KNOWLSON'S

YORKSHIRE

CATTLE-DOCTOR AND FARRIER.
THE YORKSHIRE
CATTLE-DOCTOR AND FARRIER;

A TREATISE ON THE DISEASES
OF HORNED CATTLE, CALVES, AND HORSES;

WRITTEN IN PLAIN LANGUAGE,

WHICH THOSE WHO CAN READ MAY EASILY UNDERSTAND.

THE WHOLE BEING THE RESULT OF
SEVENTY YEARS' EXTENSIVE PRACTICE OF THE AUTHOR,

JOHN C. KNOWLSON.

TENTH THOUSAND.

REVISED, CORRECTED, AND ENLARGED.

MANY OF THE RECIPES IN THIS BOOK ARE WORTH TEN GUINEAS EACH,
AND THE WHOLE ARE NEW TO THE WORLD.

LONDON:
LONGMAN, BROWN, GREEN, AND LONGMANS.
WILLIAM WALKER, OTLEY.
TO BE HAD OF EVERY RESPECTABLE BOOKSELLER IN THE KINGDOM.
1848.

Price Seven Shillings in Boards.
PRINTED BY WILLIAM WALKER, OTLEY.

ENTERED AT STATIONERS' HALL.
INTRODUCTION
TO THE FIRST EDITION OF THE CATTLE-DOCTOR.

By the desire of many friends and acquaintances this little treatise is put forth into the world. Many think it my duty to do so, and indeed it is, for I have none to succeed me in my business as Cattle-Doctor; therefore, for the good of my fellow-creatures, I explain to them that which has hitherto lain much in darkness. I trust that the candid reader will bear with my weakness and plain language, as I can appeal to the Searcher of Hearts that I hide nothing that I know would be useful. This little treatise on Cattle is written by me when seventy-four years old, and after having been in great practice for fifty-seven years. I have been nearly twenty years at Skipton, in Craven, and twenty-three at Otley. As for my knowledge of the Disorders of Cattle, and how to cure them, it is well known to many, so that little need be said on that head. Several of the recipes in this book are worth ten guineas each, and have been hitherto unknown to the world. I do not mean to ridicule other Cow-Doctors, but I wish some would get to understand their business better. How many Beasts are lost through people that neither know their disorders nor the drugs they give them! I think I may truly say that there is more light thrown on the business of a Cow-Doctor here, than has hitherto been brought forward; but I leave it for my readers to judge for themselves, and am their well-wisher,

J. C. KNOWLSON.

Otley, 1819.
PREFACE.

About twenty years ago many people pressed me much to write a treatise on Horned Cattle; but I then refused, thinking that one of my own family would succeed me in the business; but my hopes are cut off, and it is my duty to do what I can to benefit my fellow-creatures, and I thank my God that it is both in my heart and in my power to do so. For this reason this little book is sent out into the world, and it is my hope that many may be benefited by it. Should it be an instrument of good to one poor man’s cow, it will be a blessing; but it may be useful in saving thousands. A true explanation of the disorders, and safe and easy medicines for the cure of them, are laid down in it in the plainest language—not that of a learned writer, but for a poor man’s reading. I do not mean to make easy things hard, but hard things easy; and hope that my readers will be candid enough to consider well before they cast any reflections upon it. I do not know that there are errors in it, but possibly there may be, considering my old age. I can truly say it is written from experience alone, as there is not one borrowed recipe in it, therefore it must be new to the world; and I have no other motive than to do good.

People should be careful what they give their cattle when labouring under any disease; for many will say to such as have a beast poorly, “Give her
such a thing—it has done good to such a one's cow; and if it does no good, it will do no hurt." But this is a great mistake, for if the stuff itself does no hurt, yet the disorder perhaps is not checked by it, and that is doing hurt. Some recommend a boiled sheep's pluck, chopped small, and given with the broth. I am sure nature never formed a beast's stomach for hogs' meat, and have asked many how it was to work, but they could not give a proper answer. I believe the truth is this:—The butchers have them to sell, and cannot readily dispose of them; so if they get the round heart off; they sell the remainder to some simple man that has a cow poorly; for many people enquire of the butchers if they can relieve their cows when ill. The butchers in general know less of the disorders of cattle than the keepers; and some of them are as ignorant about them as a hottentot—they know how to kill them it is true, but I am afraid they kill many that are not fit for the shambles!

When people have a beast disordered, they generally inform some neighbour, and take advice of such as are very unfit to give it, instead of applying to those who understand the disorder. This evil may be removed if this little treatise be attended to; for the disorders are described so plainly as to be easily known.

Shop-drinks are to be had in many places, for most druggists keep them ready for sale; and it is too common for cow-keepers to get what they call a comfortable drink, which is made of a few spices, nearly all of the same nature, and give it to a beast
when in a fever, which increases the disorder instead of doing good; but in this little treatise you will find clear and plain directions what to give in every disorder.

When you buy drugs, be careful to have them good, as druggists are not always to be depended on for having good articles. The safest way is to buy them in their natural state, and to powder them as you want them. Do not be too hasty in giving medicines, but let one operate before you give another. Great hurt is often done by being too hasty, for medicines are longer in working off in the cow-kind than in any other that I know of; and it is from their having four stomachs, and their bowels such an amazing length.

Disorders often get fast hold before they are discovered, and when discovered they are often dallied with a long time before a remedy is sought.

Bad hay and bad water are the cause of many disorders, and many are brought on by neglect.

The constitutions of cattle differ, and some beasts are larger than others; but you must judge for yourselves as to the strength of the medicines, as I have laid down the recipes for a middle-sized beast; but be careful not to make them too weak, for they cannot then have the desired effect.

There is much difference in herbage. In some parts of our land the herbage is much coarser than in others; and where it is coarse and strong, cattle will require stronger medicines to work off any disorder, than where it is short and sweet. Cattle that are kept on hilly places, where there is plenty
of good water, are generally the most healthy, for they are sure to have good air. They are more subject to disorders in low, marshy lands. It is frequently said that small, diminutive beasts are not so subject to disorders as large ones; and the reason why they are not is that they are mostly kept on hills, and not on low, rich lands; for reason tells us that the richer the food the sooner disorders come on. The Scotch cattle are not so subject to disorders as our own, so long as they are kept at home; but when they are brought to our rich pastures, this ceases to be the case.

Most cow-keepers allow that beasts bred at the place where they were calved, are not so subject to disorders as those that are removed; and this will hold good, as a continuance of the same herbage is most likely to keep them in health: but, in either case, they will have disorders; and it is allowed by all, that places where there are good water and air are the most healthy.

The Redwater is the most common of all disorders, and more cattle are lost in it than in any other; and there is cause to fear that many are destroyed by giving too many, or wrong medicines; for foolish prescribers and foolish prescriptions abound. How many recommend things who neither know the seat of the disorder nor how they will operate. My dear readers, be careful not to attend to such quackery.

In ancient times, physic was chiefly studied by kings and philosophers, and the authors of inventions or improvements in it were accounted gods,
and often called the sons of God. It was the general belief of the heathen, that the knowledge of physic came by inspiration, and Christians formerly held the same opinion, and do at this day if they believe the Word of God. Only look at the 9th verse of the 12th chapter of St. Paul's First Epistle to the Corinthians. But it is now practised by some that neither fear God nor regard man. They have got the rattle by the end, and they make weak people believe they know something, but in reality they do not. My dear friends, be careful of such people, for the death of a cow is not only a loss to the owner, but to the community at large.

In this treatise you have directions for rearing Calves, and managing them till full-grown. Some people are very careless of their young calves, and do not mind much whether they lose them or not, saying their milk is worth as much as their price when fat; and they can buy them for little money when they want to breed them. But in my opinion this is a weak way of reasoning; for if the calf is lost, it is for ever lost; but if reared, it will be either in the shambles or in the pasture. I wish every calf-breeder to guard against the disorders that are incident to calves, and especially the Hyan, or Murrain, which has killed many; but if the directions in this book are followed, very few indeed will be lost, for the recipe is one of the best yet found out to prevent that disorder, and at a small expense too.

I wish again to caution you against taking advice of people who neither know the disorders of Cattle, nor how to prescribe a remedy for them. No man
can prescribe proper medicines except he has a true knowledge of herbs, roots, minerals and compounds, and how they operate. The first thing a cow-doctor should do when he begins business, is to get well acquainted with drugs, and then with the disorders; but these things cannot be done without much practice. Some people are very fluent at the tongue; and if they know the names of a few drugs, and a disorder or two, they blow up loudly, and bring forward the names of the drugs they have learnt, whether they are good for the disorder or not; but in this little treatise there is not one thing mentioned that will not bear the strictest scrutiny.

In many disorders people are continually giving pottage, gruel, &c. with the horn, which hurts the beast very much. Only consider—if you were poorly yourself, how would you like one or another to be pouring stuff down your throat when your stomach was not inclined for it, and before what you had got had operated? Beasts are often treated in this manner, especially in the Redwater; and the last thing given is generally thought to have effected the cure, if the animal get better, when probably it was no such thing. I am fully persuaded that many beasts are killed by such treatment.

I now conclude the Preface by hoping that this treatise will be found to contain a better description of the Diseases of Cattle, and clearer and more proper directions for the treatment of them, than in any other that has been published.

J. C. KNOWLSON.
PREFACE TO THE SECOND EDITION.

Since I published the first edition of my Cattle-Doctor, and of the Art of Farriery, fourteen years ago, I have had, from my extensive practice in Otley, and the Neighbourhood, considerable and valuable opportunities of improving those two works, by correcting the errors which had escaped my notice, and by altering and improving many of the recipes. I have also added many new discoveries made in my practice since the publication of the first edition, and some valuable remedies prepared from herbs, which will be found of great service in curing many of the disorders of Horned Cattle, as well as of Horses. And as I am anxious to make the Books as useful to those for whom they were at first written and are now improved, as my knowledge and experience enable me, I have made them as perfect as I can, giving directions to prevent mischief from the careless and foolish practices of ignorant persons.

I have also to add that I have sold all my right and interest in the copyright of these my two books, (now published in one volume,) to Mr. William Walker, of Otley, who has paid me also for the improvements and corrections now made, and by whom alone, or by persons having his authority to do so, they are hereafter to be printed and published.

I am now eighty-nine years of age, having been in extensive practice as a Cattle-Doctor and Farrier during seventy-two years; and here present to the
World the results of all my practice during that long term, in which I have been so highly favoured by the Almighty.

Being well convinced that my time on earth is short and uncertain, I have to the best of my abilities made these Books as perfect as I can, and indulge a hope that they will be found of extensive use to the class of persons for whom I have intended them. In conclusion, however, I will add, that,

"Whoever thinks a faultless piece to see,
Thinks what ne'er was, nor is, nor e'er shall be."

J. C. KNOWLSON.

Otley, January, 1834.
How many families are supported by this useful creature, the Cow, of which we have in England many different sorts, caused by cross-breeds from other countries. I need not enumerate the different breeds; they are so well described by history, that a full account may be had of them; but I think it will not be amiss to class those of the cow-kind together, they are so numerous. The first that I intend to explain is our own breed, as being most under our notice. The Urus, Zebu, and Bison, are all of the cow-kind, as well as many more, and all chew their cud, or ruminate, in the same manner as the cow does.

It will not be amiss to shew the reason why they throw their meat back to chew a second time. The great Creator of the universe, who made the cow, took care to form every thing in them to answer its
end, for if they had been formed to live upon other animals, there would have been little or no chewing of the cud.

This useful creature is a very great support to many poor families, and was more so in times past, when the commons were not inclosed; for I have seen commons, or waste land, lay almost to every village, where the poor could keep a cow or two at very little expense; but now the land-owners have deprived many of that comfort: still the cow is the greatest support to many, for they have the use of the milk for themselves and their children; then the butter and the cheese; and when the cow has calved and got fat, it is used for food. Animals of the cow-kind ought therefore to be most taken care of, as they are the most useful. Much more might be brought forward, but let this suffice.

The cow is made with eight cutting-teeth on the fore part of her lower jaw, and when about sixteen months old, two of the middlemost fall out; at twenty-two months the two next them; in six months more, two more; and at four years old, a full mouth: at the same time the horns fall of, and others grow in their place.

To know the age of a beast, observe as follows. I have shown you the falling out of the teeth; but here I make another remark, that the cow’s teeth are broader, and of a blacker colour, with a full mouth at four years old; and then the horns begin to grow. A cow has a full horn at four years old, but it grows larger every year; and for every year’s growth, leaves a wrinkle round the horn’s root,
beginning at four years old, before which age they are not easily discovered.

A cow's tongue is prickly and horny at the small end, on the upper side, which she gathers her food with. When feeding, she thrusts out her tongue, winds up the grass, and brings it over her fore-teeth; then lifts her head a little, breaks it off, throws it into her gullet, and swallows it whole, and so proceeds till she has got her stomach full; then lays her down to throw it up again, to give it a grinding with her grinding-teeth, commonly called axle-teeth.

Nature has furnished the cow, above all animals, with an appetite for coarse and simple nutriment, and has also enlarged her intestines, for she has four stomachs, which I do not remember having ever seen mentioned in any cow-doctor's book.

The first stomach is called the paunch, or great belly, which receives the food, after it has been slightly chewed. The second is called the honeycomb, and is so nearly connected with the other that it may be called a part of it. When these stomachs are pretty full, the beast lays down to ruminate, and the grass which it has got begins to heat and swell, which very often forces the food up the gullet again, which may be called throwing up, yet without pain. Clover, (too much being taken at a time,) by heating and swelling, has killed many a cow, and would have killed many more, had they not been found in time, and by those that knew how to cut them. Between the second and third stomach, is a short strait passage, through which
most of the juice is forced into the third stomach; but the rough meat which cannot pass, is returned again two or three times, till it is small enough.

The third stomach is called the manyfold, where the food undergoes a strong operation among the shelves and flaps which it contains. In fevers, I have known the hay, or grass, which goes through the small passage into the manyfold, become hard and dry; the heat of the body having dried up the juicy matter; so that I could wish all people that have a cow in a fever, to give her something loosening to pass on to the third stomach, to prevent the food from growing dry therein.

The fourth stomach is called the wide-gut, and is the beginning of the intestines, which are in length, between the stomach and the fundament, thirty-seven yards, more or less, according to the size of the beast. Nature has formed this ruminating animal very differently from the horse, which does not chew its cud. From the fourth stomach the bowels are strong and fleshy, and wider than in any animal that does not chew its cud; but all that chew the cud are nearly the same.

The climate and pastures of Great Britain are excellently adapted to these animals, and the verdure and fertility of our plains are perfectly suited to their manner of feeding; for, wanting the upper fore-teeth, they love to graze in high, rich pastures, in which few countries excel our own.

Little regard seems to be paid by this animal to the quality of its food, for it makes no particular distinction in the choice of its herbage, but indis-
criminately and hastily devours all. For this reason, in our pastures, where the grass is rather high and flourishing, the cow thrives well; indeed there is no part where they milk and thrive better than with us, for our pastures supply them with abundance, and they in return seem to throw back more than they take from the soil; for it is well known that where horses or sheep are put, the pasture grows worse every year, but that where cows are kept, the land becomes richer and fatter every year.

This animal is formed by nature to bear cold, for in many parts of England they lie out all winter, and are not taken in at any time, unless when ill. In some places they are housed in the winter season; but I would advise those that keep their cows in the house not to keep them too warm. Open shades are the most proper places to lay cows and young beasts in, provided there be a fence or screen against the north and east winds, which are dangerous for bringing on disorders, especially the crook, which is a heavy disorder in many places where they lie their cattle bare, and exposed to the north-east wind.

Some people will lie a cow in a stable where there are two or three horses, with the place closed up, which must be very unhealthy for a cow. I should rather choose an open place, such as a cart-house, than lie a cow among horses in a warm stable, for in my time I have known beasts suffer much from such treatment; nay, even lose their lives. I am of opinion that beasts are seldom too
cold; only screen them from the north and east winds, and keep them dry.

I do not know a greater grievance, or any thing that is more dangerous for a cow, than to lie it in a place which the rain drops through; therefore, in shades or houses, endeavour to prevent this.

In some places the pastures lie at some distance from the houses of the owners of them, and they send a boy or a girl to fetch up a cow to milk, perhaps near a mile, twice a day. What hurt this may do to the animal I cannot say; but if one would go to milk it in its pasture, it would save two journeys a day for the youngsters, and two for the cow; and I am certain it would be better for the latter, and no worse for the former.

When cattle are put to their summer pastures, they ought to stay there, provided there be sufficient water for them; although I do not commend carrying water if the animal can fetch it for herself, as most men and women are fond of indulgence, and perhaps might carry little enough, to save themselves, and give the beast a scanty allowance: besides most cows are nice in their taste, and do not take it freely out of a pail, but had rather choose for themselves. Another misfortune by sending boys and girls is, that they don't milk the cows clean; so that all owners of cattle should be very careful whom they employ, and not trust too much to children.

I have known young people, and even some that have come to age, but not to reason, that have gone in summer time once or twice a day to milk, when
the cows have been in the red-water all the time, and they have not discovered it till they could get no milk, when they said, *I think the cow is poorly,* or, *somebody has milked her, for she gives no milk.* How soon may a cow be lost, or an ill report set on foot, by such misconduct as this! Nay, I have even known a poor inoffensive hedgehog brought into the blame! Would a man of reason suppose that this small animal could suck a cow? No; its mouth is not calculated to hold a cow's pap.

It sometimes happens that if a cow is not milked clean, one quarter, or more, of the bag becomes inflamed by this neglect, and then they say she has laid on a pismire hill, or on a bunch of nettles. I do not say this is never the case, but I say it seldom happens, and the other too often. Sometimes the beast has a sore pap, and is uneasy to milk, for nature has given feeling to every creature; but the truth is, that the young men or women are more afraid of themselves than of the cow, and leave the milk in the pap, excusing themselves by saying that the bag is bigger from the soreness of the pap; but in reality it is from the want of milking clean.

Beasts feeding in summer pastures should be looked at every day, but sometimes they are neglected. Servants will go to see if they are there, but not to notice whether they are well:—if there be the number, no more thought is taken for their safety. Masters ought to examine their cattle themselves, if opportunity permit, or employ a herdsman that they can trust, for beasts are subject to many disorders and misfortunes, and should be
well examined every day; for to check a disorder at the first onset, is half the cure.

I am going to add another remark or two. At the latter end of summer, when cattle are put into clover, or fog-fields, let them stay in a short time only, not quite to fill themselves. This done a few times, for about a week together, would save the lives of many; for what is it that causes them to swell so much with clover, but eating too much? and the clover received into the paunch, gathers heat and begins to swell, till the stomach cannot contain it, and then it is said that the beast is burst by clover.

It is the very same thing that causes the fog-fever; but fog not being so easily fermented as clover, (being of a drier nature,) brings on an inflammation, and flies to the lungs.

When you bring your cattle into the house, be careful to examine the stand, that there be no small stones to bruise their knees, at lying down or getting up, for I have seen many a great grievance in the knees of beasts from this neglect; also, be careful to round the stones that form the corners of your group, that they may not hurt their hind legs, for I have known many a one receive very great damage by neglecting it, especially if the stand was too short.

As I have given you a few remarks to guard you against them, I proceed to explain the disorders incident to cattle, and the proper treatment of them, for proper treatment is half a cure.

I desire you, above all, to avoid giving too many
medicines, or using every medicine that may present itself. I very well know that there are many pretenders, but few truly understand either the disorders or the medicines they prescribe, and how can a man or a woman prescribe proper medicines when ignorant of the disorder and of the nature of the drugs they would employ. They ought to be fully acquainted with the nature of drugs, so as to understand their qualities as well as the quantities to be given, and how they will operate, whether by stool, urine, or perspiration; also to be certain how far the disorder is advanced. Another thing to be considered, is the age and constitution of the animal; for a strong, healthy beast can bear as much more as a weak one. A beast under three years old is to be treated as such, as its bowels are tender: as for a bull, there has been nothing said on that head, but I recommend people to consider them in the same manner, for a bull, or an ox, turned four years old, and proportionate in weight and strength, can surely bear more physic,—but more will be said on this head in its place.

There are some little diminutive creatures of the cow-kind that are very small indeed, and their intestines in proportion.

Having given you a small account of their frame in breeding, I shall turn to explain the disorders of cattle; but, before I begin to treat upon physic, I advise all to be sparing on that head, and to use no more than is needful, and also to be careful to get good drugs, or they will not answer the end, for there are many sellers that neither know the
drugs nor the use of them; and wholesale druggists are so numerous that they are flying into all the grocers' shops to sell their drugs, to get gain, to such as do not understand them; then they can put off any thing in the form in place of the drugs, for compounds are not easily known even by experienced people, much less by those that are ignorant of them.

THE FOG FEVER.

The Fog Fever, or Fog Sick, is a disorder which happens in autumn, but scarcely any time in the year besides, and is well known by many, but not by all; therefore I shall describe it as well as I can. The cause chiefly is, taking too much fog into the first stomach, which swells and ferments, and forces itself forward to the second, and cannot pass any farther, but is forced back again, which brings on a heat, and presses so hard upon the artery that leads from the cavity of the heart to the lungs, or lights, that it causes the lungs to blow up to a larger size than usual; then comes on a panting and heaving in the flank, shortness of breath, thrusting out the head, wind forcing up the gullet, or throat, and coughing or belching every two or three minutes. After the cough has ceased, the animal becomes a little easier for a short time:—this is the first seat of the disorder. After this the beast grows stiff in its hide, dry in its nose, works more in its belly, loses its milk, and becomes weaker.

I have known beasts continue in this disorder for ten or twelve days, but gradually get worse
after the fourth or fifth day, there being so many large and small pipes in the lights, that they may be blown up nearly to any size. A beast that has a narrow chest suffers most in this disease, the lights forcing themselves so hard against the ribs and midriff as often to cause great uneasiness to it, mostly forcing its dung, and often in small quantities. Care must be taken not to drive the beast too fast in this disorder, or it will drop down dead.

Endeavour to screen cattle as much as possible from the cold north and east winds, and particularly from the north-east, for that often is the means of bringing on this disorder, as it first dries up the pores of the skin, then dries the fog, and the fog being bad and dry, causes this disorder to be more prevalent. If the season in autumn be warm and temperate, and the fog good, there are not half the number in this disorder; but high, strong winds often augment it.

Dry frosts inflame the lungs, also white frosts; but if the weather be mild I would not advise any to take their cattle into the house the first three or four days: dry meats are very pernicious. I have known some take a cow in at night, give her hay, and turn her out again in the day-time to the fog; but giving hay and then grass, is quite contrary to reason: only consider how the stomach of the animal is made, and then glance at the disorder it is labouring under.

If the beast get no better during the first three or four days, it must be getting worse. Be careful to examine the pulse; and should it be high, quick
and strong, take three or four pints of blood in twenty-four hours; and if the pulse continue so, take more blood, but not quite so much as before.

When you find the beast beginning in this disorder, give the following:

- 8 oz. of Epsom Salts,
- 2 do. Liquorice Powder,
- 1 do. Elecampane Powder,
- 1 do. Salts of Tartar,
- 1 do. Spanish Juice.

Cut the juice small, and give it a light boiling in three pints of water, till it be dissolved; then dissolve the salts in the water with the juice, while the water is hot, and let this stand till cold. Get two or three turnips, skin them, cut them into thin slices, put them in a pan, and cover them with water; then boil them till soft, and add two ounces of butter. When nearly cold, give all together, and repeat it every day till better. From the fourth day to the sixth give the following:

- ½ oz. of Gum Scammony,
- 2 do. Salts of Tartar,
- 2 do. Spanish Juice,
- 10 grains of Calomel.

Powder the gum small, dilute in soft water, and give it about milk-warm: repeat it only once a day.

On the sixth or seventh day there will be a change in the disorder, and great danger of its turning to a mortification. Should that take place, the beast will have a low, quick, and very irregular
pulse; it will lower its head, turn yellow in the
whites of its eyes, discharge a yellow, glueish mat-
ter at its nostrils, and work more in its body, but
not heave so strong; it will also grow weaker, and
mourn much. In this case, which does not often
happen, give the following:

1 oz. Peruvian Bark,
½ do. Saffron,
2 do. Liquorice Powder.

Give these in elder-berry wine if you have it, if
not, in white rose-water. I again request you not
to stir your beast in this disorder, if you can help
it; for change of air will hurt it, and it cannot
bear stirring: be careful to add the turnips every
day, and keep the animal clean, and neither too hot
nor too cold, and let whatever you give it be of a
diluting nature, and not too much of it. I could
wish some person to hold a quart of hot vinegar
under its nose, for the steam to go up the nostrils,
and cause a discharge from them, for that is the
way by which the disorder of the lungs is relieved.

Keep the beast covered with a cloth, but not too
warm. Some people will think it near dying when
it is almost well, for the disorder both comes on
and goes off suddenly.

Should the beast turn very loose in its dung, do
not be hasty in stopping it, for the disorder is often
cured by a looseness, but seldom by urine. Much
might be said upon this disorder, but I do not mean
to enlarge the book more than is necessary, nor to
clog the disorder with many medicines. Some lay down one receipt after another, and the best last, as they pretend. Why do not such persons put the best first, and leave the other out? Although I will allow that some medicines will do for one and not for another. The medicines here prescribed are for a middle-sized beast; for a stronger, add a little more to them; and for a weaker, diminish according to its strength.

POISON, OR SWELLING IN THE BOWELS.

This disorder is nearly the same as eating too much clover, though it is not clover that causes it, but too much herbage being thrown into the first stomach, which heats and swells before it is thrown back again; and when the weight presses upon the artery or blood vessels, it causes a stagnation of the blood, or what is called a stoppage of blood, and in this case, unless found in time, the animal will soon be dead.

The first thing to be done is to let blood pretty freely, then give a pint or three gills of sweet oil, or pale rape oil; or, if that cannot be got, give ten or twelve ounces of melted butter. If the beast be able to walk, walk it about a little, and if that will not answer the end designed, stab it with a knife an inch broad at least; if broader no worse, as the place, or orifice, where it is cut, is seldom too wide, but mostly too small: be careful to keep off the loin, for when the animal is so swelled it is very deceiving: the right place is half way between the
rib and the buck bone, on the contrary side to that you milk on.

After the wind has got out, cover the hole with a plaster of any sort to keep it from letting wind in; and when the disorder has subsided, put a strong pin across the wound, and tie it close with a strong thread; then lay on a plaster made of Burgundy pitch.

POISON BY DISAGREEABLE HERBS.

This often happens in some parts of our land, where grows what is called wild saffron, deadly nightshade, foxglove, hemlock, or yew: any of these will cause a beast to be disordered, or even take their lives if not assisted. To know the disorder, observe the following: It will swell in the eyelids and lips, also in the barren and the teats of the bag; the body will swell in some places very much, and in others not so much. These are the most certain marks when a beast has received poison; and if not assisted, the disorder often proves fatal. Many will give eggs and chamberlie, but in my opinion they are neither of them likely to give relief in this dangerous case.

When you find a beast in this disorder, bleed it well, and give six ounces of castor oil; if that be not at hand, give it a pint of salad or pale rape oil; and if these cannot be come at, melt eight or ten ounces of butter, and give it in gruel. I have known fat, from the top of broth where fat meat has been boiled, assuage this disease; but I wish all that have cows to keep sweet or pale oil by
them. Pale oil will answer the same as sweet oil in many cases.

When a beast has received any of the pernicious herbs before mentioned, especially the yew-tree, it has not done with the disorder when the swelling is assuaged, for yew is hard of digestion, and will not soon pass the second and third stomachs: the other herbs mentioned are also hard of digestion, therefore I advise every person that has a beast which has received any of these pernicious herbs, to give them when the disorder is a little abated, six or eight ounces of oil of castor, which will entirely carry off the offensive herbage.

I have heard many people say that a mouse's nest, or the moss of a thorn, will cause this disorder, but I could never find any that would affirm it for a certainty.

Turnips are so well known for stopping in a beast's throat, that I need not say much on that head: they will cause a beast to swell much, by sucking wind down the gullet into the first stomach. I have known a pint of pale rape oil carry them down, without the use of a turnip-rope. I would advise all that are in the habit of giving turnips, either to cut them small enough, or not to cut them at all; for if the cows cut them to pieces themselves, it seldom happens that they stick in the gullet. Many beasts are much disordered by turnips, for in spring time people will house their turnips to keep them from the frost, and when they come to lie in the house for some time they lose their juicy nature, and grow dry and fuzzy. Giving
them straw causes hard digestion, for the turnips cannot be thrown back again to have a second grinding, so that they often lie in the second stomach till heat dissolves them, and they then pass on to the third. At the same time the beast refuses its meat, looks fuller than it ought to do for what it eats, dungs little, and what it parts with is stiffer than it should be; it lowers its head, and is restless to steer. In this case I advise you to give the following, to carry the load from the second stomach.

6 oz. Oil of Castor,
4 do. Syrup of Buckthorn.
This to be given in onion pottage:

And if the beast be no better in twenty-four hours, give the following:

2 oz. Salts of Tartar,
12 do. Epsom Salts.

Dissolve as above in hot water, and give water three or four times a day till better.

I have known great damage done by the improper use of turnip-ropes, in the hands of unskilful people, and many a beast lose its life. I have a great opinion that a small pliable willow, about the thickness of a small walking-stick, with the end you put down the gullet wrapped with tow, or a soft rag, made fast that it may not slip off, would answer. The stick should be four feet in length; and when it springs against the gullet it must be
easier for that tender part than a rough rope tearing the inner skin, and in danger of bringing on a mortification. But, whether you use a stick or a rope, be careful to grease well with hog’s-lard, or butter. I am certain that oil will often carry turnips down, as mentioned before; and if not, they will go down much easier with oil than without it.

I would advise all that use turnip-ropes to have strength to hold the head, and to keep the head and neck as straight as possible, that is, to keep the nose well out; and neither to be too hasty in their work, nor too long about it; for when people are fluttered about any thing, it is not often done well.

RUMINATING, OR THROWING UP THE MEAT UNDIGESTED.

This disorder is so well known, that it needs little explanation; and as I have mentioned the cause, I need not go much further on this head, as any man or woman that looks at a cow will perceive when the meat is thrown up again, and a deal of slaver and water lies before its head. This is chiefly owing to losing its cud, and that chiefly to overloading the stomach, which brings on a fermentation, or inflammation; but it is not to be called a dangerous disorder, although I have known cows continue three weeks in it.

The remedy is, to get the cud as soon as possible, but this cannot be done till the first and second stomachs are emptied, and the contents forced into the third, for which purpose I advise you to give the following:
2 oz. Salts of Tartar, or Pearl-Ash.
2 do. Cream of Tartar,
12 do. Epsom Salts,
2 do. Powdered Ginger.

Dissolve the above in hot water, and give it when nearly cold; and warm water two or three times, till it is wrought off. Fresh mould and salt, (about eight ounces of each,) dissolved in a little cold water, will be a means to get their cud. If the beast do not get better, give the above medicine a second time at three or four days' distance: the salt and mould need not be given till the third day after the medicine.

THE WHITE AND BLOODY FLUX, CALLED LOOSENESS, OR SCOURING.

This disorder is very common among cattle, and weakens them very much. It is soon discovered by their dung, only in the White Flux it has no blood among it. This is the first stage of the disorder, but if it continues two or three days, the Bloody Flux comes on, when their dung is very thin indeed, and they often part with the inner skin of their small intestines, which is commonly called parting with their puddings.

A beast in this disorder loses its strength very fast, its eyes are sunk in the sockets, it hangs its head, and is very listless to steer; its skin wrinkles, and its pulse is low and uneven, and if stirred it is in danger of coming down. Give the following:

2 oz. Tormentil Root, in Powder,
4 do. Bole Armenian, do.
20

THE COMPLETE COW-DOCTOR.

1 do. Grains of Paradise, do.
1 do. Turmeric, do.
2 do. Prepared Chalk.

The above must be given in oak bark tea; to make which, boil a handful of oak bark in two quarts of water for twelve or fifteen minutes, and let it stand till cold, then clear it through a strainer, and mix the above with the liquor. Red wine would be much better, but it is so expensive; or a pint of common brandy and a pint of water will answer full as well as the oak bark tea in this disorder. The beast will want support: therefore, if it refuses its meat, make it some wheat-flour potage; but be careful to let your wheat be sound, or it will do more harm than good; and if the beast continue ill, give the following: one ounce of isinglass, dissolved in one quart of hot water; add four ounces of arrow-root, and a quart of blue milk: boil it lightly, and give it nearly cold. Should the mucilage be too thick to give with a horn, add a little more blue milk. If the beast be brought very low, and the disorder still continue, give four ounces of Epsom salts, and two ounces of turmeric, in a little warm water, and let warm water, with a little meal upon it, be given all the time. Keep the animal warm, and stir it little; and repeat the above medicine in two days afterwards.

THE CHOLIC, OR GRIPES.

This disorder is attended with a strong sensation in the bowels; the beast lies down, and quickly gets up again, strikes against its belly with its hind-feet,
and looks wild with its eyes; and sometimes the pain is so strong that it would run at any thing near it; it also looks towards its belly, and throws its head upon it.

This disorder is mostly brought on by sour grass, bad hay or straw, water which comes from iron-forges or iron-stone, a sudden change from heat to cold, or snow-water. The remedy is as follows:

1 oz. of Tincture of Opium,
2 do. Spirits of Sweet Nitre,
2 do. Tincture of Senna,
1 Pint of Mint-water.

