider a handsome face, with large soft eyes, and would not be a bat at all but for two characteristic points, a strong batty smell and an insatiable craving for strife. Flying-foxes carry this last trait further than any others of the tribe. Considering that they spend the night filling their stomachs with indigestible green fruits, it is nothing strange that they should be dyspeptic and disagreeable by morning; the odd thing is that, in order to be within quarrelling distance of each other, they all must needs sleep on one tree, generally a huge tamarind with accommodation for two or three hundred. Before a dozen have gathered there is a misunderstanding between two which want the uppermost branch.

"That's my place." "I had it yesterday." "You hadn't."
"I had." "You hadn't." "I had." "Hands off." "Whom are you shoving?" Mutual recriminations follow, and from words they proceed to blows. One is dislodged and flies round to the other side of the tree, where it is greeted by a chorus of growls, "No room here!" but it plumps into the middle of the objectors, and three lose their hold. Then the brawl becomes general and ends in a regular fracas. As the sun grows hot they cool down a little, but the fire is only smouldering, and may break out again at any time. These wranglings often lead indeed to the most scandalous scenes, as every one knows who has lived near a bats' roosting tree. Such trees are not so common about Bombay as they are up country, because every Goanese cook plots against the life of the flying-fox.

The bat is one of the unclean birds mentioned in the eleventh chapter of Leviticus, which the Jews were forbidden to eat, but Pedro rejoices in his Christian liberty, and reckons it second only to roast pig. He hankers after even the small fruit-bat, that lesser edition of the flying-fox, which has such a penchant for the flowers of the plantain-tree. This animal is not a quarter of the size of the flying-fox, being only a foot and a half from tip to tip of the wings, consequently it is easily accommodated
in a birdcage, and makes a pleasant pet. I once caught one with a net, as it was negotiating a guava to which it had no right, and in a short time it grew quite tame. When I presented a peeled plantain at the door of its cage it would travel along the wires, hanging by its feet and thumb-nails, and take the fruit out of my hand. Then it wrapped its wings round the plantain, and, beginning at one end, went steadily through it. The plantain was as big as itself, but capacity for food is one of the strong points of the whole bat family, and there was seldom anything left in the morning. During the day it enfolded itself in its wings and slept, hanging by one foot from the top of its cage.

Bats have one lovely virtue, and that is family affection. I shall never forget a captive family of demon bats which I once saw, the grim old papa, the mother perhaps a trifle more hideous, and the half-grown youngster, not quite able yet to provide for himself. There was something very touching in the tender attachment to one another of three such ill-omened objects. Fruit-bats, too, when they go foraging, never leave the baby at home. It clings to the mother's breast, and she carries it wherever she goes. A humane friend of mine has communicated to me, for insertion here, a very affecting story of a bat which he found,
prostrate and bleeding, with a mob of dastardly crows seeking its life. Running to the rescue, he lifted it up, and discovered, under its wings, a helpless little infant, which it was vainly trying to save from its ruthless persecutors. The pathos of the story comes to a head at the point where my humane friend, putting his hand into his trousers pocket, draws out two annas and gives them to a native lad, charging him to protect the poor creature and take it to a place of safety. No one who has any respect for his own feelings will press the matter further, and inquire what the native did when he had received the two annas and my humane friend was gone.
HAT-BOX is surely a modern invention, a solid leather hat-box I mean, with movable fittings, to allow of little articles being carried in the sides of it, and costing a sum of rupees which I will not dwell on, because it is a painful subject. The hat itself, at least that variety which demands a box for its accommodation, is a modern invention, and à fortiori the hat-box must be. Yet it has already become a necessity of life to a smart-looking me-
tallic-blue fly which rushes about the house at this season, jerking its wings in a nervous way. Four times have I found the keyhole of the box which is the habitation of my Sunday hat securely stopped up with cement, and four times have I been obliged to excavate my way into the lock with a pin, and then to turn the hat-box upside down (disarranging all the little articles in the sides) and drum upon the bottom of it till I had shaken out a dozen or two of spiders, and also the white, blubberlike, limbless grub for whose necessities the spiders were provided. It may be objected that any other keyhole, or any hole at all of the same size, would suit the said fly equally well, and I admit that there is an old bunch of keys lying near the hat-box, in which every one of suitable calibre has been stopped up. There are also holes in the old book-shelf, into which it was the original intention of the carpenter to have driven nails, and they have all been engaged by these house-hunters. Nevertheless, the objection is frivolous, for keys and book-shelves are themselves comparatively modern devices, and the great question remains, What did all the community of wasps, bees, and ichneumon flies do before we, or, to go further back still, before our Aryan brother came into the country, and built houses and furnished them
with all these conveniences? They availed themselves, perhaps, of natural holes in trees and rocks. But all the natural holes there are would not suffice for one in fifty of them. I suspect the over-population difficulty presses these tribes very hard, and whenever they find a house, with all its resources of doors and windows, boxes, padlocks, &c., they immigrate in shoals, like the heathen Chinee into California. One finds it can suit itself to a nicety in ordinary cupboard keyholes, another prefers quill pens or rolled-up maps, a third, with more constructive talent builds itself a wigwam on the back of the door or under the table, while a fourth simply forms a burrow in the chunam floor of the bath-room into which it pokes itself at times, singing in a high key.

Taking them all round, I feel convinced that, if accurate census returns could be obtained, it would appear that the hymenopterous population of India had centupled since the British occupation. It requires no very penetrating mind to detect the grave issues which may depend on this, at first sight, trivial result of our rule. Let us consider, as an instance, that same fussy, metallic-blue fly which has been tampering with my hat-box. When she finds an eligible hole, roomy enough and yet not too wide at the mouth, she at once cleans it out and puts it in order, and then proceeds,
with all the energy of her character, to stock it with spiders. Nothing but spiders will do, and they must be, I understand, of one particular genus, not web-spiders, nor jumpers, nor any sort of house spider, but a fierce hairy-legged brute which lives among grass and runs down its prey. These she hunts out, sparing neither age nor sex. She seeks them in their native haunts, follows them by scent like a bloodhound, and whenever she comes upon one, large or small, it is the work of an instant to spring upon its back seize it by the scruff of the neck, and drive her sting into it. She does not sting it to death, for it is not intended to die at once; she stings judiciously, just injecting so much poison as will act like an anaesthetic and throw the victim into a comatose state, in which it may linger on for a week or two, and remain fresh and eatable all the time. She feels no remorse. Remorse has nothing to do with the matter in hand. Her nest is to be stocked. When a sufficient number of benzene semi-conscious spiders have been huddled together into the hole, she deposits a single egg in the midst of them, and then she hies her to a place she wots of where there is excellent clay. She brings pellets of this, and plasters up the mouth of the hole skilfully, kneading the clay well with her jaws and forefeet, and singing the while to lighten her
labour. Then a coat of whitewash is laid over the clay, and all her anxiety about that child is at an end; she is off in search of another hole.

Now, there is in my office an ancient chair, reserved for the use of the lowest-paid clerk, or the abject oomedwar, who lives by drawing up petitions and hoping for temporary vacancies. The chair was once cane-bottomed, and though the cane has long since been replaced by more durable wooden boards, the holes through which it was drawn remain, and every one of them is closed with that peculiar stopper of whitewashed clay which marks the metallic-blue fly. In the chair there are nineteen of these holes to a side, or seventy-six in all. Now, supposing each hole to contain on an average twenty spiders, large and small, then this one rickety sitting instrument is the sepulchre of 1,520 creatures, which just a week or two ago were galloping about among the weeds and grass of the garden, scattering terror and death. Again, multiplying this number by the appetite per diem of an average hairy legged grass-spider, we have the number of voracious caterpillars and other insects whose lives are being spared for the maintenance of this one seminary of metallic-blue flies. And in all that great resurrection pie of cold platitudes which constitutes the
tangible result, the residue found on evaporation, so to speak, of the Famine Commission, there is no allusion to this momentous subject!

In making calculations, however, it must be remembered that all these waspy tribes do not combine to exterminate grass-spiders. A large fellow of the hornet pattern always appears dragging along fat green caterpillars, another prefers the smaller caterpillar of a particular kind of moth, another collects house-spiders, another *aphides*, another flies, one is said to stock its nest with honey-bees, and just now a large red individual owns several extensive burrows in my floor, in which it is stowing away the carcases of those ridiculous, long-legged, green, grasshopperish animals which come about the lamp at night and have a very shrill voice. I doubt if any two kinds eat the same thing. As little will any two do the same thing, or do a thing the same way, if there are two possible ways of doing it. Many kinds build mud barracks, but no two upon the same plan. The large red hornet, which chooses a site on the back of the door, arranges a row of chambers side by side, like sepoys' lines. It is a coarse workman, and the whole suite of apartments, when finished, looks like one large dab of mud. Another builds a single bomb-proof dome, which when you break
into it with a hammer proves to be partitioned into many compartments. One species has a highly cultivated taste, and spends much time in giving a finish to its work. It lays on many coats of paint, ending with a beautiful glossy red varnish. Then, of those that occupy holes, each has its own idea. The kinds which use keyholes arrange for one child in each, but those which patronize reels, quills, and rolled maps, often have the whole family together—one upon the top of the other, with partitions between to prevent them eating each other. In this case, of course, the cell first made is at the bottom and the last at the mouth of the hole, so that the first-born has all its younger brothers between itself and liberty. To meet this difficulty, the bee seems to arrange that the eggs shall hatch in the opposite order to that in which they were laid, but I am not quite clear on this point. All these creatures affect such prodigious secrecy in their proceedings that it is difficult to get at the truth.

There is one considerable class of bees which, not liking the bare walls of the hole, line it with rolled leaves. To make these cigarettes they require little circular pieces of leaf, like gun-wads, and where those of this fancy are common the foliage of your garden is apt to be punched
into all sorts of striking patterns. I suppose each species confines itself to one particular kind of leaf. There is no detail, in short, so insignificant as not to furnish these mechanical geniuses with an opportunity of displaying originality. If one lays on mud with its jaws, another will do it with its feet or antennæ. If one, when it secures a large caterpillar, gets astride it and travels like a rider on the original velocipede (vide illustration in Webster's Dictionary), its cousin, not to be like it, will turn round and back towards its nest, dragging its prey after it.

But any one who wants more instances will find it pleasant and profitable to collect them for himself. It is sweet, experto crede, to pry into the private ways of these little people, and discover the diminutive secrets which they take such pains to hide. And it is also a most healthful means of appeasing some erring appetites of the mind. Wholesomely satisfied with this, I feel no hunger for any other occult science, nor much thirst for scandal about my human neighbours. In fact, I glut upon these creatures the perverse craving which is in us all to know what we are not meant to know. And any person who is largely endowed with that talent for research in other people's concerns, which constitutes a man (or woman, even!) a
successful gossip, will find much exercise for it in ferreting out the most sacred secrets of the inner domestic life of those waspy families, which colonize his house at this season of the year. He may peer through their keyholes, so to speak, and read their private letters, and gratify the spirit of meanness to the full, without reaping self-debasement as his reward. On the contrary, he will learn many things which will exercise his best sympathies and call forth humane emotions. For in these families there is often disaster and sore bereavement. The home papers often have some sad story to make public of a romantic son who has left the parental roof, and is supposed to have started, with a secondhand revolver, for the prairies of America, or of a daughter, who went shopping, and has never been heard of since; and, if it is doubtful whether fairies and elves really do take away fat babies and leave starved changelings in their place, it is quite certain that gipsies do worse, for they steal a child and leave no compensation; but what are all these to the lot of the unsuspecting little architect, which falls a victim to the designs of the idle ichneumon fly? As she builds her little cottage of clay, the sinister eye of the ruffian is watching her operations, and when the place is finished and provisioned,
and she has gone for the last pellet of mud to barricade the door, it steps quickly forward and deposits a microscopical egg, which is to blast all the hopes of the fond parent. Out of that egg a grub will come, which, like Ahab, will kill, and also take possession; it will consume first the provisions in the cell, and then eat up their rightful owner. Some of the most brilliant insects that come about the house belong to this class. I mean those bee-like things clothed from head to foot in armour of burnished green, excepting only that little patch of red which has given them the name of ruby-tailed flies. When you see one of these steadily dogging a wasp, flying when she flies, and pausing when she pauses, you may know the errand it is on. In its tragedies, as well as in its comedies, the life of rational man falls below that of beings which seem almost too small to afford room for much interest.
THE SPIDERS

October.

"Help me curse
That bottled spider."

WHY should the poor creature be cursed? If "bottled" means bloated, as Shakesperian commentators say, then wherewith is it bloated? With the mosquito that bit you; with the fly that sat on the point of your nose, and returned to the point of your nose, until five words mis-spelled and symptoms of temporary insanity obliged you to drop your pen; with the bluebottle, which baptized its foul person in the milk, and crawled out again smeared with cream; with the cockroach, which gnawed the kid gloves, or that other one
which has long lived in the bookcase, and smitten with leprosy the fresh dark binding of many a good book. I confess that the way in which many people treat spiders makes me melancholy. Ladies especially crush them with slippers, or else, if a pretty timidity is one of their accomplishments, they invoke the "boy" to "take away that janwur." He picks it up with the points of his five fingers, as he would a bolus of rice and curry, and throws it out of the window, a miserable agglomeration of mangled limbs. Two reasons are given for this: first, that spiders are ugly; second, that they bite. Now, I am not going to put forward the plea that spiders are good-looking, though that depends entirely upon your point of view; but I protest against the argument in the abstract that plain looks are a sufficient reason for putting anybody to death. And as for the second reason, spiders have plenty of jaws and presumably can bite; but I have for years been searching for authentic instances of persons having been bitten by them, and up to date I have succeeded in collecting one of doubtful value. It was a case of a boy, who thrust his impertinent finger into a hole where there was a spider, and believed it bit him. I would have bitten under the same circumstances. The fact is, that people who crush spiders
ought to refrain from giving reasons for it. Those who do such things do not generally proceed upon reason. I enter into an alliance, offensive and defensive, with spiders, and they fight my battles and slay my enemies for me. They entangle the mosquito swarms, entrap the droning beetle in full sail for my lamp, plot against the pestilent fly, and garrotte the cricket. Caucasian Insect Powder is cold comfort. When your enemy falls into the toils of a blood-thirsty spider, and is being bound hand and foot for execution, "there's retribution in the deed," and you feel that you are in some sort indemnified for all you have suffered. What would I do without spiders? That they are not prepossessing in their appearance, and fascinating in their ways, is in harmony with a great law of the universe. "A man may smile and smile and be a villain," but in nature there is invariably a certain correspondence between the outward and the inward, between the aspect of a thing and the part which it has to play in the world; everything is dressed as becomes its vocation. And it is in accordance with the eternal fitness of things that the spider should be, as to its outward appearance, sinister and forbidding. If it could look gentle and engaging as it strangled a fly, my soul would revolt against the hypocrisy of the thing; but
as I contemplate the flat tableland of its head, gemmed
with bead-like eyes, the complicated assortment of fangs
and jaws, and other ghastly instruments of death, the eight
bristling legs, and the supreme horribleness of the gross
total, I feel perfectly satisfied that it was meant to do my
work, and to do it con amore.