Give all these together, and you will have a cure in two hours. I have in my time, especially in the last forty-five years, hardly ever found it fail at the first giving, and the trials have been many; but, should it fail, repeat it in three hours, and be careful to give warm water two or three times after, for it always leaves the bowels tender.

THE FRENZY, OR INFLAMMATION OF THE BRAIN.

This is a heavy disorder among cattle, and a long-continued acute fever, the symptoms of which are a constant watching, raving, a disturbed and frightful countenance, small signs of madness, a strong pulse, and much trembling and slavering. I do not know a disease more distressing to a beast, nor one more to be feared, for it is hard to distinguish from madness. The animal is nearly blind, and often tosses its head, till at last a lethargy, or sleepiness, comes
on: the eyes look red, from the violent pain in the brain, the urine is of a high colour, and the dung black and tough, and very little at a time. The beast will stand much, and a thin rheum will pour from its nostrils.

The first thing to be done is to bleed well, which repeat as often as you think proper. Keep the beast from light as much as you can, and put it in some place by itself, for it cannot bear any noise; indeed I do not know that any thing will be more hurtful to it than noise. In this disease it takes every thing for an enemy; in fact, it is the worst disorder to deal with of any to which cattle are subject. As I have observed that the first thing is to let blood, take three quarts from the neck, more or less, according to the strength of the beast; and then give the following:

1 Dram of Calomel,
2 oz. of Castile Soap,
1 do. Jalap Powder,
1 do. Assafetida.

Boil two ounces of Valerian root in three pints of water; when nearly cold, strain it off, and mix it with the above, and give all together, but be careful to cut the Castile soap small. You may think that the above is a strong medicine: so it is; but it will thin the blood soon, and strong disorders require strong medicines. In a continuance of the disease the animal sometimes swells much in its vives, the parts that lie between the ear-roots and the jaw-bones; sometimes it is jaw-locked, so that nothing
can be got in with a horn, when recourse must be had to a bladder and a pipe, to force the medicine down its throat; and when the swelling appears, be sure to rub well with the following:

2 oz. of Spirits of Sal-ammoniac,  
2 do. Oil of Bricks,  
2 do. Oil of Turpentine.

Shake the bottle well up, and rub well the part affected.

The next stage of the disorder is dulness, a low uneven pulse, shortness of breath, the head hanging down, and stiffness in the limbs, when the following should be given:

1 oz. of Camphor, dissolved in Spirits of Wine.  
$\frac{1}{2}$ do. Gum-Guaiacum, in Powder,  
1 dram Dyaportix Antimony.

Give these in a pint of white wine; but if the disorder continue as in the first stage, give the following:

1 dram of Opium, in Powder,  
1 oz. of Camphor, ditto,  
1 oz. Gum Myrrh.

If you cannot powder the first two articles, beat them into a paste, cut them small, and give all together in a pint of Valerian tea, or barley-water. If the beast be stiff in its dung, give the following:

4 oz. Epsom Salts,
2 oz. Cream of Tartar,
$\frac{1}{2}$ do. Jalap Powder,
2 do. Lenitive Electuary.

Dissolve all together in hot water, and give it nearly cold. This disorder is sometimes of long continuance. I have known some have it a month. Sometimes there is such a strong inflammation in the brain as to bring on a mortification, which causes death; and sometimes a slight mortification, which may be called a vertigo. This is chiefly caused by the blood running thick in the vessels of the brain, which are commonly called nerves, and causes a swimming in the head, dizziness, blindness, dulness of hearing, and a stupid disposition. In this case, get some asarabacca, dry it, and rub it to powder, and blow some up the nostrils every day, to get a discharge from them: if you cannot get asarabacca, use Cayenne pepper. After this disorder is abated, be careful of turning the beast out, for fear of a second attack.

North-easterly winds are very dangerous, and often bring on this disorder, as it mostly happens in March and April, when dry winds blow from the north and east; but it is caused by cold sharp winds at other times, or a sudden change from heat to cold will bring it on. This disorder frequently happens to young beasts, but they will take it at all ages.

THE CROOK.

This disorder much resembles the last, although there is much difference in them in some things, for the crook seizes on the whole frame at once. Some-
times it draws the head to one side, and at others takes away the use of the limbs, or strikes them in the inner parts, which is vulgarly called the heart-crook; indeed the disease begins there, and is caused by a stagnation of the blood, which also causes many other disorders to begin there. The heart is the cistern of the blood-vessels; and the blood being thrown too fast from the cavity of the heart into the arteries, and the arteries throwing it too fast into the veins, they become overloaded: then, when a coldness is brought on the whole frame by cold dry winds, this disease comes on, by which the whole body is disordered, one vessel forcing upon another till a stagnation is brought on.

The Crook in cows begins in different places, and has different effects upon them: some are seized in the head and neck, which draws the neck to one side; they look wild in their eyes; shoot their tongues; slaver very much, and will thrust their heads into any corner, and stand there for some time: others are seized with agonies, or fits of madness at intervals, which are very troublesome: others are seized in their limbs, and brought off their feet. I have known a beast lie seven or eight weeks in this disorder.

First bleed well, and if the neck be drawn aside, bleed on the round side, the contrary side to that to which it is drawn; then give the following:

4 oz. of Mithridate,
2 do. Flour of Mustard,
2 do. Turmeric,
1 Quart of Ale,
$\frac{1}{2}$ a Pound of Treacle.

All to be given together, in order to bring heat into the small pores, and to give motion to the whole of the blood-vessels. Again, the beast in the first stage of this disorder will heave much in its body, give great belches, and slaver will pour from its mouth and nostrils. I have always found the last to be a favourable sign; but when its nose is dry, it indicates a strong fever; and if the beast be seized in the limbs, and taken off its feet the first twenty-four hours, you may expect a continuance. Should the disorder continue in the head and neck, repeat the bleeding, and be careful to bleed on the round side of the neck; and if the beast be hard in its dung, which is often the case, give the following:

12 oz. of Glauber’s Salts,
2 do. Cream of Tartar,
$\frac{1}{2}$ do. Jalap Powder,
1 do. Powdered Ginger.

Dissolve the above in one quart of boiling water; but if moderately kind in its dung, give the following:

4 oz. of Burdock Root,
4 do. Valerian Root,
1 do. Gum Asafetida,
1 do. Gum Guaiacum.

The first two roots to be boiled ten minutes in water, then strain it off, powder the gums, and give
all together. You will observe that the animal will often be dry; then pour a little lukewarm water into it, if it will not drink it, and give gruel with a little saffron in it.

In the second stage of this disorder the pulse is low and irregular, and the animal weak; then I wish you to give some nourishing cordial, made of ale, saffron, and a little mithridate, a quart of the first, and two ounces of each of the two last; also, you may give the following, once a day, for two days.

1 oz. of Aniseeds, in Powder,
1 do. Long Pepper, do.
1 do. Turmeric, do.
1 do. Cummin Seeds, do.
1 do. Orrice Root, do.
1 do. Galengal, do.

To be given all together in warm ale.

The third stage is about two days from the beginning, about which time the beast will be in a recovering way. If it keep on its feet, stir it as little as you can, and let its cordials be comfortable, for it will want support. Should the neck be crooked, sweat it with a sheep's skin, laid with the flesh side to it, for two hours, and endeavour to straighten it as much as you can; but be careful to wrap a horsecloth round the neck when you take off the skin, that the beast get no cold. If it be off its feet, lay it as easy as you can; and if it cannot turn itself, turn it two or three times a day,—the first thing in
the morning, and the last at night,—and lay it where it will have room enough.

When it gets strength, let it have room to stir, and to turn itself. If the weather be favourable, lay it on a barn-floor, with the doors open to give it air; but if you have not that convenience, lay it as well as you can. I also advise you to give the following every two or three days, till the beast gets up.

2 oz. of Castile Soap,
1 do. Nitre, in Powder,
⅔ do. Oil of Juniper,
4 do. Juniper Berries.

Make the juniper berries into tea; that is, bruise them, put them into a pot, and pour a quart of boiling water on them; let it stand for ten minutes; then clear it off; shred the Castile soap thin, and give all together: this is to clear the gall-pipes by urine, for the greatest obstruction lies there. When the beast is able to turn itself, lay on the following oils, and rub its cuplins, (where the backbone joins the isins,) and the small part of the back. In six or seven minutes after the oils are laid on, the animal will endeavour to get up, and, if it cannot do so, must be assisted. Should this fail the first time, repeat it in three or four days.

1 oz. of Oil of Amber,
1 do. Oil of Origanum,
1 do. Spirit of Sal-ammoniac,
2 do. Oil of Turpentine.

Put all together into a bottle, and shake it up
well: lay one half on at a time, and if the beast have laid some time, rub its legs well, to bring warmth into them, and to give circulation to the small vessels. This mixture of oil has risen many a beast that has laid for some time. Mr. John Green, of Draughton, had one that had lain for fourteen weeks at Kettlewell, and it was got on its feet by once rubbing. Mr. Peter Parkinson, of Flastby, had one risen by the same; and if I were to enumerate, I could mention a great many.

AN ASTHMA.

This disorder is attended with shortness of breath, and a frequent hooze, which causes a waste of flesh, and brings on a weakness in the whole frame; but the beast is worst at spring or fall, or when there are high, cold winds, for the weather has a great effect in this disorder. In summer time, when the herbage is plentiful and full of juice, the weather warm, and the water good, it will do pretty well, but quite otherwise when it has dry meat and cold air. I would advise those that have cattle in this disorder, to feed them, but they must do it in summer, as they cannot in winter, this disease being like the asthma in men, sometimes better and sometimes worse, as the lungs grow larger or smaller; that is, as they draw in more or less air. But change of air will cause an alteration.

The lungs, or lights, are of a spongy nature, and so full of pipes that they can be blown up to a very large size; and as the blood is all refined through them, therefore when it is overheated, and in a bad
state, it must of course inflict this disorder; indeed, any other disease happening to the beast increases this, from the blood being refined through the part, which gathers from the blood a superfluous matter, and increases the disorder of the lungs; and they can free themselves from the load which they receive from the blood, only by throwing it up at the nose. Therefore, if you observe a beast that has this disorder, you will often find a tough, glueish discharge at its nostrils.

A beast is not troubled with a fever in this disorder, as in some, except there be a flood of disorders one upon another, which is too often the case. As for a cure, I believe it has baffled all doctors hitherto, but relief may be had; therefore I will lay down the things that I have found to be best for it. I have known the following to be of great service:

- 2 oz. of Aniseeds Balsam of Sulphur,
- 2 oz. Spanish Juice,
- 2 do. Salts of Tartar,
- 6 Pennyworth of Saffron.

Cut the juice small, dissolve it in three gills of hot water, put the saffron into the pan with the juice, and it will draw the strength out of it the better; when nearly cold, add the other drugs to the liquor, and give all together, milk-warm, fasting, and to fast two hours after; also let blood at the same time. Or, give the following:

- 1 oz. of Elecampane Powder,
- 2 do. Liquorice do.
1 oz. Turmeric do.
1 do. Barbadoes Tar,
2 do. Syrup of Garlic.

If you cannot get syrup of garlic, get two ounces of common garlic; shred it small, and put all together: to be given in horehound tea, the beast fasting, and to fast two hours after: let blood at the same time. I have known tar-balls greatly relieve this disorder; to make which, do as follows. Mix eight ounces of fresh tar, (Norway tar is the best,) and as much linseed-meal, or rye-meal, as will bring it into a proper state for balls. This will do for four times, and you may give one fourth part every other morning, made into two or three balls, that it may go down the better. Tar-water is also of great service in this complaint; to make which, put a pint of tar into a pitcher, pour a quart of water on it, and let it stand two or three days; then strain it off, and add four ounces of honey: this will do for four times, and give every other day, as above directed. These receipts will cure, if the disorder upon the lungs is only slight, but if of long standing, it will only relieve.

A HOOSE, OR INFLAMMATION BY COLD.

This is a common case in horned cattle, for colds or inflammations, either slight or violent, are often received; either of which causes a hoose, or cough; when the animal looks heavy in the eyes, dry in the mouth, heaves in the flank, loses its flesh, and often gapes, belches, or coughs, loses its cud, grazes little, and its dung and water fly from it in small quan-
tities: although this disorder is well known, yet it is not well understood. Some beasts have belches for some time, much like asthmas; therefore, I advise their owners to treat them the same as for an asthma; but for one that is brought on by cold, or bad meat, to give as follows:

1 oz. of Elecampane Powder,
2 do. Liquorice do.
2 do. Honey.
1 do. Balsam of Aniseeds.

To be given in linseed tea, or barley-water, and take a little blood from the beast at the same time. I have often known mouldy hay, or bad straw, bring on this disorder. If your hay be mouldy, it should be sprinkled with water, to moisten it, before it be given; and salt thrown among your hay would be of great service. Limed land is often very pernicious in summer-time, and in some places where people lime their summer pastures, few of their beasts are free from a cough.

A beast that has a cold which has fallen on its lungs, is to be treated in a different manner, for this is mostly attended with a fever; the pulse is quick and strong, the animal heaves much in the flank, hangs its head, and constantly keeps coughing. The first thing to be done is to let blood; and then give the following:

4 oz. of Iceland Liverwort,
4 do. Cream of Tartar,
2 do. Nitre,
2 do. Spanish Juice.
THE COMPLETE COW-DOCTOR.

Cut the juice small, boil all together in four quarts of water for five or six minutes, then strain it through a coarse cloth, or hair sieve, while hot, and give one half to the beast, and the other half six hours after; also, let its food be cooling and opening, and give warm water.

If this should fail of a cure, cut three or four heads of garlic, pour one quart of water on them, boil them about four minutes, then strain the liquor off, and add

2 oz. of Oxymel of Squills,
1 do. Balsam of Tolu,
1 do. Gum Scammony, in Powder,
1 do. Tincture of Saffron,
1 do. Syrup of Marshmallows.

This must be put altogether, and given at twice, six hours' distance; and give boiled linseed for food, with one ounce of nitre, for linseed is both food and medicine for many disorders. If the beast be no better, and the fever continue, let blood a second time, and give two drams of calomel in a little linseed tea: be careful to give warm water, and to keep from cold, when you give the calomel, or it will bring on a heavy disorder. If the disorder will not submit to the above, repeat the last medicine, omitting the calomel. The above medicines are for a middle-sized beast; add or diminish according to age or strength.
STAGNATION OF BLOOD IN A COW'S LEG.

This disorder, which is commonly called a bite by some venomous animal, comes on very suddenly, and much surprises the owner, who left the beast well, and in the course of a few hours it has got a swelled leg,—mostly a fore-leg: it will swell up to the breast, and in a short time a glutinous matter will run from the top to the foot; and if you run your hand down the leg you will scrape a gill of this matter off, which appears to the eye dangerous, but is not so. It is a disease which is neither attended with much danger nor hurt to the beast, which is but little lamed by it, and has not much pain. It mostly happens to cattle in full condition, or thriving fast. As soon as you find it out, let blood, for bleeding will put a check to it, and then give the following as soon as you can.

12 oz. of Glauber's Salts,
2 do. Cream of Tartar,
1 dram of Calomel.

Dissolve them in hot water, give the mixture to the beast, and get the following for a wash to rub the leg with.

2 oz. of Extract of Lead,
½ do. Sugar of Lead,
½ do. Lapis Calaminaris.

Put these to a pint of water, wash the leg well with it, high enough to prevent the swelling going up. When you have given the drink, and let blood.
and rubbed the leg with the mixture, the business is done, and you need not take any more trouble about it.

FOR CHAFF IN THE EYE.

1 dram of White Copperas.
1 do Sugar of Lead,
1 do. Lapis Calaminaris.

All in fine powder, and dry them before the fire, as they will turn soft. When they are powdered and mixed, fill the barrel of a quill, put the small end in your mouth, and blow the powder sharply into the eye; and if the eye is not clear in three days, repeat it; but not in less than three days, for fear of bringing on an inflammation.

FOR A LASH-BITE, OR STROKE ON THE EYE.

If the eye be red and inflamed, take the following.

$\frac{1}{2}$ oz. of Extract of Lead,
$\frac{3}{4}$ do. White Copperas,
$\frac{1}{2}$ do. Lapis Calaminaris,
20 drops of Tincture of Opium,
1 pint of White Rose-water.

Powder the copperas and lapis fine, put all into a bottle, and wash the eye well with it every day, taking care to shake the bottle well up. This eye-water is good for either cow, horse, or man.

If the eye continue inflamed, lay conserve of red roses on it, and let it stay on for twenty-four hours; and when you take it off, be careful of cold; then
rub with the mixture in the bottle, and there will be little danger of not doing well.

THE YELLOWS, OR JAUNDICE.

This disorder often happens to cattle, and arises from too great a quantity of bile, which forces itself into the blood, and the liver causes the blood to press too much upon the gall-bladder. I need not enumerate the stages of this disorder, but point out how they are known, and how to cure them. It is well known that the Jaundice is an overflowing of the gall-bladder, and the yellowness of the eyes and nostrils will point out the disorder. There is also a constant itching all over the body; and if the beast have any white hair, it will turn yellow; if it give milk, that will also be yellow, and its urine will be yellow, and sometimes almost the colour of blood. Its dung will be hard and tough, almost like burnt clay. Cattle in this disorder are not fond of stirring much, it being of a very sluggish nature. These are the general signs by which this disorder may be known.

In the first stage, let blood; and if the pulse be strong, bleed again in twelve hours; and as soon as you have let blood, give the following. A small handful of Barberry-bark, if you can get it; boil it in two quarts of water for fifteen minutes, and when cold, clear it off, and add

2 oz. of Madder, best sort,
2 do. Turmeric,
1 do. Venice Turpentine,
3 do. Castile Soap.
Mix the Venice turpentine with two hen’s eggs, cut the Castile soap small, and put all together. If you cannot procure Barberry bark, get a handful of ragwort, commonly called dog-standers, and boil it four minutes in three pints of water; then let it stand ’till nearly cold before mixing. Repeat the above every twelve hours for two days, which will be four times; for the Jaundice is a disease that will not submit to trifles; and if it be not removed, there will be danger of the Black Jaundice taking place. If the beast get no better in three days, give the following:

2 oz. of Oxymel of Squills,
4 do. Epsom Salts,
½ do. Oil of Juniper,
2 do. Venice Soap.

To be given in Barberry bark tea, or celandine tea. Also give gruel made of iceland liverwort and linseed, boiled together in four quarts of water for ten or twelve minutes, two ounces of the former and four of the latter, and strain it through a coarse cloth while it is hot, or you will not be able to get it through; then mix it up with a little bran and oatmeal. Give it twice a day, and it will be both food and medicine, and if the beast continue, repeat the above medicines on the second day. Some people give wood-llice in this disorder, but I cannot perceive how they can thin or clear the gall of its glutinous matter.

If the animal be not getting better in six days, there will be great danger of the Black Jaundice.
When that takes place, the liver becomes hot and dry, the gall becomes dry also, the beast uneasy, and the pulse low, quivering, and irregular; also, the skin grows stiff and dry, the beast hangs its head, and refuses its meat, and the yellowness turns blackish:—in this case there is great danger. Give the following:

2 oz. of Spirits of Sweet Nitre,
4 do. Syrup of Marshmallows,
2 do. Venice Turpentine,
4 do. do. Soap.

Cut the soap small, and mix all together in juniper-berry tea; give one half, and the other six hours after. To make the juniper-berry tea, bruise the berries, put them into a jar, and pour two quarts of water on eight ounces of berries; let them stand till nearly cold, and then strain them through a cloth. Repeat it the day following.

I wish you also to get a good handful of wild carrot, and parsley roots, and boil them in juniper-berry tea, adding two ounces of vinegar of squills: give plenty of this, as there is no danger in it. Also throw up a glyster made of juniper tea and a little sweet oil, which repeat every five or six hours; and when you have given it, hold it in with a cloth.

In former books little has been said of the spleen, or milt, but in my opinion it is a good deal affected in this disorder, and also in the red-water; for, being so near the liver, it must of course be overcharged with the superfluous chyle that it receives from the liver and gall-bladder. Some time ago the
spleen was thought to be of no use to the creature; nay, I have heard it affirmed for a truth that it has been cut out of both horses and dogs, and that they have lived without it; but whether this assertion is to be credited or not, I cannot say; though I am of opinion that the great Creator of all things made nothing in vain, much less the spleen; for this bowél is like a sponge, and when the liver or the gall-bladder is overcharged, it receives what comes from them: but you will say, perhaps, how does the spleen discharge it, seeing it has neither artery nor vein to carry it off? I answer, there are small pipes, but little passes by them, most of the superfluous matter being discharged by heat; for when a beast is afflicted by the Jaundice, or the Red-water, the spleen is much larger than at other times, and of a greater heat, and sends forth greater fumes. Dizziness, belches of wind, dimness of sight, and even melancholy, are brought on by the fumes which rise from the spleen, when overheated. It forces its fumes into the arteries, and they are carried by the veins to all parts of the body, so that a beast when in the Jaundice turns yellow all over the body. Much more might have been said about the spleen, but let this suffice at present.

THE RED-WATER, AND THE BLOODY URINE.

These must be treated differently, for they are different disorders, so I shall begin with the Red-water. This complaint is very common, but not well understood, and may be known at the beginning by the dung; for as the gall has a pipe into
the small intestines, as well as into the pipes that lead through the kidneys to the bladder; when the gall is discharged into the small intestines, it causes the animal's dung to be thin; also, it is forced from it in small quantities about the thickness of one's finger.

At the beginning, the beast holds its water long, so that the disease may not be discovered by those that look at it, but in a few days it stales oftener, and its water is of a dark, bloody colour; its dung grows stiffer, and its water comes in smaller quantities, as the fever increases; its water will also froth where it makes it, from the heat of its body. The beast is fearful of making water, as the heat thereof is so great that it often brings the skin off the neck of the bladder; which causes it to make a little at a time, and often.

About the second or third day the pulse is strong, the fever increases, the dung grows stiffer, and the beast looks heavy in the eyes, and begins to refuse its meat. It sometimes happens that a rupture is made in a strong vessel, which takes the beast off in a very short time.

This disorder is most common in summer, when cattle are out at grass; and some say that change of pastures is the cause of it, but I am certain those will take it that have never been changed at all. Cattle that come out of pastures clear of wood, to others that lie high, where they have plenty of wood to brog upon, are almost sure to have it; and those that come from low fens, or marshy land, to high limestone land, are very apt to take it: but I
am certain that the weather has great influence over it; for I have known long dry seasons, when there have been very few in it, except at the beginning; but when the weather has broken, and become cold and wet, there have suddenly been many in it. Sudden heat or cold also causes cattle to be afflicted by the Red-water.

High winds, if cold, dry up the pores, and cause the blood to flow more violently in the large vessels, which brings on this disorder. Bad water also forwards it, for when afterwards they come to good, they take too freely of it, which overloads the bowels, and forces them hard against the midriff, bringing too much weight on the vessels, which causes them to break.

Iron-forge water is bad for cattle, but not so dangerous as low-standing water: also, water that comes from smalt-mills is dangerous, for when they are near a smalt-mill they are always in danger both of the Red-water and of the Belland, or blown in the lungs. Also, cattle that are driven much in hot weather are likely to have the Red-water.

Many more things might be pointed out, but we will turn to the disease, and endeavour to remove it, when it has taken place. If you find the disorder out soon, in the first place, bleed pretty freely; but if the beast has had it some time, bleeding would cause death.

Some say that bleeding is not proper at all; as the beast is losing blood enough already. So it is; but that is no reason why it should not be bled; for, if a man is much subject to bleeding at the nose,
bleeding in the arm is the best remedy; for, if the blood-vessels were not overloaded there would be no bleeding at all. Many proofs might be brought forward that bleeding in the first stage of this disorder is almost certain to effect a speedy cure, but if not done in the first day or two it must be omitted.

When you find a beast at the beginning of the disease, after bleeding, give one pint, or three gills, of pale oil. I wish all who have cattle in this disorder not to give every medicine that falls in their way, for it is so common that every one has a medicine for it, and if it is not just at hand, they will fetch it from some of their neighbours. In my opinion, many beasts in this disorder are killed by improper medicines. If not sold to the butchers, give to the beast affected,

4 oz. Iceland Liverwort,
4 do. Juniper Berries.

Boil these in water for three or four minutes, and strain off the liquor whilst hot; when nearly cold add two ounces of Spirits of Sweet Nitre, and give it to the beast; repeating the dose in three hours if no improvement have taken place.

A person once came to me about a cow that had been four days in the Red-water: I asked him what he had given her: he said "Many things; and before I came off we gave her a pound of charcoal and a pound of coal-dust in water." I told him they had given her enough, and that I could be of no service to him.—Pray would any man of reason think that such a medicine could pass the manyfold, when,
probably, the heat of the fever had dried her up already? Many medicines, offensive to nature, are given, to dry up the pores of the skin: a poor way of proceeding indeed! What is given in this complaint should be of a cooling, opening nature, such as will thin the gall, and clear the gall-pipes.

It is well known that this disorder takes its rise from the liver, which makes the blood, and forces it into the cavity of the heart, and it is thrown back again to the arteries, and causes an eruption. The gall-bladder becomes much larger than it ought to be, by sucking in the juices of the liver, and by the blood forcing itself into the gall-pipes, which carry the blood and urine to the bladder, from whence it is discharged in the common way. Pray how could the blood and water be mixed together if that were not the case? Also, the spleen is now as fully engaged as in the Jaundice, in sucking up the superfluous discharge from the liver and the gall-bladder; and this is the reason, that the fever is so strong; for the spleen throwing up its fumes, causes the heart to beat very much, so that, if you lay your hand on the ribs on the left side, you cannot but feel it. The heart lies on the left side, close shut up by a skin-like bladder, with a little water in it; and should this water be dried up, it would soon cause death to either man or beast.

In the first stage of the Red-water, (which is known by its dark colour,) bleed well, and give one pint, or three gills, of pale rape oil, as mentioned before; and during the disorder stir the animal as little as you can. If no better the second day, give
ten or twelve ounces of Glauber's salt; and if no better the third day, give the following:

2 oz. of good Castile or Venice Soap,
½ do. Balsam Capivi,
4 do. Cream of Tartar,
4 do. Glauber's Salts.

Cut the soap small, and put all together into linseed tea, and give it milkwarm to the beast: also, give eight, ten, or twelve ounces of Glauber's salts, (according to the strength of the beast,) six hours after. If the disorder be not then abated, give the following:

4 oz. Gum Arabic, (Turkey,) in Powder,
2 do. Venice Soap, (cut small,)  
½ do. Balsam Capivi,
4 do. Epsom Salts.

Give these together in linseed tea, or Iceland liverwort tea, and give the beast cold water if it will drink it; but if not, put a hornful or two into it: also, try it to lick fresh mould. The sweetest mould is to be got in a hedge-bottom, under a hazel bush. If it will lick it, let it have as much as it likes, for such as take fresh mould seldom die.

On the fifth day a glyster, (thrown up every four or five hours,) would be very proper. Make it of rye or linseed meal, and a little butter; not too thick, or it will not pass through the glyster-pipe. After giving a glyster, hold a cloth to the fundament for a short time, to keep it in. Give gruel made of rye or linseed meal, with half a pound of
small currants in it, which will be both food and medicine, but do not overload its stomach by giving too much.

I have mentioned the best medicines that I know of, for if I were to enumerate all the medicines that have been got at my shop since I have been in practice, I should fill a large volume; but Glauber's salt, gum arabic, Venice soap, balsam capivi, and cream of tartar, are the best; and if the disorder require it, repeat any of the above. Many will affirm that the last medicine is the best, when it is no such thing; for the first may do good in checking the disorder, while the last does none at all.

A continuance of this disorder brings on a Diabetes, or oppression of urine. When this is the case, give two ounces of spirits of sweet nitre in a little cold water, every three or four hours. Sometimes a violent looseness or scouring comes on, occasioned by the superfluous matter which is thrown into the small intestines. This is a good sign of recovery, if it be not continued too long; for nature finds out ways to relieve herself, and many disorders both in man and beast are carried off by a looseness. But you will say, perhaps, that a violent looseness is weakening; and, the beast being weak to begin with, if it be not stopped it will soon take the beast off. So it will if not stopped; but to check it give the following:

1 oz. Tormentil Root, in Powder,
¼ do. Turkey Rhubarb, in Powder,
1 pint of Red Wine.
Give all together, at twice, six hours' distance. If the complaint continue, give the following:

2 oz. Tormentil Root, in Powder,
1 do. Japan Earth, in fine Powder,
½ do. Dragon's Blood, in Powder.

To be given in a pint of red wine; and if the beast be not better, repeat it in six hours. A beast that has been much afflicted by the Redwater, and recovers, is often left very weak, with lowness of spirits, a bad stomach, dryness of the skin, a running at the eyes, its belly tucked up, its hide fast, (what is called hide-bound,) and, if it is a milch-cow, with a loss of milk. In this case give the following:

2 oz. Aniseeds in Powder,
2 do. Turmeric, in Powder,
4 do. Miderale,
2 do. Grains of Paradise in Powder,
½ do. Saffron.

Give all together in three pints of good old ale, and if it do not work a cure, repeat it in a week. Having gone through most of the heads of this disorder, I must leave it to better judges; although few can be found who have had more practice in it, and that for seventy years; but the God that made us does not show all to man at once; there is a growth in knowledge as well as in grace. I have mentioned only a few receipts, compared with what I might have done, but they are the best that I know of; and the fewer the better, if they answer the purpose.
THE BLOODY URINE.

This disorder seldom happens to bulls or oxen, nor to young beasts that have not had a calf, but chiefly to cows. In this complaint blood comes with the urine in the same manner as in the Red-water, but of a lighter colour; and sometimes in cakes, as light-coloured as blood drawn from the neck. Sometimes the bleeding will nearly stop for two or three days, or longer, and then begin again as before.

I have known cows continue in this disorder for ten or twelve weeks, and then get better of themselves: it kills very few, and those linger away by degrees, without pain. It is attended with no fever, no heat of the body, no danger of morbund, no forcing of urine, nor loss of appetite, unless it continues a long time.

This disorder generally happens in winter, when at dry meat, and has been above a match for abler men than myself, and is likely to be so for many more. Disorders never happen without a cause, but there has never been a just cause found out for this, that I have read of; and abler men than I am have been at a loss to find it out; but, as the blood comes with the urine, they supposed it must have the same cause, and be the same disorder as the Red-water: but it is not; although many have treated it so till they found out their mistake.

The seat of this disorder is in the kidneys, and it is caused by the breaking of a small vessel there. But how comes this breaking, as it mostly happens
in winter, when the weather is cold, and the beast at dry meat?

It may come by bad water, mouldy hay, or any bad meat that presses too hard upon the lungs, and causes a sudden hooze, or cough. I have seen beasts suddenly seized with a cough, which forced their dung and water to a distance from them; and it is likely enough, in my opinion, for the kidneys then to receive a shock sufficient to break a small vessel. Sometimes the stand is too short for the beast, which causes part of the kidneys to hang over the group-edge, and this may be a sufficient cause for the breaking of a small vessel; for the kidneys being tender, much pressure on them may soon do it. Besides, there may be other causes, such as sudden frights by rats, &c. Nothing is more likely to cause misfortunes than being frightened.

This is not to be called a common disorder, but it sometimes happens. The following is often of service:—

3 gills of Black Beer,
2 oz. of Irish Slate.

Give the above, and if it does not cure, try the next.

1 oz. of Japan Earth, in fine Powder,
1 do. Venice Turpentine,
1 do. Gum Arabic, (Turkey,) in Powder,
1 do. Gum Juniper, in Powder.

To be given in tea made of Travellers' Joy, or
Robin Hood's Feather, which grows among ling, and runs to a great length;—boys often get it to tie round their hats. If you can get it, boil a large handful of it well in water; clear it off, mix all well together, and give it fasting, and to fast two or three hours after. Repeat it once a day for two days; and if it should fail, try the following:

2 oz. of Tormentil Root, in Powder,
2 do. Bole Armenian, do.
½ do. Camphor, do.
2 do. Cumprule Root, do.
2 do. Irish Slate, do.

Give it in tea, as above, if the herb can be come at readily; if not, in oak bark tea; and if these should not cure, you must repeat them, or wait till nature produces a change, for I can inform you of no better. As I said before, it has been above a match for many.

THE MILK FEVER
IN COWS AFTER CALVING.

This disorder chiefly happens the day after calving. The pulse is low and irregular, the eyes are dull and heavy, the cow starts, flutters, and staggers till she comes down, and the milk can only be got from her in small quantities at once. This disorder mostly happens when the cow is full in flesh, and may occur at any time of the year, but is not so dangerous at hard meat as at grass; one reason for which is that the weather is not so hot.
It might be often prevented by bleeding and milking before calving. It never happens to a cow with her first calf, and seldom with the second, but chiefly to great milkers, for few others have it.

People that have a cow which has had this fever, should not let her take the bull again, but feed her, for if she calve and have the disorder again, there is little hope of her mending.

The first thing to be done is to let blood pretty freely, and to lay her as easy as you can. She will soon have a strong pulse, and a high fever, therefore be careful to prevent her being too hot, if in summer, or too cold, if in winter. Cooling and opening medicines are best for her; such as nitre, spirits of sweet nitre, cream of tartar, &c. Give the following:

2 oz. of Spirits of Sweet Nitre,
2 do. Syrup of Marshmallows,
3 do. Cream of Tartar,
2 do. Salts of Tartar,
2 drams of Emetic Tartar.

Give the above in linseed-tea, or barley-water. Pour a hornful or two of cold water into her every two hours, and let her lie mostly on the milking side, upon plenty of straw, and where there is room to stir; and draw the paps often, to get what milk you can from them. This disorder lasts two or three days. If the cow can bear under it for two days there is great hope of her getting better; for in this as well as in the Red-water, people will persuade the owner to give first one thing and then
another, when they neither know the disorder nor the medicine; and I have even known some advise him to get the cow on her feet and to sling her, when she has not been able to hold her head up:—this was a ready way to kill her. Never offer to get a cow up till she is able to stand. Some are brought so low by this disease as not to be able to get on their feet in less than three weeks. You may turn her over every three or four hours after the first day; and if you give cooling, opening medicines, there will be no fear of her being bound, for that is seldom the case in this disorder.

Many are for giving glysters, and I have known them given in this complaint till the animal has been blown as full of wind as she could hold, which was the direct way to kill her, for the glysters and air must fill the bowels: and yet some of these people call themselves cow-doctors! It is difficult enough to prevent her swelling, without giving her so many glysters as to cause her to swell. Six hours after you have given the other, give as follows:

4 oz. Epsom Salts,
2 do. Spirits of Sweet Nitre,
2 drams of Emetic Tartar.

This may be given as the last, or in juniper-berry tea. Also, get a pound of juniper-berries, bruise them, and put them into a jar, and pour four quarts of boiling water on them; let it stand till cold, then strain it off, and give a hornful every two hours, instead of the cold water mentioned before. Juni-
per-berries are loosening, and for wind you cannot
give a better medicine. In thirty-five hours the
fever begins to abate, and there is hope of amend-
ment, but sometimes other disorders are brought
on, or the fever returns; and if neither of these
should happen, the animal is often left in a feeble
state.

As I said before, do not try to get the cow up till
she is able to stand. If she cannot turn herself,
turn her three or four times a day. When the fever
is abated, she will want nourishment: give her
good gruel, made of ale, a little water, and meal.
The following drink will be very useful.

\[
\begin{align*}
\text{2 oz. of Aniseeds, in Powder,} \\
\text{2 do. Grains of Paradise, in Powder,} \\
\text{2 do. Turmeric, in Powder,} \\
\text{2 do. Caraway Seeds, in Powder,} \\
\text{2 do. Beast Spice, in Powder,} \\
\text{2 do. Mithridate,} \\
\frac{1}{4} \text{ do. Oil of Aniseeds.}
\end{align*}
\]

Put all together in two quarts of warm ale: give
one half, and the other half six hours after. This
is a great support, and will help to renew the blood.
If the cow do not get up in seven or eight days, rub
the following on her loins, especially where the
back-bone joins the hind-quarter.

\[
\begin{align*}
\frac{1}{2} \text{ oz. of Oil of Origanum,} \\
1 \text{ do. Oil of Spike,} \\
1 \text{ do. Oil of Amber,} \\
1 \text{ do. Spirits of Sal-ammoniac.}
\end{align*}
\]

Put all in a phial together, and shake it well up;
then rub one half on, and the other twenty-four hours after. In six minutes after you have rubbed the first half on she will try to get up, when give her a little assistance. I have laid down the best method of treatment, and the most proper medicines I know of, but if any thing fresh should occur I must leave it to your own discretion. It is a heavy disorder, and kills many.

A SPRAIN, OR CLAP, IN A BULL.

It is easy to tell when a bull has this disorder: he is restless, and not willing to stir much, is often laid, his eyes are red, he lowers his head, loses his cud, and refuses to eat. You may see his yard swelled, and often out of the sheath; his testicles will also be swelled, and he is not fit to couple with a cow. This disorder is sometimes difficult to remove, especially when in an advanced state. Some will let it alone, supposing the animal will get better of itself, till it turns to a venereal disorder.

The first thing to be done is to throw the beast, and wash his yard, sheath and cuds, with the following mixture. If his yard is out of the sheath, it is easy to come at; and if not, rub the mixture well up his sheath.

1 oz. of White Copperas, in Powder,
1 do. Sugar of Lead, in Powder,
1 do. Extract of Gouard,
1 pint of Soft Water.

Wash well with this mixture every other day; and as soon as you have washed once, give the following;
12 oz. of Glauber's Salt,
2 do. Cream of Tartar,
½ do. Jalap, in Powder,
2 do. Nitre,
1 dram of Calomel.

Give all together in water: put the water to it boiling hot, and give it blood warm. Miss one day, and then give the following:

4 oz. Epsom Salts,
2 do. Spirits of Sweet Nitre,
2 drams of Emetic Tartar.

Give these all together in linseed tea, and be careful that the beast gets no cold water for twenty-four hours; and if the disorder happen in winter, you must give warm water all the time it is taking the medicines. If you find the last medicine is removing the disorder, repeat it in five or six days. One pound of Glauber's salt may be given the day after you give the last medicine, which will both carry the mercury off and relieve the disorder; or, if the beast be strong, you may give him twenty ounces of Glauber's salt. If the disease is still obstinate, give the following:

2 drams of Prepared Calomel,
2 drams Turbith Mineral,
1 scruple Corrosive Sublimate, in fine Powder,
1 oz. of Jalap, in Powder,
2 do. Cream of Tartar,
½ do. Bitter Apple.

Boil the bitter apple in two quarts of water, and
continue boiling it till nearly half is consumed, then clear it off through a sieve or coarse cloth, and give the above with the liquor, and be careful to keep from cold. When both the heat and swelling are abated there will remain a weakness, and perhaps a running at the end of the pizzle. In this case give as follows:

1 oz. of Balsam Capivi,
2 do. Spirits of Sweet Nitre,
1 do. Oil of Turpentine,
1 do. Gum Copal or Gum Arabic, in Powder.

The gum to be put in warm water, and stirred about till it dissolves; then put in the balsam, stir it up well, and add the spirits, all for one dose. This may be repeated as often as is necessary, for it will cure the disorder in any beast, as I never had an instance of its failure in my practice. Two or three days are sufficient time between any of the medicines; but it may be longer if the disease be not violent. You may repeat the Glauber’s salt as often as you find it necessary. I once gave twenty ounces of it at a time, three days together; but proportion the quantity to the strength of the beast, for all my receipts are for a middle-sized beast.

A CLAP IN A COW.

This disorder is of the same nature as the last, but requires different treatment. Some people are of opinion that the bull or the cow cannot have it alone, but that one must receive it from the other.
I will not say that this is never the case, but it is oftener brought on by sprains or heat than by infection, for the bull often has it when the cow ails nothing, and the cow when the bull is free from it.

But let us return to the disorder of the cow. At the beginning she will hold up her tail, thrust up her back, often look backwards, and in summertime will lay much among rough grass. If you open her barren you will find a little tough matter, and many little blisters; the outside of her barren will also be swelled. By these signs you may discover when a cow has this disease. In a few days the heat will abate, but then it is growing worse to cure. I have known some cows have a running up to the calf-bed, till part of it has been eaten away; and others that have had cancers in their barren from it; but this is caused by neglect, or wrong treatment, and there is no cure for it. The following is a quick and certain cure at the beginning. A cow is much easier to cure than a bull.

10 oz. of Glauber's Salt,
$\frac{1}{2}$ do. Jalap, in Powder,
1 do. Nitre, in Powder,
2 do. Cream of Tartar,
1 dram of Prepared Calomel.

Dissolve all together in hot water, and give it nearly cold. If in winter, give warm water for two days. Then make a wash of the following, and begin to use it as soon as you have given the above.
THE COMPLETE COW-DOCTOR.

2 oz. of Extract of Lead,
1 do. White Copperas, in Powder,
½ do. Sugar of Lead, in Powder,
1 do. Lapis Calaminaris.

Put all these together in a pint or five jacks of water, let them stand a short time, shake them up well, and then wash the inside of the passage as far as the bladder's neck, which will be about the length of a finger. Wrap a piece of cloth or tow on a small stick, to wash the inside with, and wash the outside at the same time, shaking the bottle up frequently. Wash twice a day till well, and if there be need, repeat the medicine in four days; but the first mostly cures, if given in time, this being a sure and certain remedy.

THE DROPSY, OR WATER TYPANY.

This disorder is little understood by many, although too well known by some. It seldom happens to the male kind, but is most frequently among cows in low wet land; yet in dry land some have it. Some suppose that drinking too much water causes this complaint; but it is merely conjecture, they have no certain grounds for the opinion.

It is a stoppage in the gall-pipes, which lead from the gall to the bladder, and enter the neck of the bladder, from whence there is a passage between two skins to the bottom, before it enters the bladder. When the pipes are too much forced, or stopped by glucish matter, the urine cannot find a free passage, but oozes out, and in time fills the
beast's body; but it is a long while in doing this, especially the first time.

At the beginning of this disorder there is nothing to be seen for some time; at length you will perceive the beast to grow fuller every week for some weeks; and it will neither stand nor lie long at a time, for the water will be a burden to it when standing, and very uneasy when laid, as it presses hard against the midriff, and bears upon the chest till the animal can scarcely get its wind. When the beast can hardly get up or down, or in or out of a door, it is time to cut it.

I formerly cut them on the fore-side of the udder, but of late years I have done it near the back. When you cut the beast, take her into a field, cast her, and dig up two or three sods, for her belly to fall in, also make a small passage out of the place for the water to run away. Cut her where you cut a beast for being swelled with clover, and be careful to keep off the loin. Make a hole large enough to admit a strong finger. You need not be much afraid of cutting, as there is little danger in it, for the water lies just within the inner rind, all on the outside of the bowels. I have got thirty gallons from a beast at a time. When you have got out as much water as you can, get the beast on its feet, and put any plaster on the hole that will stick fast, to keep it from letting air in, and as soon as you can, for it is not like cutting for clover, as then you cut into the great belly, or first stomach, and the wind that goes in can pass through the bowels to the fundament; but the wind that goes in, when
cut to let out the water, has no passage, but must return the way it went in.

When you have got the water away, the beast will be very sickly for two or three days, and some do not recover. When you get it to eat again, be careful not to let it have too much water, and feed it as fast as you can, that it may get fat before it fills again. I have known some be twelve or fourteen weeks in filling, but if you can get the beast to be decent beef, never put off to a second operation.

I do not know any medicine that will do good. Some give drinks, but they are of no use except to profit the seller.

INFLAMMATION OF THE KIDNEYS.

Beasts are often subject to this disorder, and it is too often overlooked by their owners. Sometimes, on its approach, it is taken for quite a different disorder. The general symptoms are as follow:—
The beast is seized with a trembling all over its body, and has a low, uneven pulse; it will hold up its back, thrust out its tail, and often make water in small quantities; its external parts are sometimes cold, and sometimes very hot; it often moves its hind-legs, and its urine is often high-coloured, and sometimes has a little blood in it. If its urine be bright and clear, or of a whitish colour, mixed with a few streaks of blood, the disease is dangerous; but, if the urine is of a brown colour, it is not so dangerous. The animal's whole frame will be put in motion by sudden startings, caused by pain; and being restless and uneasy, it will refuse its meat,
and would often be drinking, though in very small quantities.

Whatever obstructs the blood, in its passage from the arteries to the kidneys, will produce this disorder. Wounds, bruises, abscesses, swellings, hard exercise, sudden heat or cold, or bad water, are very likely to bring it on. When the gall-pipes are stopped by glueish matter, which goes through the kidneys, a stone will be formed, which will cause great pain, and often brings on an inflammation. When the urine is of a dark-colour, and pains the beast to part with it, with cold sweats, and a quivering pulse, there is great danger of a mortification.

At the beginning of this disorder bleed well, and then give the following:

1 oz. of Nitre,
2 do. Syrup of Marshmallows,
1 do. Vinegar of Squills,
½ do. Balsam of Capivi.

To be given in tea, made of parsley roots. This is a safe and certain remedy at the beginning. If the first dose has not the proper effect, repeat it in twenty-four hours.

If the disorder keep increasing, give the following:

1 oz. of Balsam Capivi,
1 do. Venice Turpentine,
2 do. Venice Soap,
½ do. Oil of Juniper.

Take eight ounces of Juniper-berries, put them
into a pot, and pour two quarts of hot water upon them; cover them close till nearly cold, clear them through a cloth, and then mix the other articles with the tea. Be careful to cut the soap small, and stir all up well together. Give the beast one half, and the other half six hours after. When you give the medicine, give plenty of warm water to work it off. If the beast will not take the water, give it with the horn.

If its dung be hard, and of a black-brown colour, with a gloss on the outside, give ten ounces of Glauber’s salts, dissolved in hot water. The urine often changes its colour in this disease; but when it is of a brownish cast, (nearly the colour of coffee,) it is most favourable. The medicines here laid down are those most likely to relieve the disorder, but if they should fail, give the following:

2 oz. of Spirits of Sweet Nitre,
$\frac{1}{2}$ do. Balsam of Peru,
$\frac{3}{4}$ do. Balsam of Tolu,
2 do. Vinegar of Squills,
$\frac{1}{2}$ do. Oil of Juniper.

Get a handful of wild carrots, if you can, and make it into tea, the same way as the juniper tea, and put all together; then give one half, and the other in eight or ten hours after. Linseed, with a little nitre in it, will be both food and medicine. Take one pound of linseed, boil it in four quarts of water for ten or twelve minutes, then mix it up with a little bran into a mash, and dissolve an ounce of nitre in it while hot.
Be careful to lay the beast as easy as you can, and not to stir it, for it cannot bear much stirring. Keep it neither too hot nor too cold: if it be winter, keep its loins covered with a cloth. The above is the best way of proceeding that I know of, and the medicines are the best and safest.

INFLAMMATION OF THE LIVER.

This disorder is not so common as some, and it seldom happens to lean beasts. It is chiefly brought on by driving in hot weather. When a beast has this disorder, its eyes look red, and water much, and its tongue has a thick white scurf upon it; its pulse is quick and strong, its body fuller than it should be for what it eats, and slaver runs down from its mouth; it also groans, and is short of wind, from the liver being swelled and pressing hard against the midriff, and thus straitening the chest. The liver is seated near the heart and the midriff, and the heart receives the blood from it by the vena cava, and throws it back again by the vena porta.

The first step to be taken is to bleed pretty freely, and then to give the same medicines as in the jaundice, for this disorder so much resembles the jaundice that it may justly be called a branch of it.

If the fever bring on a costiveness, or hardness of the dung, give Glauber's salts to keep the body open, and let the animal's food be of a cooling, opening nature. Rye-meal and bran will do for mashes; but in summer-time, herbage in the field will answer better than dry meat in the house, for
herbage in spring will carry off many disorders; but as it mostly happens to fat beasts, in my opinion it is best to kill them.

LOOSENESS, OR ROTTENNESS.

This disorder is much better known than the method of curing it, and is called Rottenness when it is not so. A slipperiness of the small intestines is brought on by an overflowing of the gall-bladder; for, as I said before, the gall-bladder empties itself into the small bowels, as well as into the gall-pipes. When a looseness is brought on by this means, it may be remedied by proper medicines. Sometimes the looseness will nearly subside, and then a little cold air or white frost will bring it on again with more violence. In order to distinguish this disorder from a real rottenness, observe that the eyes will water much, and sink into the head; the beast will lose its flesh, and sometimes a slimy matter, like skins, will come with its dung; at times the dung will fly from the beast like water, and at others it is stiffer; sometimes the beast eats well, and at others refuses its meat. In real rottenness the eyes are dry, and look as well as at any other time; the skin is dry and stiff upon the back, so that you can scarcely get hold of it with your hand; but on the flank it is thin and loose, and if you take hold of it, you shake the whole. The animal will eat as much as when in health, or more for some time, yet lose its flesh daily; its dung will be thin, black and greasy, and blobs will stand on it.

If a cow be tainted with this disorder before she
calves, she will be much worse after calving; and white frosts in the latter end of summer will increase the complaint. I have known cattle bag under the jaws both in the overflowing of the gall, and in rottenness; but the former disorder is the beginning of the latter. The overflowing of the gall causes a slipperiness of the small intestines, and about ten yards of the bowels become like a calf's trundle parboiled, if you will allow me the expression; this part is also thicker and straiter than usual; and the gall being seated on the liver, disorders both liver and lungs. The first thing to remedy this disorder is to keep the animal warm. Young beasts may be soon cured, but old ones are bad to cure. Keep the beast from white frozen grass, potatoes and turnips. I have known bleeding, and powder of oak bark, useful in stopping a flux of the gall; but try the following, for it has stopped it in many.

14 oz. Epsom Salts,
2 do. Turmeric,
4 do. Dried Box Leaves in Powder,
4 do. Bole Armenian,
2 do. Aniseeds in Powder,
2 do. Ginger in Powder.

Take a good handful of sloe-thorn leaves, (if in summer,) boil them in two quarts of water for ten minutes, clear it off when cold, and give all together, fasting, and to fast two hours after. In winter use oak bark instead of sloe-thorn leaves, and repeat this medicine every other day, for three times at least, if the complaint be not cured. Give
hay, and warm water, at the time the medicine is taken. A pound of butter, melted in warm water, and given to the beast, sometimes appears to do good; but whether the disorder is mending before the butter is given, I cannot say, for I do not understand how it can do good. Isinglass (four ounces at a time) is likely to be serviceable, for it is of a healing nature, and a good astringent; but should the above fail of a cure, recourse must be had to stronger and more drying medicines, to dry up the superfluous juices of the gall. Then take

1 oz. of Elixir of Vitriol,
2 do. Crabs' Claws in Powder,
2 do. Prepared Hartshorn,
2 do. Prepared Chalk,
2 do. Tormentil Root in Powder.

These to be given in oak-bark tea, and to be repeated as often as needful. The following is often of great service.

8 oz. of Oak Bark in fine Powder,
1 pint of Common Brandy.

Add a little water, and give it to the beast. If these medicines fail, it is doubtful whether any thing will answer the purpose. When there is a bag under the chaps, or jaws, thrust a hot iron through it, and put a small cord through the hole; tie the cord to keep it in; rub it with a little grease of any sort to make it pliable; stir it every day till the matter is discharged, and then pull it out.
TO HELP A COW IN CALVING.

There is often great mischief done from the want of understanding how to help a cow in calving. I here give you the best advice that I can, and I have had very much practice in the business. In the first place, do not be too hasty in your proceedings, for sometimes a cow will have pains on her, and part with a little water, or loosening, and the pain will go off again, and sometimes the neck of the calf-bed, or what is called the yambs, will fall down, and give pain to the cow.

I have been fetched a great distance to cows many a time when they were not near calving, and did not calve till some days after; yet, before I went, some had tried much to get their hands into the calf-bed, and could not force a passage; and sometimes people have been so foolish as to endeavour to cut a way to the calf, and those people were butchers too, and ought to have been wiser. Only give time, and the calf-bed will open of its own accord. There are two water-bladders, and sometimes three, to one calf; and when the first comes in sight, and bursts, the cow is at calving. If she cannot part with it, put your hand up to feel if all is right; and if not, endeavour to put the calf right as well as you can. If the calf is right in the cow, it will have its back to hers, and a fore-leg on each side of its head. When this is the case there is no fear of the cow not parting with it; but even in this case she will want a little help sometimes.

In some cases one foot is right and the other
wrong, but be sure to get both feet right before you offer to draw the calf. Be careful to have the back of your hand next the calf-bed, that you may not hurt it with your fingers.

If the cow pain much against you, raise her behind, to give you more room.

Sometimes the hinder parts of the calf come first, with both the hind-feet down: then let some one that is by put his left arm into the cow to find the tail, and put his fore-finger and thumb under it, and thrust the calf into the cow; then you, with your right hand, fetch the feet up, and then it will come as well as with the head first. If the cow pains much against you, your arm will be cramped, except the calf be thrust into her by the other person, as directed.

When I first began business I was often put to it, before I got into the way of letting another person thrust the calf into the cow. If you set your back to the back of the man that helps you, and one use the right arm, and the other the left, there will be no danger. Sometimes the head is fallen back, and when you put your arm into the cow you cannot find it: it may be under the calf; in which case, turn the calf over, and then try to find it; and if you do not, raise the cow well behind, that you may be more at liberty. Lay the calf in as good a form as you can, and if the head still falls back, put a crook into the nose, made for that purpose, with the point turned in, in the form of a ring, that it may catch nothing to do mischief. Sometimes the
neck of the calf is twisted, but it must be straightened before the calf be drawn.

Sometimes there are two calves, one right and the other wrong. Before you attempt to draw either of them, be careful to get hold of two feet of the same calf. There is little danger of a cow that has two calves not doing well, for they are often smaller than when there is only one. Sometimes there are three calves, and only two got out. In my time I have known this happen several times, and the third has been left in till it has caused the death of the cow. I advise every person that helps a cow to calve, to put his arm in to feel if all is right, and whether she has any more calves in her, and also if the calf-bed is in its proper place; for sometimes it is drawn back to the isin by the navel-string, which I am of opinion is the cause of the calf-bed coming down after calving. Sometimes when you have drawn the fore-part of a calf out of a cow, it will stick at the huck-bones, and you cannot get it any further. When this is the case, never stand with the calf, but cut it in two at the small of its back, and take off the fore-part and the entrails; then thrust the other into the cow again, and turn the feet first, when it will come easy.

When a cow is long in calving, the hair of the calf often gets dry: in that case, grease it well with hog's lard, or butter, and it will pass the isin-bone much easier.

When the calf is swelled, or in a dropsy, which is the worst kind of calving, its head is so large that the passage is too small for it, and its body so much
swelled that there is neither room to draw it nor to stir it in the calf-bed. In this case the calf must be stabbed with a lancet, or sharp-pointed knife, in many places, wherever you can get the lancet in. Then give the cow as follows:

1 oz. of Tincture of Opium,
2 do. Spirits of Sweet Nitre.

Bed her well down, and leave her to rest. If she is pretty easy twenty-four hours after, feel if the swelling of the calf is abated; if it is, you must try to get it from her; but if not, you must repeat the above medicine, and leave her for twelve hours more. By this method I have saved several cows. As for slipping shoulders, and such things, I can give you no directions: they must be done by those who understand the business. I have had nearly to quarter a calf before I could get it from the cow; but, as I told you before, never cut the neck of the calf-bed, for cows that are cut mostly die: give it time, and it will open of itself, or it may be opened with your hand.

After a cow has had a hard time in calving, there is great danger of an inflammation coming on, or of the calf-bed falling down; for she mostly strains herself much after the calf is got away. I advise the following to be given to remove the after-pains.

1 oz. of Tincture of Opium,
2 do. Spirits of Sweet Nitre,
And, to prevent an inflammation, give—

1 oz. of Peruvian Bark in Powder,

This may be mixed with the last. Lay the cow as high behind as you can, to keep the calf-bed in; and if the barren swell, as it often does, rub it well with oil of swallows, or oil of elder. If she do not cleanse in due time, give—

1 oz. of Spermaceti,
1 do. Gum Myrrh in Powder,
2 do. Juniper Berries in Powder,
2 do. Bay Berries in Powder,
1 do. Birthwort Root in Powder,
2 do. Aniseeds in Powder,

To be given in cold ale. Much more might be said about calving; but what is here laid down includes most of the common cases.

Some will say that they cannot get into the calf-bed because it is drawn up in consequence of the bull having been clapt; but, if this had been the case, it would not have caused the neck of the calf-bed to be drawn up, for the venereal process would have been quite different. I have before given the very reason.

It is not often that a milk-fever takes place in a cow that has had a hard time in calving; but should that be the case, you cannot do better than follow the advice given in that disorder. I advise all not to have their cows in high keep at the time of calving; for there are five fat ones lost to one lean
one, and few or none in low condition have the milk-fever. But, should your cow be forward in flesh, be sure to bleed well, and to draw the milk from her as much as you can before she calve; and by this means you may, perhaps, prevent further mischief.

**INFLAMMATION OF THE NECK OF THE BLADDER.**

This too often happens, especially when a cow is in high condition, and has had a hard time in calving. To discover this disorder, which is not very easily done, observe the following symptoms, which are the most common. The beast is very uneasy at getting up or lying down; it only lies down for a few minutes, and then gets up again, wags its tail, looks back to its hinder parts, shifts its legs to make water, sometimes parting with a little, and sometimes none at all. The water it does part with is very clear, and if you catch it in your hand you will feel it very hot. When the disorder has taken place, bleed well in the neck; and after you have drawn a good quantity of blood, give the following:

6 oz. of Epsom Salts,
2 do. Cream of Tartar,
2 do. Nitre,
2 do. Syrup of Marshmallows,
1 do. Vinegar of Squills.

Put eight ounces of linseed into a jar, and pour three pints of boiling water on it; clear it off in five or six minutes, and give the above in the tea.
Powder the nitre before you put it into the tea. Make the linseed into a mash, and give the cow it for food. Repeat the above in twelve hours. Warm, diluting glysters are very proper, therefore give one every four hours. Concoction of marshmallow roots will answer well for glysters; but if you cannot get it, make them of linseed tea. Fermentations will also give ease. If there be a person at hand who understands how to draw the water, it will be very proper to do so. Be careful to give the cow nothing that is heating, and be sure to keep her body open, for if she be bound it will go poorly with her.

Linseed, rye-meal, boiled turnips or carrots, and such things, will prevent her being bound. To give many different medicines, would only be a burden to the owner, and do no good. Parsley roots, boiled onions, wild carrots, nitre, cream of tartar, squills, marshmallows, Castile soap, and such things, are the best medicines I am acquainted with.

FALLING DOWN OF THE CALF-BED.

This often happens after calving. When it takes place, be careful to wash the calf-bed well, and remove every part of the cleansing from the roses of it, if they will part easily; but be cautious not to damage the roses, for when the cow is not at her full time, they sometimes part hardly; but you had better leave some of the cleansing on than injure the calf-bed by forcing it off. If the calf-bed have been down some time before it be discovered,
(especially in winter,) and is cold, be sure to foment it with milk and water, to bring it to a natural warmth, before you put it up; for if you put it cold into the cow, it will give her great uneasiness, and cause her to throw it down again, and there will also be danger of its bringing a disorder on her.

Some people are so foolish as to put powdered rosin on the calf-bed to keep it up, which way of proceeding is without knowledge; for instead of keeping it up, it is the direct way to cause the cow to throw it down again; and reason will tell any man that the cow needs nothing in her calf-bed but what nature formed there.

When the calf-bed is thrown out of the cow, it is something like the lining of a hat when fallen out. When you put it up, have the cow on her feet, oil your hand, put your fist to the lower part of the bed, and when you come at the barren, or what is properly called labia pudenda, thrust gently with the back of your hand, and let the lowest part go in first. If you cannot get it in this way, let some one hold the calf-bed up in his hands, and then thrust it in by degrees.

Let that part nearest her barren go in first; and when you have got it into its place, put your hand into the cow as far as you can reach, that it may not be left double, but be rightly placed. Keep her as high behind as you can, that she may not throw it down again.

It will be very necessary to give an ounce of tincture of opium in a pint of warm ale, to remove her pain.

Another grievance that frequently happens, is the
falling down of the neck of the calf-bed. This often occurs when the cow has the calf in her, and sometimes to one that is not with calf. It is easily put up again; for if you put it into the barren, it will go to its own place, but it is bad to keep there. There are trappings made for that purpose by the saddlers, and I have known beasts wear them for six months together. Some put a skewer, with a hole in the end to fasten a soft band to, across the barren, and then wrap the band round the skewer to tie the lips together, and a cork on the sharp end to keep it from pricking the tail. Some sew the barren up with a leathern strap; but in that case be careful not to put the stitches too near each other, so as to stop the urine; but trappings are the safest and the easiest. When the yambs come down before a cow calves, she generally has the easiest calving, but there is most danger of the calf-bed coming down.

When a cow’s pains are very strong after putting up the yambs or the calf-bed, sometimes an awl or pricker put through the skin of her back, and tied with a sharp cord underneath, is a means of preventing her paining so much; for when she thrusts up her back it gives her pain there, and forces her to yield to the grievance.

I hope the hints that are here offered to the public may be useful to candid readers; but many head-strong persons are determined to have their way, although their plans are not half so good. I can assure my readers that in many years’ practice I seldom found the above experiments to fail; and I
have been fetched nearly twenty miles, when the best judges near the place have failed.

THE SCROFULA, OR SCAB.

This disorder is not very common, but when it does appear it is often neglected. At the beginning, people take it for some other disorder breaking out; and the old saying is, *It is better out than in*; but at length the disorder appears to any one that is at all acquainted with the diseases of beasts.

When this grievance is checked in time, it is much better both for the beast and its keeper, for it is a most troublesome disorder. Some may say that it is only a surfeit that is breaking out: so it may; but such surfeits bring on the scab. They say, perhaps, that a surfeit and the scab are different things: so they are; but a surfeit may turn to the scab. When there is a heat in the skin, and a dryness in the hair, and the beast is constantly rubbing itself against any thing that is near, you may make yourself sure that it has got this disorder. I have known the complaint continue so long that the neck and back of the beast have been nearly covered with scales.

In the first stage of this disorder, the skin or hide is hot and dry, but the insects soon gather more together, and then it breaks out into little ulcers, when it may justly be called a scrofula. The ulcers will throw out a thin matter, which is very offensive to the beast and to its owner: then the ulcers will turn to scales. You will say—"*We can-"
not see any insects." No, you cannot with your naked eye; but with a glass you may.

If there are many beasts together, the disorder will spread among them all, if not prevented. The first thing to be done is to give cooling, opening medicines, viz.—

1 oz. of Nitre,
1 do. Jalap,
2 do. Cream of Tartar,
1 do. Æthiop's Mineral,
8 drams Calomel.

Give it in a little warm gruel, or beer, three times, two days' distance between each time; or, if it work the beast sharply, let the distance be three days. When you have given the first dose, rub with the following:

8 oz. of Sulphur Vivum,
4 do. White Hellebore Root in Powder,
1 do. White Precipitate,
4 do. Flanders Oil of Bays,
3 pints of Fine Whale Oil.

Melt the oil of bays, and mix it with the whale oil; then put the other articles to them, and mix the whole well together. When you rub it on, be careful to miss no part, and it will cure the beast; but if any part be missed, you may rub it with a little sulphur vivum and white hellebore, mixed up with butter-milk. When the disorder is slight, this will cure it. If you have any more cattle that have caught the infection, rub them at the same
time: also wash the places they have rubbed against, with quick-lime and water, to remove the infection.

Let me entreat you again to get rid of this troublesome and fulsome disorder as soon as you can, for the longer it remains uncured, the worse it is to cure; and as cattle that have it are growing worse every day, their keep is quite lost. If you rub the above ointment well into every part affected, it will cure the disorder be it ever so inveterate.

If the disorder have not been of a long standing, the following receipt, which is much sweeter than the former, will cure it, without affecting the beast so much.

4 oz. White Copperas,
4 do. Green Vitriol or Copperas,
4 do. White Hellebore.

Powder these ingredients well, and mix them with five pints of butter-milk. With this mixture rub the parts affected; and if any places appear after the first application, go over them again in the same manner.

LICE IN CATTLE.

I need not say much upon this head, for it is well known to cow-keepers; but one thing I will say,—the sooner you get rid of them the better, for they make a beast always uneasy, and its keep is in a great measure lost. I would advise all that have lousy cattle not to apply quicksilver, for many a beast has been killed by rubbing six-pennyworth of
quicksilver on it to destroy lice. You may think that a small matter to kill a beast, but I assure you it will. Mercurial ointment, or mercury in any form, does mischief. Use the following, and there will be no danger. Two ounces of staves-acre, in powder: boil it lightly in three pints of chamberlie, and when nearly cold rub the beast well with it. Be careful to rub the powder on with the chamberlie. This quantity will do for a small beast, but a large one will take three ounces of staves-acre, and two quarts of chamberlie.

There are two sorts of lice; the smaller sort are worst to kill; the larger may be killed by snuff, or white hellebore root in powder, or capsico berries in powder, all rubbed on dry; but staves-acre is best for either sort of lice.

THE TURN, OR STURDY.

This disorder chiefly happens to young beasts, but some have it that are full grown. It is known by the beast holding up its head, and chiefly on that side where the bladder lies: it will often turn round, and it walks as if it were blind. This is caused by a bladder filled with water and many small seeds, which lies just below the roots of the horns, between the fore-face and the brain. You may know which side it is on by the beast holding its head lowest on that side, and the bone will also feel softer on the side where the bladder lies.

Sometimes the bladder lies quite under the roots of the horns, and then it cannot be taken out without killing the beast. When this has been the case,
I have known it to puzzle some that were good judges of the disorders of cattle, and they have called it frenzy, or inflammation of the brain, and madness, when it was no such thing. If the bladder lie close to the bone in the face, about half way between the eyes and the roots of the horns, it may be got out with safety.

Cut the skin about two inches square, leaving it uncut at the top, and then take off about half an inch of the bone with a chisel; then hold the nostrils for a short time, and the bladder will come out. Do not burst the bladder if you can avoid it, and do not put the piece of bone into its place again, for it will do harm and no good, and the place will fill up with flesh. Put down the skin, and lay on a plaster made of butter and common turpentine: dress the place every other day with it till well, and if the skin do not fasten again, cut it off, and fresh will grow.

It sometimes happens that another bladder forms in the same place; when so, it is easier to remove than the first, as the place in the bone is better to open.

Keep the beast in the house for three or four days, guard against cold as much as you can, and give warm water. It will be proper to let blood, to keep off an inflammation. I have given you proper directions how to proceed in this disorder, but I advise those who have cattle in it to kill them if they are full of flesh, for it is a disease that is seldom cured.
A SLOUGHED OR BROKEN HORN.