But there are points about the spider which deserve our
respect besides its professional qualifications. One of these
is maternal affection. Many good people are shocked at
Dr. Johnson for loving a good hater. They fancy that if a
man is too good-natured to hate anybody he must be very
loving, as if one who is weak on his right side was likely
to be so much the stronger on his left. If a man is weak
in his right hand, the chances are that he is infirm all over,
and if there is no force in his aversions and hatreds, I
take it as evidence of imbecility as regards his feelings
generally. However, ne sutor ultra crepidam. I will con-
fine myself to my own sphere. In the animal world the
result of my observations is briefly this, that I expect very
little from a mild constitutional amiability. The love of
sheep is very poor stuff. If you want any depth of
affection, you must seek it in the company of other strong
passions. The terrible running spider, which will tear her
own species, of either sex, to pieces, wherever she finds it, will part with life sooner than with the white bag in which she carries her egg, like an Indian squaw carrying her papoos. Web-spiders generally weave little silken purses for their eggs, and hang them about the web. When the infant hordes break forth, which they do like a plague, all in one day, they occupy their mother's web until they are old enough to spin for themselves.

Spiders are also worth studying as an illustration showing in how many ways the same thing may be done. They all, without exception, live by murder, but the following is only a brief list of the chief ways in which they compass that end:

1. They run down their prey. These are the wolves of the tribe, and make their living by fleetness of foot. The chief of them all is the great house-spider of Bombay, fully four inches in stretch of limb. I love this kind for killing cockroaches. There is no production of nature, to my mind, so entirely indefensible as the cockroach. The spirit of fair-play itself could find no plea for the continued existence of that sneaking, butter-eating, evil-smelling prowler of the pantry. And with its long feelers, it is too cautious to be entangled in any web. But, whether it be the huge
winged ship-cockroach, or the more loathsome, wingless, tortoiseshelled variety, Nemesis overtakes it when it falls in the way of the running spider.

2. They spring upon the victim. These are the cats of the tribe, and table flies are their prey; but they put cats to shame, for they seek no cover or concealment. On the open table-cloth, while the gourmand is engrossed in a luscious drop of gravy, the spider is creeping on it step by step, whetting her jaws against each other. As she gets nearer the suspense begins to be painful. She moves like the hour-hand of a watch, each step is a matter of thought, while all her eight eyes are focussed, like burning-glasses, on the victim, and not an eyelash moves. At length you see her tail go down, and a fine thread is made fast to the table-cloth, for a spider always casts anchor at critical moments. Then comes the fatal spring, followed by a brief buzzing scuffle, and the foul career of that fly is ended.

3. They lie in ambush on some flower of their own hue, for the busy bee improving each shining hour, or the frivolous butterfly on pleasure bent. One common kind, of a lily-white colour, generally lurks, almost invisible, on the tuberose, with its arms stretched out, ready for an
embrace. Into that embrace the silly butterfly will come, and, when its life-blood has been sucked dry, its withered corpse will fall to the ground, and the way will be open for another.

4. They are fishermen, and make nets to entrap their prey. These may be subdivided into at least two classes: — (a) Those which hang tangled skeins of flimsy silk about the corners of rooms. They are a feeble folk, long-limbed and weedy, and as their webs catch more dust than flies, I encourage Rama to brandish against them an instrument made of fifteen feet of bamboo and a broom. (b) Those which construct a regular circular net and sit in the middle of it. One of these is as much superior to a dozen of the last as fifty years of Europe is better than a cycle of Cathay. They have made considerable progress in mathematics and physics. As the sun is setting in the west, the spider sits on a projecting branch of some tree beside a garden pathway, and serves out a fine line, so fine that it floats away on the air until it touches a leaf of a tree on the other side of the path, and, being well smeared with glue, sticks. Then the spider draws it tight, and, travelling Blondinwise along it, pulls a thicker line across the space. It is now a comparatively easy matter to stretch a second
cord between the two trees lower down, and then to connect these by many others, all meeting in a common centre, like the spokes of a wheel. Then, beginning at this centre, the spider goes round and round, in widening circles, pulling a line after it, and fastening it to each spoke in turn. Almost before the work is done, moths and beetles, trying to make the passage between the two trees, sail headlong into the meshes of the net, and are put up in separate parcels to be eaten at leisure. In the grey light of the morning, as you start on your matutinal ride, you carry away the whole web on your face, dealing the fat and apoplectic owner such a cruel punch in the ribs with the point of your nose that it drops to the earth in a fit. Of course, the poor thing has all its work to do over again that night.

5. They addict themselves to occult science, and traverse the sky like a witch on a broomstick. On a windy day sometimes it seems as if an émeute had occurred in a tailor's shop, and all the sweepings of the floor had broken loose. Long shreds of silk and tag ends of thread of all sizes come floating past. One catches on a tree or railing, and astride it there is a gay yellow spider, as proud as Punch and as lean as Famine; but, before you can catch her, she has
shot out a yard of loose thread, and embarked on the gale again. Are they yachting for pleasure, or like a fleet of

fishing-boats, do they trail their long nets after them to entrap the shoals of gnats and midges, and briefly happy ephemerae? When the air is calm once more will they spread their airy gossamer in the blue empyrean, and float
and run in the golden lightning of the sunken sun, or will the muddy vesture of decay grossly drag them down to the earth again?

But to what end am I asking questions, or what would it profit if I answered them? I know that I am only on the threshold yet of all the sterling qualities of head and heart which adorn my trusty allies; but I will stop there, for when I have passed on to their patience and perseverance, when I have adorned my tale with Robert Bruce, who extracted a moral from a spider and won his kingdom, when I have quoted the great teacher who noticed that she was little upon the earth but exceeding wise, when I have said all that can be said on the subject and more, the voice of humanity will be as it has ever been,

"Weaving spiders, come not here,
Hence, you long-legged spinners, hence!"

And, since candour is a jewel, I will confess that I would say the same if I could complete the exorcism, and ban "beetles black," and all the rest of the fraternity of vagrants and uninvited squatters on my estates. Till I can do that I have need of spiders also. Give me neither or both.
THE BUTTERFLY: HUNTING HIM.

November.

A CORNER of my verandah stands a weapon, always ready, wherewith I do battle against liver, dyspepsia, hypochondria, dull care, "loathed melancholy," and multifarious other natural enemies to peace and long life. It is composed of a light springy stick, about five feet long, to which is attached a ring of iron wire about fifteen inches in diameter, carrying a bag of mosquito-net, or gauze, dyed green. The wire is as light as it can be without becoming so thin as to want stiffness, and the gauze of which the bag is made is soft and open enough to be perfectly transparent. The minutest point which may conduce to the
perfection of the instrument is worthy of attention, for its virtues are rare. I find nothing equal to it. It is better than Eno's Fruit Salt. To the jaded office slave, the brain-worn student, the overwrought literary or professional man, I recommend this panacea.

Games are useful in their way, and sport is much better; but good sport is not often within easy reach of a Bombay man. The hills are, and this is the season when a morning on an Indian mountain-top is not to be bartered for anything that any climate in the world produces. When the sun has just risen, and the cold delicious morning air waves the scented grass, with the frozen green beetles clinging to it, and the birds sing, and you hear them sing, because there is no Babel of worldly noises and vile clangour of coarse-minded crows to drown their music,—at such times to ramble aimlessly along, and simply drink in the enjoyment which seems to be poured out upon the face of nature, makes a man feel that his capacity for pure animal happiness is too limited. He cannot take it all in. Much seems to overflow and run to waste. Then the sun grows warmer, and the freshness of the morning fades a little; but the man who can handle a butterfly-net need not go home and mope. His time is just beginning, for
SPORT SECOND TO NONE.
the butterflies are just waking, as the genial warmth of the sun puts life into their fragile little bodies. There are hours before him yet of sport which is in my judgment scarcely second to any. To be a successful butterfly-hunter a man must have a wiry frame and nimble limbs, a good eye, true hand, quick observation, patience, judgment, and much practice. A tyro as is easily detected as a sailor on horseback. The very way he pokes his awkward tool at a passing butterfly proclaims him. And he has only one way of proceeding with all kinds, generally a very futile one. The old hunter knows the habits of every family, nay, of every species, and has wiles at hand to cope with each. He will not waste his wind pursuing that marvel of restless activity, the Sarpendon swallow-tail of the hills, as it dances from flower to flower. He will follow it with patience until he finds some flower-head with fifty little florets, and while it is darting its tongue into each of these in turn, there will be time for a rapid but noiseless rush, and a sweep big enough to carry away butterfly, flower, and all. Even then it will need clever fingers to secure the little prisoner before its frantic energy has broken its brittle wings to pieces. But the prize is worth all the trouble it costs. O for some recipe to fix
the watery transparence of that blue-green wing, and the richness of its brown border! But this is one of the butterflies that soon fade, do what you will. Should one of the large black swallow-tails, with red crescents on their hinder wings (of which there are four kinds in Bombay), come sailing past, like a goodly vessel with sails spread, it would be folly to wait for it to stop at a flower. It is most likely on a long voyage, and will not stop at all. You must run ahead and meet it in its course, when, as it passes, a well-aimed following stroke will make it your prize. Then there is a large family of brilliant butterflies which love to bask in the sun and display their beauty. Only an utter greenhorn would rush at one of these. It must be caught, as a cat catches a mouse, by patience and stealth. If once scared, it is lost. It should never see the net until it sees it from the inside. Other kinds must be caught in other ways, some by adroit manoeuvres which it is difficult to describe and much more difficult to perform. Occasionally, when a precious prize passes which may never pass again, and shows no sign of pausing, there is nothing for it but to give chase. Speedy legs and good wind, inspired by, say, a leaf-butterfly, or that tailless prince of swallow-tails, the black and blue giant of the
Lanowlee woods, will accomplish unexpected miracles sometimes. And when you overtake it, and the first stroke misses, as of course it will, never mind; wave the net wildly round and round your head. Some strange fate generally leads a butterfly to eddy round too, and when you overbalance yourself and tumble to the ground, like an exhausted teetotum, you may find it fluttering among the muslin.

When the specimen is caught it must be disposed of. The safest and most humane way to kill it is to give it a gentle pinch between the finger and thumb on the thorax. Every butterfly, like all Gaul, divisa est in partes tres. The middle one of these parts, from which the wings and legs take their rise, is the thorax. To accommodate your captures you should carry in your pocket a few sheets of smooth and thin letter-paper, folded in quarto. Between the leaves of this they will lie secure, and the smooth paper will not rub off their scales. On returning home you may spread your spoils on the table, and gloat over them for a reasonable time: but they must be set soon, or they will stiffen. All the apparatus needed to set butterflies nicely is a few boards of thick cork (which may be made of two or three sheets of sheet cork, glued together),
with grooves of different sizes cut in them to receive the bodies, so that the wings may be level with the surface of the cork. Pass a pin gently through the thorax of each specimen, put its body into one of the grooves, press the pin well into the cork, and then spread out the wings, and keep them in their places with narrow strips of card pinned over them. In two or three days the specimen will be ready for the case, and thenceforth it will be conspired against night and day by various enemies, the worst by far being an atrocious round beetle, whose offspring is a still more atrocious hairy grub, which will occupy the inside of the butterfly, and eat away its body, until the wings, with nothing left to connect them, fall to the ground, and the bare pin stands, a melancholy monument, to tell where the gorgeous specimen once spread its splendours. This grub seems to fatten on the smell of camphor or turpentine, and the only device of any permanent avail against it is to dissolve a little corrosive sublimate in spirits of wine, and with a fine feather anoint the whole body of each butterfly thoroughly. If you make the mixture too strong it will assuredly leave an unsightly white film upon the back of every black specimen, and if you do not make it strong enough it will only act as a
tonic to the grub. These are the Scylla and Charybdis between which you must steer.

Many silly people still call butterfly-hunting puerile amusement, and so it would be if they pursued it; for the profit which any one extracts from it is always pretty much according to the measure of his own capacity. It is curious to notice how exactly in the face of the fact this old notion of the childishness of entomology is. All children take an interest in animals, and may with very little encouragement be developed into naturalists while the observing faculties are still active and they have not yet learned the art of going blindfold through the world; but it is wild beasts that fascinate them first. Lions and tigers rank with Bluebeard and Jack the Giant-killer. By degrees the boy will go on to love birds and become mad on bird-nesting; but not until he is growing into a mature naturalist will he go down the scale of life, and discover in a gall-fly or a sea-jelly, a rotifer or a hydra, a wonder and a mystery not to be found in what are called the higher orders of animals. The pursuit of butterflies is not so full of deep interest as many other branches even of entomology, but it is more of a science for the million. It has the peculiar advantage that it is a recreation as well as
a study. In fact, it has all the elements which go to make up a first-class hobby. It furnishes employment for hours of recreation without encroaching on hours of business. It doubles the pleasures of an excursion, turns a holiday to the best account, and gives a purpose to the morning constitutional. And it is at all times and everywhere within reach in this glorious country; for, though butterflies are most abundant and most splendid on the hills, Bombay is not far behind. That one island, seven miles long and half as broad, will afford to the collector more different species than all the United Kingdom of Great Britain and Ireland. And they will range from the tiny blue, with its microscopic embroidery of gold, scarcely half an inch in stretch of wing, to the magnificent ornithoptera with an expanse of seven and a half inches. Even Dustypore has its butterflies.

Another charge brought against entomologists is that of cruelty, and it is even more groundless. Nothing is more unfeeling than ignorance, and nothing makes a man more compassionate towards his little fellow-creatures than a close acquaintance with them. This acquaintance can only be gained, and is cheaply gained, by sacrificing the lives of a few. I might dwell on the many pleasures of such an
intimacy, and of the solid value of it in this worldly world; but if I entered on that subject now, this paper would have to go to the barber with Polonius's beard.
THE BUTTERFLY: CONTEMPLATING
HIM.

November.