This frequently happens among horned cattle, and I should have passed it by had it not been for one reason. *When a horn is broken off near the head, it gets wrapped up with a little tar and tow, and a cloth round them, and very often little or no further notice is taken of it*; but I have known very great grievances caused by such neglect; for sometimes in summer the flies will blow it, and maggots will breed; and the roots of the horn being hollow, the maggots can conceal themselves in the cavities. At other times the end of the horn heals up, and the inside is full of matter. In both these cases I have known beasts become nearly mad, by the brain being inflamed. I therefore advise those who have a beast with a horn dangerously broken, to dress it every other day till well.

Sometimes when a horn is broken in the middle, and is not parted from the coak, the best way is to take the broken part off, when it will soon be well.

When a beast has sloughed a horn, and left the coak on, I have known a very large wen grow on the end of the coak. When this happens, take the horn or coak off with a fine saw, about two inches from the wen; have a wet bladder ready, and as soon as you have cut the wen off, put the bladder over the end of the horn, and twitch it fast with a string round the horn; and you must tie the string round the other horn, as the blood will force it very much. Dress the sloughed horn with tincture of myrrh and yellow basilicon.
Sometimes both horns are broken off near the head: in that case, fix a roller quite round both horns, and let it go under the throat. If this happen in fly time, keep the beast in the house till nearly well.

**THE QUINSY.**

This disorder is very common among horned cattle of all kinds. At the beginning the beast slavers much, thrusts out its head, its spirits are depressed, and it stirs little about. If it be summertime, it will be often under the hedges, chewing leaves of trees, and putting them out again; and if you examine, you will find the roots of the tongue much larger than usual; the vives, also, near the ears, are much swelled. When you find that the beast has this disorder, take it into the house, and rub it with the following:

- 2 oz. of Oil of Swallows,
- 2 do. Oil of Turpentine,
- 2 do. Oil of Linseed,
- 2 do. Spirits of Sal Ammoniac.

Shake them up well together, and rub the beast three or four times a day, to try to turn the disease back again. Let its food be chiefly meal and water, for it cannot swallow any thing that is hard.

Sometimes the swelling breaks inwardly, and discharges itself at the mouth. When that is the case, the beast soon gets well; but when the matter
gathers into a bag at the roots of the tongue, it is very tedious.

I have known a rowel, or a seton, when put into the swelled part, be of great use; but if it will not remove the disorder, you must use the knife. But few people are qualified for that work, because there are the neck vein, the artery, the windpipe, and the gullet, in the part; so that a skilful hand only can perform the operation without injuring any of them. In my time I have cut many, and I do not know but that they all did well.

Some beasts have had a bag of matter at the roots of the tongue, which has not been perceived till they were dead. The bag laid on the upper side of the gullet and windpipe, and was not discoverable either by the eye or the touch.

The Swelling in the Vives, (commonly called the Bur,) is often taken for the Quinsy. This lies between the ear and the roots of the tongue. I wish people to be careful in distinguishing between these two disorders, for the latter is of little consequence compared with the former.

If you have the knife to use in the quinsy, and make an opening into the bag of matter, keep the orifice open with tents made of tow and yellow basilicon, till the matter is discharged. A wash, made as follows, will be very proper to syringe into the wound till it is well.

4 oz. of Spirits of Wine,
1 do. Roach Alum,
½ do. Camphor.
THE COMPLETE COW-DOCTOR.

Powder the alum and camphor well, then put all together, and let them stand for three days, and then add two ounces of Friar's balsam. This is an excellent wash for any green wound.

For the swelling in the vives, rub well with the following, and the cure will be completed.

2 oz. of Spirits of Hartshorn,
2 do. Sweet Oil.

The Quinsy is not so soon cured; and I am not acquainted with any other medicines, or method of treatment, that will be of service; neither do I desire to fill the book with many recipes, when those that are laid down will do.

INFLAMMATION OF THE STOMACH.

This is a most dangerous disorder, little known to cow-keepers or to cow-doctors. When the disorder takes place, it is known by the beast being too full on the side contrary to that at which you milk; the beast is restless, lying down, soon getting up again, shifting its hind legs, making water oftens and in small quantities, holding up its tail, and paining itself to dung. It looks wildly with its eyes; and on lifting up its eyelids, you will find them redder than they should be. I have seen the paunch or bag rise and fall again, and continue doing so for some time. This disorder is often got by eating disagreeable herbs, such as the yew-tree, wild-saffron, deadly night-shade, hemlock, the fox-glove, and other noxious weeds; sour grains also, and the seeds from shelling, will have the same effect.
When this disorder takes place, the first thing to be done is to bleed freely, and then giving six or eight ounces of oil of castor in a pint of new ale, taken from the working-tub. If the oil of castor cannot be had immediately, use a pint of sweet oil for the purpose; and if that be not at hand, give the beast eight ounces of melted butter or hogs'-lard in warm water. If you have any alewort near you, make strong tea of it, and add to one quart of the same, two ounces of salts of tartar, one ounce of nitre, and one ounce of volatile salts, powdered and put into half-a-pint of vinegar, and give this mixture while in a state of fermentation. If this should not effect a cure, give the following:—

1 oz. Yellow Bark in Powder,
1 dram of Camphor,
½ oz. of Gum Myrrh in Powder.

The Camphor and the Myrrh to be powdered together, and the whole to be given in a quart of Juniper Berry tea.

If all these take no effect, give a glyster made of a quart of linseed gruel or tea, two ounces of common salt, and two ounces of tincture of opium, thrown up the fundament by a pipe from a bladder.

If then the disorder be not abated, give the following in Juniper Berry tea:

2 oz. Tincture of Gum Guaiacum,
1 do. Tincture of Opium.

Keep the beast warm, and give it a little warm water every two hours.
As this disorder seldom yields to medicine immediately, let there be three or four hours between giving the medicines herein prescribed for it.

THE FOUL IN THE FOOT.

There are so many sorts of Fouls, very different from each other, that I cannot give you proper directions for their treatment unless I mention them separately. I shall therefore explain the five different sorts that are most common.

The Blood Foul. This comes on very suddenly, and generally happens to a beast that is fast feeding, or to one that is full of flesh. One day it appears well, and the next has a foot much swelled, and is very lame indeed: its claws are thrown a distance from each other; the foot is very hot, and the beast is constantly shifting it. This disorder is often mistaken, and improper drugs applied, such as verdigrise and vitriol, and others that are of a heating, drying nature, which is like heaping fuel on the fire to put it out.

When you find a beast afflicted with this sort of Foul, lay a poultice of turnips and a little oil, or hogs'-lard, on for the first three days: if you cannot get turnips, use rye-meal, or linseed-meal. On the fourth day make an ointment as follows:

4 oz. of Soft Soap,
1 do. Potash.

Beat these well together, and lay them on a pledget of tow; put it quite through, between the claws; bind it on with a cloth made for the pur-
pose with two holes in to let the claws through: fasten it on above with a string, or sew it on, that it may stay in its place: let it be on two days, and then take it off and examine the foot well, to see whether there be any discharge of matter, for in six or seven days it will break, and in eight or nine days a bur or coak will come out from between the claws: then lay on a little more soft soap and potash, till you get a clear bottom; and then apply green salve to heal it. Make green salve to keep for use as follows:

4 oz. of Common Turpentine,
2 do. Bees' Wax,
2 do. Rosin,
2 do. Honey,
1 do. Verdigrise,
12 do. Hogs' Lard.

Powder the verdigrise fine, melt all the other articles together, and put the verdigrise in when they are nearly cold, stirring them well, that it may not go to the bottom. This is a good salve for any wound, and should always be kept in readiness. If there are any pipes, or proud flesh, on the sore, eat them down with blue stone vitriol.

Sometimes the Blood Foul breaks out above the claws, and in that case is very troublesome, for it gets among the bones, (as a twitter does in a horse,) and keeps breaking and discharging matter by pipes:—as one heals another breaks out; and sometimes two or three places discharge at once. When the pipes throw out white matter, eat them
out with a little corrosive sublimate about the size of a pea, and wash with the following:

1 pint of Vinegar,
1 oz. of Bole Armenian,
½ do. Verdigrise,
½ do. Vitriol,
½ do. Crude Sal-Ammoniac,
4 do. Honey.

Put all together, and simmer them over a slow fire for half an hour, stirring them all the time; then take the mixture off, and put it into a pot for use. This is a powerful drier, and will also cure the Stinking Foul, and the Foot-Rot in sheep, if the feet are kept dry for a short time after. So long as any pipes throw out matter, they must be eaten with corrosive sublimate or caustic; then wash with the above, and lay the green salve on to heal with.

I have known this complaint continue twelve or fourteen weeks; and when it does well it remains seven or eight weeks.

There are thirty-two small bones in a cow’s foot; and if they are affected you need not expect a cure very soon: but I advise you to prevent this, by poulticing well, and not using drying medicines at the beginning of the Foul. As this disorder is infectious, you should be careful to keep the beast from others as much as possible; for if another beast (whether full of flesh or not) tread where the lame foot has just been, it probably will catch the disorder.
THE COMPLETE COW-DOCTOR.

The Bone Foul. This is a lameness that comes on imperceptibly. There is nothing to see but a redness between the claws where it should be white, and the foot is also a little hotter than usual. The beast grows more lame every day for eight or ten days, and then you may see a little swelling above the claws, sometimes over one claw, and sometimes over both. In this case, take

\[
\begin{align*}
\frac{1}{2} \text{ oz.} & \text{ Oil of Origanum,} \\
1 \text{ do.} & \text{ Oil of Turpentine,} \\
1 \text{ do.} & \text{ Spirits of Sal-Ammoniac,} \\
1 \text{ do.} & \text{ Oil of Amber.}
\end{align*}
\]

Put all these together into a phial, and rub well the part affected every day, to force the disorder back again. Should it come forward so as to break, you must treat it the same as the Blood Foul. This disorder is not so common as the last, and is not catching; but it has often puzzled both keeper and doctor, and has been taken for a lameness somewhere above, till in time it proved to be in the foot.

The Frog Foul. This is a substance that rises between the claws, about the thickness of a finger, and sometimes the skin is not broken at all. It continues for some time, and keeps the beast a little lame. When you find a substance of this kind, cut it off with a sharp knife, and lay on a pledget made of

\[
\begin{align*}
1 \text{ oz.} & \text{ of Soft Soap, and} \\
1 \text{ dram of Corrosive Sublimate.}
\end{align*}
\]

Mix them well together, and it will serve for two
dressings, at three days' distance; and it will be as much as you will want: then heal the place up with the green salve recommended for the Blood Foul. If any proud flesh rise, eat it off with blue vitriol.

I have cut the Frog Foul out with a knife, and sometimes with a red-hot iron about an inch broad, made sharp at the end: this last will take it off as well as any thing, and leave the part curable in the shortest time. There is a vein which feeds the Foul, and which must be destroyed, or the substance will rise again; but be careful not to go too deep.

The Shag, or Angleberry Foul. These may properly be put together, as they are of the same nature. It mostly takes place at the heel, and spreads as big as a half-crown, almost like a seeded wart; and sometimes it is also on the fore-side of the foot, but not so much as behind; and it is generally on the hind-feet. This disorder, as well as the Stinking Foul, is owing to the blood being in a thin, bad state, and is much like the grease in horses' heels.

Bleed pretty freely, and give a Felon drink; then touch the place with oil of vitriol every third day till better. This Foul soon disappears, but some beasts that have bad feet are troubled with it at times all their lives, especially during a long wet season in summer, or after standing in the house dirty.

Some people turn their cattle out in winter to water where there is much dirt, and I do not know
a readier way to bring on this complaint. I advise all cow-keepers to mend the roads to their watering-places, when needful. It would be much better for cattle if people would use their reason, for that would inform them that *a beast must be more comfortable when standing in the house clean and dry, than when daubed up to the knees with dirt.* Sensible people would consider that a beast can feel as well as themselves. If they get their feet wet or dirty, they do not think it proper to sit or stand so; and it is the same with the beast. If I had a beast in the house in winter, I would carry it water, rather than turn it out into the dirt, if I could not mend the road to the watering-place. Some people have it not in their power to remove this evil of bad road without being at a great expense, materials being at a considerable distance; but some have them at hand, and neglect to do it; and I may justly add, it is much to their shame to see an evil and not to remedy it when they are able.

**The Stinking Foul.** This is easily cured by drying up the juice that springs up between the claws. If you use the wash that is recommended for the Blood Foul, it will cure it by three times' washing; and if you have not that ready made, two pennyworth of egypiacum will do it; or a little verdigrise mixed up with tar and butter; or a little blue stone vitriol, dissolved in water. Any of the above, well washed on, will cure the Stinking Foul.
LAMENESS.

When a beast has been a long time lame, the claws grow long, and are very troublesome to it, so that I advise you to cut them. Take a block of wood, put the foot upon it, and with a mallet and chisel strike off as much as you think needful.

Sometimes gravel works down into a beast's foot, as it does into a horse's, and must be cured in the same manner; but a horse's foot and a cow's are made quite differently; for in a horse's foot the rims or shelves in the inside of the hoofs turn upward, which causes the gravel to go up and out at the top; but a cow's turn downwards, and when the gravel gets in it stops there; so that a cow is much better to cure.

Beasts are often lame in summer; sometimes it is caused by flies, and at others by riding another cow, when in bulling; for they will come off on one side, and leave the other on the cow's back, and either nearly tear the shoulder from the body, or put it out of joint. When the shoulder is out of joint it stands off from the beast. Put a cord round the foot, and draw it under the beast's belly; and if it comes down on the lame side, its weight will force the joint in again.

If the lameness be in the cup-bone or the udder-joint, you must try whether the cap be shifted in the stiffe-joint or not. (Sometimes the tendon is thrown on one side.) When lameness is caused by any of these accidents, the part must be put right
before you can expect a cure. Rub any part that is disordered with the following:

rence of 20 oz. of Oil of Origanum, 1 do. Spirits of Turpentine, 1 do. Spirits of Sal-Ammoniac, 1 do. Oil of Amber.

This mixture is what is called the Strong Oils; it is very penetrating, and is good for many kinds of lameness. There is another mixture, commonly called the Horse-bottle, which is made of the following:

Two or three pennyworth of each, as the buyer may think proper. This mixture has been much esteemed in the west of Yorkshire, but I do not think it calculated to do much good: neither the spirits of wine nor the opodeldoc will mix well with the oils; and oil of spike and oil of petre are not much different from oil of turpentine. In my opinion, the following mixture is much better:

½ oz. of Oil of Origanum, 2 do. Spirits of Turpentine, ½ do. Oil of Bricks.
Mix these together, and they will be found very good for a sprain. A beast's hide is so strong that it requires a sharper mixture to penetrate it than that of a horse.

WOUNDS.

As for Wounds in general, there can be little said about them by way of directions, but a few recipes may be of use, and be a help to the cow-keeper.

Much depends on the nature of the part where the wound is received: if it is a fleshy part, endeavour to keep the lips of the wound open;—if it is a bony part, keep them together. The udder joint, and the pope's eye, are the most dangerous parts. If the wound is near either of them, draw a few stitches through the skin to keep the lips together, and to prevent the cold air from entering. In three or four days the wound will begin to matter; and if the pus be white, mixed with a little brown, it is a favourable sign; but if it be a brown, glueish matter, with a clear lie the colour of vinegar, it is a bad sign.

Sometimes a beast gets staked, or another beast pushes its horn into it. In these cases search the wound to the bottom, and if nothing be in it, syringe the following into it; which is proper for any fresh wound.

2 oz. of Gum Benjamin,
2 do. Gum Styrocks,
2 do. Gum Myrrh,
2 do. Gum Guiacum,
2 do. Aloes,
Powder those that will powder, put the whole into a bottle, and let it stand for five or six days, often shaking it up. This is an excellent mixture for green wounds, and also to take inwardly for the Cholic in either man or beast. It is nearly the same as what is sold in the shops by the name of Friar's balsam, balsam of life, balm drops, and tincture of benjamin. You may reduce the quantity as much as you please. Tincture of myrrh is made as follows:

2 oz. of Gum Myrrh,
1 do. Aloes,
1 quart of Rectified Spirits of Wine.

Mix these as the last, and the mixture will cure green wounds. I need not mention any more tinctures, for you can have no better than the above; and as for salve, that which is recommended for the Blood Foul, and yellow basilicon, will answer every purpose for green wounds.

When a wound has been some time in healing, proud flesh will appear; this you must eat off with precipitate, lunar caustic, or blue vitriol; and be careful to keep the beast in the house, and to give it warm water. When the wound is dangerous, let the tow be clean, and of a good quality, such as is called surgeons' tow.

Sometimes a beast gets a push on the body that
breaks the inner rind so that the bowels come through, leaving the skin whole: if the hole be large enough, there is little danger; but sometimes it is small, and receives part of the bowels, which fill with wind and sediment so that they cannot get back; which causes a twitching in the inner rind, and brings on an inflammation in the bowels. When this happens, there is no remedy but by cutting the skin a little above the wound, putting the bowels back again into the body, if it can be done, and making the hole in the rind larger either before you put the bowels in or after, being careful not to cut the bowels. Some pretend to sew up the rind, but this cannot be done so as to answer any good end; but you must sew the skin close after having had to open the rind to let the bowels pass. When there is a sufficient opening made in the rind, the bowels will lie in the skin, and grow less and less as the rind closes up. Lay on a plaster made of wheat-flour and whites of eggs, which will stick faster than any salve you can get.

Cancers sometimes happen to horned cattle, a cure for which can hardly be expected. Therefore, when you see any appearance of a cancer, I advise you to feed the beast as soon as you can; for if you were to get it cured, the remedy would perhaps be worse than the disease. Cancers generally take place on the fundament, or barren, or on the lower chap. To recommend any thing for the cure of them, would perhaps do harm instead of good.

There is often a lameness in the whole bone of the buttock which is frequently overlooked till the
flesh fall or "pine off," as the expression is. A gristle keeps the cup-bone in its place; but if that gristle be broken, the bone leaves its socket, and often falls down into the fleshy part, when no good can be done: but if a sprain, or a bruise or a cut, be caused to the animal, you may rub the part affected with the mixture according to the first recipe here given for wounds, every two or three days. I would caution you again about the udder joint, as it is the most liable to disorder. If the cap or stifle bone be displaced, the beast goes quite lame. If that bone be thrown up, endeavour to force it down again; if shifted inward, try to put it outward. The leg should be put down and brought forward to the fore feet. When the bone is got into its place again, lay on a change of strengthening plasters.

INFLAMMATION BY WOUNDS.

It seldom happens that an inflammation takes place after the fifth or sixth day from the time of receiving the wound; but a gangrene may come on ten or twelve days after. There is, however, a great difference betwixt an inflammation and a gangrene; the former being a great deal more dangerous. An inflammation brings on a mortification, and then death. If an inflammation take place, rub the part affected with the following:

1 oz. Oil of Spike,
½ do. Oil of Origanum,
1 do. Spirits of Sal-Ammoniac,
½ do. Oil of Amber.
This mixture often puts a stop to the progress of the inflammation. I have known fomentations, made of the following, of great use in checking this disorder:

- 4 oz. Camomile Flowers,
- 4 do. Juniper Berries,
- 2 drams Oil of Mint.

Boil the flowers and the berries four or five minutes in two gallons of soft water. Take it off the fire, allow it to cool a little, and then put in the oil of mint. After that, put two flannel cloths into the liquor, take one of them out as hot as you can conveniently bear it, and hold it for ten minutes to the part affected; then change that cloth for the other in the warm and fresh state, which apply in the same way for the same time; and continue the applications for two hours, keeping the liquor pretty hot all the time. When you take the last cloth off the place, rub it dry, and wrap a dry cloth round it. When the wound begins to madder, the danger is over.

To remove a gangrene, take two ounces of blue vitriol, an ounce of roach alum, and powder them both together; mix them with a pint of water, and wash the part affected once a day.

**ANGLEBERRIES, OR ANBERRIES.**

These are more troublesome than dangerous. In summer, cattle are made very uneasy by flies, and are so busy driving them off that they have not
sufficient time to eat and rest; therefore it is no wonder that they grow thin of flesh and are subject to this disorder. It may easily be cured at the beginning; for, before the angleberries or warts grow strong, you may pull them up with your thumb nail; only be sure to put your nail close to the bottom of them, then put your fore-finger close to your thumb, and give a sharp twist, and the seed will come out like a white pea. I have pulled many off the paps and other places in this manner. When they are neglected, they grow very strong, and then other methods must be used. Take a pair of clams, such as gelders use, have the beast down, and put the clams just to the bottom of the angleberries, have a red-hot iron ready to sear them with, and you may either cut them off with the knife or with the iron. Be careful to keep the clams fast till you get the place seared, for if the angleberry be strong, the vein will be strong also.

Some angleberries are very dry, and not much higher than the skin; then you may kill them with soft soap and corrosive sublimate, as is recommended for the frog foul; but tie a small sharp cord tight about the roots of as many as you can, and they will die away. Oil of vitriol or caustic will destroy many. Sometimes they are so near the eye that you can put nothing on them but soft soap and sublimate, and you must be careful of it that none may get into the eye.

People have often young beasts with angleberries on their paps, and do not think of it till they are near calving, when there is not time for the angle-
berries to be taken off and the places to heal. I have known beasts have so many that I could not tell where the paps were; and in my time I have taken a bushel off at a time, and only got one half for fear of the beast losing too much blood. When there are so many they stink so as almost to suffocate one. It is a great shame for people to be so negligent: it appears as if they neither respected themselves, their cattle, nor their families.

THE GARGIL.

This is mostly brought on by cold from sudden changes. Sometimes in summer the weather is very hot, and a thunder-shower causes the air to turn cold, and this change affects the whole body. A beast in this disorder slavers much, hangs down its head, looks red in the eyes, is sometimes seized in a limb, or in both the hind-quarters, tremble much, is not fond of stirring, throws up its back, and its hair is dry, and stands nearly upright on its back; and no wonder, for the sudden cold has nearly stopped the circulation of the blood, which causes the pores of the skin to be nearly dried up. The first thing to be done is to bleed well, and to give the following:

2 oz. of Grains of Paradise, in Powder,
1 do. Galengal, in Powder,
1 do. Ginger, in Powder,
2 do. Turmeric in Powder,
2 do. Mithridate.
2 drams of Saffron,
1 oz. of Aniseeds in Powder.
All to be given in a quart of warm ale; but should the disorder fly to the lungs, and bring on a hoose, or cough, give the following:

2 oz. of Spanish Juice,
2 do. Liquorice Powder,
2 do. Elecampane in Powder,
2 do. Honey.

Cut the juice small, and dissolve it in a little hot water, and give the above all together in linseed tea, barley-water, or sweet wort.

Violent colds bring on many disorders, and are often the forerunners of the Quinsy, the Felon, and the Grass Fever, or the Felon in the bag and the limbs; so that I advise every cow-keeper that has an opportunity, to house his cattle when a sudden change of weather takes place about midsummer, or between that and Lammas, in order to prevent disorders, for they are easier prevented than cured, and especially the Grass Fever. I am fully persuaded that sudden heat or cold brings on most disorders; for if you consider how fast the blood circulates when the body is hot and the pores of the skin all open, and how a sudden cold wind and rain stops the motion of the blood and chokes up the pores, you will not wonder that other disorders follow.

How many disorders are brought on by neglect, I cannot determine; but I am certain that many might be prevented that are not.
THE FELON, OR HIDE-BOUND.

Many disorders that go by this name are nothing of the kind. Too many pretend to know something about a cow who know nothing about this complaint, but give other disorders the name of Felon; and some make four kinds of Felon, viz. Hide-bound Felon, Heart Felon, Water Felon, and Cripple Felon, or Felon in the Limbs. This is chiefly for want of knowing the disorder. Let me again beg such false pretenders to be silent, and when they know nothing to say nothing. If such people would deliberate a little before they give their opinions, I believe many of them would be silent, unless they should honestly say they did not know what was the matter with the beast, and then they would tell the truth. In my time I have known hundreds of cattle killed by following the advice of ignorant people; and have even known many cow-keepers that would give advice to others, and yet could not trust their own cattle to their own judgment! It appears to me that such people want to learn something at their neighbours' expense, which is not doing as they would be done by, nor loving their neighbours as themselves.

The following are the symptoms of the Felon, or Hide-bound. The beast's hide is stiff, and not good to get hold of; it loses its flesh, walks stiff in its limbs, its eyes look dim, and water; its hair stands straight on its back, and it neither eats nor drinks so freely as it should do. When you find a beast in this state, you may be sure it has the Felon; and I
shall lay you down a few recipes for the cure of it. The following is for a strong beast.

2 oz. of Beast Spice,
1 do. Turmeric,
1 do. Powder of Aniseeds,
1 do. Canary Seeds in powder,
2 do. Ginger in powder,
2 do. Grains of Paradise in powder,
1 do. Diapente,
1 do. Sweet Fennel in powder,
1 do. Mithridate.

This is what is called a Felon-drink for a strong beast. All must be mixed together in two quarts of ale, with a little treacle; to be given fasting, and the beast to fast three hours after; and give the beast a little warm water before it gets cold. The following drink is not quite so strong, and will answer for most beasts of common size.

4 oz. of Flour of Mustard,
1 do. Beast Spice,
1 do. Diapente,
1 do. Aniseeds in powder,
1 do. Sweet Fennel in powder,
1 do. Caraway Seeds in powder,
1 do. Mithridate,
2 do. Powdered Ginger.

To be given in three pints of ale as above. The next is for the same purpose.

4 oz. of Mustard,
4 do. Powdered Ginger,
4 do. Beast Spice.
To be given as above. The next is called a common Felon-drink.

2 oz. of Beast Spice,
1 do. Ginger,
1 do. Aniseds,
1 do. Long Pepper,
1 do. Diapente,
1 do. Fenugreek,
1 do. Turmeric,
1 do. Mithridate, or Venice Treacle,
1 do. Grains of Paradise,
1 do. Galengal,
1 do. Caraway Seeds.

To be given in three pints of warm ale, with a little treacle, fasting, and to fast two or three hours after. Give a little warm water before you turn the beast out to the cold. To a very small beast give half of the above.

A herb drink for the same purpose is made as follows. Take four ounces of felon wood; horehound, featherfew, peppermint, wood betony, agrimony and rue, of each a small handful; boil them in three quarts of water for eight or ten minutes, and when nearly cold strain the liquor from the herbs, add two ounces of mithridate to the liquor, and give it to the beast. Any of these recipes will cure the disorder if the drugs are good, and I could lay down many more, but I do not mean to clog the book with recipes, for no better can be had than those that are here.

Many people affirm that there is a worm in the beast's tail, and cut it, pretending to take out the
worm. This is a mean juggling trick of pretenders: they say there is a soft place in the tail which is occasioned by the worm, and affirm that if the beast's fore-teeth are loose, it is a certain sign that it has the worm in the tail. I assure my readers that there is no such thing as a worm in the tail, but there is sometimes a gangrene, or canker, in the tail, brought on by the Hide-bound or Surfeits. As to the teeth being loose, they are never fast, and are more loose when the animal is poorly. The tail of a cow has many joints in it, and runs smaller to the bottom. Within five or six inches of the end there is a small soft place, between the lump at the tail-end and the bone, that is, where the bone ends; and there it is that false pretenders work their deception. There are four leaders or tendons, that reach to the bottom of the tail, and also four veins that go just between the tendons, the strongest of which is on the under side of the tail. Hold the tail up, cut it lengthways, and put a skewer underneath the strong vein, between the tendons, and you may draw the vein out three or four inches long: if you break it off and lay it upon any thing that is cold, it will stir and appear like a worm. Putting a setter in the tail (about four inches from the barren) is very useful when there is a gangrene in the tail. You may know when this is the case by the hair falling off, and the tail being crooked, and I have known it eat the tail off; yet it is easily cured by cutting the strong vein on the inside of the tail, next to the body. When you cut the vein, rend the skin with a skewer, and put a little bearsfoot, or docken root, and a little salt and butter,
into the place, and sew a cloth round it, but not too tight, for the tails of many beasts have been taken off, and some above the fundament, by cutting the bone, or tying the bandage too tight.

THE FELON.

This mostly happens at the end of July, or in August, to cattle that are feeding. Milch-cows, oxen, and heifers that have never had a calf, are liable to it. I have known heifers have it to such a degree that one quarter of the udder has dropped out. I need not describe the complaint, which is so well known; but I will remark that there is a strong fever at the beginning.

Bulls and oxen are chiefly affected in the limbs, which causes lameness. The first thing to be done is to bleed well. Some graziers are against bleeding, but they are mistaken, for both reason and experience tell us that bleeding must be proper at the beginning of a fever. If you bleed and physic your cattle every ten days when the disorder prevails, it will prevent many having it, and such as do take it will have it more mildly. At this season of the year high winds and cold rains are very frequent; and it often happens that, when the weather is very hot, a thunder-storm changes the air very quickly. At such times those who have an opportunity to house their cattle, especially during cold rain, should do so. When you find a feeding beast (not a milch cow) afflicted with this disorder, bleed well, and then give the following:
1 oz. of Jalap Powder,
8 do. Flour of Sulphur,
2 do. Cream of Tartar,
1 dram of Calomel,
1 do. Tartar Emetic,
1 do. Cinnabor of Antimony,
2 oz. of Powdered Ginger.

Mix these all together, and give them in a little linseed gruel or onion pottage. This recipe is well calculated to cool and abate the fever, and to thin the blood. Glauber's salt is also a fine cooler:—in three or four days give twelve or fourteen ounces of it, and two ounces of saltpetre, dissolved in hot water, and given nearly cold. Repeat either of these as you find it needful: the first of them is one of the best yet found out for this disease, and the last is of great service.

Draw the curdled matter from the bag, if you can; but if you cannot, and a discharge is wanted, take hold of the end of one of the paps with a pair of pincers, and cut off about a quarter of an inch with a sharp knife, which is much better than slitting a pap as many do. When a beast is very lame it lies much, and when the grass is wet this is hurtful to it; therefore in wet weather it would be much better in the house. If the camrel joints in the hind-legs are much swelled, rub them with the following mixture, which is often of great service.

2 oz. of Oil of Turpentine,
1 do. Origanum,
1 do. Spirits of Sal-Ammoniac,
1 do. Oil of Bricks.
I have also known this mixture to be of great use in dispersing the jelly that lodges in the joints.

When a milch-cow has got the felon, the above mixture may be applied to the limbs, but you must not give the same medicine as before, nor cut the end off the pap, but draw the curdled milk out of the bag as much as you can, three or four times a day: then give the following.

2 oz. of Cow-Spice,
1 do. Long Pepper in powder,
1 do. Yellow Bark in powder,
2 do. Nitre in powder,
2 do. Venice Treacle.

Give it in three pints of warm ale, fasting, and to fast two or three hours after. Bleed well, and if the blood is dark-coloured and thick, bleed again the day following, and repeat the above drink. Should the cow be costive, give ten or twelve ounces of Glauber’s salt, and one ounce of jalap powder, in warm water. If the fever continue strong, give two ounces of Peruvian bark, and two ounces of nitre, in a little warm ale.

It is difficult to describe every stage of this disorder, as the symptoms vary much in different beasts. If a cow refuses its meat, has a low pulse, and has not much fever, nor is costive, but has much oppression of spirits, give the following.

1 oz. of Turmeric,
1 do. Grains of Paradise,
2 do. Powdered Ginger,
2 do. Flour of Mustard,
2 do. Tincture of Bark.
Give the above in three pints of black beer. You will find it a comfortable cordial, which will strengthen the cow and help to renew her blood, and you may repeat it as you find it needful.

A DRINK FOR CLEANSING A COW AFTER CALVING.

1 oz. of Spermaceti,
1 do. Gum Myrrh,
2 do. Juniper Berries,
2 do. Bay Berries,
1 do. Round Birthwort Root,
1 do. Galengal.

All to be brayed in a mortar together till small enough. Mix them in three pints of cold ale, and give it fasting, and to fast two hours after. It seldom fails to bring the cleansing from a cow; and if the cleansing has come away you cannot give a more proper drink after calving, for it helps the discharge from the calf-bed, which is commonly called fye, and both causes the cow to milk better and to take the bull sooner. Many people take the cleansing from the cow, but I advise all cow-keepers never to suffer it to be done, for I have known much hurt done by it, but never any good. If it could be done with safety, I should know, as I have had as much experience as most people. It is true the cleansing may soon be taken away, but I say again, it cannot be done with safety, as no man can reach with his arm to the far end of the calf-bed; and if a person gets hold of the navel-string, and draws gently till the cleansing comes away, he does not know whether he pulls the
calf-bed back or not, nor whether the roses have parted with the cleansing or not; and it is seldom that such pretenders are at hand just when the calf is drawn; and can it be proper to force their hands into the calf-bed some hours after? No man of reason would attempt such a thing. The Lord and Maker of all things has provided nature with sufficient powers, and has not ordained man to work against him.

Some people are so sparing of their money, that rather than part with one shilling they will run the risk of losing a pound, and rather than be at the small expense of a drink, will let the cleansing rot from the cow. This is a great folly of short-sighted man, for he loses five times as much in the end, and does the cow a great deal of hurt; nay, in my time I have known scores of beasts lost by niggardly, covetous people, who would be at no expense with them when disordered. I wonder that God permits such earthworms to have cattle, for they not only hurt themselves but the public at large.