BUTTERFLY-HUNTING is a means, not an end. The end is to know them, to become intimate with them, so that, as you move about the garden, or lie dreaming,

"Modo sub antiqua ilice,
Modo in tenaci gramine
Labuntur altis interim ripis aquae,
Queruntur in silvis aves,"

each gay pleasure-hunter that flits by you may be an acquaintance with a character and an individuality of its own. These are just the situations that butterflies revel in,
where rippling water runs among shady trees, and Art has let Nature alone. Well-kept gardens are a nuisance in their estimation; for nearly all the operations of the gardener are directly contrary to the interests of the butterfly. He pulls up the weeds on which its caterpillar should feed, or destroys the caterpillar itself; he introduces strange and unknown plants of suspicious flavours, and, above all, he cultivates double flowers, in which all the parts where the sweet drop of nectar should lie are turned into unprofitable petals. Every double flower is an abomination to butterflies. On the other hand, dry plains and fields afford them no sustenance, and wind discomposes them. But seek some retired valley, or hollow among hills, in the month of October, when weed and thorn-bush and waving creeper are in bloom, and the sun is hot, and the air is moist, and you will preside at a durbar. The lordly swallow-tail will sail past, the little whites and yellows will flutter ceaselessly from flower to flower, the huge orange-tipped white, hurrying by, will yield to temptation, and pause for a moment on a little blossom which looks insignificant, perhaps, but tastes most exquisite to the connoisseur's palate, *diadema* and *junonia* will display their glories, *danaïs* and *euplæa* will float with
easy grace on the air, and perhaps a bold leaf-butterfly will pass with the flight of a strong-winged pigeon, the blue sheen of its wings glancing in the sun, until it plunges into some withered bush, and not an eye can distinguish its motionless form from any of the dead leaves around it. And when the afternoon is drawing on, then many a rich hair-streak will appear, and, taking its station in the middle of some large leaf, will open its wings just a little, and give you a peep of the dazzling blue within. By sunset all these will be sound asleep, and then the richly pencilled brown butterflies of the twilight will come out and dance their fairy dances about the roots of some dark tree.

In one particular butterflies seem to me to stand apart from all other forms of animal life. Other animals of all kinds, with plants and trees, are the furnishing of this great kosmos, its various vessels and manifold appliances. Every one has its own use; none can be dispensed with. Butterflies, on the other hand, are the pictures on the walls, the little nic-nacs on the table, the bouquet in the vase. They are not for use, only for looking at. By this one point of entire uselessness butterflies are sharply separated even from moths. Most moths in their caterpillar state are good
for food. Some are soft and green, and these are the very staff of life to all the little soft-billed birds, the tailor-birds and sun-birds, and tits and warblers. Others are large and hairy, and these are in the thoughts of the harsh-voiced oriole, as it darts like a gleam of sunlight into the dark foliage of the tamarind-tree. Moth caterpillars have also a great office to perform in thinning too luxuriant vegetation. All through the teeming months of the monsoon, when grass and rank weeds and overgrown creepers are choking one another, and struggling for a place on the crowded earth, myriads of moth larvæ, with the most miraculous appetites, are busy night and day eating them down. In this work the caterpillars of butterflies give little help. Butterflies do not lay their eggs in the lump, like moths, but one here and one there, and the solitary caterpillars are too few to make much impression. And they are not good eating as a rule. Some are spiny, like the fretful porcupine, some protect themselves with an odour like the musk-rat, and some taste nasty—at least, so the birds say. And as with the larvæ, so with the perfect insect. Butterflies enjoy a strange immunity from being eaten. They fall into spiders’ webs at times, and lizards catch them if they can. My pet chameleon’s ration is about half a dozen
per diem. But birds let them alone. On the morning after the first storm of the monsoon, as you walk through the wet grass, a large orange and grey moth will often rise like a quail before you. Scarcely has it left the grass, when, from his watch-tower on a dead tree, like an arrow from a bow, the king-crow is after it, and the loud snap of his beak tells that he has—missed the moth! But he wheels as quick as thought, and darts upon it a second time with surer aim, and now, with the large fluffy morsel in his beak, he is sailing leisurely back to his perch. But why does he make no attempt to catch the many small butterflies which flutter dreamily out of their sleeping-places, as you stir the grass and shake the bushes? The green bee-eater too, on the telegraph-wire, does not seem to see the little orange-tip travelling feebly across the field, but next moment it is off in pursuit of a strong-winged bee. Perhaps the zigzag snipe-like flight of butterflies makes it well-nigh impossible to catch them, or else, because they have much wing and little body, birds may have long since come to the conclusion that hunting them is "muckle cry and little 'oo'." However that may be, they form no appreciable part of the food of birds, and they have no other use that I know of. They are only made to be looked at. And shall we
not look at them? One does sometimes meet a man who will come into a drawing-room where every shade of colour, every ornament, the very placing of each book, tells of tasteful thought, and move about in it like a bullock, seeing no more than he would see in a barn; and many move about in the world in the same way. What an infinity of grace and beauty is lost on them! I have seen a posse of ladies almost disappear into raptures over a "quite too awfully delicious" specimen of a Christmas card, and I was constrained to add some corroborative ejaculations with a tepid effort at enthusiasm; but who would put the prettiest conception in which art ever dressed a Christmas greeting beside that exquisite little butterfly which at this season flits over the barren plains of the Deccan, whose wings of velvet black and intense blue are bordered with peacock eyes of the richest red? And every day thousands of them are born and perish; for, like the bouquet on your table, these little decorations are constantly being renewed, so that they may ever be fresh and bright, and the old ones, almost before they have time to fade, are cast away. Few of them live much over a week.

Looking at butterflies as ornaments, there is a good deal to note in the placing of them, for they are not like each
artist's own pictures in an exhibition, hung by that blundering committee just exactly in the worst possible light. Each kind knows full well how to show off its own peculiar beauties, and you may almost tell the habits of a new species from the arrangement of its colours. One struts and attitudinizes; another adopts the *négligé*; the wings of one droop with a lady-like languor; another stands like a drill sergeant. The dusty twilight butterflies never open their wings except to fly, and if you catch one you will understand the reason. On the under side, which is seen when the wings are closed, there is no bright colouring; indeed, for gaudy hues do not suit the sombre shades of evening, but a weird blending of rich browns, or an exquisitely chaste and delicate tracery of wavy grey lines, with a bordering row of blue centred eyes; but the upper surface, which would appear if the wings were open, is smoky brown. There are, moreover, many phases of character in the butterfly tribe, and here too the apparel oft proclaims the man. The innocent little whites and yellows, fluttering from flower to flower, hardly seem to think it is worth anybody's while to look at them. For another style, and a very different nature, take that large Bombay species, on whose wings of glossy black there are just four patches
of splendid blue, changing with every change of light; he is a beauty, and he fully knows it! Every attitude declares the fact, as he basks in the noonday sun on some outstanding branch, turning now this way, now that, slowly folding and unfolding his splendours, or darting from his station to chase away some rival beauty. Those who can may believe that this vainglorious little insect is a fortuitous concourse of atoms, moulded and modified by being for long ages the unconscious subject of some process of selection. I need a theory of the world with more soul in it. I cannot look at the glorious creature in its overweening vanity, and believe that there is no connection between the outward and the inward—between the splendour and the pride. The one is the answer to the other, and if the beauty of that butterfly really developed, then it did so in harmony with the bent of an indwelling mind. Whatever theory of creation or development may prevail, the animal which I see will never be anything to me but the external expression of an individuality which I do not see, but which is none the less real.

Butterflies of some kinds—especially those energetic greenish-white ones of the family surnamed callidryas—are sometimes seized with a mania for emigrating to the far
West. When this is on them, South Sea Bubbles, Bombay share manias, diamond fevers, gold-mine crazes, are temperate, judicious, and well-considered movements compared with their behaviour. Science has never settled what it is precisely that sets them a-going. It seems likely that something does this. What is quite certain, however, is, that when once set a-going, they keep going. I have stood near one of the parade grounds at Poona and watched them. With scarce a pause to rest their wings or sip a flower, from eight or nine o'clock until the afternoon, as far as eye could reach, the host kept streaming past, like the fugitive Gauls after one of Cæsar's great battles. And in their fate, too, I fear they resembled those barbarian hordes, when a deep river at last barred their weary way, and they tumbled headlong, one upon another, into its reddening waters; for I stood again another year beside the Bombay harbour, and watched the frenzied myriads hurrying from the mainland over Elephanta, and across the sea and over Bombay or Karinja—for their direction was somewhat southerly—and then? Then, I suppose, over the sea, and on and on and on and on, until darkness settling down on them, and their amazing strength at last ebbing away, they must have dropped into the waves, each one, as it fell,
creating and perishing in a small South Sea Bubble of its own; and the fishes had a feast long to be remembered.

I called the butterflies which are generally afflicted with this mania by the name of callidryas. I did not mean to be abusive, but I had no option. Indian butterflies have no names. Of course I have given them all names of my own for private use, and this is what each collector must do, or else make himself acquainted with the opprobrious epithets which naturalists have applied to them. Some of these seem to amount to defamation of character. Cahopsilia crocale! Yphthima inica! Hypanis ilythia! Pesioneura ambaresa!—Horresco referens!
THE columns of the *Times of India* I have had a public invitation from "Sarus" to descant upon frogs. I had thought to pass the vile batrachians by, for I love them not. Besides, now is not their time. The hot sun has been boiling down the tanks until the infusion of frog is getting thick, and the water-snake grows fat on much to eat and little to do. So the
bass voiced patriarchs of the tribe have dispersed to many secluded water-holes, or perhaps have buried themselves in the mud, and even the nimble small fry, skimming with many a hop, skip, and jump along the surface of the water, have much ado to save their lives from the fierce fish and the remorseless dháman below, not to speak of the gluttonous heron above. Of course imagination can body forth the vulgar forms of frogs, even when they are unseen, and unheard, too, but it is not the same thing. They may stand out as clearly before the mind’s eye, but they do not touch the feelings in the same way, and when the feelings are cold the vital principle of all eloquence is wanting. Were the rain at this moment dripping from the roof and gushing from the waterspout, and a concert of a hundred bassoons from the flooded paddy-field sounding in my ears, I could write on frogs.

I believe the observations of “Sarus” are vitiated by the common mistake of confounding things which differ toto caxio from each other. To take, for instance, the frog, which he found on the top of a door, it is obvious that everything turns on the question: Had it, or had it not little round pellets on the points of its toes? If it had not, then it ought to have been bottled in spirits, and sent
to the able and energetic secretary of some learned society, for a common frog which can climb to the top of a door ought to have an essay written on it. If it had, then it was only a tree-frog, a species which was rather a favourite with me until one evening last year. There were several of them about my house, and their gymnastics won my admiration. From a yard away they would fling themselves at a bedpost or a window-pane, and stick like a dab of mud, by virtue of those suckers on their toes. They would perch pleasantly on the edge of the water cooja or on the rim of a tumbler. They seemed to gain little by all their performances, for their aspect was always famine-stricken and angular, and their colour, without being anything very definable, suggested the sere and yellow leaf. They slept all day, sticking like postage...
stamps to some window, and at evening went abroad in search of food, leaping from one perilous position to another about the railings of the verandah.

On the particular evening above-mentioned I was sitting in the garden, trying to finish a very interesting chapter in a book before it got too dark to read—at least, I imagine that was my occupation, but my memory about that period is almost a blank. Within a few feet of me there was a projecting sunshade, and on it clung an enterprising tree-frog. To him my head loomed like some forest-clad mountain against the grey sky, and he guessed there might be game up there. So he wound up his leaping springs, took good aim, allowed for the wind, and fired! I do not know exactly where he aimed, but he hit just behind my right ear, and, of course, stuck. Now, I hold that half the art of telling a story, as of preaching a sermon, lies in knowing when to stop, so I will stop; suffice it to say, that since that evening I have admitted no exception to the general feeling of utter aversion with which I regard the whole race of frogs.

To proceed to the so-called frog, which comes into the house and out-generals "Sarus" in his attempts to evict it, I know it well. It is not a frog at all, but a toad. The
difference between the two is precisely the difference which there was in Mark Twain's jumping frog before and after the shot was administered to it. Touch a frog ever so tenderly with the point of a stick from behind, and it goes off as if it were sitting on gunpowder, and your stick were a lighted fuse. The stolid toad, on the other hand, meets every hint and every suggestion with a simple *vis inertiae*, and an unwavering perversity and "contrariness," which must triumph in the end. Now, when a man has made up his mind beforehand what his final opinion is to be, it is waste of time to dispute with him; therefore I always clinch the argument at once with my toad. I bully him until he feels thoroughly affronted, and refuses to budge another inch, blowing himself up like an air-pillow, and snorting feebly by way of protest. Then I introduce the point of a springy cane under him, and simply shoot him out at the door. He takes it very ill, but I cannot help that. It would be mistaken kindness to let him delude himself with the notion that he is going to get what he wants in the house. I know exactly what it is. As the cold, dry, easterly winds begin to shrivel and crack his parched hide, it crosses his foggy brain in some dim way that a house must contain a lot of cool damp holes and
corners, into one of which he may wedge himself, and pass
the dry months in a state of torpor, conserving his vital
juices till next monsoon. This is a proposal, of course,
which cannot be entertained. He is all very well flattened
out under a flower-pot or between the stones of a fernery;
but it is preposterous to suppose that he can be allowed to
take up his winter quarters inside the house, and I think
the most considerate course is to impress this on him be-
fore he has crossed the very narrow line that separates
his normal state from actual unconsciousness.

For I have kindly feelings towards the toad; the density
of his stupidity, and his placid contentment, make ill-will
towards him impossible. Low-bred he is, but more than
half the world must always be low-bred; there is no crime
in that. No sane man pretends to despise another merely
because he is low-bred; unless, indeed, he feels that his own
high breeding stands in need of a contrast to make it
visible. Ostentatious vulgarity is a very different thing
and it is this that makes the frog an offence to me. He is
for making a noise in the world. He will thrust his gross
entity on your notice. If the rain, which damps everything
else, only cheers the spirits of frogs, I have no objections;
let them be happy. But why must they, with their riotous
cacophony, proclaim the fact to the world, after the manner of "'Arry"?

Further, I have physiognomical objections to frogs. The aspect of them is an outrage. Every line of their gape-mouthed shallow-pated visages bears witness of general debasement, and an inordinate love of victuals. The little leopard-spotted water-frog is more tolerable; but I am speaking of the gross overgrown bull-frog. After months of bleaching—while it lay torpid, I suppose, in the ground—it comes out to greet the monsoon all of one uniform gamboge yellow, and riots in the daytime. Then, when lusty health has restored it to a dark green hue, with a gaudy yellow line running down its back-bone, it leads an amphibious life, lurking among the rushes on the margin of some pool, and at the sound of your footstep taking a "header" into the water, with its legs, like the tail of a comet, behind it; or, perchance, having tumbled, during some ill-fated spree, into a deep well, it expiates the crime of its appearance by a long life of solitary confinement, with no hope of release. The livelong day it is doomed to float at the surface of the water, vacantly gazing at heaven, with supplicating palms outstretched and fat thighs helplessly pendulous in the clear liquid; but sudden death
FOR LIFE.
is oftener the frog's fate than imprisonment. Every one will call to mind the case of the young rip whose amorous career was cut short by the lily-white duck that gobbled him up; and herons are worse than ducks, for they do not wait till he goes a-wooing, but stalk into his haunts, and from the far-darting serpent neck and scissor beak of a heron escape is hard. Then the marsh harrier pounces down among the rushes on the croaking veteran who had outlived these perils, and bears him away in its talons. But the arch-enemy is the *dháman*, or water-snake, and it is more cruel than the rest, for it takes an hour or two to swallow its victim. It is impossible to conceive a fate of more unmitigated horror than that of a frog being sucked down by a snake, its foot already undergoing digestion, its leg stretching all the way down the enemy's slimy throat, and its body slowly but surely following. Happily frogs cannot have much imagination, yet they must realize the situation to some extent, for they give expression to the anguish of their souls every few minutes in a wail so unspeakably woeful, that it would melt the hardest heart. It has often melted mine to such an extent, that I have gone out with my stick to slay the snake, and release the frog. Once I saw the tables turned. I was watching a wily
snake about two feet long gliding down into a tank, when a gigantic frog hopped up and swallowed its head. The snake protested with frantic wriggles, but the frog continued swallowing it down—an inch or two at each gulp—until half the snake was gone. By this time the other half became so violent that the frog could scarcely keep its feet, so for greater security it turned and plunged into its own element, and I saw it no more. Even this was beaten in audacity by a frog from whose stomach I, David like, redeemed the whole leg of a live chicken. The rest of the chicken was still outside, remonstrating clamorously.

Of frogs for the table I have said nothing, having no experience, for I look upon it as cannibalism to eat them until the question has been finally decided whether we are more immediately descended from them or from monkeys.
WORD bug is said to be derived from a Welsh and Gaelic root bwäg, which is pronounced in some way, no doubt, by those who are to the manner born, and means a hobgoblin. Originally, therefore, a bug was a spectre, or an object of fear, and that meaning has been preserved in bugbear, bogie, and the verb to boggle. Tattie-bogles and bogus budgets are also, I take it, of the same family. In following the course of this interesting root, a strong sidelight is thrown on our path by that most remarkable Indian nursery word bow, which is obviously connected with the Gaelic bw or bwäg, and means, as every Anglo-Indian baby knows, a dog, cat, spider, ghost, the
THO BUGS.

devil, or anything of that sort. It is commonly in use among ayahs and bearers, to keep children in awe when they are disposed to be "nattice"—i.e., disobedient—and naturally all sorts of ugly insects come to be in practice the commonest sorts of "bows." That these were also the commonest kinds of bugs in England in the days of the Pilgrim Fathers I argue from the meaning which the word bears in the American language to this day. It was an American who described the elephant beetle as an "al-mighty big bug," and in that country, I understand, there are not only squash-bugs, potato-bugs, corn-bugs, &c., but bugs which spin us silk, and bugs from which lac and cochineal are obtained. In England, as we all know, the word has entirely lost both its primary meaning of a goblin and its second sense, in which it stood in a general way for any sort of insect, and is often confined not only to a subdivision of the order Hemiptera, but to one particular species of the genus cimex, known to naturalists as Cimex lectularius. This is a fate to which words are very subject. Corn is no longer used in America for anything but Indian corn or maize, while in Scotland it has a more or less special application to oats. In England there are two or three peculiar birds which pass under the name of "ousel," as the
water-ousel and the ring-ousel; but it requires only half an eye to detect the connection of this word with oiseau, and infer that at first an ousel meant simply a bird. The words meat and fowl are other instances. An animal is coming to mean, among ladies especially, a beast, as distinguished from a bird or a fish. However, I am not philological, and have no intention of trying to trace the subtle causes which have combined to enable one seemingly insignificant and totally vulgar little insect to draw to itself the whole meaning of a wide word. To do so would take me over ground which it is my object to avoid. In fact, my only reason for alluding to the wider senses of the word "bug" is to disabuse any one who may hastily entertain the notion that my subject to-day is that particular species of cimex which Linnaeus has defined as Nocturnum fætidum animal. That is not one of the tribes on my frontier.

When naturalists speak of bugs they mean a certain well-defined class of insects in which India is unhappily very fertile. Most people confound them with beetles—which they resemble as much as a woodcock resembles an owl. All beetles have jaws, and chew their food, while bugs have only a tube, through which they suck liquid refreshments, just as sherry-cobbler used to be taken when
it was the fashionable pick-me-up. Again, beetles pass their childhood and youth as grubs, and appear as full-blown beetles only when they come of age. A bug is always the same animal; it comes out of the egg a bug, and when it grows to maturity it is only a bigger bug than it was before. But these are scientific distinctions. To the eye the most salient mark of a bug is a certain unmistakable three-corneredness, or triangularity, in its build. Its head and neck are of one piece, triangular, resting like a pyramid on its square shoulders; its body is exactly the shape of a three-cornered heraldic shield; and, lastly, a bit of the point of each upper wing is generally of a different texture and colour from the rest, so that, when the wings are closed, a conspicuous triangular patch appears on the tail end of the offensive wretch. If the rest of it is flaring red, the tail will be black or blue; if the rest is black, the tail may be golden yellow—for bugs are great dandies. Another and even more pronounced point of difference between beetles and bugs is, that the last are highly aromatic; and this may have something to do with the notion of which they are so strongly possessed, that they constitute an excellent flavouring for soup. Louis Figuier says that some kinds of bugs have a bouquet resembling that
of apples; I have not met with any of those kinds. The aroma which emanates from the varieties with which I am acquainted is of a sort that would, I imagine, have made Pharaoh succumb. Where they are collected in numbers it is enough to breed a pestilence; and on a calm monsoon evening I have known some of the lanes round Dustypore so barricaded with the dense stench, that nothing short of a company of sappers, with picks and shovels, could have opened a passage through it. A single individual is most impressive when it is crushed, or tumbles into scalding soup. I knew a promising young man who took one with his soup! I have felt ever since that I could give any price for a Book of Manners that would tell what a gentleman at a dinner party should do under such circumstances.

It might not strike one at first sight, but there are, nevertheless, degrees of abominableness, and I divide this whole family of proboscis-bearing, triangular, particoloured, and aromatic insects into three classes. The first place in order of unmitigated nauseousness I concede to a small black villain, with a glassy white patch on the tail, which, after heavy rain, invades the house. The tablecloth takes the colour of a flea-bitten grey, the lamp threatens to go out with a fizz, dinner has to be abandoned as a chimera,
and when I seize my Shakespeare, in the extremity of my despair, and search for "To be or not to be," the soul suicides pop in between the leaves, unbeknown to me, and get flattened out into mementoes for coming days. *Olim meminisse juvabit!*

I give the second place to the dumpy green bug and the dumpy brown bug, which likewise swarm into the house during the monsoon, and consort with blister beetles and other bad characters. If there could be another first place they should have it. In the third rank all the rest may be included, viz., the large black wood-bug, which looks as if it would bite, or rather stick its stiletto into you, savagely, if you touched it, with the whole category of odious crimson and black dandies, and the tapering curiosities in yellow and brown, with pointed snouts.

After all, to give the bugs their due, our judgment of them is founded upon a very casual acquaintance, and may be an unjust judgment. We see them once in a way, when the light of the lamp calls them together to plague us, but how little we know of their private lives! They populate, in astonishing numbers, the trees of the jungle and the plants of the garden, and it may be that they are industrious and useful members of insect society. It may even
be that the spicy odour they disseminate corrects in some imperceptible way the too sweet fragrance of the flowers. Our tasty curry biscuits are flavoured with assafoetida; why may not our balmy breezes be seasoned with bug? I once thought they sought their own protection by creating a poisonous atmosphere around them; but last October I found my little tame redstart eating up abomination number one above-mentioned with great gusto. When I say tame, I do not mean that the redstart is caged; she is a voluntary boarder and lodger with me, and spends her mornings for the most part at my feet or under my chair, quivering her tail as if she had ague, and picking up the crumbs I drop for her benefit. That this dainty little creature, in her rusty brown dress and large black eyes, should poke about corners in search of last evening's bugs, surely illustrates the saying that there is no accounting for tastes. To return to the possible utility of bugs, most of them live on vegetable juices and bleed the trees, as the doctors used to bleed us for our health in the last generation. Some, however, are carnivorous, and impale caterpillars on their needle-shaped beaks. It was one of these that brought about the collapse of my Tusser-silk farm, when I started that industry for the first and last time two years ago. It
may seem incredible that a despicable brown bug, not half an inch long, should have the audacity to practise against the life of a silkworm as large as your little finger, in all its splendour of green and gold; but the circumstantial evidence was not to be gainsaid. There was the shrunken corpse of the splendid spinner, and there, close by, was the criminal form of the skulking sinner. And I sighed for the American invention which proclaimed instant death to potato-bugs, and was perfectly innocuous to all domestic animals. This preparation was sold very cheap, in small packets—which were not to be opened until required for use. When the customer opened the packet he found two square blocks of hard wood, on one of which were the directions for use:—“Place the bug upon this block and press firmly with the other.” Could I have placed those silkworm-murderers, one by one, upon the lower block, it would have given me uncommon pleasure to “press firmly with the other.”

It is not clear why I should be writing in December of an essentially monsoon plague. I was last at frogs, and perhaps the memory of their music took me back some months. Yet there is one large tribe of bugs which may be studied with advantage at this season, namely, the
water-bugs. The tanks are drying up, and in the dense weeds which crowd the stagnating water a skilful fisher with an old butterfly-net may make a good bag of villainous-looking water-scorpions and silvery "boatmen," with perhaps an occasional specimen of the Goliath of the race, three inches in length, and one at least in breadth of chest, with four vigorous oars to send it swiftly through the waters, and two muscular arms to hug the frogs and fish on which it feeds. It is not an inviting object to look at, any more than the rest of its kin; but, nevertheless, water-bugs are not to be classed with land-bugs, for there are two things they never do—they do not exhale vexatious odours, and they do not mistake the light of your eye for a candle-twilight, and like a hail-squirt of acrid drop out youtofindyour again with the in the dim darting into it stone, expression with a poison, and again, leaving way home other eye.
FOUR-FOOTED beasts are usually classed next to man and above the birds, on the ground of their superior organization. To express it in a manner worthy of the closing quarter of the nineteenth century, the "differentiation of function," or "physiological division of labour," is carried further in them. If this is as true as it deserves to be, then I hold that birds are amply compensated on the moral side of their nature, with respect to which they occupy a platform much above beasts. I mean that the current of their thoughts
and imaginations runs at a higher level, and the passions and emotions which work in their bosoms are more noble. The difference shows itself at every point, but for an example let us take the manner in which birds conduct their love affairs. Watch two beau sparrows, genteelly dressed in black neckties and white shirt-fronts, making advances to the same belle: Wherever she goes, they wait upon her, like a couple of Frenchmen, bowing and scraping, chattering fulsome compliments, and vieing with each other in all sorts of little attentions. Sometimes they do come to blows, but this is the exception; their effort is rather to excel each other in the arts of the drawing-room. She conducts herself in the somewhat trying situation with a tact and decorum which show how exquisitely modesty is blended with a due sense of her own worth. So much admiration and flattery beget in her no unseemly pride; nor, on the other hand, does she forget her dignity, and make herself too cheap. She tries to appear unconcerned, and picks up grains of sand, pretending that they are seeds. At last her choice is made, and she bestows her heart on one whose grace and gallant bearing have won it. Now look at the respectable sentiments so plainly discernible here and try to conceive any
four-footed beast being the subject of such. Or, again conceive an amorous quadruped pouring forth his passion in song. Every detail connected with birds and bird life illustrates the same thing. The art displayed in the nests in which they are cradled is as far beyond the thoughts of an average brute as the æsthetic advancement evidenced by the colours in which they are arrayed. Mr. Ruskin might be satisfied with the lives which birds lead. This superiority of bird over beast is admitted by the very way in which we use the words bestial and brutish. No man thinks of vilifying another by calling him birdish. But if it were not so evident as it is, I think there are à priori reasons for expecting the bird mind to be of a purer caste than that of the brute. The brute grovels above the ground, and the range of its vision is bounded by the grass and bushes among which it pokes its way. It leads a low earth-bound existence; it is a serf—a hereditary son of the soil. The bird upon the trees, or soaring in the sky, feeds its eye on the glories of the world stretched beneath it, and is constantly the subject of all those imperceptible but potent influences of scenery and free air which make the man of the mountains a being of higher thoughts and prouder traditions than the man of the plains.
But, in addition to all this, I am not afraid to put forward the proposition that birds have really more intellect than beasts. The most scientific way to settle the matter, of course, would be by brain measurement, and I am pretty sure that birds have proportionally larger heads than any animals in existence—except, perhaps, Scotchmen; but my opinion is founded only on ordinary observation and comparison. Taking the monkey, which I consider to be the most intelligent mammal, and comparing it with the parrot, which occupies a very similar place among birds, what a difference there is! In spite of all the acuteness of our four-handed progenitor, who would hesitate to give the palm for solid brain power to the parrot? A parrot commands your respect, because it makes you feel that it has a satisfactory reason for everything it does. Whether it is overturning its drinking-water, and peering over the side of its cage to see if the cold *douche* has taken effect on the head of the dog, or simply walking about examining the multifarious scraps strewed on the floor of its house, and pronouncing on their digestibility, or rasp-}

ing away any accessible woodwork, its proceedings are unmistakably the fruit of deliberate thought. Again, a parrot never forgets its dignity, and is in that unlike the
monkey, which has no dignity to forget. You never catch it indulging in contemptible pranks or vulgar tomfoolery of any kind, nor in unworthy grimaces and contortions of the visage. Nor can you make a parrot look small or appear put out, unless by pulling its long tail. That does, indeed, try it. And all this is true, not only of caged parrots. The wild ones are constantly about my house, either chewing neem seeds, or exploring the roof for nesting quarters, or dealing at leisure with ears of j warree obtained in the neighbouring field, and I find them the same judicious birds as Polly. There is one on a rafter of the verandah at this moment. He has nothing particular to do, and is taking my measure with one eye, which gives a fine view of his side face—a disc of vivid green, ornamented on one side with a coral-red beak, half buried in comfortable black whiskers, and on the other side marked off from the neck by a narrow black collar, bordered with delicate pink. In the centre is that reasonable black eye of which I am the cynosure. I do believe he is counting my buttons, and considering whether it would be practicable to nip them off. Yes, the parrot is a sagacious bird.