**A DRINK FOR DRYING A COW.**

Be careful to bleed pretty freely at first, and to take half of the milk out of the bag twice a day for three days, and once a day for three days more; then give the following:

4 oz. of Common Alum,
4 do. Roach Alum,
2 do. Dragon's Blood;

All in fine powder, to be given in hop-water.
This mostly takes away the milk at once giving; if not, repeat it in four or five days. Should the ure be full of milk, draw a little out, to ease the bag.

FOR A COW THAT IS SLOW IN TAKING THE BULL.

4 oz. of Cummin Seeds,
2 do. Eringo Root,
1 dram of Cantharides,
2 do. Cayenne Pepper,
1 oz. of Ginger.

This is commonly called a bulling-drink. First take the eringo root, bray it well before you put the other things into the mortar, and then powder all well together, and give it in three gills of warm ale the last thing at night: turn the cow out in the morning, and most likely she will be in heat the day following. Sometimes four ounces of cummin seeds, powdered and given in the milk of a cow that is in bulling, will answer the purpose. To a young cow give only half a dram of cantharides with the other ingredients; or, give the following:

4 oz. of Cummin Seeds,
1 do. Cayenne Pepper,
1 do. Long Pepper,
1 do. Ginger,
½ dram of Cantharides.

Powder them well together, and give them in the same manner as the last. This is much easier to the beast, and mostly answers the end. In very cold weather there is no certainty of any thing an-
swering the desired end; but I advise the cow-keeper not to force too strongly with cantharides, for then the cow will not hold her bulling; and I have known cows continue in bulling for some time after. The last drink is very safe, and the cow will hold her bulling never the less for it. The first is for a strong cow.

**PICKING.**

When this grievance spreads among a number of milch-cows, it is very troublesome; for, besides the loss, the owner is kept in continual anxiety of mind.

When you see a cow likely to part with her calf, separate her from the others as soon as you can, if you have convenience; and as soon as she has parted with it, give her the cleansing drink, for this is an infectious disorder, and most of the infection is conveyed by the smell; and the longer the cleansing is in coming away, the more the air is infected, and the more the contagion spreads,—sometimes over a whole village. I advise you to put tar upon the noses of your cattle when this disorder prevails, and to burn stadle hay, dried assafetida, or wormwood, or to sprinkle spirits of tar, or any thing to make a strong smell, about the cow-house, which keep as clean as possible, and whiten with quick lime. If you get any fresh cattle, they will soon take the disorder. In order to help to remove the infection, give the following drink, and repeat it as often as needful. The times when a cow is most likely to part with her calf are at eighteen, twelve,
nine, and six weeks from her regular time of calving. Give the drink at each of these times except the nine weeks, and bleed at the same time.

4 oz. of Bole,
2 do. Irish Slate,
1 do. Tormentil Root or Comfrey Root,
1 do. Madder,
1 do. Prepared Chalk, or Crabs' Claws.

Powder all these, mix them in a quart of water, and give it fasting, and to fast three hours after, and bleed well at the same time. If proper care be taken as advised, and the drink be repeated as directed, you will soon get rid of the disorder, as I am of opinion that there is not a better drink found out than the above, therefore more recipes are needless.

Some people are so foolish as to go to a witch-doctor when they have cows in this complaint:—they give him some money, and he tells them some frivolous tale, such as that some person that wishes them bad luck, or looks upon them with an evil eye, lives at such a distance from them, and that there is a water to cross, and a tree growing not far from the house; and more such nonsense, which they guess the meaning of as well as they can, and which causes them to have a hatred to the person they suspect, which never wears off so long as they live; and that without occasion, as he is not guilty of the crime. This I have known to be a real fact, for the same people have applied to me afterwards, and had the disorder removed by the above medicine.
OBSERVATIONS ON THE TREATMENT OF SICK CATTLE.

Great care and good management are essentially necessary to the recovery and well-being of sick cattle. Without these, in vain may medicines be administered. At the first attack of any disease, solid food should be sparingly given them, and a tolerably warm cow-house receive them. A beast in perfect health has generally more than eighty pounds weight of solid food in the stomach, which of course requires time for digestion.

When a beast is afflicted with any disorder, attention should be paid to the chewing of the cud, and to the manifold, where many a fatal disorder has its seat. Oatmeal gruel seasoned with salt and a little butter, given at the rate of two quarts every four hours, is sufficient support for cattle when afflicted with a disorder. Glauber's salts and nitre have a good effect: eight or ten ounces of the former and of the latter to be given in linseed tea once a-day till they recover their cud. Juniper berries are also of great use in recovering the cud; for which purpose they should be given whole into the mouth, to the grinders, five or six times a-day.

Cattle in most diseases are fond of fresh mould, in which you may indulge them, being careful to get your mould under a hazel bush, where it is the sweetest. Let them lick their full of it, for it will never hurt them. A hornful or two of fresh mould and salt may be safely given to a beast which has lost its cud — which in that state very often prefers
bad hay rather than good, and you may then let it eat of it as much as it will take.

Linseed tea, with a little butter put to it, is a valuable mixture in almost any disorder. Malt mashes may be safely given when the beast will take them. Bran being often of a very bad quality, is seldom fit to be given to a sick beast; and meal-dust and rough seeds are still more dangerous; for I have known many cows and horses lose their lives from the use of dust and meal-seeds.

It is sometimes hard to find out the disorder of a beast. In all cases examine its breath. If it be strong and offensive, give tea made of bitter herbs, such as wormwood, trefoil, tansey, sanctuary, chamomile, pennyroyal, or of some part of them, which will strengthen the stomach and cleanse it. When a beast is taken ill, and the disease is not properly understood, give gruel made of linseed, or of Iceland liverwort, with an ounce of nitre; after which the disorder may be found out, and proper medicines applied. If the beast be unable to get up, never sling it, which is unsafe, and often proves fatal to the life of a valuable animal. The surest indications of good health in cattle, are liveliness in all their motions, the hide loose, handling kind in the ribs, a good dew on the nose or nostrils, stretching themselves on rising, and chewing their cud regularly.

OF BLEEDING.

Bleeding is necessary and of essential service when the legs of cattle are swelled, and when their eyes look heavy, of a dull red, and inflamed: it is equally
necessary when they are too highly fed, in which state they are induced to rub off their hair. The bleeding should also be used in all inflammations, fevers, bruises about the eyes, and sprains when accompanied with inflammatory symptoms.

As things in themselves good, under certain restrictions, may become evils of great magnitude if carried to excess, it is necessary to prescribe bounds to bleeding; for it is extremely hazardous to bleed when the spirits are too much exhausted or weakened, and nature is unable to bear the least evacuation: and further, it is most proper to bleed by measure, and most to be depended on; and experience warrants me to say that, in most cases, not more than two quarts of blood should be taken away at once; repeating the operation as circumstances may require, and avoiding the evil into which some foolish people run, by bleeding every day for eight or nine days together, and thereby at length taking away the life of the animal.

ON HERBS.

Of these, some are binding, some are loosening; some are heating, and others cooling; one herb hindering another, when used by ignorant persons, from having the proper effect for which it was designed by the great Author of the vegetable kingdom.

There are many disorders which may be cured by the judicious application of herbs; which, with roots, minerals and waters, after passing through many operations, form the ingredients of a druggist's shop. Herbs and roots should be gathered in sum-
mer, when the herbs are in full bloom. I shall here give you the months when they flower, the signs they are under, and the uses to which they may be applied.

FOR THE FLUX IN A HORSE, A BEAST, OR A MAN.

There are two sorts of Flux; the one called the White Flux, and the other the Bloody Flux. All loosenesses do not arise from the same cause; some being brought on by heating and cooling suddenly, others by improper food, and many by the overflowing of the gall. Inflammations of the liver are certain to enlarge the gall, when the pipes that lead to the small intestines bring on a slapeness, and cause a looseness.

Gather the following herbs, roots and barks, when you can get them: they are not all required at one time.

FOR THE WHITE FLUX.

Take a handful of the black thorn bush-leaves, flowers and small stalks, which are all binding. Gather in May or early in June; under the Sun. Tormentil, under the Sun, flowers throughout summer; and the root of it is most in use, and one of the best known, for this disorder. Wash the root clean, dry it in the oven, bruise it in a mortar, and give three or four ounces at a time to a large beast, and proportionally less to a small one, in tea made of the black thorn bush.
Flux Weed, under Saturn, flowers in June.
Flea-Wort, under Saturn, flowers in June and July.

FOR THE BLOODY FLUX.

Comfrey, under Capricorn, flowers in June and July. The Oak is under Jupiter; and its leaves, bark, and acorn cups, are all in use for this disorder, either in powder or made into tea. Traveller's Joy, or Robin Hood's Feather, creeps among ling on moors, running from joint to joint, five or six feet long, and is fit for use throughout the year.

FOR THE YELLOWS, OR JAUNDICE.

Barberry Bark, under Mars; Madder, under Mars, is ripe in July and August. These to be given in Celandine tea.

STALING OR URINE BALLS.

Parsley, under Mercury, is a strong and powerful herb, for dissolving the stone. Wild Carrot, also under Mercury, is ripe in August and September. The Juniper Bush is a solar herb; its berries, which are most in use, being three years in ripening: the first year they are green, the second red, the third black, and the fourth grey and worthless. Six or eight ounces made into tea, is a dose for a cough or shortness of breath in a cow or a horse.

Hedge Mustard, under Mars, flowers in July, and keeps green all the year long. Horchhound, under Mercury, is an useful herb. Liquorice is also under the same planet, its root being most in use. Wild Marjoram, under Mercury, flowers in the end of
summer. Pellitory of the Wall, under Mercury, is found in old walls, in most places, and is of singular use. Hyssop is under Jupiter.

Make some or all of these into strong tea, and give two pints at a time twice a-day.

FOR RED OR BLEND WATER.

Fox-Grass is under the Sun; Figwort is under Venus; St. John's Wort is under Leo; Groundsel is under Venus. Take all or part of the above, and make into strong tea. Give one quart a time, twice a-day.

THE BLOODY URINE.

Horse-tail is under Saturn; Five-leaf grass, or Cinque-foil, is under Jupiter; Water-flag is under the Moon; Fumitory under Saturn. Make into strong tea, and give a quart at a time twice a-day.

FOR THE CROOK IN COWS.

Burdock is under Venus. The root of this herb is most in use, cut small, boiled in water, and given all together. Sow-Fennel, or Hog's-Fennel, is under Mercury. Lady's Thistle is under Jupiter.

FOR FRENZY IN THE HEAD.

Valerian Root, under Mars; Ragwort, commonly called Dogstanders, under Venus; Butter-Bur, or Cluts, under the Sun; Wood Sage, under Venus. Make strong tea, and give two quarts a-day.

A PURGE OR OPENING DRINK.

Mountain Flax, under the Sun; Whacker-Grass;
Bryony, or Wild Vine, under the Sun. Make into tea, and give one quart at first, and a pint every hour till it work.

FOR THE HIDE-BOUND, OR FELON.
Agrimony, under Jupiter; Balm, under Jupiter; Wood Betony, under Jupiter; Angelica, under the Sun; Rosemary, under the Sun; Rue, under the Sun; Saffron, under the Sun; Horse-Radish, under Mars. Make strong tea of part of the above, and give a quart at once twice a-day.

FOR POULTICES AND FOMENTATIONS.
Chick-Weed, under the Moon; Elder Tree, under Venus, the tops only being used; Marshmallows, under Venus; Chamomile, under the Sun; Brooklime, under Mars.

TO STRENGTHEN THE STOMACH.
Wormwood, under Mars; Trefoil, or Buckbean, under the Moon; Sanctuary, under the Sun; Chamomile, under the Sun.

DANGEROUS HERBS.
Deadly Night-shade, under Saturn; Hemlock, under Saturn; Yew-tree, under the Sun; Foxglove, under Venus; Jew's Ear, under the Sun; Wild Saffron, under the Moon. These herbs being full of deadly poison, can be used by those only who are well acquainted with medicines.
FOR DRYING A COW FOR FEEDING.

I would not advise you to attempt to dry a cow from the first of August to the first of October. When you begin to dry a cow, mismeal her for a week or ten days: and when you do so, leave one half of the milk in her bag; for if you draw her clean you will do little good by mismealing her. When you have proceeded in this way, bleed her freely, and give the following in cold water.

4 oz. powdered Alum,
2 oz. powdered Roach Alum,
2 ounce Dragon's Blood in powder.

If this draught be thought too expensive, the following may be given in cold water:—

4 oz. common Alum, in powder,
4 oz. of Prepared Chalk, in powder,
2 oz. of Bole, in powder.

If after the above course of medicine, the bag of the cow be too much charged with milk, draw a little out of her bag for a few times; but most cows may be turned out after being bled and receiving one of the draughts, without danger.

Some cows are liable to scatter their milk, or to milk themselves, which is very troublesome. To get quit of their milk, some people cork up their teats with small pieces of leather taken from the belly of a dintel hide; but this is not a good practice, for it very often inflames the bag, and does harm. If the bag be rubbed with the following
drying mixture, it will do good, and help to keep off inflammation.

\[
\begin{align*}
2 \text{ oz.} & \text{ Extract of Lead}, \\
2 \text{ oz.} & \text{ White Copperas}, \\
3 \text{ oz.} & \text{ Soft Water}, \\
\frac{1}{2} \text{ oz.} & \text{ Spirits of Sal-ammoniac.}
\end{align*}
\]

Mix all together. As a drying-wash, this will be proper at any time when the bag is inflamed.

**THE LAKE, OR MAW-BOUND.**

This disorder is brought on by fevers, as I have said on the Red-Water. I therefore need here only give a few of the best recipes which I know for effecting a cure. Take

\[
\begin{align*}
13 \text{ oz.} & \text{ Glauber's Salts,} \\
\frac{1}{2} \text{ oz.} & \text{ Jalap, in Powder,} \\
\frac{1}{2} \text{ lb.} & \text{ Small Currants.}
\end{align*}
\]

Put all together in hot water, and give when nearly cold. If Glauber's Salts cannot be had, Epsom Salts may be used instead; but the former are preferable, being stronger.

If this should fail, give ten ounces of Castor Oil with two ounces of Syrup of Buckthorn, in a little new ale,—the newer the better. To a strong beast twelve or fourteen ounces of Castor Oil may be given as above.

Glysters are very proper at some times; but if the beast be swelled do not give it a glyster; for by applying a glyster while the beast is swelled, great harm may be done by forcing into it an immoderate
quantity of wind. Instead of glystering while in that state, let some person thrust a soft and delicate hand, well greased with sweet oil or soft soap, up the fundament, and take out all the hard muck that may be found as far as the hand can reach therein.

I have known beasts so fast bound up in the third stomach, that I have been under the necessity of giving them quicksilver. I once had a cow in this state under my care, to which I had given a variety of medicines, during seven days, to force a passage, without producing the desired effect. I then gave her two ounces of quicksilver, which soon found its way through her, when she discharged much; but I believe the effect was partly caused by the medicines before used, which found their way with the help of the quicksilver.

I would again remind those who have the management of cows, to be careful to give them some opening medicines while affected with fever of any kind, at the first onset of the disorder, especially in the Red-Water. Many foolish persons give drying medicines to a beast in the Red-Water, and do not consider that they are thereby drying up the juices, instead of keeping them free and open.
DIRECTIONS FOR REARING CALVES.

People ought to be careful of their calves, for I am of opinion that hundreds are lost that might be saved. If cattle-keepers would examine this Treatise well, and observe the following directions, one fifth more might be reared than are; but at present many are in want of proper directions, and others are too careless to pay attention to them. Most disorders in calves may be prevented or removed by attending to the following advice.

The Hyan, or Murrain, has killed great numbers of calves; and although it cannot be cured, yet it may be prevented. It is not above twenty years since I found out the medicine which prevents it, and I may truly say that it has saved hundreds. I happened to light upon it by trying experiments; and hitherto it has not been known to any other person, except two or three that have been in the shop with me. It is worth twenty guineas to great breeders of cattle, and I dare affirm that not one in fifty will be lost by this disorder, if the medicine be made of good drugs, and given according to my directions; besides, the expense is very little.

When a calf is newly calved, take the slimy substance out of its mouth and nostrils; then examine whether the navel-string bleeds too much. Should the navel-string have been left too long, tie a thread fast round it, close to the belly; then cut it off near the thread, and put the navel up into the body as much as you can. The next thing is to give a little senna tea, or cream of tartar; but senna is the best, as cream of tartar is apt to turn sour on the stomach.
This is to clear the stomach and intestines of the slime that lies in them, before it becomes a hard substance. Many calves are lost by neglecting this. One pennyworth of senna is sufficient; but if the calf be open in the body, none need be given.

When calf-jobbers carry calves to sell, they frequently fill them with water when they get near the market, to make them look better. This is the ruin of many calves that are bought at a week or ten days old, for it throws them either into The White, or The Bloody Flux, or both. One calf in four is lost in these disorders, which may be prevented. Perhaps you may say How? I answer, Endeavour to get your calves about home as much as you can; and if you cannot get them near home, go and buy them, and bring them home in your own cart, and then you will be sure that they are not filled with water. But even in that case I have known some have the Flux, but they are much easier to cure, as the Flux is a natural complaint. Keep the place where they lie as clean as you can, let them have good bedding, and lay a chalkstone for them to lick, for young calves will lick anything they can come at.

The smell is very noxious in this disorder; and, as it is very infectious, it is best, when there are a number of calves together, to separate the disordered ones from the other as soon as you can tell which they are, and then to get them well as soon as you can.

Many medicines are given in this disorder, as in others, that are of no service. The Flux is much alike in all animals as to its nature, but reason will
inform any man that a young calf cannot bear a medicine so strong as a cow. If breeders would give the following soon as they find a calf in the White Flux, I am of opinion that few would be lost in it.

1 oz. of Bole, in powder,
1 do. Tormentil,  do.
1 do. Aniseeds,  do.

Mix them well together, and give one third of the mixture to a weak calf, or to a strong one give half, in oak bark tea, one hour before you serve it, or two hours after, and give a meat spoonful night and morning till better. Twice giving generally cures, but if not, give a third or a fourth time.

Although the Bloody Flux is nearly the same disorder, yet it requires different treatment. It is mostly brought on by the White Flux, but not always, for it may be caused by licking sand, or by heat in the bowels. The inner coat of the bowels sometimes comes with the dung, which is mixed with blood, skins and slime; taking away the calf’s strength much sooner than the White Flux.

In both these diseases tincture of rhubarb is a great healer of the bowels, and I consider it as good a medicine as can be given to man or beast for disorders therein. The dose may be from one to two ounces, and repeat it in six or eight hours. A small calf should have one ounce, and a large beast one pint. Isinglass, dissolved in hot water, is of great use in the Bloody Flux. Powdered logwood and gum arabic are great astringents, but tormentil root is one of the best in the whole catalogue of drugs,
as I have known it cure many people of a Flux, or Looseness, after they had been under the doctors' hands some time:—the dose is from half a dram to a dram, to be taken in a glass of red wine three or four times a-day. Indeed, tormentil root and tincture of rhubarb are the best things I know for removing a Looseness, or Flux of the bowels; but the medicine recommended for the White Flux seldom fails.

Calves are liable to another disorder, which is caused by the milk curdling on the stomach. When this happens, there must be sudden relief, or it will cause sudden death, and it has killed many. The milk curdles in the second stomach as hard as blue-milk cheese, and sometimes cannot be removed. Oil of castor is the best thing that I know of for this disorder. Give

2 oz. of Oil of Castor,
2 drams of Senna.

Boil the Senna in one pint of water, strain it off, and put the oil of castor to it, and give them to the calf, taking care to give it no milk while the disorder remains. This complaint is easier prevented than cured. Sometimes the cow's milk is the cause, but that is when she is disordered herself. It may happen to a kit calf, in consequence of its milk being given too hot, which is the most dangerous case of all: but this may be prevented by mixing an equal quantity of linseed pottage with its milk. By so doing you will find your calves to thrive much better than with milk alone, for linseed is both food and medicine to young calves. They seldom ail any
thing if they have plenty of it, and you may bring up twice as many with milk and linseed as with milk alone. Linseed cake is cheaper than linseed, but is not so good. If you take an equal weight of linseed, linseed cake, and back ends of wheat, and grind them all together, you will have good pottage for calves, and at a little expense.

Calves should neither be kept too fat nor too lean, for in both cases they are very liable to disorders. I advise Breeders to keep them dry, and well bedded, so long as they have them in the house, for lying wet often brings on the Cripple Felon, properly called Lumbago, which is a lameness in the joints, with a little swelling, and keeps shifting from one joint to another, and from one leg to another, and continues some time. The best remedy I am acquainted with is to set a giver in the dew-lap; and if you can get the giver to run well, it will be of great service; but if not, put a seton in any part you can, only avoid the joints. The way to put a seton in is as follows. Make two holes in the skin, about two inches distance, put a skewer in at one hole and out at the other, draw a small soft cord through, and tie both ends together. Rub the cord with common turpentine, to make the seton discharge better. A seton is often of great use in cases of lameness in different parts of beasts, and also in swellings. When you have put either the giver or the seton, or both, into the calf, give the following.

\[ \frac{1}{2} \text{ oz. of Tincture of Gum Guaiacum.} \]
\[ 1 \text{ do. Turmeric.} \]
To be given in a gill of warm ale, and repeated every other day for three or four times, or as long as you see it necessary; but give none till the setter or seton runs.

If you do not think proper to use a setter or a seton, give the following.

2 drams of Jalap Powder,
2 do. Gum Guaiacum,
20 grains of Calomel.

Give the above in warm ale as the last. These are the likeliest things to be of service, but the disorder often continues very long, sometimes ten or twelve weeks, which renders the cure worse than the disease. If a calf be pretty full of flesh at the beginning of this complaint, it is best to take it to the shambles.

Another complaint that calves are subject to is having too large a navel: this is chiefly owing to the navel-string being too long in breaking, or to catching cold where the navel-string enters the body; and sometimes it is caused by drawing the navel-string so tight that it breaks the inner rind, and causes the net to come into the skin. When you find a calf disordered in the navel, mix

1 oz. of Oil of Turpentine,
1 do. Spirits of Hartshorn,
1 do. Oil of Bricks, or Sweet Oil.

Rub every day with it, and keep the calf warm. Some are so fool-hardy as to cut the calf, and put the net in again, and then sew up the rind! This
is a sure way to kill it, for in three or four days the stitches will give way, and the bowels come down. The above mixture seldom fails to cure the disease; indeed it would perhaps get better of itself, unless it came to matter and broke, in which case there would be great danger; but the mixture is to scale it away without breaking.

There is often a swelling in the cod, caused by the gelder searing too hard, for which the above mixture is very useful. It is very easy to geld either a bull calf or a colt foal, yet some years since there were many beasts twisted, as it is called, and in many places it yet happens. It is the gelder’s fault, and is caused by holding the strings of the testicles too tight in the clamps, and searing too hard: if the strings were let go, and not seared so much, there would be no twisted oxen; indeed, I do not see that there is any need to sear at all. If you sew up the cod with a square-pointed needle, it will answer the purpose as well as searing, and then you will have no twisted beasts. Pray what need is there for searing? There are no arteries or strong veins in the way, but only small veins; and if the calf should lose a little blood it will be no worse for it; but if you stitch the cod pretty close you need not fear much bleeding.

Any person who has had to do with twisted beasts knows that it is owing to the gelder. You say,—You are blaming the gelder for not doing his duty, can you manage to geld so that the same accident will never happen? This I can answer in a few words; It
never did, nor ever will. But what is the reason why oxen get twisted, and how are they to be relieved? The reason of it, as I said before, is, that the string is drawn too tight, and left so; so that when the beast is laid, and turns himself on his back, his bowels, or small intestines, go over the string, and cannot get back again; then comes on an inflammation if they are not soon put right.

Some time ago, oxen were cut for this on the side a cow is milked on, and at the same place where a beast is cut when swelled with clover, but on the contrary side, and the hole made large enough to admit a small hand. The string was then found with the bowels thrown over it; when it was drawn from the cod or the loins, whichever place gave way first; and then the place was sewed up, and a plaster laid on to keep out the air. This is the way they were put to rights formerly, and it continues in use yet in some places; but there has been a much readier and safer way in use of late years, which is to put the arm into the fundament to find the string. You cannot feel it bare, as there will be the fundament between it and your hand; but by pressure you will find it, for it will be tighter than any thing else; but you must observe that it will require a long arm to reach it in a large beast. When you find the string, press upon it till it gives way, and then the work is done.

Sometimes calves have Convulsion Fits, and sometimes a Locked Jaw also. When this happens you must bleed well, and give plenty of valerian root tea, with a little saltpetre and assafetida in it; and fo-
ment the calf's head well with chamomile, or the tops of elders, or both. Sometimes oil and spirits of hartshorn will answer the end. When you foment, or rub with the mixture, endeavour to open the mouth, that the tendon may give way. There is not a greater grievance to any thing than convulsions, for every tendon is drawn when in the fits, and if the animal mend it is often lame or stupid.

The Frenzy is a disorder something similar to the last. When a calf is seized by it, its eyes are red, it throws up its head and turns its eyes upward, turns about half way round, and falls down and lies still for a few minutes, but is not drawn in the tendons as in convulsions; it then froths a little at the mouth, and starts up again, not seeming to ail much till another fit comes on. It is hard to distinguish this disease from Water in the Brain. In the first place, bleed well, and then give

\[
\begin{align*}
\frac{1}{2} \text{ oz. Jalap in Powder,} \\
\frac{1}{2} \text{ dram of Calomel,} \\
1 \text{ oz. of Cream of Tartar.}
\end{align*}
\]

All to be given together in a little warm water. Keeping low of blood, and physicing well, are most proper for the Frenzy, but for Water in the Brain, which is bad to cure, blistering behind the ears, or a rowel or setter underneath the chaps, is most proper.

A Hoose, or Cough, is a very common disorder among calves, and is often brought on by neglect, and sometimes by a sudden change from heat to cold; for when the weather has been very hot, and
a cold thunder-storm comes on suddenly, the cold flies to the lungs, and is not easy to remove.

Calves sometimes eat a great deal of dirt, which inflames the lungs. By licking each other they gather hair into their second stomach, which forms itself into a ball, and cannot pass the strait gut into the third stomach:—this sometimes happens to full-grown beasts, and must be carried forward by oil of castor, or sweet oil. This disorder also happens by giving the pottage too hot, and is often the case when calves are trusted to young girls. In any of these cases, (except the hair-ball,) if you give tar, garlic, and liquorice powder, wrought up together, it will be of great service. For a Cough caused by cold, give the following.

1 oz. of Elecampane Powder,
1 do. Spanish Juice,
1 do. Salt of Tartar,
1 dram of Saffron.

Cut the juice small, dissolve it in hot water, and give all together. Repeat it as needful, for you can have no better recipe for coughs and colds in either man or beast.

There is another grievance which calves are subject to, for which there is no relief, viz. their lights growing to the side; and when this happens they very often cough, and their flesh wastes away till death. Any thing that causes the lungs to swell is often bad to move. Asthmatic complaints are brought on by disorders of the lungs.

I wish all calf-breeders to be careful of their rising
stock, for disorders are easier prevented than cured. Young calves are sometimes of a costive habit, which is a great grievance, and often brings on other disorders. This should be prevented, for, if a calf is bound, and cannot part with its dung without much uneasiness, it will not thrive, and there is danger of an inflammation in the small bowels. Proper diet is the best remedy for costiveness, as physic only relieves for a short time; but if you do give physic, let it be oil of castor and glauber’s salt, which are cooling and gently opening, for sharp physic both disorders the calf and causes it to be soon bound again. Proper diet, such as rye-meal pottage and churn-milk with currants in it, will keep them open in the body, if given in time; but if you give plenty of linseed and milk you will not be much troubled with this complaint.

Calves are sometimes swelled in the body, or paunch, that is, the first stomach, and often continue so for a long time, for it is a grievance that is not easy to remove. The paunch keeps rising and falling, and rolling continually. When the weather is fine and warm the calves do not ail much; but when cold, they are blown up again, for they cannot bear cold. You may say, What is the reason that some calves are well and others not, when they are kept alike? I answer, All constitutions are not alike, neither are the internal parts of all of an equal strength, therefore what will do for one will not always do for another. Although this disorder appears to the eye to be in the first stomach, yet it is in the second, which is called the slut-tripe. The passage from the second
stomach to the third stomach, or manifold, is so straight, that when the small intestines force wind back again into the fourth stomach, and the fourth into the third, the third presses so hard upon the second as to prevent the free course of both wind and meat. The third stomach is the manifold; and the fourth stomach is the maw, which is what the butchers sell for yearning-skins, so much used among farmers. But you will say, Why is the third stomach made so as not to contain them both without pressing upon the second? I answer, The food stays longest in the third stomach, as it goes through most digestion there, for which it is called the maw. The slut-tripe, or second stomach, has many turnings, flaps and shelves, which make the food pass easier through the strait passage. The first stomach, or paunch, is the first receiver, and any thing that is coarse, or hard to digest, is thrown back to the mouth for a second grinding. The second stomach ferments it, and makes it fit to pass into the third. In the third stomach it becomes dung: and the fourth stomach, or the wide gut, which is very spongy, separates the water from the dung. The great Creator of all things made every thing to suit its place; all things are so ordered as to answer their intended end.

In order to remove this disorder, keep the calves from cold as much as you can, especially cold winds and rains; and when much swelled give the following:—

\[ \frac{1}{2} \text{ oz. Ginger in powder}, \]
\[ \frac{1}{3} \text{ do. Senna}, \]
\[ 2 \text{ drams of Assafetida}, \]
ill boiled together. Only just let them boil; and
when nearly cold, strain through a cloth, and give
the liquor. This seldom fails to do good, but, as
soon as they catch a little cold they are blown up
again. If you have calves subject to this disorder,
you should always have this mixture by you. The
above is sufficient for two small calves. Or use—

4 oz. Juniper Berries,
\frac{1}{2} do. of Senna.

Boil as the last, and repeat either of them as
needful. I have known tincture of senna be of
great use in this complaint. To a strong calf you
may give four ounces of tincture of senna, or Daffy's
elixir, but be careful to let its food be of an opening
nature, and given luke-warm.

Calves sometimes have the Red-Water as soon
as they are turned out to grass, but are much easier
to cure than a full-grown beast. I do not know a
better medicine for it than rhubarb: the dose is from
a quarter of an ounce to an ounce of India rhubarb,
given in a little beer. Giving many medicines to
calves would be great folly; but in this disorder
give them as much fresh mould as they will lick.
Get the mould as before directed.

The Hyan, or Murrain, has killed more young
beasts than all other disorders, and yet is the least
understood. No cattle-doctor or cattle-keeper that
has lived either in my time or before me has ever
found out a cure for it. Attempts have been made,
and many things tried, but without effect; and I
have tried many things myself. I have cut holes in
the skin, about four inches from each other, all round the affected part, and rinded one hole into another, like setting a net round the part, to prevent it spreading; and then put in oil of turpentine and oil of origanum, softened with a little oil of elder. This has stopped the disorder in some, and they have mended of it, but it has left other complaints as bad, or worse.

I cut a calf that had begun in the shoulder, and used the before-mentioned oils, which stopped the disorder from spreading further; but the flesh and the shoulder-blade were so mortified that the shoulder-blade came out, and the calf had only three legs to stand on afterwards: still it got fat about twelve months after; but if it had died at the first the owner would not have lost so much by it, nor have been in danger of spreading the infection by cutting and letting out the foul air.

Of late years, people have gone up and down the country, where they knew there were many calves bred, to cut the vein above the claws, pretending it would prevent their having the Hyan, and by this means made the calves lame. Some of them had the impudence to charge two shillings a calf, and others one. Quack-doctors and witch-doctors have both set their hearts to do evil for a little earthly gain. If the calves miss having the disorder, they say that cutting them has prevented it, when their own conscience tells them it is all a deception, and many weak people believe them. If you closely examine these pretenders, they cannot give you any satisfactory account of the cause of the disease, or how cut-
ting prevents it. My dear friends, be careful against such impostors. When a calf has begun in this disorder, there is no cure for it. Some people pretend that they have given such and such medicines, and wrought such and such cures, when at the same time they mistook some other disorder for the Hyan.

The symptoms of the Hyan are these:—The calf lies much, and is lame in one quarter where a swelling appears; and if you tap it with your fingers, it will sound hollow like a bladder. The calf hangs its head, refuses its meat, and looks dull in the eyes: sometimes the complaint begins in the nostrils, and runs up into the head, and makes the calf blind; and sometimes in the back, and kills it in a short time. Whenever the disease begins, the calf cannot live above a day or two; but if it strike the jugular vein, it soon causes death.

The Hyan seldom takes place before the calf is six months old, and I advise all calf-breeders to give the following medicine at six, twelve, and eighteen months old. Very few calves have it before six months, or after two years.

This disorder is infectious; therefore, as soon as you find a calf in it, remove the others from it: and when it is dead, the safest way is to bury it as soon as possible, with the skin on; for if you take the skin off, there is great danger of spreading the disorder. As far as it has gone you will find a mortified blackness under the skin, and if you cut the part affected while the calf is alive, it gives it no pain. I shall now give you one of the best medicines to prevent the Hyan, but not to cure it when it has begun.
You must not think it has begun as soon as the calf has received the infection, for it will be ten days first. For one calf take—

One dram and a half of Crocus metallorum, or Liver of Antimony; half an ounce of dried Buck-bean; half an ounce of Guaiacum Chips; half an ounce of Sassafras; half an ounce of Gentian Root; half an ounce of Juniper-berries; half an ounce of Sulphur.