So are the mynas, which pace the verandah making quaint remarks, especially one with bells on its feet, which
belongs to the butler. When he calls it, it flies to him and settles on his head; and when I call it, imitating the butler's voice as well as I can, it winks at me and says "Walker." I think mynas share with crows the second place after the green parrot. They have not its solid faculties, but they are as 'cute as Yankees. It is a question whether the king-crow equals these in intellect, but he leaves the whole bird tribe far behind in originality and force of character. Wherever he may be, he takes the first place as a matter of course. His jovial spirits and easy mastery of the situation are equally irresistible. He does not come into the house, the telegraph wire suits him better. Perched on it, he can see what is going on, and keep all the other inhabitants of the compound in order. He drops, beak foremost, on the back of the kite, levies the tribute of a feather from the passing crow, and jeers the blue jay as it goes rolling by, like a ship in a heavy swell, with a lazy flapping of its rainbow-coloured wings.
OUTWITTED.
Anon he spies a bee-eater capturing a goodly moth, and, after a hot chase, forces it to deliver up its booty. Should the skulking figure of a mongoose show itself, the stirring tones of his voice will rouse every bird in the garden, and send the abashed criminal helter-skelter back to its hole, under a perfect storm of public indignation. He is prudent, however, as well as dashing, and lets the Satbhai, or “Seven Brothers,” alone. They are too shrewd and knowing to be made fun of, and there is a clannishness among them which makes them dangerous. Among themselves they will quarrel by the hour, and bandy foul language like fishwives; but let a stranger treat one of their number with disrespect, and the other six are in arms at once. The Satbhai see as far through a stone wall as any birds, and the recollection of how they outwitted me about their nests when oölogy was my mania, keeps me humble to this day. They positively set up a fictitious nest for my benefit, and broke into a guffaw as they saw me climbing the tree. Each Presidency of India has its own branch of this strange family. Here they are brothers, and in Bengal they are sisters; but everywhere, like Wordsworth’s opinionative child, they are seven.

These are a few, but only a few, of the birds; and if
others have not the same intelligence and character, they all have merry voices and an unfailing supply of good spirits, and this makes them the best of neighbours. What an intolerable dulness would settle down upon the place if the eternal wagging of their little tongues could be stopped! There is the hilarious bulbul plucking unwholesome berries, and the turtledove, in the middle of the road, cooing its devotion to a modest maiden, and the robin—not redbreast—cocking its tail over its head with a melodious observation, and the plain tree-warbler, ever saying tick, like "grandfather's clock," only at longer intervals. There is also the golden oriole sometimes, and the harsh shrike always, and the diminutive sunbird gleaming with purple and green radiance, and earnestly twittering his feeble song as he explores the flowers for nectar, or collects scraps for his nest. The nest, which hangs from the end of a drooping bough, is intended to pass for a bunch of miscellaneous rubbish entangled in the remains of an old cobweb, and it will pass for that with most people. Clear and loud above all the voices of the concert sounds the to-whee, to-whee, to-whee, of the tailor-bird, a most plain-looking little greenish thing, but a skilful workman and a very Beaconsfield in the matter of keeping its own counsel. Aided by its indus-
trious spouse, it will, when the monsoon comes on, spin cotton, or steal thread from the *durzee*, and sew together two broad leaves of the laurel in the pot on your very doorstep, and when it has warmly lined the bag so formed it will bring up therein a large family of little tailors, without giving you the least intimation of its proceedings. At present it is burdened with no such cares, but still it is always busy, hopping from bush to bush, and prying with its sharp eyes for spiders and little green caterpillars, from morning to night seeking the means of its livelihood, with just enough of motion and excitement in the work to banish thought! It would be difficult to conceive a healthier or happier life, where the power of thought is small.

But, perpetually happy as a bird is, it is familiar with narrow escapes, and never knows what an hour may bring forth. How often, when all is going merry as a marriage bell, does the shrill cry of a watchful rat-bird give warning that death is at hand, and its fellows dart for their lives into the grass, the little birds of all kinds rush into hiding, the bush-quail lies still as a stone, and the parrots are away on the wind, leaving a chain of shrieks behind them. Then, silent and swift, the hawk glides up, perches on a branch,
and glares about it; for a minute or so it waits to see if any silly bird will leave its shelter, but a hawk's blood is hot and its patience small, so it is soon away to try a surprise elsewhere. No sooner is it gone than a rat-bird puts out its head and whistles, and in half a minute all is as lively as if nothing has happened. Birds are light-hearted things.
THE BIRDS AT THE MANGO TOPE.

January.

IS the ride of the station. In a country where, look in what direction you may, the eye meets one unvarying expanse of plain, scantily c'othed in the yellow traces of last monsoon's verdure, and dotted with scrubby babul-bushes, it is certainly a grand idea that giant mango-trees should collect into patches, and have under them a well and a small temple. These patches, it is true, are like angels'
visits, but where there is one all the country knows it. And, indeed, what would the country do without it? Where would the dusty wayfarer stop to eat his midday *chuppatte* and drink a draught of cold water, or where would the collector pitch his tent? Into the dark *penetralia* of that pleasant resthouse the sun has not for ages forced his way, and a perennial coolness broods there. No one can tell you now who built the small chapel and planted the tope, nor what wickedness it was that he thought thus to expiate; but his was a misguided penitence, I fear, for he has taught future generations to be grateful that he sinned. However, I would judge him in no illiberal spirit. Whatever his motives may have been, estimate him by his deeds, and he ranks, I say, with those other two great men who have been through the mango-tree lasting benefactors of their race. I mean that Pires and that Alphonso, whose names seem to have come down to us in the luscious *beiric* and the delicate *afos*. I yield to none in reverence for these names. I would not lend a book to the man who refuses a Bombay mango. At the same time I think it is a question whether the stunted timberless tree which produces the luxury of Bombay has gained or lost in its descent from the veteran of the tope, with its trunk, ten feet in girth, towering towards heaven.
like "the mast of some great ammiral," and its wealth of shade and coolness. To the unsophisticated ryot it is no question. He conceives that cultivation could only emasculate the pronounced flavour and firm fibrous texture of that prince of fruits, the wild mango, likest a ball of tow soaked in turpentine. The parrots are of the same mind, and competition is so keen between them that all the hot season a big-turbaned urchin of preternatural powers of throat and lung is appointed guardian of the tope. Like Mr. Onoocool Chunder Mookerjee,* he is "filamentous" as to his limbs, but his middle part is unduly distended, and this convicts him in my judgment of living on the green mangoes which it is his duty to guard. But let him pass. At this season our ears are safe from the irruption of his frenzyed yells, and our lives from jeopardy by his sling-stones.

The road to the tope is what the natives call a sudduk—that is, a layer of dust more or less deep, generally more, and just wide enough not to allow two bullock-carts to cross. It lies over a barren plain, with here a cotton-field, and there a stubble-field, but all the way the keen morning air is astir

* The reader is earnestly advised to procure the Life of this gentleman written by his nephew, and to read it.
with the voices of the birds. To my mind the birds are half the scenery everywhere, and more than half on an Indian plain. The view addresses the eye, and the birds address the ear, and the two should work together. The man whose ear is untaught to enjoy the harmonious discord of the birds, walks alone when he might have company, and loses half the joys of travel and change of scene. In the pigeonholes of my memory many a glorious gallop over the plains of the Deccan is tied up in the same bundle with the joyous outpourings of the skylark, and the long whistle of the black-breasted lark, as it rises and falls again with closed wings, and the monotonous voice of that strange bird which flies a few feet up into the air, and then spreads its rufous wings, and comes down like a parachute, revolving slowly as it descends. The loud wranglings of the satbhai are there too, more clamorous than usual. I suspect an eighth brother from some disrupted family has fallen among them. If the crops were still uncut there would be the chattering of a thousand jowaree birds or rosy starlings, broken by impotent execrations from the muchan* in the middle of the field; but the crops are cut, and I do not know where the jowaree

* A high platform from which a man watches the field.
birds have gone. Death is at work too, for many a blue-grey harrier comes over the hedges and across the fields, gliding on its long black-tipped wings as if that easy motion were its normal state—its *inertia*. It is the feeblest of the hawk kind, but gifted with a miraculous power of stopping in full flight, and dropping like a drop of rain on a young lark or incautious lizard. The kestrel is plotting against the same feeble folk, but it is up in the air, and motionless as a cloud on a hot day, save for the rapid flapping of its sharp pinions. If you are out with the sun, as everybody should be in India, you will certainly meet the guilty jackal on his way home, and he will sit down, with his usual impudence, to look at you. The little foxes stay out gambolling till a much later hour, and the jerboa rats, whose holes have riddled the ground like a nutmeg-grater, come out and sit up on their hind legs, pretending to survey the country. It is all a sham. Rats cannot see any more than rabbits, and would have been extinct long ago but for their sharp ears.

But my trusty steed, Sir Richard, pricks up his ears and quickens his pace: we are drawing near the tope. When a horse goes out, it likes, just as much as its rider, to have a definite *terminus ad quem*, and there is none better than
a mango tope. It is visible a long way off, and audible too, for it resounds with the screams of the green parrots, as they wheel in circles round it, or all, with spreading tails, settle at once on the topmost twigs, a spectacle of inimitable grace. There are no mangoes now, but this is the breeding season with parrots, and in the gnarled boughs of an old mango-tree there are always holes. For the same reason mynas seek the tope, and the "blue jay," so called, and the little green "copper-smith" hooting ventriloquistically. This does not exhaust the list, for, as you pass under a large tree, a very round face, with the expression of Mr. Punch, looks out of a hole, and then a little spotted owl flits silently to the lowest bough of another tree. In two seconds it is joined by another, and there the two sit and bob their heads and stare at you, and go through a pantomime which would ruin the reputation for sanity of any other bird than an owl past all redemption. I am sure there is some mistake about this spotted owl. The owl proper of the poets is distinguished for solemnity: this is a madcap. Tennyson's owl sits alone and warming his five wits; this sits in twos and has not five wits to warm, or I am much mistaken. Shakespeare's owl sings to-whoo, and likewise the one that Wordsworth's
idiot boy took for a cock; this squeaks and jibbers like a ghost in the Roman streets. Yet it is impossible to get rid of the impression that the spotted owlet is not such a fool as it looks. Let us say it is eccentric. In this same tope there is, however, though it will not let you see it, a bird or feathered spectre of some sort, which fully restores the owlish reputation, for it out-owls (no pun) every owl. Its voice carries melancholy to a depth of abysmal dolefulness which the ear must hear before the mind can image it. What a power of conceiving unutterable anguish must lie in the bosom which can express itself so! The natives say the devil is in the bird, and they will not go near the place at night.

The tope has on one side of it a sort of suburb of bore and babul-trees, mixed with a little scrubby underwood, and this affords shelter to some birds which could not find sustenance or a congenial habitation among the mango-trees. For instance, there is that ungainly object the coucal, crow-pheasant, jungle-crow, or whatever else you like to call the miscellaneous thing as it clamours through a creeper-laden bush, or spreads its reddish-bay wings, and makes a slow voyage to the next tree. To judge by its appearance only, it might be a crow developing for a pea-
cock, but its voice seems to have been borrowed from a black-faced monkey. There are some strange oddities among birds. This same crow-pheasant has a second or third cousin called the *koel*, which deposits its eggs in the nest of the crow, and has its young brought up by that discreditable foster-parent. Now, this bird supposes that it has a musical voice, and devotes the best part of the night to vocal exercise, after the manner of the nightingale. You may call it the Indian nightingale, if you like. There is a difference, however, in its song, the burden of which seems to be *who-are-you, who-are-you, who-are-you*, while the tune is a crescendo scale running right through the compass of the bird’s voice. When it gets to the very top of its pitch, its voice cracks, and there is an end of it, or rather, there is not, for the persevering musician begins again. You may wonder what pleasure it finds in this, but why should any one conclude that it is seeking its own pleasure and not rather ministering to ours? Does not the Maratha novelist, dwelling on the delights of a spring morning in an Indian village, tell how the air was filled with the dulcet melody of the *koel*, the green parrot, and the peacock?

I must pass by the rosy-breasted little minivet, with its
bevy of plainly-dressed wives; the paradise flycatcher, with half a yard of white satin ribbon for a tail; the too noisy grey partridge and the screaming pied cuckoo; and many more, for now the sun is getting hot. A warm ride home, a cold tub, and a breakfast qualified with no other stimulant than high spirits and good tea: this is the receipt for keeping mens sana in sano corpore through the day. Experto crede!
HEN I go to the tank I am generally on murderous thoughts intent. I go, therefore, gun in hand, with my *aide-de-camp*, the sagacious Hubshee, at my heels.

He is called the Hubshee (*videlicet*, Abyssinian), I may say parenthetically, because his curly coat is as black as King Theodore. Readers of *The Field* have had abundance of instruction lately about the way to suit yourself with a gun. You are to go to your gunmaker, and try a dozen or two of guns, until
you find a weapon that fits your figure, then experiment with it before a looking-glass, or fire at a target, and if the result is not satisfactory, send it back to your gunmaker, and have the stock made shorter or longer, straighter or more crooked, until the fit is perfect. There have been also plenty of directions (mostly contradicting each other) about the using of the gun: how to hold it, how to aim, how many of your eyes to shut when you fire, &c. We go about things in a different way in India, at least we have done so since the pagoda-tree withered away. Instead of repairing to "our gunmaker," we mount our nag and find our way to where the broad signboard of ——jee ——jee, Europe Shopkeeper, Auctioneer, and Commission Agent, spreads itself before a dilapidated museum of secondhand tongas, perambulators, tents, and tatoos, and there we contend with the bland Mr. ——jee for the gun which Lieutenant Smith, ordered off to Kandahar, has left to be sold for whatever it will fetch. Bearing our prize home, I do not say that we consult our chum as to whether the powder or the shot should be put in first, but we pick up knowledge where we can find it, and the griffin, who perhaps never handled a gun until he came to India, may in a wonderfully short time have developed into a keen shik-
aree and bold tiger-slayer. Instead of having the stock altered to suit us, we contrive to suit ourselves to the stock; and as to those knotty questions about holding the gun, shutting your eyes, &c., if all such matters do not come to a man of themselves by the time he has blown away three or four thousand cartridges, he may as well sit down at once and disabuse himself of the notion that nature designed him for a Nimrod. If our method is not very scientific, the deficiency is atoned for by practical success. Few countries have produced more renowned shikarees than India. Here in Dustypore the mutton-butcher is said to be filing his schedule in the Court for the protection of insolvent debtors.

To return to the tank: it seems doubtful whether we shall get there. Not being so green as I was, I let the tempting herd of antelopes pass, but the kullum I cannot resist. They are feeding in thousands at the other end of a large field, and to reach them it will only be necessary to crawl round behind the hedge for a quarter of a mile or so. The hedge is about a foot high, so my gait must be that to which the serpent was doomed—and this to a man by nature six feet high is exactly the opposite of otium cum dignitate. But what will one not do, with roast kullum
looming in the vista of the future? The only serious difficulties are two wide gaps in the hedge, where there are only three blades of grass and a small stone to shelter the stalker, and, having successfully negotiated these, I go on swimmingly up to the corner of the field, within five minutes' crawl of my goal, and then discover, for the first time, that a small party of kullum are on my side of the hedge, and will see me the instant I turn the corner. It is clear I should have gone round the opposite side of the field—and nothing remains but to do so now. I know no way of putting down upon paper the tedium of wriggling along the ground on your belly for a quarter of an hour, and then wriggling back to your first point, for the sake of starting on a fresh wriggle in the contrary direction; but if I did, it would do no good, for the reader would still be as far as ever from realizing the peculiar sensations with which, at the end of it all, you take in the fact that the kullum are not, as you thought, thirty yards from the hedge, but about a hundred and thirty, and that you have got nothing for your pains but lumbago. It only exasperates my temper to lie and watch them moving slowly about in all the gracefulness of their long drooping plumes and silky-white ear-tufts, so I rise and show myself, and in
a moment, with that clamour which a thousand kullum can raise, they are up and away, gradually falling into the figure of a V, each limb of which seems a mile or so in length.

Late as it is I must go on to the tank, for before starting I magnificently told my "boy" to bring no bazaar to-day. The tank is not far, and soon I hear mingled voices and much quacking. Each kind of duck has its own notion about tanks. Among the rushes of the far-reaching sheet of shallow water, where countless teal and pintails revel, you will not hear the whistle of the genteel little widgeon, and where you shot the splendid spotted-billed duck in January there will be only the gaudy vulgar shoveller in March. This tank is just now the fashionable resort of the gadwall and the pintail, and, as these are two of the commonest (and most savoury) duck in the country, it is indeed "a sight for sair een." On each side there is a bund crowded with babul and dense bushes, so it is possible to lie in ambush and get a quiet view of one of the most wonderful scenes of busy life to be seen anywhere—the duck jostling one another for room, some swimming peacefully in the deep water, but most in the shallow parts, reaching down their beaks to the muddy bottom until nothing
appears above the water but a dense squadron of pointed tails, the spoonbills trotting in solemn line, and moving their heads from side to side, the shrill-toned greenshanks mingled with stilts and sandpipers and godwits round the margin, the ibises, the herons, grey and white, the pelican-ibises, or "beefsteak birds," the storks, all engaged in a general scramble for breakfast, with a Babel of grunttings and snortings, quackings and croakings, screamings and pipings, that would need for its description the vocabulary of the poet who tells "how the waters came down at Lodore." Away on the other side there is a mighty fleet of snowy pelicans majestically sailing on the water, and many more are basking on the bank.

If all these were only birds, and not game, I could lie and contemplate them by the hour. As the case stands my pleasure at the sight is alloyed with a sense of incompleteness or imperfection. While those duck are still on the water, they seem to come short of their end, which obviously includes some reference to my dinner to-night. And how to bring that end nearer is a question with as yet a very dim answer, for there is not a bird within range, and if once I show my head above the bank, some wary watchman will give a warning which all the rest will under-
stand. This perplexity however does not last longer than till the moment when some turn of events gives a chance for the first shot. Then, with a tumultuous hubbub, the whole company rises, and, while the rest disperse, the duck keep wheeling round and round with amazing speed. It is a case of load and fire, load and fire as fast as a breechloader will. The judicious Hubshee sits wondering what all the fusillade is about, and with some reason, for, if the truth must be confessed, I find that duck have a most unaccountable way of not coming down when shot. When at last a graceless shoveller falls with a splash, he is in after it, and though it has life enough left to try a dive, the gallant dog comes of too good a stock (his father was the peerless Kootab-un-deen) to relinquish the chase until he has pulled it out by a foot, and safely deposited it on the grass. He does not stay to mouth it, but plunges into the water for the next and the next. In a few minutes all is over. The duck have gone off to other tanks, and nothing remains but to realise the bag. If this includes bringing to book a wounded gadwall, it may be the chief part of the morning’s work. The bird will take three charges of No. 5 with the utmost complacency, and then, when it thinks the thing is becoming monotonous, it will disappear in open
water before your eyes, like a Cheshire cat, leaving a ripple instead of a grin. The Hubshee is checkmated now, but I have another ally, whose deep brown form and white forehead I see afar as it comes gliding along by the reedy margin of the tank in search of a basking frog. It is the marsh harrier, which thoughtless people shoot at because it is too fond of carrying off a wounded teal when it can. I discovered its value some time ago, and have encouraged it since. Suddenly its sharp eyes discover something among the rushes about thirty yards from where my gadwall vanished. It comes swiftly down, and drops on the spot. A loud quack and a splash! It rises, circles slowly round, and again plunges among the rushes at another place. A third and fourth time it does the same, and then it does not rise. The diving powers of the poor duck are exhausted, and it is safe in the talons of the hungry harrier. I have only to go round and put him up, and seize my booty, which has just enough of life left to allow Peer Khan to make it halal, by cutting its throat in the name of Allah, and dividing the webs of its feet.* Poor bird! It seems a cruel end to come to. Yet the cruelty

* See Leviticus xi. 3.
is mostly in seeming. A near acquaintance with living creatures enforces the conviction that sorrow and suffering, as we know them, scarcely have an existence in the animal world; while happiness, the pure joy of mere existence, bubbles up and flows on in an unintermitting stream. "The sense of death is most in apprehension," and from this the poor beetle that we tread upon is wholly delivered by a merciful want of imagination. It knows of nothing except the physical pain which accompanies death, and knows of that only while actually enduring it. Without doubt, being torn to pieces by a tiger is to a wild animal a fate less dreadful than to succumb slowly to fever or old age; and, looked at wisely, it is a cheering thought that, of the many birds every sportsman inevitably wounds and leaves to die, few indeed will escape from the host of rapacious enemies ever on the watch to put them to a short and sharp, if a bloody, end.

Fear also has very little effect in distressing animals. Hairbreadth escapes do not take away their breath. A miss of an inch is quite as good as a mile to them. I had a tame hare which would be thrown into such a panic of fright by the rustling of a piece of paper, that it would almost dash itself to death against the sides
of its cage; then suddenly it would stop short and nibble at a piece of bread.

To return once more to the tank: it is strange how little all the shooting concerns those birds which know they are not game. The coots and dabchicks are sailing peacefully about, the splendid wire-tailed swallow is skimming along over the water, the speckled kingfisher is hovering high in air, as if nothing had happened, and every few minutes dropping like a stone upon some fated fish. The strange bottle-nests of the weaver birds, hanging in dozens where the babul-trees droop over the water, seem to add to the peacefulness of the scene, deserted as they are now by their chattering proprietors. In grim contrast to the whole, upon a low boundary-mark in the background sits a huge imperial eagle, bolt upright, and almost too proud to get out of the way for me. All through the season and for many seasons that has been its morning station, and on the ground around it are strewn bones and large white feathers of herons or spoonbills, with a few bright rosy plumes which may have adorned a luckless flamingo.

While I was contemplating all this, suddenly there was a rushing sound in the air overhead, and a flock of duck came down with such lightning speed that no gun could
have followed them, and tumbled like a storm of hail into the water—all but the last. It checked itself, and with a most graceful curve glided up to the top of a small tree and sat there, and lo! it was a hawk, the peregrine falcon, the most bloodthirsty of all the wild duck's foes. It can do nothing now, unless I with my gun force them to leave the water again, and, humanity apart, I have too much respect for my own feelings to do that.

Now, lest sporting Bombayites choke the columns of the Times of India with inquiries regarding the whereabouts of Dustypore, its proximity to the line of railway, and the best way of getting to the tank, I think it proper to say that Dustypore is almost everywhere, and the particular tank I have described is nowhere. It is purely a figment of my brain, constructed of materials drawn from a multitude of actual or possible tanks. The materials are genuine—I did not make them; but they are the cream skimmed from much whey of unsuccessful toil and curds of disappointment. If anybody thinks to inherit them by the simple process of taking a ticket at the Byculla station, why, he is mistaken. I could describe the sort of tank he will get to, and his possible experience there, but nobody would read the account.
N.B.—I have applied the word *kullum*, as everybody does, to the demoiselle crane, which, however, is not properly the *kullum*, but the *koonja*. 
MAY be those who will argue that you might as well call our Aryan brother himself a frontier tribe as the domestic moorgce; but I do not see the parallel. I regard the moorgee as an aborigine. If you were talking of cumbersome brahmas, or shapely Dorkings, or other artificial productions, the argument might stand; but what have these to do with that little game bird on which Europeans in the district mainly subsist—a small brown creature with a very large tail which catches
the wind like a sail, with plenty of feathers and no flesh, and weighing about three-quarters of a pound? In calling it a game bird I do not mean that sahibs shoot it, for it lives much about villages, like the peafowl in Guzerat, and its semi-domesticated habits almost preclude its being shot for sport; but it is much hunted by Goanese and Madras cooks, who pursue it with stones and short sticks thrown boomerang-wise. It runs amazingly and flies well, and affords excellent sport. It cannot be said to have a high game flavour; in fact, it has a decidedly low flavour, the result of vicious tastes.

I once used to keep a stock of these birds as a substitute for domestic fowls, but I have given them up. I cannot stand their ways. It is not that they will eat all you give them, and hang about the cook-house for scraps besides, yet absolutely refuse to grow fat; it is not that when they do, once a quarter, contribute to your breakfast nine or ten muddy-coloured eggs, and you essay to try one, you have to institute a search with your spoon in the depths of the egg-cup for the minute globule; it is not that when you do obtain it, it is redolent of garlic and wild flavours. It is none of these. The last straw which breaks the camel's back of my patience is that, as soon as she has produced
half a dozen or so of these things, the indigenous moorgie is seized with a violent ambition to hatch them. From that time forth she will appropriate other hens' eggs wherever she finds them; in default of these she will incubate a corner of the hen-house, and, if you shut her out, she will sit dhurna at the door. Plunging her into water five times a day does not damp her philoprogenitiveness. The cook sticks a long feather in her nose, and, when she has worn the ornament for a few weeks, it is supposed to turn her mind off incubation. Even the moorgie, however, is acted upon to some extent by good upbringing and generous fare. It improves her size, and gives her a comfortable motherly look quite foreign to the bird in its natural state. I keep a few of these civilized specimens for hatching and rearing purposes. Pedro, the cook, also maintains a small establishment of them on his own account, and, so far from suffering by my competition, he seems to reap a double advantage from it. In the first place, his fowls cost him nothing for food, and, in the second, explain it how you will, the chickens he rears have all the qualities of my best hens. It does seem strange that the offspring of a skinny little dirt-coloured moorgie should be the very image of a Dorking just imported from England, the pride of my poultry-
yard; but I suppose it is a sort of *lusus naturae*. Another phenomenon is that, if I, growing suspicious, issue an edict that he shall not keep poultry in my compound, nine begin to die off. Bowing to the inevitable, therefore, I make a compromise, permitting him to keep a limited number which are hostages for the health of mine. If a wild cat commits ravages night after night among my poultry, choosing, with the eye of a judge, all the best birds, and carrying them off silently, without leaving a feather to mark its course, then I hold a Naval Demonstration at once, firing off a prodigious amount of blank cartridge, to the effect that by this time to-morrow not one feather of the cook's stock shall be seen on my premises. At once the wild cat discontinues its visits, and things go well again, and Pedro's poultry are not banished.

Thus it comes about that in my compound there is rather a mixed population. The time to make acquaintance with them is early in the morning—when Pedro emerges with a platter full of grain, and, standing in an open place, cries, with the voice of a herald, *Ah, Ah, Ah!* The stirring cry of "house on fire" in a great city has not the magic power of those three syllables in a poultry-yard. The fat foreign hen starts at the sound, and runs faster
than is good for her; the lean native fairly takes to her wings like the guinea-fowls; the ducks tumble along with a great deal of both leg and wing action; the portly turkey trots like a baggage camel; the pigeons come down in a cloud; and, at last, the sitting hen leaves her very eggs and rushes out with much ostentatious clucking. Even Impudence, the kid—while yet he was—knew the sound, and scampered down, his long ears dancing, to pick up grains of gram. Not that I feed my fowls on gram; if they are to be fed on any one grain, let it be paddy; but there is a mixture, consisting of the sweepings of the threshing-floors, sold under the name of mattra, and where this can be had I recommend it. It is cheaper than any single kind of grain, and contains a variety which is most wholesome. The pigeons find among it moog and mut, the peas that their souls love; the fowls can have their choice; while for the young chickens there is bajree, with other small grains. So they scramble like children for sweeties, hitting one another, roaring out when hit, or passing it on; and all the while feeding against time. The master of the ceremonies is that red kullum cock, named the Sergeant. The kullum, or game fowl, is the only breed—in this part of India at least—to which any attention has been paid;
others grow, like Topsy; but cock-fighting Mussulmans have really brought the *kullum* to great perfection. And the Sergeant is a *kullum* of the *kullums*. He is commonly considered hideous, for he is "caviare to the general," and it requires an educated eye to discern his beauties. He stands twenty-five inches high, and a plummet from his chin would drop on his toes. His head is very red, with a fleshy knob for a comb, his deep-sunk eyes are fiery, his legs are very pillars of Hercules, his covering is more like fishes' scales than the plumage of feathered fowls, and so scanty, that after dinner it parts in front and displays a patch of naked redness, but it shines with the richest purple gloss. I could make my fortune by betting on him but that he suffers, aristocratic bird that he is, from gout; for I do not believe he ever turned his back on a foe. Fear is a state with which he is not acquainted. When he is pecking at a bone, the Hubshee looks on from a distance and breaks the Tenth Commandment, but dare not touch the bone. When the kid thrust his impudent nose into the grain-dish the Sergeant smote him between the eyes. But the most striking feature of the noble bird is dignity, that inalienable dignity which is an inheritance. Being unable to compete at feeding-time with the more nimble chickens
he comes to the back door for his special allowance, and waits like the *chupprassie*; only his martial figure is not to be mistaken for that slouching satellite, and he does not cough to attract my attention; he just stands and commands respect. If you offer him anything, he advances and accepts it like a gentleman. He seems to weigh about half a *maund*, weight of character included.

To descend to meaner things, there are some comely Bussorah fowls, large and deep-bodied, with bright eyes and crested heads. These are the main body of my establishment, for my experience is that, from a utilitarian point of view, no hen obtainable in India compares with the Bussorah. The *kullum* is tasty after death, but during life it is quarrelsome and delicate. English fowls succumb to the climate. Bussorahs are strong and healthy, flourish in dust and heat, lay *eggs*, not homœopathic pilules, and do not insist on hatching them. In point of mind and character they are like all other fowls, stupid and devoid of individuality, each one a copy of the rest. The chief exception, after the Sergeant, is Marco Polo, a sprightly chicken of four months, which from i's very infancy has displayed a most ardent passion for travel and exploration. In the heat of the day, when others are resting open-
mouthed wherever they can find a little shade, it is away in some distant corner, making discoveries amongst the roots of the prickly-pear hedge, and late in the evening, when the rest are in bed, it returns from a long expedition in the fields. I only fear that its adventurous little spirit will bring it to an untimely end some day in the den of a jackal or a mungoose.