The above (except the crocus metallorum) to be boiled in three pints of water for ten minutes, and to stand till cold; then strain it off, and put the crocus metallorum to it. Give the liquor to the animal fasting, and to fast three hours after, and bleed well as soon as you have given the drink. This medicine (as before observed) is to be given at six, twelve, and eighteen months old. I have made some hundreds in a year, for thirty years, and none of the calves that took them have had the Hyan, except such as had not the medicine given them in due time. Not one calf need be lost between six months old and two years, if people would be careful to give them this medicine, and the expense is so little that I only charge sixpence a drink for them. I have known farmers that bred twelve or fourteen calves in a year, and generally lost five or six; but after they got the above medicine they scarcely lost one for twelve or thirteen years.

Much more might be said upon calves, but their other disorders are similar to those of full-grown beasts, so that you have only to reduce the medicine to the strength of the calf. Some learned
people may sneer at my plain language, but plain language suits the bulk of mankind. I trust this little book will be of use to the rising generation, as well as to the present; and I leave it just as it is, for I have hid nothing from the public that is useful that I know of; but my old age cannot be so quick of apprehension as at the prime of life: however, I thank my God that it is as well with me as with most of my fellow-creatures at the advanced age of eighty-nine years.

A CATALOGUE OF DRUGS
FOR COMMON USE
IN CURING THE DISORDERS OF CATTLE.

A
Aloes, Barbadoes.
Socotrinc.
Cape.
Almonds, Bitter.
Jordan.
Alum, Common.
Roch.
Antimony, Crude.
Prepared.
Antimonial Wine.
Aniseeds.
Arnatto, Flag.
Spanish.
Arsenic, White.
Yellow.
Argols, Red.
White.
Asarabacee.
Aquatortis.
Æthiop’s Mineral.
Æther.
Alkanet Root.
Arrow Root.

B
Balm of Gilced.

Balsam Capivi.
of Sulphur.
of Aniseeds.
Locat.
Peru.
Tolu.
Guaiacum.
Barbadoes Tur.
Bark, Peruvian.
Powder.
Barley, French.
Pearl.
Bateman’s Drops.
Bay Berries.
Bitter Apple.
Birthwort, Long.
Round.
Bole, Armenian.
Borax.
Brimstone, Roll.
Flour.
British Oil.
Burgundy Pitch.
Black Beer.
Balm Drops.
Black Soap.
Bay Salt.
Bracken's Balls.
Butter of Antimony.
Calamus Aromat.
Calomel.
Camphor.
Cantharides.
Caraway Seeds.
Cardamom Seeds.
Castile Soup.
Castor.
Chamomile Flowers.
Cinabar Antimony.
Native.
Coloathar.
Conserv of Hips.
Orange Peel. Rose.
Coppers, Green.
White.
Coccus Indicus.
Coriander Seeds.
Crabs' Claws, Prepared.
Cream of Tartar.
Cummin Seeds.
D
Daffy's Elixir.
Diapente.
Distilled Vinegar.
Dragon's Blood.
E
Elecampane.
Electuary Dioscoridium.
Lenitive.
London Treacle.
Mithridate.
Venice Treacle.
Elixir of Vitriol.
Eringo Root.
Epsom Salt.
Extract of Guaiacum.
Jalap.
Euphorbium.
F
Fennel Seeds.
Fenugreek Seed.
Flour of Sulphur.
Mustard.

Frankincense.
G
Galengal.
Galls of Aleppo.
Gamboge.
Gentian Root.
Ginger Root.
Glass of Antimony.
Glauber's Salts.
Godfrey's Cordial.
Grains of Paradise.
Guaiacum Wood.
Gum Arabic, Turkey.

Assafetida.
Benjamin.
Guaiacum.
Galbanum.
Laudanum.
Seed Lac.
Shell Lac.
Myrrh.
Juniper.
Opium.

H
Hartshorn Shavings.
Hellebore, Black.
White.
Hier Picra.
Honey.

I
Ipecacuanha.
Isinglass.

J
Japan Earth.
Julap Root.
Juniper Berries.

L
Lapis Calaminaris.
Infernalis.
Lavender Flowers.
Linseed.
Liquorice Root.
Litharge.
Logwood.
Long Pepper.

M
Madder.
Magnesia.
<table>
<thead>
<tr>
<th>A</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maidenhair.</td>
<td>Ointment, Egyptian.</td>
</tr>
<tr>
<td>Mercury, Sublimate.</td>
<td>Green.</td>
</tr>
<tr>
<td>Dulcis.</td>
<td>Mercurial.</td>
</tr>
<tr>
<td>N</td>
<td>Nerve.</td>
</tr>
<tr>
<td>Nitre, Purified.</td>
<td>Opium.</td>
</tr>
<tr>
<td>Nux Vomica.</td>
<td>Opodeldoc.</td>
</tr>
<tr>
<td>O</td>
<td>Orrice Root.</td>
</tr>
<tr>
<td>Oil of Chamomile.</td>
<td>Oxymel of Squills.</td>
</tr>
<tr>
<td>Fennel.</td>
<td>P</td>
</tr>
<tr>
<td>Rape.</td>
<td>Pellitory of Spain.</td>
</tr>
<tr>
<td>Wormwood.</td>
<td>Pearl Ashes.</td>
</tr>
<tr>
<td>Almonds.</td>
<td>Plaster, Blistering.</td>
</tr>
<tr>
<td>Amber.</td>
<td>Sticking.</td>
</tr>
<tr>
<td>Aniseeds.</td>
<td>Drawing.</td>
</tr>
<tr>
<td>Bay, Flanders.</td>
<td>Diachylon.</td>
</tr>
<tr>
<td>Bricks.</td>
<td>Diachylon, with Gum.</td>
</tr>
<tr>
<td>Cloves.</td>
<td>Mercurial.</td>
</tr>
<tr>
<td>Elder.</td>
<td>Oxycroseum.</td>
</tr>
<tr>
<td>Exeter.</td>
<td>Paracelis.</td>
</tr>
<tr>
<td>Lavender.</td>
<td>Strengthening.</td>
</tr>
<tr>
<td>Juniper.</td>
<td>Poppy Heads.</td>
</tr>
<tr>
<td>Linseed.</td>
<td></td>
</tr>
<tr>
<td>Pennyroyal.</td>
<td>Elecampane.</td>
</tr>
<tr>
<td>Genoa, or Barber's.</td>
<td>Gentian.</td>
</tr>
<tr>
<td>Peppermint.</td>
<td>Galengal.</td>
</tr>
<tr>
<td>Palm.</td>
<td>Ginger.</td>
</tr>
<tr>
<td>Origanum.</td>
<td>Fenugreek.</td>
</tr>
<tr>
<td>Nerve.</td>
<td>Horse Spice.</td>
</tr>
<tr>
<td>Peter.</td>
<td>Liquorice.</td>
</tr>
<tr>
<td>St John's Wort.</td>
<td>Turmeric.</td>
</tr>
<tr>
<td>Sassafras.</td>
<td></td>
</tr>
<tr>
<td>Swallows.</td>
<td>Salop.</td>
</tr>
<tr>
<td>Spike.</td>
<td></td>
</tr>
<tr>
<td>Turpentine.</td>
<td>Precipitate, Red.</td>
</tr>
<tr>
<td>Vitriol.</td>
<td>White.</td>
</tr>
<tr>
<td>Worms.</td>
<td>Q</td>
</tr>
<tr>
<td>Spermaceti.</td>
<td>Quicksilver.</td>
</tr>
<tr>
<td>Ointment of Basilicon, Black.</td>
<td>R</td>
</tr>
<tr>
<td>Yellow.</td>
<td>Red Lead.</td>
</tr>
<tr>
<td>Green.</td>
<td>Resin, Yellow.</td>
</tr>
<tr>
<td>Elder.</td>
<td>Black.</td>
</tr>
<tr>
<td>Marshmallows.</td>
<td>Rhubarb, Turkey.</td>
</tr>
<tr>
<td>Pomatum.</td>
<td>East India.</td>
</tr>
<tr>
<td>White Camp.</td>
<td>Rose Water.</td>
</tr>
<tr>
<td>Tutty.</td>
<td>Leaves.</td>
</tr>
<tr>
<td></td>
<td>Rottenstone.</td>
</tr>
<tr>
<td></td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>Saffron.</td>
</tr>
<tr>
<td>Sago.</td>
<td>Steel, Prepared.</td>
</tr>
<tr>
<td>Sal Ammoniac.</td>
<td>Sugar of Lead.</td>
</tr>
<tr>
<td>Saltpetre.</td>
<td>Sulphur Vivum.</td>
</tr>
<tr>
<td>Salt Prunel.</td>
<td>Syrup of Buckthorn.</td>
</tr>
<tr>
<td>of Steel.</td>
<td>Marshmallows.</td>
</tr>
<tr>
<td></td>
<td>Rhubarb.</td>
</tr>
<tr>
<td></td>
<td>Saffron.</td>
</tr>
<tr>
<td></td>
<td>Roses.</td>
</tr>
<tr>
<td></td>
<td>Violets.</td>
</tr>
<tr>
<td>Hartshorn.</td>
<td></td>
</tr>
<tr>
<td>Tartar.</td>
<td></td>
</tr>
<tr>
<td>Wormwood.</td>
<td></td>
</tr>
<tr>
<td>Sal-Volatile.</td>
<td></td>
</tr>
<tr>
<td>Sauder's Wood.</td>
<td></td>
</tr>
<tr>
<td>Sap Green.</td>
<td></td>
</tr>
<tr>
<td>Sarsaparilla.</td>
<td></td>
</tr>
<tr>
<td>Sassafras.</td>
<td></td>
</tr>
<tr>
<td>Senna.</td>
<td></td>
</tr>
<tr>
<td>Snake Root.</td>
<td></td>
</tr>
<tr>
<td>Spanish Juice.</td>
<td></td>
</tr>
<tr>
<td>Spermaceti.</td>
<td></td>
</tr>
<tr>
<td>Spirit of Hartshorn.</td>
<td></td>
</tr>
<tr>
<td>Lavender.</td>
<td></td>
</tr>
<tr>
<td>Sal Ammoniac.</td>
<td></td>
</tr>
<tr>
<td>Nitre.</td>
<td></td>
</tr>
<tr>
<td>Salt.</td>
<td></td>
</tr>
<tr>
<td>Turpentine.</td>
<td></td>
</tr>
<tr>
<td>Wine.</td>
<td></td>
</tr>
<tr>
<td>Squills.</td>
<td></td>
</tr>
<tr>
<td>Stavesacre.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Tamarinds.</td>
<td></td>
</tr>
<tr>
<td>Tartar.</td>
<td></td>
</tr>
<tr>
<td>Tin Powder.</td>
<td></td>
</tr>
<tr>
<td>Turner's Cerate.</td>
<td></td>
</tr>
<tr>
<td>Tincture of Myrrh.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rhubarb.</td>
</tr>
<tr>
<td></td>
<td>Guaiacum.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Turpentine, Common.</td>
<td></td>
</tr>
<tr>
<td>Venice.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Valerian.</td>
<td></td>
</tr>
<tr>
<td>Verdigris.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Worm Seed.</td>
<td></td>
</tr>
<tr>
<td>White Lead.</td>
<td></td>
</tr>
</tbody>
</table>
INDEX.

<table>
<thead>
<tr>
<th>General Observations on the Cow</th>
<th>PAGE.</th>
<th>Sloughed or Broken Horn</th>
<th>PAGE.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Fog Fever</td>
<td>10</td>
<td>The Quisy</td>
<td>81</td>
</tr>
<tr>
<td>Poison or Swelling in the Bowels</td>
<td>14</td>
<td>Inflammation of the Stomach</td>
<td>83</td>
</tr>
<tr>
<td>Poison by disagreeable Herbs</td>
<td>15</td>
<td>The Foul in the Foot</td>
<td>85</td>
</tr>
<tr>
<td>Ruminating, or throwing up the Meat undigested</td>
<td>18</td>
<td>Lameness</td>
<td>91</td>
</tr>
<tr>
<td>The White and Bloody Flux</td>
<td>19</td>
<td>Wounds</td>
<td>93</td>
</tr>
<tr>
<td>The Cholic, or Gripes</td>
<td>20</td>
<td>Inflammation by Wounds</td>
<td>96</td>
</tr>
<tr>
<td>The Frenzy, or Inflammation of the Brain</td>
<td>21</td>
<td>Angleberries, or Anberries</td>
<td>97</td>
</tr>
<tr>
<td>The Crook</td>
<td>24</td>
<td>The Gargil</td>
<td>99</td>
</tr>
<tr>
<td>The Asthma</td>
<td>29</td>
<td>The Felon, or Hidebound</td>
<td>101</td>
</tr>
<tr>
<td>A Hoose, or Inflammation by Cold</td>
<td>31</td>
<td>The Felon in the Bag</td>
<td>105</td>
</tr>
<tr>
<td>Stagnation of Blood in a Cow's Leg</td>
<td>34</td>
<td>A Cleansing Drink after Calving</td>
<td>108</td>
</tr>
<tr>
<td>For Chaff in the Eye</td>
<td>35</td>
<td>A Drying-Drink for a Cow</td>
<td>109</td>
</tr>
<tr>
<td>A Lash-bite on the Eye</td>
<td>35</td>
<td>A Drink before taking the Bul</td>
<td>110</td>
</tr>
<tr>
<td>The Yellows, or Jaundice</td>
<td>36</td>
<td>Picking</td>
<td>111</td>
</tr>
<tr>
<td>The Red-Water and Bloody Urine</td>
<td>39</td>
<td>On the Treatment of Sick Cattle</td>
<td>113</td>
</tr>
<tr>
<td>The Bloody Urine</td>
<td>47</td>
<td>Of Bleeding</td>
<td>114</td>
</tr>
<tr>
<td>The Milk Fever after Calving</td>
<td>49</td>
<td>On Herbs</td>
<td>115</td>
</tr>
<tr>
<td>A Sprain or Clap in a Bull</td>
<td>53</td>
<td>For the Flux</td>
<td>116</td>
</tr>
<tr>
<td>A Clap in a Cow</td>
<td>55</td>
<td>The White Flux</td>
<td>116</td>
</tr>
<tr>
<td>The Dropsy or Water Tympany</td>
<td>57</td>
<td>The Bloody Flux</td>
<td>117</td>
</tr>
<tr>
<td>Inflammation of the Kidneys</td>
<td>59</td>
<td>The Yellow's or Jaundice</td>
<td>117</td>
</tr>
<tr>
<td>Inflammation of the Liver</td>
<td>62</td>
<td>Staling or Urine Balls</td>
<td>117</td>
</tr>
<tr>
<td>Looseness or Rottenness</td>
<td>63</td>
<td>The Red-Water</td>
<td>118</td>
</tr>
<tr>
<td>Help to a Cow in Calving</td>
<td>66</td>
<td>The Bloody Urine</td>
<td>118</td>
</tr>
<tr>
<td>Inflammation of the Neck of the Bladder</td>
<td>71</td>
<td>The Crook in Cows</td>
<td>118</td>
</tr>
<tr>
<td>Falling down of the Calf-bed</td>
<td>72</td>
<td>Frenzy in the Head</td>
<td>118</td>
</tr>
<tr>
<td>The Scrofula or Scab</td>
<td>75</td>
<td>A Purge or Opening Drink</td>
<td>118</td>
</tr>
<tr>
<td>Lice in Cattle</td>
<td>77</td>
<td>The Hide-Bound, or Felon</td>
<td>119</td>
</tr>
<tr>
<td>The Turn, or Sturdy</td>
<td>78</td>
<td>Poultices and Fomentations</td>
<td>119</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To Strengthen the Stomach</td>
<td>119</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dangerous Herbs</td>
<td>119</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Directions for Rearing Calves</td>
<td>123</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Hy's or Murrain</td>
<td>135</td>
</tr>
</tbody>
</table>
THE

COMPLETE FARRIER,

or

HORSE-DOCTOR.
THE COMPLETE FARRIER.

GENERAL REMARKS.

OF all things that the great Creator has made for the use of Man, the Horse is the most serviceable. It is also the most tractable, if broken in when young; but if not, it becomes restive and stubborn. No creature is worse used among the brutish part of mankind.

There are only three kinds of these useful creatures, viz. the Horse, the Ass, and the Zebra; but by crossing the breeds, many different sorts are produced. You may raise a cross breed from a horse, with an ass, but you can go no further. We cannot learn with certainty from history from whence horses came at first, but it is very likely from Asia; although the extensive plains of Africa abound with them, and they run wild in many other parts of the world, where the natives know no other use of them than to eat their flesh.

In more civilized countries the horse becomes more tractable, and then, and not till then, its proper value appears. Our own country may challenge all nations for a good breed of horses, proper for all uses. We have them from 8 to 18 hands high; some as heavy as any in the world, and some very small; some calculated for swiftness, and some for drudgery;
and some which are kept for shew, and are of little use; but that is the fault of the owner, and not of the horse.

Many of these useful creatures are slaughtered by sinful men, and many are illtreated through that abominable practice and soul-destroying evil—*drunkeness*; and these poor animals, which are so useful to man, are hungered, whipt, and illtreated many other ways. A horse is agreeable for its beauty, as well as valuable for its usefulness; but neither of these things prevents wicked men from using him ill. But it is not my intention to give you a history of the horse in this little treatise, but to inform you how to cure it when out of health.

**HOW TO CHOOSE A HORSE.**

In my time I have bought and sold hundreds of horses, as well as had thousands under my care when unwell, but still I am at a loss how to give my readers proper directions *how to choose one*; for among all the difficulties attending the common affairs of life, there is not perhaps a greater than that of choosing a good horse; nor will this appear strange when we consider the number of niceties attending this animal, with regard to its shape and manner of going, which are so numerous that it would fill a volume to describe them. Indeed, the best judges are obliged to content themselves with guessing at some things, unless a sufficient trial be allowed.

*The Eyes* are the first things to attend to, and should be well examined, as the best judges are often
deceived in them. *Clearness of the Eyes* is a sure indication of their goodness; but this is not all that should be attended to: the eyelids, eyebrows, and all the other parts, must also be considered; for many horses whose eyes appear clear and brilliant go blind at seven or eight years old. Therefore be careful to observe whether the parts between the eyelids and the eyebrows are free from bunches, and whether the parts round the under eyelids be full, or swelled; for these are indications that the eyes will not last. When the eyes are remarkably flat, or sunk within their orbits, it is a bad sign; also when they look dead and lifeless. The *Iris*, or circle that surrounds the sight of the eye, should be distinct, and of a pale, variegated, cinnamon colour, for this is always a sure sign of a good eye.

When the horse is first led out of a dark stable into a strong light, be sure to observe whether he wrinkles his brow, and looks upwards to receive more light; for that shews his eyes to be bad. But if you observe that the dimensions of the *pupil* are large, and that they contract upon his coming into a strong light, it is almost an infallible sign that his eyes are good.

Sometimes what are called *Haws* grow on the corner of the eye, and get so large that they infect the eye, and cause the horse to go blind. You may take them out, and although it will disfigure the eye, yet it will be little worse.

In the next place examine the *Teeth*, as you would not wish to purchase an old horse, nor a very young
one for service. A horse has six teeth above, and six below, in the fore-mouth, which are called the *Cutting-Teeth*. At two years and a half old it changes two on the top and two on the bottom, which are called the *Nippers*; at three years and a half it changes two others, called the *Separaters*; at four and a half it changes the *Nook Teeth*; and at five years old has a full mouth; when the *Tusks*, commonly called the *Bridle-Fangs*, rise.

Horse-dealers have a trick of knocking out the nook teeth at three years and a half, to make the horse appear five years old when only four; but they cannot raise the tusks. At six years old the *Nook Teeth* are a little hollow, and at seven there is a black mark, like the end of a ripe bean. Afterwards you will observe the flesh to shrink from the teeth, which grow long and yellow.

Horse-dealers have also a method which they call *Bishoping a horse's mouth*; that is, filing the tusks shorter, rounding them at the ends, taking a little out of the nook teeth, so as to make them rather hollow, and then burning them with a hot iron. I was hired by Anthony Johnson, of Wincolmlee, Hull, as farrier to a number of horses that were going to the city of Moscow, in Russia, for sale, and we had a little grey stoned horse, called *Peatum*, that was seventeen years old, the mouth of which I bishoped, and he passed for six years old, and was the first horse sold, and for £500 English money! I only mention this as a caution to horse-buyers.

The *Feet* should next be regarded; for a horse
with bad feet is like a house with a weak foundation, and will do little service. The feet should be smooth and tough, of a middle size, without wrinkles, and neither too hard and brittle, nor too soft; the Heels should be firm, and not spongy and rotten; the Frogs horny and dry; and the Soles somewhat hollow, like the inside of a dish or bowl. Such feet will never disappoint your expectations, and such only should be chosen.

Particular regard should be had to the Shoulders; they should not be too much loaded, for a horse with heavy shoulders can never move well; and on the other hand, one that has very thin shoulders, and a narrow chest, though he may move briskly so long as he is sound, yet he is generally weak, and easily lamed in the shoulders: a medium should therefore be chosen.

Be careful to observe the creature’s Motions,—that the shoulders, knees, and pasterns all act together, and have but one spring of motion, for in that case alone can they be said to move well.

The Limbs should be free from *Splents and §Windgalls. The Knees should be straight, and not bending, or what is called a calf’s knee: the Backsineews strong and well braced: the Pastern Joints clean, and free from swellings of all kinds; and the Hocks lean and dry, and free from †Spavins, ||Corbs and Flatulent Tumours.

* There are four kinds of Splents; viz. The Bone Splent, the Blood Splent, the Osselet, and the Horn Splent.
§ Windgalls are soft Tumours, seated on either side of the Fetlock Joint.
† There are two kinds of Spavins; viz. The Blood Spavin, which lies in the
The Body, or Carcass, should neither be too small nor too large. The Back should be straight, or have only a moderate sinking below the Withers: for when the back of a horse is low, or higher behind than before, it is both very ugly and a sign of weakness. The back should also be of a proper length. The Ribs should be large, the Flanks smooth and full, and the Hind-parts, or uppermost Haunches, not higher than the shoulders. When the horse trots before you, observe if his haunches cover his fore-knees. A horse with a short hind-quarter does not look well.

The next thing to be regarded in a horse is his Wind, which may be easily judged of by the motion of his flanks. A broken-winded horse always pinches in his flanks, with a very slow motion, and drops them suddenly, which may be easily perceived. Many horses breathe thick that are not broken-winded; indeed, any horse will in foggy weather, or if foul fed, without sufficient exercise; but if a horse has been in good keeping, and had proper exercise, and yet has these symptoms, there is some defect, either natural or accidental; such as a narrow chest, or some cold that has affected the lungs.

There are other particulars that should be observed in choosing a horse. If his Head be large and fleshy, and his Neck thick and gross, he will always go heavy on the hand. and therefore such joint of the hind leg, something like a Wind-gall, going quite through the joint, and is then called a Thorough Pin; and the Bone Spavin, which lies just below the joint, on the inside, and is called by dealers a Dry Knot, or Jack.

| A Corb lies on the back side of the hind-leg, near the lower part of the joint. |
should never be chosen. A horse that has his Hocks very wide, seldom moves well, and one that has them too near will chafe and cut his legs by crossing them. Fleshy-legged horses are generally subject to the Grease, and other infirmities of that kind, and therefore should not be chosen.

The Temper of a horse should be particularly attended to; because if his temper be good, it greatly augments his value, and if bad, it exposes him to many accidents. It is difficult to discover the temper of a horse without a proper trial, which should always be obtained, if possible. Fear is an impediment which greatly lessens the value of a horse; for a fearful horse endangers both himself and his rider. Almost every day affords us melancholy instances of persons being hurt or killed by fearful horses; and many horses are utterly spoiled by accidents that happen from their fearfulness. A fearful horse may be known at first sight by his starting, crouching, and creeping.

A hot and fretful horse is also to be avoided, but the buyer should be careful to distinguish between a hot, fretful horse, and one that is eager and craving. The former begins to fret the moment he is out of the stable, and continues in that humour till he has quite fatigued himself; and the latter only endeavours to be foremost in the field, and is truly valuable; he has those qualities that resemble prudence and courage; the other those that resemble intemperate heat and rashness.

When dealers have had a horse some time in their
stables, they exercise him with a whip two or three times a day; so that when a Chapman goes to look at him, they have only to stir their hand with the whip in it, and it is hard to say whether the horse be lame or not, it being so fearful of a drubbing, that a good judge may be deceived.

A horse that goes with his fore-feet low is very apt to stumble; and there are some that go so near the ground that they stumble most on even road; and the dealers, to remedy this, put heavy shoes on their feet, for the heavier a horse's shoes are the higher he will lift his feet. Care also should be taken that the horse does not cut one leg with the other. A horse that goes near the ground will cut the low side of the fetlock joint, but one that goes high cuts below the knee, which is called the speedy cut. A horse that lifts his feet high generally trots fast, but is not the easiest for the rider. Some horses cut with the spurn of the foot, and some with the heel; but this you may soon perceive by their standing; for if a horse points the front of his foot inward, he cuts with the spurn, and if outward with the heel.

These few instructions may be of use in purchasing horses; but I advise every one to get some experimental knowledge of them before he trusts to his own judgment, for the dealers have so many arts to hide the defects of their horses, that the best judges are often deceived.
A COLD.

This is such a common disease, that many people look upon it with indifference; but there are few disorders incident to horses, which do not more or less derive their origin from a Cold. But, as only those who are used to horses can tell when they have got this disease, it will be necessary to describe the nature of a cold, and the usual symptoms that attend it.

Causes of Colds. These are various; but the most usual are, riding the horse till he is hot, and then suffering him to stand still, exposed to the cold air; removing him from a hot stable to a cold one: (if the horse have been high-fed, and clothed, the cold contracted in this manner often proves very violent; and this is the reason why horses often catch a severe cold on their first coming out of the dealer's hands:) neglecting to rub him properly down, and to rub the sweat carefully off when he comes in from a journey:—and I have known grievous disorders brought on by removing horses into a new stable before the walls and plastering were dry. Workmen are often in fault for not leaving air-holes above; as when a horse comes into a new stable, and gathers heat, it will cause the walls and plastering to sweat very much, especially if there are no air-holes left. Many a horse has lost his eyes, and some their lives, by being put into new stables before they were dry.

Many farmers and tradesmen get too much drink when they go to market, and then set off for home,
riding like madmen, and call at some public-house on the road to get more of the soul and body destroying evil, leaving their horses to stand sweating at the door, where it is no wonder that they get cold. Waggoners, carters, and coal-carriers, are also often guilty of this abominable practice.

**Symptoms.** When a horse has caught cold, a cough will follow, and he will be heavy and dull in proportion to the severity of the disease: his eyes will be watery; the kernels about his ears, and under his jaws, will swell, and a thin mucous gleet will run from his nose. If the cold be violent, the horse will be feverish; his flanks will heave, and he will refuse his food. The owners should be very careful to observe these last symptoms, because when they appear, and are attended with a slimy mouth, cold ears and feet, moist eyes, and a great inward soreness, there is danger of a fever, and generally of a malignant kind. But when the horse coughs strongly, and snorts after it, eats scalded bran, and drinks warm water, is not much off his stomach, moves briskly in his stall, dungs and stales freely, and without pain, his skin feels kindly, and his coat does not stare, there is no danger, nor any occasion for medicine. You should, however, bleed him, keep him warm, give him some feeds of scalded bran, and let him drink warm water.

**The Cure.** If the horse feel hot, and refuse his meat, it will be necessary to bleed him plentifully, and to give the following drink.
2 oz. of Juice of Liquorice.
2 do. Salt of Tartar.
2 drams of Saffron.
2 ounces of Honey.

Cut the juice small, dissolve all together in hot water, and give it nearly cold. This drink may be repeated as occasion requires, but let twenty-four hours elapse first. Or give—

4 oz. of Aniseeds.
2 do. Liquorice Root.
1 do. Gum Scammony.
1 do. Nitre.

Boil these together in three pints of water for ten or twelve minutes; strain the liquor through a cloth; and add two ounces of honey to it when you give it to the horse.

It is a common practice with Farriers to give a drench composed of hot, nauseous powders, in a quantity of ale; but this is a very bad practice, for it heats the blood, and consequently increases the fever; and at the same time the powders pall the horse's stomach by their loathsomeness. The following ball, commonly called The Cordial Ball, is one of the best yet found out for coughs or colds either in horse or man, and is much preferable to the horse-balls commonly sold at the druggists' shops, and too often made of bad ingredients. Be careful to get your drugs good, for this ball is of great worth in many disorders, both in racers, hunters, and road horses. Few things will remove a cough or a cold, or clear a horse's wind, sooner or
better. Mr. Markham recommended one something like it, which is called Markham's Ball; but you may depend on it, that mine much exceeds it in value.

Take of Aniseeds Powder, Fenugreek, Liquorice Powder, Elecampane Powder, Flour of Brimstone, each 4 ounces; Grains of Paradise, in fine powder, 6 ounces; 4 ounces of Liquorice, cut small, and dissolved in White Wine; 1 ounce of Saffron, pounded small; 1 ounce of Oil of Aniseeds; 8 ounces of Olive Oil; and 8 ounces of Honey.

Bray them all well together till they come into paste, and if they should be too dry, add a little more olive oil and honey. The dose is about two ounces, and may be given three or four times a day, if needful. These balls consisting of warm, opening ingredients, are of great use; and given in small quantities, about the size of a pullet's egg, will encourage a free perspiration; but in case of a Fever they should be given with the greatest caution.

It will be of great use to put scalding-hot bran into the manger, that the horse may hold his head over it, and receive the steam up his nostrils, which will cause a running from them, and relieve him very much. I have known asarabacca, dried and rubbed to powder, and blown up the nostrils, to cause a discharge; for when a horse has caught a violent cold, he is often troubled with a pain in his head, which a good discharge at the nose is very likely to cure. For the same purpose the horse should be warmly clothed, especially about
the head, neck and throat; as it has a tendency to promote a running at the nostrils.

By this simple method, with proper care, hot mashers, and warm water, most colds may be cured; and as soon as the horse begins to feed heartily, and snorts after coughing, an hour’s exercise every day will greatly hasten the cure. If the legs swell, and the horse be full of flesh, rowels are necessary.

A COUGH, AND ASTHMA.

Among all the diseases to which this noble creature is subject, none has given more perplexity to Farriers than a settled Cough; indeed it too often defies all the attempts of art, and the horse frequently becomes Asthmatical, or Broken-winded.

Causes. The causes are various. Sometimes it is owing to colds imperfectly cured; sometimes to pleurisies, or malignant fevers, which have left a taint upon the lungs or other vessels; sometimes to small eruptions in the glands, which cause the lungs to be much larger than they ought to be, and a quantity of tough phlegm, and mucilaginous juices, to stuff up the glands and branches of the windpipe; and sometimes to fleshy substances engendered in the large blood-vessels; for all these things hinder a free respiration, and excite a cough.

It is of the utmost importance to distinguish one kind of cough from another, and this makes the disorder so hard to cure; for it cannot be cured till the seat of the complaint be found out.

If the cough be of long standing, attended with
loss of appetite, wasting of flesh, and weakness, it denotes a Consumption; and that the lungs are full of knotty, hard substances, called tubercles. When the cough proceeds from phlegm, and mucilaginous matter stuffing up the vessels of the lungs, the flanks have a sudden, quick motion, the horse breathes thick, but not with his nostrils distended like one that is broken-winded; his cough is sometimes moist, and sometimes dry and husky; before he coughs he wheezes, and sometimes throws out of his nose or mouth large pieces of white phlegm, especially after drinking, or when he begins or ends his exercise; and this discharge generally gives very great relief.

Cure. If the horse be full of flesh, take from him a moderate quantity of blood. The next day give him scalded bran, and in the evening the following ball:—

1 oz. of Powder of Aniseeds.
1 do. Liquorice Powder.
1 dram of Calomel, 8 drams to an oz.

Work them into a ball with Barbadoes tar. Give this ball the last thing at night, and be careful to keep the horse out of wet, and from cold water the next day. On the second morning give the following purge:—

1 oz. of Barbadoes Aloes.
1 do. Castile Soap.
$\frac{1}{2}$ do. Powdered Ginger.
1 dram Oil of Aniseeds.
Bray them together in a mortar, with a little syrup of buckthorn to make them into a ball, which is to be given in the morning; and plenty of warm water, and walking exercise, till it be wrought off. (It will not work the first day.) In three days after give six ounces of the Cordial ball in a little warm ale, fasting, and to fast two hours after. Repeat the calomel ball, physic, and cordial ball, six days after, in the same manner as before. Let the horse's hay be sweet, and his manger-meat scalded bran, with a spoonful of honey in each feed:—let him have walking exercise in the open air, but be careful of wet and of cold water.

When this course has been pursued two or three times, give two or three ounces of the cordial ball every morning. The above method will remove most Coughs, but if it fail, try the following:—

1 oz. of Gum Ammoniacum, in fine powder.
1/2 do. Gum Galbanum, in powder.
2 drams of Saffron, brayed.
2 do. Assafoetida, in powder.