This reminds me that, whether the inhabitants of the poultry-yard are themselves a frontier tribe or not, they are a cause of the presence of some most pestilent borderers. When I surprised the vagabond jackal one morning loitering about my premises without visible means of support, could there be any mistake about its intentions? And though the mungoose, about which all the hens are making such a cackling, trots innocently away, bent on nothing in particular, was it equally objectless when the hen who had ten chickens yesterday, and has only nine to-day, first noticed its red nose and snaky eyes peering over a tuft of grass?
The difference between the jackal and the mongoose is this, that the former is a tramp, who takes in hard times to highway robbery and dacoity, while the latter is a professional thug; and I prefer the former. His open assaults, whether by day or by night, are easier to meet than the systematic plots of the cold-blooded cutthroat which murdered two of my rabbits in one afternoon. Happily for us, the horrid lust for blood easily drives it to its own destruction, for, when surprised and compelled to leave its booty, it cannot rest, and if you lie in ambush, with your gun, near the "kill," you will not have to wait half an hour ere it returns to drag the carcass home to its hole under a bush. A third enemy more omnipresent than either the jackal or the mongoose is the pariah kite. Sailing in easy circles, it pretends to be in quest of dead rats or scraps of kitchen refuse, but its eye is on a hen which is busy scratching the ground, with her numerous brood, still in downy infancy, gathered about her. Suddenly it half closes its wings, and, swooping like a whirlwind, passes so near the astonished hen that it blows her almost off her feet and clean out of her wits. She picks herself up, but not her wits, and is away in frantic pursuit of the kite amid the piteous screaming of her forsaken chicks, the
panic of terrified fowls, and a most horrid roaring of servants rushing from their rooms to the rescue. But by this time the kite is sitting on her nest, parting the limbs of the miserable chicken among the grape-mouthed little harpies that are worth all the rest of the world to her.

I do not make pets of fowls. As I have said, there is not stuff in them for that. Still, quite apart from vulgar uses, it is pleasant to have a large establishment of dependants about you, looking to you for protection and maintenance. It imparts a certain patriarchal, Abrahamic magnificence to your conception of yourself. Modern radicalism may affect to dispise mere externals, but I am a disciple of Herr Teufelsdröckh. If life were stripped of its clothes, who would have it?
THE WHITE ANTS.

March.

THOUGHT I had gone nearly through the list of our pests, and have been fondly giving the rein of late to that pleasing disposition which delights always to look on the bright side of things, and now I find narrow, tortuous tubes of mud showing themselves at certain strategic points on the floor and walls. The arch-scourge of humanity, the foe of civilization and blight of learning, the Goths, Ostrogoths, Huns, Vandals of Indian life, are preparing for their summer campaign, mustering their hordes, and going forth to sack our libraries, ravage our museums, desolate our
godowns, and eat our boots. I had forgotten them, but they had not forgotten me. Is it not always the way? If we could always remember, or they would sometimes forget, things might be different; but in a moment of remissness the heavy book-box is laid down in the verandah, and we forget it for a week or two. This was all I did, and now!—"Forbes's Manual" has lost its boards, two long tunnels traverse the "Bagh-o-Bahar," and though the "Penal Code" looks all right from without, open it, and a yawning chasm stretches from Culpable Homicide to an Unlawful Assembly. Worse than all these, the binding is eaten away from the back of Kinglake's "Crimea," and the intelligent hamal, who used to turn it upside down with such faithful regularity, has nothing left to guide him.

Where do these destroying hordes come from? Is the common theory of geology all wrong, and do the bowels of the earth really consist of a seething mass of white ants? On these and all similar questions the prevailing state of the public mind is a state of ignorance, for these consistent evil-doers do so abhor the light that any experimental acquaintance with their internal economy is unattainable. What is known amounts to this, that if you put anything on the ground in India, except teak-wood or glass, you
presently find it covered with an earthy crust. If you scratch that off, you find underneath it a swarm of little yellow animals, blind, bigheaded, armed with strong jaws, and affording a most wholesome and nourishing food for young guinea-fowls. When uncovered, they manifest the keenest distress, and rush into any shelter they can find.

In the meantime everything that finds them, from the black ant upwards, kills and eats them *pro bono publico*. It is also known that these same creatures raise hills several feet high, and in form like miniature volcanoes, with the principal crater in the middle, and a network of passages all through, and that if you dig under one of these hills you find an animal as big as a sausage, and so fat that her legs have long since been lifted off the ground, and she cannot walk. Nevertheless, she seems quite contented, and kills time by producing eggs, as someone claims to have ascertained, at the rate of 80,000 a day. Another point on which we have attained certainty is that sometimes, especially on a monsoon evening, the volcanoes are in
eruption, belching forth for lava and ashes a column of winged creatures two or three times as large as common white ants, and quite the opposite of them, being soft and effeminate, with good eyes, but second-rate jaws. It also admits of no manner of doubt that, if you have a dinner party that evening, these creatures are guided by some infallible instinct to the lights at your table, and while some perish in a holocaust, until the guttering and spluttering candles are bristling like bottle-brushes with their wings, others leave those useless organs in your plate, and crawl in a very naked, helpless state among your food, wading especially about the gravy.

These are the facts. Upon the foundation of these, and with materials drawn from bees and ants, if you have the scientific faculty, you may found probable hypotheses, and probable hypotheses are rapidly coming to be recognized as the real substance and body of all true science. You will discern, for instance, that the hard-headed little miners correspond to the worker bees, while the winged things are properly-matured insects going out to found new colonies. Then the portentous monster which you dig out from under the hill evidently answers to the queen among bees. This receives collateral support from the well-known fact
that in Africa, Cetewayo's wives—and, indeed, all queens—are found to be very fat. Theories so plausible as these are always admissible until contradicted by facts, and I admit them, though in my scientific creed a rank sceptic and rationalist, doubting even my own evolution from bathybius vitellus the anthropoid ape. At the same time, I have never been able to see where the new colonies are supposed to be founded. Emigration is an excellent thing, but I suppose there must be some country to emigrate to before its advantages can be developed. Now, in a land whose soil is three-fourths white ants and one-fourth earthy matter or stone, where is the new colony to settle? in the interstices between these already in possession? Then, again, as to those pioneers going to found new colonies: they mostly go to fatten the birds. I remember sitting with a friend and watching them one fine monsoon day, as they issued from a hole in the ground. The hole was so small that they struggled out with difficulty, one at a time, though a number of sturdy workers were behind pushing them. At first a lizard was posted at the mouth of the hole, and licked them up as they came out, but we drove it off, and mounted guard ourselves, to see fair play. Every post of vantage on the trees around was occupied
by a king-crow or one of those strange birds the swallow-shrikes (*Artamus fuscus*), which happened to be common at that place. As each young adventurer drew itself through the narrow gateway, arrayed like a bride in its long gauze wings, it bade a tearful farewell to the friends of its childhood, and, rising upon the breeze, started upon the voyage of life. I do not know what rosy hopes were at that moment blushing on the horizon of its young life, but a king-crow shot from his station and wiped them all out with one loud snap of its beak. In half a minute a second rose on its feathery wings and sailed away towards the sky, until a swallow-shrike seemed to glide over it, and it disappeared. No beak snapped this time. The bird just swept past with open mouth, and the ant was not. My friend professed to hear a soft *thud* from inside the bird, but I heard nothing. Thus, one after another, each in happy ignorance of the fate of its predecessors, they went forth to seek their fortunes, and the fortunes of all were the same. I doubt if a single one came to a happy end.

Here am I, under the influence of a weak pity, talking sentimentality about the death of white ants. What strange creatures we are, and how seldom we can make room for
one right feeling without turning out another! To one whose sympathies were properly adjusted, what could give a truer and profounder satisfaction than the sight of so much potential mischief being nipped in the bud, such a rolling river of future destruction being staunched at its very fountain-head? Now that I think of it, what a crop of wholesome and righteous feelings I might have raised many a time while watching such a scene, especially when the swarm was large, and the hour about sunset, so that the bats and owls, as well as kites and crows, joined the great crusade, washing out in some degree the scandal of their past lives. Yet I fear the practical result of the most wholesale slaughter of white ants amounts to nothing. They can spare a million lives much more easily than any one can spare time and strength to destroy them, and those that remain are neither reformed nor deterred. Nothing either reforms or deters them. A copious use of kerosine oil would doubtless drive them out of the house altogether, but not till long after it had driven me out. It is consolatory to know that they will not cross over glass, and a box on pedestals made of the bottoms of beer-bottles is absolutely safe.

All the great men who have assisted to discover or
invent the history of white ants have offered no clue, so far as I know, to one great mystery which attends their proceedings. Where do they find water? Starting from the ground at a place where you might dig fifty feet without reaching water, they will travel through the foundations and between the stones of the wall away into the upper storey of your house, and then, finding their road barred, perhaps, by a broad stone, they will emerge and build a covered way to protect their march, until they reach a soft place where they can enter the wall again. Now, clay cannot be kneaded or mortar mixed without moisture, and they manage to carry on these operations in the second storey of a house with the hygrometer at zero, and all your postage stamps curling into telescopes. Their heads are certainly large and red, like water-chatties, but surely they do not carry water in their heads!

White ants will not eat anything that has life in it. It is proof enough of this that the earth to-day is clothed with verdure, and we ourselves survive. In fairness, however, it should be stated that the malee holds a contrary opinion. He maintains that plants of his planting are never eaten by white ants because they have died, but die because they are eaten by white ants.
It is scarcely necessary to repeat here that white ants are not ants at all, but *termites*, and do not even belong to the order of *hymenoptera*, but to the *neuroptera*, for everybody knows these elementary matters now; but it is not so generally known that these distinctions imply a real difference, for white ants, like chickens, run as soon as they are born, and require no swaddling or cradling. Hence, you never come upon a white ant carrying its *papoo*, as black ants do when changing their residence.
HYPODERMATIKOSYRINGOPHOROI.

April.

Roth is many-sided, and to teach one's mind in every case to walk round the polygon is an excellent discipline and an antidote to bigotry. For instance, naturalists classify animals according to the plan of the endoskeleton, or the perfection of the haemniatic and nervous systems, and distinguish one sub-kingdom from another by the fact that the digestive sac is
differentiated from the general somatic cavity. This is all very valuable, and indeed I hold that, for purposes of mental drill, a good handbook of zoology or botany is second only to the Latin grammar or Euclid. But I am not a pedagogue, not yet a "scientist" (vile word!) sorting the museum of nature. I am only an exile endeavouring to work a successful existence in Dustypore, and not to let my environment shape me, as a pudding takes the shape of its mould, but to make it tributary to my own happiness. From this standpoint the naturalist's classification, however just, is not useful. Some other arrangement of animals is required, founded more on their behaviour than their stomachs, on the disposition of their minds towards us, rather than on the disposition of their nervous ganglia.

In such an arrangement snakes, scorpions, centipedes, and the biscobra would all be included under one genus, since, in that aspect of them which I am now fronting, they all present one salient feature, viz., that they all carry about with them an instrument to be used for the purpose of injecting a poisonous liquor into our persons. That which makes a scorpion a scorpion is clearly not that it has claws like a crab, nor that it has eight legs like a spider, nor that
it has a tail curved over its back like a pariah dog; but the fact that it can by a single flick of that tail put you to the necessity of howling for the next twenty-four hours. Thus the scorpion by its tail, the snake by its fangs, and the centipede by its jaws, are linked together into one family to which, in accordance with scientific usage, I have ventured to give a name.

For the sake of brevity and simplicity I would call them *Hypodermatikosyringophoroi*.

These are the Ghazis on our borders, that come among us unnoticed to stab and murder, and India is generally understood to be infested with them to an extent that renders life precarious. In deference to this general understanding our paternal Government has been moved at times to sanction the expenditure of vast sums of public money, in efforts to compass their extermination. Out of a lakh of rupees or so paid away annually in rewards for the slaughter of wild beasts, a large portion is always devoted to this chimera of extirpating venomous serpents. The deaths from snake-bite, or supposed snake-bite, in a year throughout India, average less than one in ten thousand of the population; so, if the reward system leads to the destruction of one deadly snake out of eighteen thousand in the
country (which of course it does not), then by the expenditure of the moiety—more or less—of a lakh of rupees, Government may be considered to have saved the life of one man out of the one hundred and eighty millions of India. Precious man! I wonder who he is! And, while money is thus thrown away, the trees all over the country remain to this day unprovided with lightning-conductors, in open disregard of the known fact that men (and bullocks too) are sometimes struck while standing under trees during a thunderstorm!

Of all our frontier tribes snakes are pre-eminently unsociable, and avoid us so anxiously that we see very little indeed of them, except in the baskets of snake charmers; and of those we do meet only one in many is venomous. You may distinguish a venomous one at once by opening its mouth and running a penknife or a small flat bit of stick over the teeth of the upper jaw. This will raise the poison fangs, which generally lie folded down on the jaw. Of course all this is looked upon by all the servants as "fatuous flapdoodle." They are not much disposed to believe in non-venomous snakes, and at any rate, one which has had the honour of being killed by master is, ipso facto, almost certain to be a do guntawalla, which means
that if it had bitten you, or even given you a blow with its tail, you would have died within two hours. Even after it is dead you are not safe unless you take the precaution to pound its head into a jelly. This prevents it reviving during the night and coming and coiling itself up in your bosom.

Besides the cobra, there is only one poisonous kind of snake at all common here, and that is a prettily-marked little reptile called *Echis carinata*, about a foot in length, with a most cantankerous temper and an abusive tongue. There are two others to be met with sometimes, the chain-viper (*Daboia elegans*), which is in appearance and temper just an enlarged edition of *Echis*, and a slender inoffensive species, with whitish rings on a dark ground, which also must be content to go by its scientific name of *Bungarus arcuatus*, for want of another. There are names in plenty, such as carpet-snake, whip-snake, krait, foorsa; but they are applied promiscuously to any sort of snake, real or imaginary, and are therefore of no use. The fact is that in real life, as distinguished from romance, snakes are so seldom seen that no one who does not make a study of them can know one from another. Still, you may easily learn to recognise a cobra or an *Echis* when you see it,
and for the rest it is useful to keep in mind that the whole tribe of slender, whip-like, green, brown, and ye'low snakes are as harmless as lambs a month old, notwithstanding anything your butler says to the contrary. Next to his own religion, there is nothing an average native knows less about than nature, and domestic servants are generally below the average. Yet natives in all their ignorance are comparatively free from the European's superstitious anti-pathy to the serpent race. The cobra, indeed, is regarded by natives of the better classes with a kind of veneration. When a Hindoo observes that a large cobra regularly haunts his garden, so far from treating it in a hostile spirit, he will, if piously disposed, propitiate it with an offering of milk.

Firmly believing myself that all the larger snakes, and cobras especially, do man invaluable service by devouring field-rats, I am unable to tread my feelings underfoot, and let unbridled reason run away with me so completely as to let them off when I meet them. A man who is caught lurking about your premises with a concealed dagger need not talk of his past services to the State. I slay a poisonous snake when and where I find it, and if there is any doubt about its being poisonous, I slay it to settle the
matter. In my walks abroad I generally carry a strong, supple, walking cane. This is the prime weapon for encountering snakes. Armed with it, you may rout and slaughter the hottest-tempered cobra in Hindustan. Let it rear itself up and spread its spectacled head-gear and bluster as it will, but one rap on the side of its head will bring it to reason, and another about the middle of the body will bring it to its end. Without a stick you can do nothing. Twice have I fled before an angry cobra, having unwisely attacked it with stones. The cobra, though of a peaceable disposition in the main, is hasty in his temper.