Work them up with honey, or Barbadoes tar, into one ball; roll it in liquorice powder, and give it fasting, and to fast two hours after. This ball must be given every morning, for six or seven times, before it can have a fair trial; but if the horse be not a good one it will be thought too expensive. In the cure of this disease, the diet should be very moderate, the usual quantity of hay should
be abridged, and sprinkled with water, and the usual allowance of corn and water divided into several portions; for with these regulations in diet the disease will soon be cured; and where it is incurable, the horse will be so far recovered as to be able to do a great deal of work.

It may not be improper here to add that some young horses are subject to coughs when cutting their teeth, and their eyes are also affected from the same cause. In these cases always bleed, and if the cough be obstinate, repeat it; and give warm mashes, which are often sufficient alone to remove the complaint.

When young horses have a cough that is caused by worms, as is often the case, such medicines must be given as are proper to destroy those vermin, of which I shall inform you in the chapter on worms.

THE CHOLIC, OR GRIPES.

This disorder is little understood by common Farriers, and has for a long time been a secret to many, so that many a horse has been lost in it that might have been saved. The same medicines have generally been given to horses in the Cholic as in the dry gripes, when there is much difference in the disorders.

The Cholic proceeds from various causes, therefore the method of cure varies; for otherwise the medicines intended to cure it may increase it, and perhaps render it fatal. We shall therefore divide this disorder into three different species, and endea-
vour to give such plain directions for managing each, as cannot fail to prove very beneficial. The three species are these:

1. The Flatulent or Windy Cholic.
2. The Bilious or Inflammatory Cholic.
3. The Dry Gripe.

THE FLATULENT OR WINDY CHOLIC.

Symptoms. The horse is very restless, lying down and starting up again. He strikes his belly with his hind-feet, stamps with his fore-feet, and refuses his meat. When the pain is violent, he has convulsive twitches; his eyes are turned up, and his limbs stretched out, as if dying; and his ears and feet alternately cold; he falls into profuse sweats, and then into cold damps; often tries to stale, and turns his head frequently to his flanks; he then falls down, rolls about, and often turns on his back. This last symptom proceeds from a stoppage of urine, which generally attends this species of cholic, and may be increased by a load of dung pressing on the neck of the bladder.

Causes. This disease often proceeds from catching cold by drinking cold water when hot, and the perspirable matter is by that means thrown upon the bowels, which causes them to distend violently, and sometimes brings on an inflammation in the small intestines, when the body begins to swell, and the cure is despaired of.

Cure. The first thing to be done is to empty the strait gut with a small hand, dipped
in oil. This frequently gives room for the wind, before confined in the bowels, to discharge itself: and, by taking off the weight that pressed upon the neck of the bladder, the suppression of urine is removed, upon which the horse immediately stales, and becomes much easier. If the horse be young, and full of blood, it will be proper to take a sufficient quantity of blood from the neck.

When these purgative operations have been performed, the following may be given, as it seldom fails to give relief.

4 oz. of Tincture of Senna, or Daffy’s Elixir.
6 drams of Tincture of Opium.
1 dram of Oil of Juniper.
8 oz. of Juniper Berries, bruised.

Put one quart of boiling water on the juniper berries, let them stand a few minutes, strain it off, put all together, and give them to the horse.

If he does not find relief soon after taking this dose, both by staling and breaking wind, it is doubtful whether he will receive any benefit from it; so that you must prepare the following clyster for him as soon as you can. Take—

Camomile Flowers, 4 ounces; Aniseeds, Fennel, and Coriander, 2 ounces of each. Boil them in 1 quart of water, and add 2 oz. of Castile Soap, cut small, while the water is hot, that the soap may dissolve. Give it blood-warm.

During the fit, the horse may be walked about, or trotted a little, but should by no means be harassed, or driven about till he is jaded. If no better, give the following.
2 drams of Camphor.
1 dram of Pellitory of Spain.
2 oz. of Ginger Powder.
3 gills of Holland Gin.

If the horse sweat much at times, and then falls into cold sweats, give four ounces of mithridate, in three gills of Holland gin, and repeat the clyster. If the disorder continue three or four hours, give one ounce of tincture of opium, in three gills of Holland gin. When the horse begins to recover, he will lie quiet, without starting and trembling; and if he continue in this quiet state an hour, you may conclude that the danger is over. Dress him down well, and give him a small quantity of warm water, if he will drink it; bed him down well, cover him to keep him warm, and then leave him to get a little rest. You must consider that the disorder has left a soreness on him, both within and without; therefore, make him a little gruel, with a pint of red wine in it; and if any skin be knocked off about his eyes, or his huck-bones, rub it with the bottle recommended for bruises.

Sometimes the Cholic is received into the stomach, and does not act so violently, nor cause the horse's pains to be so strong. You may best judge of this by his motions:—he will draw his four feet together, lay himself down, stretch out his feet and head, throw his head back, and often put his nose to his chest: after standing a little, he will lie down again as before. When the
Cholic is easier, he will lie for an hour or more together, with his feet stretched out and his head thrown back, or with his nose upon his ribs. This is caused by bad meat, or bad water, or both: sometimes by drinking hard water when hot, or by a change from soft grit water to limestone or iron water, or by the break of a storm. I have had five or six horses under my care in this disorder in one day, at the break of a frost, by drinking ice, or snow water. Sour grains, sour grass, dry meal, dust, bad hay, and many other things, cause this disorder. Give the following, which is almost a certain cure in two hours.

1 oz. of Spirits of Sweet Nitre.
1 do. of Spirits of Nitre.
1 do. of Tincture of Opium.
1 do. of Sweet Oil.

All to be given together in a gill of warm ale. Bed the horse well down, and leave him that he may get a little sleep, after which he will get up, and fall to his meat. This is one of the best medicines that has yet been found out. It has saved hundreds of horses, and will save hundreds more, if rightly applied.

THE BILIOUS OR INFLAMMATORY CHOLIC.

SYMPTOMS. This kind of Cholic, besides most of the symptoms of the former, is attended with a fever, great heat, panting, and dryness of the mouth. The horse also generally parts with a
little loose dung, and a little scalding-hot water; which, when it appears blackish, or reddish, indicates an approaching mortification.

CURE. Take three ounces of Senna, and one ounce of Salt of Tartar; infuse them in one quart of boiling water nearly an hour; then strain it off, and add two ounces of Lenitive Electuary, and four ounces of Glauber’s Salt. Mix them when hot, or they will not dissolve.

If the disorder be not removed by the above medicine, but, on the contrary, the fever and inflammation continue to increase, attended with a discharge of flesh-coloured matter, the event will probably be fatal; and the only medicine likely to prevent it, is a strong decoction of Jesuit’s bark, a pint of which may be given every three hours, mixed with a gill of red port wine; or you may give one ounce of the powder of bark with the wine. Or, if these cannot be got easily, give four ounces of tincture of rhubarb in three gills of red port wine. Also give a clyster every two hours, made of two new-laid eggs, well broken, and two ounces of London or Venice treacle, in one quart of milk. Give it warm.

If the horse recover, it will be proper to give him a gentle purge or two in a week after. Take

1 oz. Rhubarb, in Powder.
½ do. Jalap, do.

Work them up into a ball with syrup of buckthorn, and give it to the horse, with warm water to work it off.
THE COMPLETE FARRIER.

THE DRY GRIPES.

Symptoms. This disorder mostly proceeds from costiveness, and is discovered by the horse's frequent and fruitless attempts to dung, the blackness and hardness of the dung, the frequent motion of his tail, the high colour of his urine, and his great uneasiness.

Cure. The first thing to be done is to draw the dung out of the fundament, with a small hand, as far as you can reach, and then give the following.

4 oz. of Castor Oil.
4 do. Tincture of Senna.
$\frac{1}{2}$ do. Oil of Juniper.

Give them all together, and then the following clyster.

Boil a handful of Marshmallows and Camomile Flowers in a quart of water, then strain it off, and add two ounces of Linseed Oil, or Pale Oil.

If the horse do not mend, repeat both the drink and the clyster. During this disorder the horse must not have any dry food; but boiled linseed, and scalded bran, with warm water to drink. Gentle walking exercise is a great means to cause the physic to work; but be careful of cold.

From the account that I have given of the different species of the Cholic, the reader will be abundantly convinced how necessary it is to be
acquainted with each that he may be able to give proper medicines, and to relieve the creature’s excruciating pains. He should carefully avoid all hot, violent medicines, which always prove hurtful in every species of this disorder, and frequently fatal. Nor is it any wonder that horses treated in that manner should die, for such medicines stimulate the neck of the bladder, augment the heat of the blood, (before much too great,) and inflame the bowels, by which a mortification is brought on, and the horse is lost by the very means used for his recovery.

Sharp fits of the Gravel are sometimes taken for the Cholic; but should this happen, the drink recommended for the Cholic will also be proper for the Gravel.

WORMS AND BOTS.

Much has been said concerning Worms in horses, and but little understood. I have often been astonished at grooms, farmers, and farriers, not having a better knowledge of them, for there are more horses killed by these nauseous vermin than by any thing else; and many are kept weakly and low in flesh by them.

I have opened horses that have been destroyed by them: some have had their stomachs eaten through, and others have had their bowels so full of them, as to have the inner coat eaten entirely off. A horse in high keep is not so subject to these vermin as a poor one that is worked hard and badly fed.
Horses are subject to five sorts of worms, and perhaps to many more, but I shall only describe to you three, which are the most common. The worst sort to destroy are long, round worms, resembling earthworms, but smaller at the tail; they have a seam all the length of their bodies, and are very hard: these are called *Round Worms*. The next are small worms, about the size of a sewing needle: they have reddish, flat heads, having nine feet on each side, and are called *Ascarides*—these are also very troublesome to horses. The third sort are short, thick worms, called *Bots*: their seat is mostly at the stomach; but when horses get any food that they are fond of, they fill themselves so full, that they lose their hold, and come along with the dung to the fundament, and there catch hold and stick to the end gut, partly out of the horse;—this happens mostly in spring, when they get the juice of fresh grass.

It is well known that horses which have many worms can never thrive, or carry much flesh. If the breeding of these vermin were prevented, it would add much to the strength of the horse; and it might be done by giving him a decoction of bitter herbs, such as wormwood, in spring. It may be boiled, or steeped in hot water, and given two or three times a week. Or a decoction of wormwood, buckbean, gentian root, and camomile flowers, (of each a large handful, boiled in a sufficient quantity of water, and given as above,) will answer the end.
Symptoms. The symptoms which indicate worms are various, as the animals are different, and seated in different parts of the body. When the Bots are seated in the strait gut, they are never dangerous, but are often thrust out with the dung. They generally come in the months of May and June, and scarcely ever continue in a horse above a fortnight. But when they breed in the stomach, they often cause convulsions, and even death. The Bots that breed in the stomach are about the size of a large maggot, composed of circular rings, and have little, sharp, prickly feet along the sides of their bellies, by means of which they fasten themselves to the part from whence they derive their nourishment, to prevent their being loosed from such adhesion before they come to maturity; and as they drain the coats of the stomach like leeches, it is no wonder that they often throw the horse into convulsions, which terminate in death, unless the cause be removed. The violent agonies of the creature are the only indications of their existence. The other kinds of worms are more troublesome than dangerous, and are discovered by the following signs: there is a white fur on the end of the strait gut; the horse is lean and jaded; his coat is rough and staring; and if you rub your hand backward on the hair, a white scurf will rise, as if he had been surfeited; and though he eats with a remarkable appetite, he does not thrive. He often strikes his hind-feet against his belly, and is some-
times griped, but without the violent pains that attend the cholic, or strangury; for he never rolls or tumbles, but is uneasy, often laying himself down quietly on his belly for a little while, and then rising and beginning to feed. But the surest symptom is when the horse voids the worms with his dung.

**Cure.** Many medicines have been given to destroy these vermin, without knowledge or judgment, and even contrary to common reason. Some give coarse sugar for that purpose, but, in my opinion it will rather increase than destroy them; although a few will fill themselves so full as to lose their hold, and to come away with the dung. I advise all who have horses nearly eaten up with worms, not to give every foolish nostrum that people prescribe, but something that is likely to destroy them. Take—

1 oz. of Socotrine Aloes.
1 dram of Calomel, 8 drams to an oz.
1 dram of Oil of Aniseed.
2 drams of Powdered Ginger.
½ oz. of Syrup of Buckthorn.

Beat all up together in a mortar till the aloes are well broken, and the whole is brought into a paste; which give in the morning, fasting, and to fast one hour after; also give warm water, and walking exercise till wrought off. (It will not work the first day.) Be careful that the horse be open in his body before you give the ball. In grass time you will have nothing more
to do than to give it, and to put the horse where he can get water. This dose is for a pretty strong horse, so you must add or diminish according to size. This dose must be repeated as need requires, but not within seven days. It will destroy most kinds of worms; but the hard, round worms require different treatment, as they are the worst of any to get rid of. To destroy them, give the following:

1 dram of Calomel, 8 drams to an oz.  
6 drams of Jalap.  
6 drams of Rhubarb, in powder.

Wrought up into a paste with conserve of hips, and two days after give the above ball. Or the following:

1 dram of Calomel, 8 drams to an oz.  
1 oz. of dried Foxglove Leaves, powdered.  
½ oz. of Worm Seed, powdered.  
1 oz. of Jalap, in powder.

To be given in three gills of malt liquor from the mash-tub. If the above be given every week for three weeks together, you may be sure that most of the vermin will be expelled. If the medicines be given in the house, let the food be light and opening, and warm water for two days, with walking exercise.

I advise all who have horses troubled with worms, to give savin, dried and powdered, before they give the worm physic. If one ounce a day be given for a week before, in a mash of bran, it will be much better. The above ball is good for many disorders besides worms.
THE YELOWS, OR JAUNDICE.

This disorder is very common in horses, and sometimes it is either unknown, or overlooked, till it gets much worse to cure. A young horse is easily cured, but an old one is bad to cure. Some people may say, How can a horse have the Jaundice, when he has no gall-bladder? I answer, Though he has no gall-bladder in sight, he has a large vessel in the liver which answers the same end. We may here observe the handiwork of God in placing a horse's gall-bladder differently from those of other animals, when we consider that the horse is the swiftest and most laborious creature in the world; so that if the gall-bladder had been placed on the liver, it would always have been exposed to injuries.

Symptoms. The white of the eyes is yellow, also the inside of the mouth, the tongue, and the bars in the mouth, are of a dusky yellow; the horse is dull, and refuses all kinds of food; a slow fever is perceived, which increases with the yellowness; the dung is often hard and dry, and of a pale yellow colour; the urine is commonly of a dark, dirty brown, and when it has settled, sometimes looks like blood; the horse stales with pain and difficulty; and, if the disorder is not checked, becomes in a short time unable to stir about. When this disease gets strong hold of a horse before proper medicines are applied, it is often fatal, or it brings on some other disorder as bad, or worse than itself.
Cure. Bleed plentifully, and as this disease is always attended by a costive habit of body, it will be proper to give a clyster or two before you give the physic. A clyster may be made of one ounce of camomile flowers, boiled in a quart of water with two ounces of Castile soap. Then give the following ball.

4 drams of Indian Rhubarb.
2 do. of Saffron.
6 do. of Socotrine Aloes.
1 oz. of Castile Soap.

To be brayed in a mortar with a little syrup of buckthorn, and made into two balls; one to be given the last thing at night, and the other the first thing in the morning; and give plenty of warm water to work them off. If the disease is obstinate and will not yield to the above, give the following ball.

1 dram of Calomel, 8 drams to an oz.
1 oz. of Barbadoes Aloes.
1 do. of Venice Soap.
1 do. of Turmeric.
1 dram of Oil of Juniper.

All to be brayed in a mortar with a little syrup of buckthorn, and made into two balls; one to be given at night, and the other in the morning, with plenty of warm water, and walking exercise till wrought off.

If the horse is better after the first medicine, repeat it, for it is much safer than the last; but if
not, the last may be given, and repeated as need requires; but be careful not to give it in less than six days distance.

If, after giving one dose of the last ball, you give the following powders every other day in celandine tea, if it can be got, or in warm ale, you will find them very useful in removing the complaint.

2 oz. of Salts of Tartar.
1 oz. of Æthiop's Mineral.
3 oz. of Turmeric.

These powders are proper to be given after either of the former doses.

There are so many prescriptions given for this disorder, that a horse's life is endangered by them, for although the things given by many people may do the horse no hurt, yet the disorder is getting stronger hold, and opening the way for others to follow; so that I advise all into whose hands this little treatise may fall, to give the medicines herein recommended a fair trial; and I hope they will seldom be disappointed of a cure.

THE STAGGERS.

This disease is a grievous one indeed. Farriers generally divide it into two heads,—The Heart Staggers and the Head Staggers; but they are both one. It is caused by the liver making blood so fast that the cavity of the heart is overloaded, and the blood flies up the neck vein till the head is overloaded too: and if relief cannot be obtained, the horse soon dies.
Symptoms. The most common are—drowsiness, watery and somewhat full and inflamed eyes, a disposition to reel, feebleness, a bad appetite, the head generally hanging down, or resting on the manger. There is little or no fever, and the dung and urine are very little altered. The horse soon begins to reel, and falls down, and sometimes is so outrageous as to bite every thing in his way.

Cure. In the first place, bleed him well as soon as you possibly can, by striking the veins in several places at once, and taking away four or five quarts at one time; and, in order to raise up his head and shoulders, support them with plenty of straw. If he survive the first fit, cut several rowels, give him clysters at night and morning, made of barley-water and a little sweet oil and salt; and blow up his nostrils a little Cayenne pepper, or white hellebore. Also give him—

4 drams of Bark.  
16 grains of Turbeth Mineral.  
½ oz. of Camphor.  

Give it in a little warm ale. If the horse be outrageous, give him—

1 oz. of Tincture of Opium.  
1 gill of Syrup of Poppies.  
1 oz. of Tincture of Guaiacum.  

Be careful not to let him knock his head, for it will increase the disorder. If he get through the first fit, give him two ounces of crocus metal-lorum every day, to thin his blood, for fear of a...
relapse. It will be proper to give him the following ball once a month for some time after.

1 oz. of Rhubarb, in powder.
\(\frac{1}{2}\) do. of Jalap.
1 dram. of Calomel, 8 drams to the oz.

To be made into a ball with syrup of buckthorn. This ball will be of great use in thinning the blood, and preventing a return of the disorder; for when a horse has had one fit of it, he is very likely to have another, if care be not taken to prevent it.

**CONVULSIONS, OR THE STAG EVIL.**

Of all disorders to which horses are subject, this is the worst, and is scarcely discoverable till the horse falls down raging mad. It seizes him all at once, without any previous warning. He raises his head, with his nose toward the rack, pricks up his ears, and cocks his tail. In this posture he continues, and those who do not understand the disorder never suppose that he ails any thing of consequence. But other symptoms soon convince them of their mistake; for his neck grows stiff, cramped, and almost immovable; his jaws are locked, and every tendon in his body becomes stiff. If he can get his mouth open, he will bite any thing that comes in his way; and if he live a few days in this condition, several knots will arise on the tendinous parts of it. Every muscle is so much cramped and extended, that the horse looks as if he were fastened to the place, with his legs stiff, wide, and
staggering, and the skin drawn so tight over every part of his body, that it is almost impossible for him to move; and if you attempt to make him walk, he will be ready to fall at every step, unless he be well supported. At the same time his eyes are so fixed by the contraction of the muscles as to give him a dead look. He snorts and sneezes often, pants continually, and his shortness of breath increases till the distemper takes a favourable turn, or the horse falls down and dies.

Cure. In the first place, bleed plentifully, unless the horse be old and low in flesh, or taken from some hard duty, and then you must not take so much blood. After bleeding, give the following ball, if you can get it in, but the horse is very often jaw-locked till nothing can be got in but by a clyster-pipe put between his fore and axle teeth.

\[ \frac{1}{2} \text{ oz. of Asafetida.} \]
\[ \frac{1}{2} \text{ oz. of Gum Guaiacum.} \]
\[ \frac{1}{2} \text{ oz. of Gum Camphor.} \]

Make them up into a ball with honey, and give one of these balls every twelve hours, for two days, if you can get them in; and if not, dissolve them in a little hot beer, and give them with the clyster-pipe. (Be careful to powder the Gums.) Then make an ointment or lotion of the following.

\[ 1 \text{ oz. of Oil of Spike.} \]
\[ 1 \text{ oz. of Oil of Amber.} \]
\[ 1 \text{ oz. of Oil of Bricks.} \]
\[ 1 \text{ oz. of Spirits of Sal Ammoniac.} \]
Shake them all well together, and rub the jaws just below the ears, where they lock into the upper chap; also rub the small of the back well, where the cross bones are fixed to the back bone.

In this, as in most other disorders, the body should be kept gently open with laxative purges and emollient clysters. When the jaws are so locked that you cannot get any thing in, do not open them by force, for that would increase the disorder instead of relieving it.

Sheep skins, newly taken off, and laid with the flesh side to the horse, will sweat him greatly, and by that means draw a quantity of water from the blood: indeed, there are few things that will relieve a locked jaw more; but if they be laid on the loins, they must not lie above three hours at a time before they are turned with the wool side to the horse. You may keep the skins on twenty-four hours if you change sides every two or three hours.

If the horse cannot take either food or water in at his mouth, he must be supported by clysters, made of barley-water and milk, and given both at the mouth and the fundament. I once supported a large waggon-horse, belonging to Mr. Anderton, of Sheffield, in this manner for twelve days, and he recovered.

Convulsions are caused by different things, but often by bots in the stomach; for these destructive vermin suck up the juices that should feed the blood, and bring it into a thin, bad state; indeed they are sure to destroy the horse by one means
or other when there are a great number of them in the stomach. I therefore wish all who have a horse troubled with them, to destroy them before they destroy the horse.

When you suspect that these vermin are the cause of the disorder, and they generally are, give the ball recommended to destroy bots. If the horse get better the first time, be sure to guard against a relapse, for you may depend upon it he will not get better a second time.

Tapping under the jaws, and at the breast, is sometimes of great service in this disorder, but I am of opinion that sweating with sheep skins will give relief much sooner. I wish to observe, before I conclude this chapter, that the stiffness of the jaws continues sometimes after the convulsions have ceased; in which case the following medicine should be given.

Half an oz. of Matthews' Pill.
Half an oz. of Asafoetida.

Make them into a ball, and give it twice, (one day between the doses,) and it will give relief.

FEVERS.

Horses are subject to few disorders which are not attended with more or less fever.

CAUSES. Fevers are often brought on by sudden heats and colds; by going out of warm stables into cold ones; by being clothed, and then having the clothing stripper.
grass; for many people turn their horses out to grass in the morning, and let them lie out, which is quite wrong: for when they are turned out to grass, to be there night and day, it is best to turn them out at night, for then they will graze all night; but if you turn them out in the morning, they will fill themselves in the day-time, and lie still all night, which is the way to catch cold. Most fevers are brought on by colds, therefore be careful to keep your horses as much as possible from catching cold.

Symptoms. The horse is remarkably restless; ranging from one end of his rack to the other; his flanks work, his eyes appear red and inflamed, his tongue is parched, and his breath hot, and of a strong smell. He often smells at the ground, he loses his appetite, and though he will take the hay into his mouth, he does not chew it; his whole body is hotter than usual, but not parched; he dungs often, but little at a time, and it is generally hard, and in small pieces; his urine is high-colored, and he generally stales with pain and difficulty; he is always craving for water, but drinks very little at a time; and his pulse is much quicker than usual.

Cure. Whenever a fever takes place, the first part of the cure is bleeding, and if the horse be strong and in good condition, the quantity should be two or three quarts. When this has been done, give him a pint at a time of the following infusion, three or four times a day.
Boil all these together in six quarts of water, for ten minutes, let it stand till cold, and then strain it off. It is one of the best medicines for colds, coughs, hoarsenesses, or fevers, in either horse or man; and if it were more known, and more used, it would give greater relief in violent colds than anything yet found out. It is kind in its operations, opening to the lungs, works gently by stool and urine, is free in its passage, and opening in its nature.

The horse should scarcely eat any thing but mashes made of linseed and bran, and given in small quantities. If he refuse them, let him have dry bran sprinkled with water, and put a little hay into his rack, as a small quantity of it will not hurt him, and a horse will often eat hay when he will not eat any thing else. His water should be rather warm, and given often, but in small quantities; and his clothing moderate, too much heat being pernicious in a fever. If he refuse his meat, do not let it lie before him, but take it away, and clean his rack and manger. If he be able to go about, a little walking exercise in the open air will be very proper, but you must be careful not to get him wet.
This method, with good nursing, will often be sufficient to restore the horse to health; but if he refuse his meat, more blood should be taken from him, and the drink continued; and if his dung be hard and knotty, a clyster should be given.

Take Marshmallows and Camomile Flowers, a handful of each, boil them in three quarts of water till one quart is wasted; then strain it off, and add four ounces of Venice Treacle, and one pint of Palo Rape Oil.

The above will make three clysters, to be given at four hours' distance. If his pulse continue high and quick, give the following.

2 oz. of Nitre.
2 do. of Cream of Tartar.
4 do. of Glauber's Salt.
2 do. of Lenitive Electuary.

Dissolve them in hot water, give one half, and the other half the day following. If the horse be very open in his body, you need not give the above: but if dry, be sure to give him it. If he be very open, give him four drams of bark in a gill of red port. By pursuing this method, the horse will begin to recover, and will relish his hay, though his flanks will continue to heave for a fortnight. Nothing more will be requisite to complete the cure than walking him abroad in the air, and giving him plenty of clean litter to rest on in the stable.

There is another and much worse kind of fever to which horses are very subject, and which often proves fatal if not properly treated, viz.
THE COMPLETE FARRIER.

A COMPOUND FEVER.

Symptoms. The symptoms of this disease are—a slow fever, with great depression; and sometimes inward heat and outward cold, and at other times heat all over, but not excessive. The horse’s eyes are moist and languid; his mouth is continually moist, so that he is not desirous of drinking, and when he does drink, a very little satisfies him; he eats very little, and moves his joints in a loose, feeble manner, grating his teeth very disagreeably; his body is generally open, his dung soft and moist, and he stales irregularly, sometimes making little water, and at others a large quantity, which is of a pale colour, and has very little sediment.

Cure. In the first place, take from the horse a moderate quantity of blood. Let it not exceed three pints, but repeat the operation according to its strength, if there be any tendency to inflammation; after this the nitre drink already described may be given, with the following addition.

1 oz. of Snake Root.
3 drams of Saffron.
3 drams of Camphor, dissolved in Spirits of Wine.

The horse's diet should be scalded bran; and linseed, boiled, and wrought up with bran. Also give him the best hay by a handful at a time. It is often necessary to feed him by the hand, for sometimes he is not able to lift his head to the rack.

In this disease, drinking is absolutely necessary to thin the blood; and therefore if the horse refuse
warm water, he should be indulged with such only as has had the cold taken off. This may be done with a hot iron, or by letting it stand in the pail in a warm stable; and this will be better than forcing warm water on the horse's stomach. If this method do not prove sufficient, but the fever shall continue to increase, the following balls should be given immediately, as the danger augments every hour.

1 oz of Camphor.
\(\frac{1}{2}\) do. Gum Myrrh.
1 do. Squills.
2 drams of Castor.

Make them up into two balls, and give one at night, and the other in the morning. If no better in a short time, give the following infusion.

1 oz. of Snake Root.
2 do. Gentian Root.
2 do. Lemon Peel.
2 drams of Saffron.

Boil these well together in three quarts of water, and give a pint once a day. If the above ball fail of success, give the following.

1 oz. of Camphor, dissolved in Spirits of Wine.
1 do. Sal Ammoniac.
1 pint of good Vinegar.

Put them all together, and stir them about till the fume subside. This is for two doses to be taken at twelve hours' distance, diluted with wa-
ter. There is not perhaps a more powerful and effectual medicine known than camphor in all kinds of putrid fevers, it being active, attenuating, and
particularly calculated to promote urine and perspiration, the two principal outlets by which relief is to be obtained; and if this medicine were more often given than it is, it would be a greater credit to the farrier, and give greater relief to the horse.

If the horse be costive, clysters, or an opening drink, should be given; and should he purge moderately, be careful not to suppress it; but if it continue so long as to enfeeble the horse, give him a little red port wine and bark.

Also observe to let the animal drink plentifully, for that will greatly promote the operation of the above-named medicines, as both the disorder and the medicines will cause a thirst. If the horse can bear walking about, a little open air will be very proper, but be careful to keep him well covered.

Particular regard should also be paid to his staling, which, if it flow in too great quantities, must be repressed by proper astringents, and by giving him lime-water; and, on the other hand, if he stale so little as to occasion a fulness or swelling in his body and legs, give him the following drink.

1 oz. of Nitre.
2 do Castile Soap.
1 do Venice Turpentine.
2 drams of Oil of Juniper.

Make them into a ball with liquorice powder, and give them at twice, twenty-four hours' distance. These balls may be given as occasions may require, and are very proper to convey off the greasy, slimy matter from the passage of the urine, and to settle swelled legs.
These are the best methods of management, and will generally prove successful; but sometimes art will fail, and the horse will discharge a greenish or a reddish gleet from his nostrils, and sneeze very frequently; he will continue to lose his flesh, become hide-bound, refuse his meat, swell about his joints, and his eyes will appear fixed and dead; a purging also ensues, and a dark-coloured fetid matter is discharged. When these symptoms appear, the case may be considered desperate, and all attempts to save the horse will be fruitless.

In this disorder you must take care not to let the horse eat too much, for his diet should be light, and in small quantities at once, and increased gradually as he may gain strength. When his skin feels kind, his ears and feet continue moderately warm, his eyes look lively, his nose remains clean and dry, his appetite mends, he lies down with ease, and dungs and stales well, you may conclude that the danger is nearly over, and that nothing more is needful but care to complete the cure. On the contrary, by overfeeding you will run the risk of bringing on a bad surfeit, and the horse may be, according to the old saying,—*killed with keeping*.

Sometimes the fever returns; so that every one who has a horse in a fever should be careful of cold for some time after, as his blood is left in a thin bad state. His legs will probably be subject to swell; and if the swelling leave a dimple when you press your finger upon it, it is a sign
of a dropsy; in which case it will be advisable to put two rowels on each side of his belly, and to give him half-an-ounce of the best yellow bark every day for some time. At other times a fever leaves a running at his nose, of a thin yellow, glueish matter, and small swellings below his ears and chaps.

When you find these symptoms, give one ounce of crocus metalorum every day in a mash of bran, and rub the swellings with mercurial ointment.

In the years 1796, 1797, and 1798, a distemper prevailed among horses, attended with a strong fever, which in a few days turned to a putrid fever. Some horses had their eyes so much inflamed as to stand goggling out of their sockets; they had also swellings all over their bodies, and in two or three days dropped down dead. At that time I observed that the horses which had camphor given them got the best through. Some horses which have had this distemper, have a relapse of it in the spring season; and it is difficult to eradicate.

Care should be taken to keep the head and throat warmer than common, as the kernels about the latter are swelled; and also to promote a free perspiration, and to increase the running at the nose, which has the same effect in horses as spitting has in the human species; but never syringe the nose, as is often done, to promote the discharge, for it has an effect quite contrary, and lessens the quantity of matter instead of increas-
ing it; and checking the discharge of matter at
the nostrils often causes swellings of the glands,
and other bad consequences. Let me once for
all remind you that all such discharges are critical,
and thrown off by nature to free herself from the
load that oppresses her, and consequently should
by all means be promoted.

A BROKEN WIND.

This disorder may sometimes be prevented, but
cannot be cured; and it has been hitherto as little
understood as any to which a horse is subject. Peo-
ple have had various opinions respecting its cause,
and why some horses are more subject to it than
others; but of all the opinions hitherto delivered,
that of Mr. Gibson seems the best founded. He
thinks that it is frequently owing to the hasty or
injudicious feeding of young horses for sale; by
which means the growth of the lungs is rapidly
increased, and all the contents of the chest so much
enlarged, that in a few years the cavity of the chest
is not sufficient to contain them when they are
expanded to perform their proper functions. Nor is
this opinion founded upon bare conjecture, for horses
that have died broken-winded have been opened, and
the lungs and other parts found too large for the
chest. But although hasty feeding is often the cause
of this disorder, yet it is not always, for a narrow
chest may cause it. It has been observed that horses
rising eight years old are most subject to it. The
reason of this is, because a horse arrives at his full
strength and maturity at that age. At six he generally finishes his growth in height; then he lets down his belly, and spreads, and all his parts gain their full size; so that the pressure on the lungs and the midriff is now increased.

Also, when the horse catches cold and gets a dry cough, the lungs are much larger than they ought to be, and at that time riding sharply is enough to force the lungs so hard against the midriff as to force a passage through it.*

A few years back, some people pretended to cure this complaint by boring; but none were ever cured by it yet, nor ever will be. They made a hole above the fundament, to let out the wind that was forced through the midriff into the bowels; and this caused the horse to be continually discharging wind out of the place; so that the pretended cure was worse than the disease.

Dissections of horses that have died broken-winded, have sufficiently proved the truth of the above observations; and that not only the lungs, together with the heart and its bag, were preternaturally large, but also the membrane which divides the chest; and that the midriff was remarkably thin. In some horses the disproportion has been so great that the heart and lungs have been almost twice their natural size, yet perfectly sound; and without any ulceration whatever, or the least defect in the windpipe or in its glands.

* The Midriff, or Diaphragm, is that which is commonly called the Skirts, and separates the Chest (where the lungs lie) from the Bowels.
From these observations it abundantly appears, that the enormous size of the lungs, and other contents of the chest, by hindering the free action of the midriff, is the principal cause of this disorder; and as the lungs are found much more fleshy than usual, they must consequently have lost a great part of their spring and tone.