Since alchemy was given up, and wise men relinquished the search for the philosopher’s stone, some of the energy thus saved has been devoted to the discovery of a cure for snake-bite. Sanguine doctors have from time to time devoted themselves to pricking poor dogs with the fangs of snakes, and then embittering their end with doses of potash, injections of ammonia and other sorrows, and thus many remedies have been discovered, in each of which its own inventor profoundly believes. Native medicos, without any of those distressing experiments, have attained exactly the same result, though their remedies have
generally a more occult, magnetic, Blavatsky character. They consist of small pebbles which have virtue to draw the poison out of the wound, herbs which furnish decoctions to be rubbed on the crown of the head, and wonderful trees of the forest, with twigs of which if the patient be well flogged the poison will depart from him.

Poisonous snakes are a great mystery. Out of a class of animals so harmless, so gentle, and so gracefully beautiful, one here and one there, for no assignable reason, carries with it an instrument exquisitely contrived for inflicting almost instant death on creatures fifty times its own size. And this provision is of no conceivable use to itself. It cannot be necessary for self defence, since for one that has it many do without it; nor can it be of much service in overpowering prey which consists of nothing more formidable than rats and frogs. And those which bear this poisoned dagger often belong to totally different genera, and resemble each other far less than they resemble kinds which are innocent, thus the more effectually blasting the reputation of the whole family, and making us shun and abhor a race which would be universal favourites, not only on account of their grace and the brightness of their hues, but for their intelligence, and the pleasantness of their dis-
positions. In these respects they have nothing in common with the other reptiles which are their relations, the low-minded lizards, the base frog, and the Bœotian tortoise. Some kinds, at any rate, show much motherly affection, guarding their eggs with great care, and when the young are hatched they go about with them as a hen does with her chickens. When danger is near, if there is no other convenient hole at hand, the little ones will run down their mother’s throat.

When the complexion of a snake suffers from exposure, freckles, or anything of that sort, it enjoys the advantage of being able to peel itself, and come out in a new skin. The peel is generally left fluttering, like a streamer of white satin, on some bush, and the little birds carry it off to line their nests.

The scorpion is entitled to the second place in the Hypodermatikosyringophoroi, and it, too, has had its character much misrepresented. It is much more inoffensive than is generally supposed, not, however, from amiability but from indolence. Its favourite attitude is one of sullen repose, with its arms drawn up, and its tail wound like a watch-spring ready to strike. Yet it will not strike, as a rule, unless bullied past all endurance, or held down so that
it cannot get away. Then it does lash out as if the venom in its tail came straight from the heart, and it is worth a fortune to know that a drop of strong ammonia let into the wound is an almost instant cure. I make out three kinds of scorpions, the feeble and rather scarce Bombay species, the sturdy house scorpion of the Deccan, and the hairy black monster found under stones, especially on the hills. They all live on insects, and possibly lizards and other small animals, which they catch with their claws and sting to death. The scorpion is a superfluous enormity which cannot justify its own existence. When found it should be executed at once, as a punishment, not for anything it can be proved to have done, but for what it is. This establishes a great principle.

Next come centipedes, which are of many kinds. The prince of them is a somewhat horrid object, banded with black and yellow. Natives say it does not bite, but that, if it runs over you, every footprint becomes a sore, a point which any one can settle for himself by experiment. It is not generally known that this creature makes a most entertaining pet. I had one which measured 6½ inches, and would doubtless have grown to double that in time, for he had a healthy appetite. He would kill and devour an
ordinary house lizard, leaving nothing but one or two of the larger bones. His habitation was a box with a glass top, in which I used to exhibit him sometimes at an evening conversazione. It was the holiday season at Deccanabad, and many fair women and brave men had gathered at that pleasant station. There was the jaded literary man, seeking to recover the exhausted phosphorus of his system and the departed freshness of his thoughts, his wife, suffering from an acute attack of want of occupation, the pinched and dyspeptic banker, just escaped from the treadmill for a brief season, the stalwart police officer, sick of ordinary crime.

These and many more gathered round the arena, and the spirit of Nero was there too. It was the time of year when the lamp is visited by those long-legged green creatures of the cricket sort, which look innocent and vegetarian, and are as carnivorous as Young Bombay; so the entertainment commenced with the introduction of a few of these. The centipede heard their footsteps, and started up thirsting for blood, but, being very shortsighted, he could not make out where they were, and the scene became like a game of blind-man's buff, the monster, with open jaws, rampaging wildly about the box, while the crickets leaped
in panic from side to side. At length one clumsy long-shanks stumbled over some part of the long body, which turned on it in an instant, and embraced it with fifty legs while a pair of sharp sickles were buried in its throat. While it was being eaten there was an interlude, and the musical box played a tune. Then, to vary the performance, we introduced one of those globular beetles which will be for ever tumbling on their backs, and cannot right themselves. Once and again and a third time, with the rash
valour of inexperience, the centipede fell upon his impene-
trable foe, and when at last he retired, with blunted fangs
and dislocated jaws, you could see that the very name of
a beetle was abomination to him. Then the beetle un-
packed its legs, and got up and climbed the centipede's
nose, and travelled up and down his back and explored
his geography, until the tide of pity turned, and we had
compassion on the shame and misery of the vanquished
ruffian.

But of all the things in this earth that bite or sting, the
palm belongs to the biscobra, a creature whose very name
seems to indicate that it is twice as bad as the cobra.
Though known by the terror of its name to natives and
Europeans alike, it has never been described in the pro-
ceedings of any learned society, nor has it yet received a
scientific name. In fact, it occupies much the same place
in science as the sea-serpent, and accurate information re-
garding it is still a desideratum. The awful deadliness of
its bite admits of no question, being supported by countless
authentic instances; our own old ghorawalla was killed by
one. The points on which evidence is required are—first,
whether there is any such animal as the biscobra; second,
whether, if it does exist, it is a snake with legs or a lizard
without them. By inquiry among natives I have learned a few remarkable facts about it, as, for instance, that it has eight legs, and is a hybrid between a cobra and that gigantic lizard commonly miscalled an iguana; but last year a brood of them suddenly appeared in Dustypore, and I saw several. The first was killed by some of the bravest of my own men with stones, for it can spring four feet, and no one may approach it without hazard of life. Even when dead it is exceedingly dangerous, but, with my usual hardihood, I examined it. It was nine inches long, and in appearance like a pretty brownish lizard spotted with yellow. It has no trace of poison-fangs, but I was assured that an animal so deadly could dispense with these. If it simply spits at a man his fate is sealed, for, excepting a few cunning Bengalees, no one knows any muntra, or charm, which has power against it. Afterwards one appeared in my own garden, and I made an attempt to capture it alive with my butterfly-net, my devoted butler's hair turning grey as he watched me from a great distance; but the biscobra got off into a hole. It escaped me once or twice again, and then, finding I was bent on catching it, it gradually changed colour, like a chameleon, and grew larger at the same time, until in a few weeks it had de-
veloped into an unmistakable iguana. Some people would jump to the conclusion that it was a young iguana to begin with. My butler would endure the thumbscrew sooner.
Etcetera.

May.

HEN the more notable tribes have been taken up one by one, and the less notable grouped together by their affinities, there will remain to the end a large balance of rag, tag, and bobtail, a vast mixed multitude, a circumambient atmosphere of insignificant vitalities in the midst of which we live and move: we even breathe them. They extend from Professor Tyndall's contumacious bacteria, which will not be produced by spontaneous generation, to
the frame of an aged bullock, which, having been discarded by its owner, now roams about my compound and the country at large. The latter deserves a passing word, for I cannot tell you how forcibly it strikes me, in my more poetical moments, as a beautiful emblem of Liberty. Possessing nothing else that makes life sweet, it possesses freedom, and of this neither guile nor force can rob it, for, being in need of nothing, it is not beholden to any man, and, having nothing to fear, it defies the malice of tyranny. It laughs the pound to scorn, for it knows that if you send it there nobody will pay two annas to redeem it; and if, on the other hand, you seek by violence to evict it, you will be foiled, for stoning and cudgelling have long since ceased to give rise to any unusual sensations in its battered hide. It is armed against even the fear of death, for it knows that its leather would not pay the municipality its funeral expenses, being worn threadbare at a dozen points. Or, perhaps, the thought of death has become sweet to it, for its face bespeaks a sad history, and it may be illustrating the saying of the philosopher, *qui scit mori nescit cogi*. Anyway it *nescit cogi*—on that point I am clear.

This great host of etceteras are too promiscuous to be arranged in groups, and they cannot be treated singly, for
some are altogether insignificant, some do not interfere with us, and others, which do interfere with us, are highly vulgar. You cannot ignore them, however, for life is simply steeped in them; they fill every pore of existence. In the hot sun at noon crimson and blue dragon-flies are darting about, carrying havoc and slaughter through the fields of air. In the cold and stagnant pool close by, the dragon-flies of to-morrow are leading the same blood-thirsty life, but they are hideous brown wingless things, which shoot along by squirting water backwards from a bellows which they carry in their bodies. If you walk through the grass on the margin of the pool, you will rouse a score of muscular grasshoppers—unhappy examples of great power ill-directed. On many a succulent herb here and there you will notice little accumulations of white froth, and, if you wipe away the froth, you will find a humble greenish insect inside. On that spot where you find it, it has spent all its days, seeing nothing but dimly through a foggy haze of its own creation, and never unhappy until now, when you have let in the clear light of day upon it. Striking type of the mental state of some people!

You may see another symbol, if you will, in that hope-
less lunatic which goes about the house collecting particles of rubbish and dust, which it sticks about its person. Or turn to the evening lamp and contemplate the hundreds of flimsy little bodies which dot the white globe, stuck fast by the smear of oil which the servant's fingers left when he "cleaned" it. They are mostly after the pattern of a mosquito, or gnat, but smaller and more fragile. They came into winged life this afternoon; a vision of glory dazzled them and they pursued it: now they are in the pillory and will remain there till death releases them, for in nature there is rarely any place for repentance.

Floundering about on the table-cloth is a small water-beetle, which was as happy as the day is long while it remained in the well. But it had wings, and was ambitious to use them; and now it is in sore trouble, learning in the school of experience the hard lesson that when you are well off it is best to be contented. I pick it up and drop it into the finger-glass, and in a moment its trouble is forgotten, its penitence has vanished, and it is swimming round and round as full of glee as if the butler were not already on his way to toss the contents of the finger-glass out upon the ground. There are pretty ball-room moths, too, dancing round the lamp in a wild whirl of fascination
and rapture, until they singe themselves in the flame and perish. Surely, if there are tongues in trees, books in the running brooks, sermons in stones, and good in everything, then is this lamp of mine a whole tome of homilies.

Yet there are darker pictures, where not folly only, but vice has its victims; for in the animal world many a promising career is wrecked by vice. I once visited a toddy distillery, and, looking over the great vats of fermenting palm-juice, I noticed a thick black scum on the frothy liquid and asked what it was. They said it was flies, and picked one out to show me. Alas! it was a honey-bee; the little busy bee which, when it was itself, improved each shining hour. There they floated in hundreds, victims to intemperance. It made me melancholy. And, strange as it may appear, it seems to be true that this same unexplained craving for some form of stimulant, which works so much ruin to civilized man, and simply exterminates aboriginal races, goes down to the lower animals, and exercises its tyranny over them too. That the abandoned crow and the gross flying-fox make themselves drunk on stolen toddy is no great scandal, if true; but I have seen the most respectable of domestic animals (I allude to the cow), growing up in a distillery, become such a slave to the
“intoxicating bowl” that she could not be trusted in sight of the temptation.

I will not moralize on all these things, for this reason, that a moral is both more palatable and more wholesome when you extract it for yourself. Served up cold by another, it is apt to bring on nausea. Materials are plentiful for those who will use them. Like a thousand fragments of a shattered mirror, the bright flies and other ephemeral fowls of the air, the caterpillars, worms, and creeping things on the earth, and the strange shapes which people every piece of water, are reflecting this same life of ours, with all its lights and shades. Its joys and sorrows light upon them, its hopes and cares distract their hearts.

One evening I dined with a Major who has a quiver full of anxieties at home, and he showed me the long row of their photographs in his pocket album; another evening I met a small beetle, travailsously rolling along a round ball of nutritious earthy matter, in which she proposed to bring up her family. The simplest way of managing the matter which suggested itself to her original mind was to stand
on her head and kick the ball along with her hind feet; and at this exercise I found her, panting and perspiring. At length she reached a pit which she had dug beforehand, and there she proceeded to bury the ball and cover it with earth; the Major, meanwhile, turning over in his thoughts the relative advantages of the Army and the Civil Service as a sphere for his first-born, and wondering, possibly, whether the Church would suit his second boy. Of course, the Major does not care a straw what becomes of the dirty little beetle and its vile grub; on the other hand, it is a matter of the profoundest indifference to the beetle whether the Major’s son runs away with an ac-
tress or becomes Archbishop of Canterbury. She has her own springs of gladness and sadness, and with these a stranger intermeddleth not. It seems to me that the difference between the beetle and us just amounts to this: that she hopes and rejoices, sighs and suffers, toils in anxiety or rests with satisfaction, and does not know that she is doing any of these things. We are like the squad of recruits whom the Irish drill-sergeant, in the depths of his despair, sarcastically invited to "stip out now and look at yersilves." We can get, in a manner, outside of ourselves, and look on at the tempest of misdirected affections, illusive hopes, and stupid fears on which we are tossing about. Which is happier, then, the beetle or the man? The beetle, unquestionably, in my judgment, unless man can call to his aid a voice with power to say to the tempest, "Peace! be still!"

I began in June, and now it is May. A year has gone round, and once more the land is gasping under the oppression of the sun, and the soft green which should be Nature's garb is carrying on a last expiring struggle against the tyranny of all-subduing dust. And again the birds, open-mouthed, seek the friendly shelter of my verandah. Bacon says that friendship "redoubleth joyes and cutteth griefes in halfes," and I suppose, since these little birds endure so much of the heat, they leave the less for
me to endure. At any rate, if this is not so logical as it should be, it is all the more true. The thermometer is no gauge of all the influences which are abroad in the air, depressing our spirits or making them dance within us. I am certain that the power to enjoy a balmy breeze, or bear up against a furnace-blast, would be alike paralysed by the hopeless dismalness which would come down like an extinguisher on my spirits, if the keys within me, the chords of my soul, ceased to be played upon, like an Æolian harp, by the sprightly forms, the merry voices, and even, sometimes, the plaguey impertinences of "The Tribes on my Frontier."
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