Therefore, as this disorder is caused by the largeness of the lungs, we may conclude that it is one of those diseases which cannot be cured by art; and that the boastings of those who pretend to cure it, are built on a sandy foundation. They may indeed relieve the complaint, but will never cure it, for an absolute cure is not in the power of any human being. All that I can do is to lay down some rules which have a great tendency to prevent this disorder, if pursued in time; and some remedies that will afford relief when it has taken place, and render the horse capable of performing good service notwithstanding his misfortune.

**Symptoms.** The first symptom of a Broken Wind is an obstinate dry cough, which is neither attended with sickness nor loss of appetite; but, on the contrary, with a disposition to foul feeding, eating the litter, and drinking large quantities of water.

**Prevention.** When a horse is troubled with an obstinate dry Cough, and eats his litter, it will be necessary to bleed him, and to give him the mercurial physic already prescribed, repeating it two or three times. Afterwards give the following balls for some time, which have been found of very great service.
4 oz. of Gum Ammoniacum.
4 do. Galbanum.
4 do Assafoetida.
4 do Squills.
½ do Saffron.
6 drams of Cinnabar of Antimony.

Make the whole up into balls with honey and a little liquorice powder, and give one about the size of a pullet's egg every other morning. This is a very good ball for a dry cough.

Some horse-dealers give broken-winded horses a quantity of shot when they carry them into the market for sale, and I suppose it is to draw the bowels from the midriff, so that the disorder may not be discoverable; but at the same time there is great danger of killing the horse.

But it is not enough to give proper medicines; the horse's diet should also be carefully attended to at the same time, if we would hope for success. In order to this, the horse should eat very sparingly of hay, which, as well as his corn, should be wetted with chamberlie, which is much better than water; and in this disease the horse is always craving after water. Chamberlie is best for this purpose, because of the volatile salts which it contains, as they are a means of removing the thirst. For the same reason, garlic is very efficacious in this disorder. Two or three cloves being given in each feed; or three ounces bruised, and boiled in a quart of milk and water, and given every morning for a fortnight, has been found very serviceable. So easy a remedy
should never be neglected; for by warming and stimulating the solids, and at the same time dissolving the tenacious juices which choke up the vessels of the lungs, it greatly relieves this complaint.

Moderate exercise should never be omitted; and although broken-winded horses are not able to endure much labour the first summer, yet many have been found less oppressed the second, and scarcely perceptibly affected the third, being then able to perform a long journey, and to endure great fatigue. A horse kept constantly in the field, when not in work, will be able to do good service for many years.

It may not be improper to observe that those who hope to cure a broken-winded horse, or even one that is troubled with an obstinate cough, by putting him to grass, will find themselves wretchedly mistaken; for on his being taken into the stable and fed with dry meat, he will be much worse than before; and some that had only a dry cough when they were put to grass, have returned broken-winded. Therefore always remember that if you cannot keep a horse of this description constantly abroad, it is best not to put him to grass at all, as, instead of curing, it will tend to augment the disorder.

In short, the grand secret of managing horses of this kind, consists in having particular regard to their diet and exercise. A moderate quantity of hay or corn, and water, should be given at a time, and the former constantly moistened, to prevent their wanting too much of the latter. They should
have moderate exercise, but never any that is violent. By this method, and giving the following ball once every fortnight or three weeks, the horse will be able to do good service for many years.

6 drams of Socotrine Aloes.
2 do. Myrrh.
2 do. Galbanum.
2 do. Ammoniacum.
2 oz. of Bayberries, in powder.

Make the whole into a ball with a little oil of amber, and a sufficient quantity of syrup of buckthorn. This ball operates so gently that there is no need for confinement, except a little the day following that on which it is given. The horse must have warm mashes and warm water, and the utmost care must be taken to prevent his catching cold.

A CONSUMPTION.

It is hard to lay down proper rules on this head, or to give the owner or farrier such an explanation of the disease as may lead him to a proper knowledge of it. It has been above a match for many; but having in my long experience had many under my care in this dangerous disorder, I hope to be able to explain it as well as most people.

Symptoms. A Consumption is a want of nourishment, and a waste of flesh. The horse's eyes look dull, his ears and feet are commonly hot, he coughs violently by fits, sneezes often, and groans at the same time; he gleets at the nose, and sometimes throws a yellowish matter, rather curdled, from his
nose; his flanks have a quick motion, and he has little appetite to hay, though he will eat corn, but he grows hot after it.

**Causes.** Damp stables are most likely to bring on this disorder, though it may be brought on by many other things. In my time I have known many horses suffer much by damp stables. I knew a gentleman who had two valuable horses, and he built a new stable for them, without any air-holes above their heads. He put the horses in as soon as the stable appeared dry, and their heat soon caused the walls of the place to sweat, and to run down with water, by which means both the horses were thrown into a Consumption, and died. I mention this to caution others.

**Cure.** The first, and indeed one of the principal things to be done, is to bleed in small quantities. A pint, or at most a pint and a half, is sufficient at once, and the operation is to be repeated whenever the breath is more than commonly oppressed. We are assured, by dissection, that in a Consumption both the glands of the lungs and the mesentery are swelled, and often indurated. The only medicines that can be depended upon, are mercurial purges and ponderous alteratives. I have already given you examples of the former, and the following is a formula of the latter. Mix—

4 oz. of Crocus Metalorum.  
1 do. Calomel pp.  
1 lb. of Gum Guaiacum, finely powdered.

Give about an ounce every day in a mash of bran
and linseed. Iceland liverwort, a handful boiled in a gallon of water, is much better to make mashes up with than water; for it is a great helper of the blood. But it is to be observed that nothing will answer so good an end as spring grass; so that if the horse be afflicted with this disease in spring time, turn him out to grass as soon as you can; and if the nights be cold, turn him out in the day-time, and take him in at nights. Salt marshes are the properest places when they can be met with.

When a horse has had this disorder, he can never more bear cold and hard service as before. If the horse be of small value, the above medicines will be thought too expensive, and you may give tar-balls, or tar-water. Fine Norway tar is of very great use in diseases of the lungs, and is to be made into balls in the following manner, which will be useful either in a consumption, a cough, or an asthma, and help them as soon as most drugs that are made use of.

1 lb. of fresh Norway or Stockholm Tar.
4 oz. of Garlic.

Bruise the garlic, and work them up with liquorice powder into a paste, and give two ounces at a time every other day.

A SCOURING, and other DISORDERS of the INTESTINES.

You should consider well what the Scouring proceeds from,—whether it is caused by foul feeding, bad water, hard exercise, sudden heat or cold, an overflowing of the bile, or a weakness of the intestines.
If it is brought on by foul feeding, or bad water, it should not be stopped, but rather promoted; for it should be remembered that nature by this means throws off the seeds of disease, and evacuates the morbid matter which would otherwise be retained to the great disadvantage, and perhaps to the destruction, of the animal. The great difficulty therefore consists in knowing when these discharges are critical and salutary, and when detrimental and noxious; for the former must not be checked, but the aid of medicine must be called in to put a stop to the latter.

For instance,—if a healthy horse, upon taking cold, or after hard riding, over-feeding, or at the beginning of a slight fever, have a moderate purging, you must be careful not to stop it, but on the contrary to promote it, by an open diet, and plenty of warm gruel. But if this purging continue a long time, with smart gripings, and the inner skin of the bowels come away with the dung, and the horse lose both his flesh and his appetite at the same time, recourse must immediately be had to proper medicines; among which the following are very effectual. I do not wish any one to give medicines upon merely hearing the names of the drugs, but to know in what manner the drugs will operate before they give them. Take—

1 oz of Rhubarb, in powder.
2 drams of Myrrh, do.
2 do. Saffron.

Give all together in warm ale, and warm water for
two days after. This dose will only work gently, but will be of great service to the horse, as it will bring away the slime which lodges in the small intestines, and correct the bile of the stomach, which is the cause of this disorder. If the horse be a good one, I would advise the owner never to refuse giving medicines because of the expense, as they will soon make him ample amends by their salutary effects; and sometimes the desire of saving a few pence in a medicine has been the destruction of a useful horse.

But when the disorder continues, and the horse's flesh keeps wasting away, recourse must be had to astringents. Tormentil root, (dried, and pounded in a mortar, and put through a sieve,) is one of the best astringents yet found out, though very little known. I heartily wish my fellow-creatures would make more use of this valuable root than they do. The dose is from an ounce to an ounce and a half. I believe that this valuable root has done more good in my time, in stopping loosenesses and bowel complaints, than any thing else. I have known many people who have spent pounds on physicians, and got no relief, and whose strength has been nearly gone, and their lives despaired of, but by taking the above in red wine, they have been restored. The dose is from half a dram to a dram, in a little red wine, four or five times a day. But you may say, Where is this root to be got, as few of the druggists keep it? I believe they do not; neither do I wish you to apply to them for it, for they will give you something else that will not answer the purpose.
It may commonly be found in dry land, where whins and brackens grow. It flowers all summer long; its top is small, something like southern wood; its flowers are small, yellow, and numerous; it is seldom above half a foot high; and its root is strong: in loose land and old cans as thick as a finger, but in fast-bound land not so strong.

When the purging is attended with a fever, a different method of practice is necessary. Take—

\[
\begin{align*}
\frac{1}{2} \text{ oz of Rhubarb, in powder.} \\
1 \text{ do. Lenitive Electuary.} \\
\frac{1}{2} \text{ do. Camphor.} \\
1 \text{ do. Powdered Ginger.}
\end{align*}
\]

To be given in a pint of old ale. This is a very proper medicine when the horse is troubled with a fever; but if he have no fever upon him, give the following.

\[
\begin{align*}
1 \text{ oz of Tormentil Root, in powder.} \\
\frac{1}{2} \text{ do Japan Earth, do.}
\end{align*}
\]

Give these in red wine, or if that be thought too expensive, in oak bark tea. Japan earth is a great healer of the bowels. Repeat this last medicine three or four times, to allow it a fair trial; giving the horse at the same time but little exercise, for he cannot then bear much. Should this medicine fail, and the disorder increase instead of decreasing, which may be known by his flanks and belly being full and distended, and his appearing to suffer strong griping pains, give the following clyster.

\[
\begin{align*}
\frac{1}{2} \text{ oz. of Isinglass, dissolved in a quart of warm Milk.} \\
2 \text{ do. Mithridate.}
\end{align*}
\]
Sometimes the flux is so violent as not to be overcome by the preceding medicine, when recourse must be had to the following. Boil a handful of oak bark in a quart of water, strain it off, and add —

2 oz. of Tormentil Root, in powder.
2 do. Bole.

Give them all together. This should be repeated once a day, for two or three days.

The practitioner should carefully attend to the symptoms that accompany this disorder; for if the discharge be attended with an acrid mucus, or slime, the griping pains being very severe, there is then a sure indication that the common lining of the bowels is wasted away; and then it will be necessary frequently to inject the following clyster, warm, in order to prevent the fatal consequences which will otherwise soon ensue.

Four ounces of Starch, dissolved in a quart of water; half a pint of sweet oil; three yolks of Eggs, well broken; and a little Loaf Sugar.

This will do for twice, at four hours’ distance.

It is also necessary to observe that some horses, from having weak stomachs and bowels, throw out their aliment undigested, and their dung is habitually soft, and of a pale colour; they also feed sparingly, and are always low in flesh. This complaint, which often proves fatal at last, may be removed by the following medicines.

6 drams of Socotrine Aloes.
3 do. Rhubarb, in powder.
1 do. Myrrh.
1 do. Saffron.
Make all up into a ball with syrup of ginger. After the above stomachic purge shall have been given two or three times, a pint of the following Infusion should be given every morning.

Take Gentian, Winter Bark, Orange Peel, Columba Root, Aniseeds, Fennel Seeds, and Camomile Flowers, of each a small handful, and of Orris Root, two ounces.

Boil all together in a gallon of strong ale; and when cold, clear it off, and add one pint of spirits of wine. If this be thought too strong, two quarts more of ale may be added. This is an excellent cordial both for healing and strengthening the stomach and bowels. These are the best methods of treating the above disorders, to which horses are often subject, and in which they are often lost for want of proper treatment.

But, before we conclude this chapter, it is necessary to observe that the scourings which succeed long-continued sicknesses, such as the Farcy, Putrid Fevers, or an inflamed state of the blood, where bleeding and other proper evacuations have been neglected, too often terminate fatally; especially when the creature discharges a foetid slime, and when the same matter gleetis from his nose; for in these cases the blood is dissolved, and the whole mass of the fluids is become putrid, and discharges itself by those drains.

**DISORDERS OF THE KIDNEYS AND BLADDER.**

Inflammations of the kidneys and bladder are sometimes brought on by other disorders, and often
by sprains, hard exercise, catching cold when hot, or from the want of proper care.

**Symptoms of a Hurt in the Kidneys.** The horse is very weak in the back and loins; he stales with difficulty, is faint, eats very little; his eyes appear languid, and of a dead colour; his urine is foul, thick, and often bloody, especially after a violent strain; he cannot move backwards without great pain, which may be seen at every attempt. It is sometimes hard to distinguish an inflammation from a sprain, or what is called, "tiffed in the back." There is no method but observing the gait of the horse. If he have got tiffed in the back, he will be hard put to it to keep from coming down behind, and indeed will oft come down; his eyes will look rather red, but his urine the same as before. A tifle lies in the marrow, or pith, of the back.

**Cure.** The principal remedy for a hurt in the kidneys is bleeding, which should be done pretty plentifully, as by this means an inflammation will be prevented; and if you have reason to think that the inflammation is already begun, from the creature’s being feverish, and staling with great difficulty, the operation should be repeated; for unless the inflammation be prevented, or immediately removed, the consequence will be fatal. But, although bleeding is the principal, it is not the only remedy, for rowelling is of great service. Put a rowel on each side of his belly, and give the following balls twice a day, in a pint of the decoction of marshmallows,
having an ounce of gum arabic, and an ounce of honey dissolved in it.

1 oz. Salts of Prunella.
6 drams of Spermaceti.
2 oz. of Castile Soap.

Add as much honey as will make a ball; and if the urine be bloody, an ounce of Japan earth must be added. If the fever continue, you must repeat the bleeding, and give emollient clysters, and the cooling, opening drink before recommended for Fevers, till it abate. These methods will often prove successful, but sometimes the disease is too obstinate to be overcome by them, and the urine still passes with pain and difficulty. Recourse must then be had to the following balls, and they must be repeated twice a day till the horse stale without pain, and his urine become clear, and without any purulent settlement.

1 oz. of Venice Turpentine.
1 do. Castile Soap.
6 drams of Nitre.
2 do. Myrrh, in powder.

Make the whole into a ball with honey, and wash it down with a strong decoction of marshmallows.

These are the best methods of treatment in this disorder, and will in general prove successful. Sometimes indeed this malady is too strong for the power of medicine, and then the urine continues turbid, and daily becomes of a deeper colour, with a foetid smell,—a sure sign that the kidneys are ulcerated; which generally terminates in a con-
sumption, and the creature becomes absolutely incurable.

In treating of the Cholic I have recommended a method for removing the Strangury, when it proceeds from wind, or from dung pressing upon the neck of the bladder; but sometimes it proceeds from an inflammation, and a retention of urine.

Symptoms of an Inflammation of the Neck of the Bladder. When a horse is seized with a Strangury from the above cause, he will make frequent motions to stale, standing wide and straddling, his bladder being full of urine, and his flanks distended; he will be uneasy, constantly shifting his hind feet, and often giving clicks in his motions; he also sometimes hangs his head, and then raises it suddenly.

Cure. First bleed largely, and then give the following.

1 oz. of Spirits of Sweet Nitre.
4 do. Syrup of Marshmallows.
1 do. Venice Soap.

Cut the soap small, dissolve it in a gill of hot water, put the above to it, and give it to the horse.—Repeat it every eight hours. Also dissolve an ounce of gum arabic and an ounce of nitre in a gallon of water, and let him drink plentifully of it. If he will drink it of his own accord, it is best; but if not, horn a little into him, for it will greatly tend to remove the cause of the disease, and consequently to terminate the effects.

There is a disease of the kidneys, viz. a Diabetes,
or profuse staling, which produces effects directly opposite. This disorder is seldom cured in old horses, as their fibres are become rigid, and unable to perform their office—a misfortune which all the power of medicine cannot remove. But in young horses this disease is often cured, and the following method will generally be attended with success.

_Cure of a Diabetes._ In order to cure this threatening disorder, great care must be taken not to let the horse drink too much water, and never to give him any moist food. Attention to these particulars will go a great way towards a cure; and instead of giving him common water to drink, give him lime-water;—to make which, take about three pounds of lime, unslacked, put it into a clean vessel, and for every pound of lime pour six quarts of water into it; let it stand three days, take the scum off the top, and give the horse the water to drink. (Be careful not to stir the lime at the bottom of the vessel.) This is a very clear, wholesome water, and very good for many disorders. In the mean time the following medicine should be given.

1 oz. of Peruvian Bark.
1 do. Japan Earth, in powder.
1 do. Irish Slate, do.

Give these in lime-water, and you may repeat it as often as needful.

Some Farriers give strong alum possets two or three times a day; but this kind of treatment cannot be proper, for the alum takes so fast hold of the juices of the stomach, that if the horse were not ill, it would
be enough to make him so. But if the above are properly given, they will not disappoint expectation.

THE MOLTEN GREASE.

This is so common a disorder, that it ought to be well understood; but, alas! like many others, it is often mistaken for something else. This disease is a melting down of the fat of the horse's body, caused by violent exercise in very hot weather; or if the horse be full of flesh, it may happen in cold weather. Hard riding, or sudden colds, will bring on this disorder.

SYMPTOMS. It is always attended with a fever, heat, restlessness, starting and trembling, inward sickness, and shortness of breath. Also the horse's dung is extremely greasy, and he often falls into a scouring. His blood, when cold, is covered with a thick scum of fat, of a white or yellow colour, but generally the latter. The congealed part, or sediment, appears like a mixture of size and grease, and is so extremely slippery that it will not adhere to the fingers; and the small proportion of serum is also slippery and clammy. The horse soon loses his flesh and fat, the latter being probably dissolved into the blood. Such as have sufficient strength to sustain the first shock, commonly become hidebound, and their legs swell greatly; and in this state they continue till the blood and juices are rectified; and if that is not done effectually, the Farcy, or an obstinate Surfeit, is generally the consequence, which cannot be removed but with the utmost difficulty.
CURE. In the first place, bleed pretty plentifully, and repeat the operation two or three days successively; but take care that you take only a small quantity at a time after the first bleeding, as otherwise the creature would be rendered too weak to support himself, and his blood too poor to be easily recruited. As soon as he has been bled the first time, let two or three rowels be put in, and the emollient clysters prescribed for Fevers be thrown up daily, to mitigate the fever, and to cleanse the intestines from the greasy matter. At the same time plenty of water gruel should be given him, and sometimes a small quantity of water, with a little nitre dissolved in it. The latter will be of great service, as it will prevent the blood from running into grumous concretions, and proving the source of innumerable disorders, if not causing a total stagnation, and consequently the death of the animal.

The horse must be treated in this manner till the fever be entirely gone, and he shall have recovered his appetite; and then it will be necessary to give him three or four purges, a week distant from each other, which will make him stale and perspire plentifully, and at the same time bring down the swelling of his legs. The following is well calculated for the purpose.

- 6 drams of Socotrine Aloes.
- 4 do. Gum Guaiacum, in powder.
- 2 do. Ginger.
- 2 do. Oil of Juniper.
To be made into a ball with syrup of buckthorn. By pursuing this method the horse will soon be re-covered, for this purge will mend his appetite and increase his flesh. If it be too weak, add a dram more of aloes. It will bring down his swelled legs, and carry away all the superfluous matter that clogs the blood. When you give the physic, be careful to give plenty of warm water all the time.

A SURFEIT.

Some people pronounce every ill-thriven horse surfeited, whether it is so or not. A Surfeit is nothing more than the effects of an ill-cured disease, and therefore what is called a Surfeit in horses is very different to the disease which bears that name in the human body; the latter being the beginning of a disease, and the former the remains of one.

SYMPTOMS. The horse’s coat will stare, look of a rusty colour, and even appear dirty, although the greatest pains have been taken to keep him clean. His skin will be covered with scales and dandriff, which will appear like meal among the hair, and when cleaned off will be followed by a continual succession of the same matter, occasioned by the perspiration being obstructed. Some horses will be covered with a kind of scab, sometimes moist, attended with heat and inflammation, and the humour so very sharp, and causing so violent an itching, that the creature is incessantly rubbing himself, and by that means making himself raw in different parts of his body. Some horses have neither scales, dan-
drill, nor scab, but look dull, sluggish and lazy. Some are hidebound; and others afflicted with flying pains and a temporary lameness. In short, the symptoms are very various, and almost as numerous as those of the scurvy itself.

Causes. The causes are as various as the symptoms. Some horses are surfeited by high feeding and want of proper exercise; which produce a bad digestion, and generate ill humours. Some are surfeited by unwholesome food; some by hard riding; some by drinking cold water when they are hot; some by bad or improper physic, and some by standing in stables through which the rain drops, or by lying wet. But as many also get surfeited by standing when hot at the doors of public-houses, such bad practices should be guarded against.

Cure. If we duly consider the nature of Surfeits, their cure will be much more easily performed. All allow that they arise from a bad state of the blood; but how is this to be remedied? By bleeding and purging. But this must be done in a very gentle manner. Take about a quart of blood, and the next day give the following ball.

1 oz. of Socotrine Aloes.
1 dram of Calomel pp.
2 do. Oil of Aniseeds.

Add as much lenitive electuary as will make it into a ball. Give plenty of warm water to work it off. Repeat both bleeding and physic in eight days; and when the last dose is wrought off, give him six ounces of the cordial balls in a little warm ale. Also give
a spoonful of the following powders every day in a mash.

4 oz. of Flour of Brimstone.
4 do. Crocus Metalorum.
4 do. Nitre, in powder.

Mix all up well together. By persevering in the above method you may cure the most inveterate surfeit, and if any scabs or runnings appear in the skin, rub them with the following.

4 oz. of Sulphur Vivum.
2 do. White Copperas.
2 do. White Hellebore, in powder.

Mix these powders with churn-milk, rub the places affected well, and the grievance will soon disappear. Sometimes a Surfeit settles in the legs, and they swell much, and then break out and run very much. When this is the case, two taps put into the lower belly will be found of great use. Staling balls should be given every third day, and plenty of warm water to work them off with. Make the staling-balls as follows.

1 oz. of White Rosin.
4 dram.s of Castile Soap.
2 do. Oil of Juniper.
2 do. Camphor.
4 do. Saltpetre.

Bray all well together into a paste, in a mortar, and form it into a ball. The above is only for one dose, but you may make as many as you think proper at once, and keep them for use. Give them at night, and they will work off the next day. These balls are of great service in many of the disorders of horses, and some of the best staling-balls yet found out.
By following the above directions, a cure will generally be performed. Sometimes in this disorder little knots break out, especially upon the hind parts of the horse, and these knots throw out a little matter. When this is the case, you must rub them with strong mercurial ointment. Sometimes these little tubes, or pustules, have living insects in them; but by rubbing them as I have just directed you, they will be destroyed, and the cure completed.

THE HIDEBOUND.

This disorder is too often brought on by the horse being worked too hard, and badly kept; although this is not always the case. When the skin of a horse sticks so close to his ribs that it appears immovable, the horse is said to be hidebound. But this is not properly a disease, but rather a symptom, being often caused by previous disorders, such as fevers, convulsions, surfeits, worms, or disorders of the kidneys or lungs.

Cure. As the hidebound may proceed from various causes, it is necessary to determine the cause, before such medicines can be applied as will remove it.

If it owe its origin to hard labour and want of food, rest and plenty will soon remove it. If it be caused by worms, worm medicines must be applied; or if it be left by any imperfectly-cured disorder, the following drink must be given.

2 oz. of Aniseeds, in powder.
2 do. Ginger, in powder.
1 do. Grains of Paradise.
THE COMPLETE FARRIER.

2 do. Mustard.
2 do. Turmeric.

All to be powdered, and to be given in warm ale, fasting, and to fast two hours after. Give warm water two or three times. Bleeding, tapping, and physic, are also necessary when the hidebound is left by any disorder.

THE MANGE.

This disorder is more shameful than dangerous, for you cannot go abroad with a scabbed horse without being hissed at, neither is it proper; for this disease is so infectious that every horse that may come near it will be in danger.

The Mange is too well known to need a long description, though some have been mistaken, and have taken a hot, itching eruption for it.

SYMPTOMS. At first it is confined to the skin, but by long continuance it vitiates and pollutes the blood. The skin is generally thick, and full of wrinkles, especially about the mane, the loins, and the tail; and the little hair remaining on those parts stands erect. The ears and eyebrows are commonly naked; and when the limbs are affected, they have the same appearance; but at the same time the horse is not raw, nor does the skin peel off as in a surfeit.

CAUSES. The Mange is generally taken by infection, for it is so very catching, that if a horse be put into a stable where one in the mange has stood, before it be thoroughly cleansed, he will hardly fail being infected. But though infection is the general, it is not the only cause of the Mange. Low feeding,
and running long abroad in cold, pinching weather, without sufficient provender, will cause horses to have the Mange.

**Cure.** When the horse has been infected by another, the disorder is not so obstinate as when caused by starvation, for the blood will not be in so bad a state. When you think a horse has got the Mange, apply the following where you think it needful, and it will cure it at the beginning without much trouble or expense.

4 oz. of Sulphur Vivum.
4 do. White Copperas.
4 do. White Hellebore Root, in powder.

Mix all together in two quarts of churn-milk, and rub the places well. By this method you may cure most scabs of short duration; but when once the mange has got great hold, it will require sharper treatment. Take the following for one horse:

4 oz. of Sulphur Vivum.
2 do. White Hellebore Root, in powder.
2 do. Blue Stone Vitriol, in powder.
\( \frac{1}{2} \) do. Verdigrise, in powder.
4 do. Flanders Oil of Bays.
3 gills of Whale Oil.

Mix all well together, and rub the horse well with it all over in the sun, if in Summer, but before a fire if in Winter. In Summer you must also turn him out to grass after rubbing, but in Winter keep him warm in the house. You must be careful to wash your saddles and bridles, cart-gears, stands, mangers, racks, &c., well with quick-lime and chamberlie; for if you do not clean all that the horse may have
used, the infection will remain. You will find the above a certain cure, if managed rightly, for I have cured hundreds with it, and I do not remember one instance of its failure.

At the same time give freely of flour of sulphur and liver of antimony; and if you have a number of horses infected, be sure to rub them all together.

Some people say that when a horse is rubbed for the scab he will infect others, but I am of opinion that he will not, neither do I remember an instance of it.

THE FARY, OR FARCIN.

There have been many opinions respecting this disease. Some authors reckon five kinds; but although there are so many different branches, yet four of them have the same root. The Water Farcy is different from the others, and therefore I shall put it afterwards by itself. There is a scurvy which horses are subject to, and which is often called a Farcy; but it is no such thing, for there are only the two kinds of the Farcy, which I here shall treat upon. Horses are often said to have the Farcy when they have not, for sometimes when people do not know the proper name of a disorder, they call it the Farcy. The true Farcy is a disorder of the blood-vessels, and generally follows the course of the veins, and when inveterate, thickens their coats and integuments in such a manner that they become like so many cords.

SYMPTOMS. At the beginning of this disorder a few small knobs, or tumours, resembling grapes, are
found on the veins, which are so painful to the touch that the creature shews evident marks of uneasiness on their being pressed with the finger. They are at first very hard, like unripe grapes, but in a very little time they grow soft, and break and discharge a bloody matter, and become very foul and untoward ulcers. This disease appears in different places in different horses. Some shew it first on the head; some on the external jugular vein; some on the plate vein, extending from thence downward, on the inside of the fore-leg, towards the knee, or upwards towards the brisket. In some it first appears about the pasterns, on the sides of the large veins, and on the insides of the thighs, extending towards the groin; in others on the flanks, spreading by degrees towards the lower belly; and some horses are nearly covered all over the body at once.

Cure. When the Farcy attacks only one part of a horse, and that where the blood-vessels are small, it may be easily cured; but when the plate vein is affected, and turns corded; and especially when the crural veins, within the thigh, are in that condition, the cure is very difficult, and the creature is rarely fit for any thing but the lowest work after it. Therefore those who depend upon some particular medicine, and flatter themselves with being able to cure every species of the Farcy with it, will find themselves wretchedly mistaken; for different medicines are needful, according as the disease is superficial or inveterate. The former is easily cured,
for sometimes moderate exercise is sufficient; but the latter requires knowledge and experience; and sometimes baffles the most skilful, and defies the whole power of medicine.

From the above description of this disease it appears that it is of the inflammatory kind, and that the blood-vessels are affected. Copious bleedings are therefore absolutely necessary, especially if the horse be fat and full of blood. This evacuation always checks the progress of the Farcy in its beginning, but its good effects soon vanish, especially if the horse be low in flesh. After bleeding, mix the following.

4 oz. of Cream of Tartar.
4 do. Liver of Antimony.
4 do. Lenitive Electuary.
4 do. Castile Soap.
2 drams of Calomel, 8 drams to an oz.

Make these into balls, and give two ounces a day for some time. While giving these balls, dissolve a little nitre in the water given the horse to drink. These medicines will keep his body open, and allay the inflammatory heat of his blood, which is the principal cause of the disease; and while they are given inwardly to remove the cause, let the tumours be rubbed twice a day with the following ointment.

4 oz. of Elder Ointment.
4 do. Flanders Oil of Bays.
2 do. White Vitriol.
1 do. Red Precipitate.
2 do. Sugar of Lead.

Beat all well together into an ointment, and keep
it for use. This ointment will soon disperse the tumours, which will leave small bald spots on the skin, but the hair will grow again in time. If the tumours break, and run a thick, well-digested matter, it is a sign that the disease is conquered, and the horse will soon be well; but it will be necessary to give him two ounces of liver of antimony every day for a fortnight, and two ounces every other day for a fortnight after, in order to sweeten his blood, and disperse the small bunches that remain.

This method will never fail when the small veins only are affected; and a short time will complete the cure.

But when the Farcy affects the large blood-vessels, the cure is far more difficult. Let the practitioner always attempt it at the beginning of the disease, as he then will have fewer difficulties to encounter; for delay renders that almost impossible to be overcome which at first might have been easily conquered. Therefore, when the plate or crural veins are corded, lose no time, but bleed immediately on the opposite side, and apply to the distempered vein the following mixture, which is proper to dress the wounds with, but not before they are broken out.

1 dram of Corrosive Sublimate.
1 oz. of Spirits of Salt.

Powder the sublimate, and put it into a bottle, and put the spirits of salt upon it to dissolve it; then add two ounces of vinegar, by degrees. This is a very proper mixture to dress the ulcers with; but if it cannot be easily got, take—
6 oz. of Oil of Turpentine.
3 do. Oil of Vitriol.

Put the pot in water with the turpentine in it, and pour the oil of vitriol in, a little at a time, and keep stirring it till it shall have subsided. If the Farcy be situate in the loose and fleshy parts, such as the flanks and the belly, the mixture should consist of equal parts of oil of turpentine and oil of vitriol; but when the seat of the disease is in the parts which are less fleshy, the proportions above are best calculated to perform the cure. The medicine must be used in the following manner. Rub the parts affected with a woollen cloth, and then apply some of the compound oil to every bud and tumour. Continue this method twice a day, and at the same time give cooling physic every other day. The balls and nitrous draughts before mentioned will answer the intention. By this treatment the tumours will be digested, and the cords dissolved; but it will be necessary to give liver of antimony to complete the cure, and to prevent a relapse; and also to dress the sores, when well digested, with a mixture of bees' wax and oil, which will heal them, and smooth the skin.

Sometimes the disease will not yield to this treatment, especially when situate near the flanks or the lower belly. In that case it will be necessary to bathe the parts with the compound oil, as far as the centre of the belly; and at the same time to give a course of antimonial medicines.

The following composition is stronger than the
last, and on that account is often used when the disease is obstinate.

4 oz. of Spirits of Wine.
2 do. Oil of Turpentine.
4 do. Oil of Vitriol.
2 do. Vinegar.

Mix all together, with the caution before directed.

When this method fails, and the disorder becomes inveterate, try the following, which is recommended by an eminent practitioner.

$\frac{1}{2}$ pint of Linseed Oil.
3 oz. of Oil of Turpentine
3 do. Oil of Peter.
2 do. Oil of Bays.
$\frac{1}{2}$ do. Oil of Origanum.
$\frac{1}{2}$ do. Strong Aquaortis.
2 do. Barbadoes Tar.
2 drams of Tincture of Euphorbium.

Mix all together with caution, as before directed. This medicine must be rubbed on the tumours and cored veins once in two or three days, observing that if the mouths of the ulcers are choked up, or so thick as to confine the matter, to open a passage with a small hot iron; and also to destroy the proud flesh, which may be kept down by touching it occasionally with oil of vitriol, aquafortis, or butter of antimony.

In this disorder, these are the best ways of proceeding that have yet been discovered; but it is to be considered as an obstinate one, and is sometimes very bad to cure. It has hitherto baffled many an able practitioner, and it is to be feared will baffle
many more; for when the blood has got into such a corrupted state, it bids defiance to medicines.

The ingenious Dr. Bracken recommends the strong mercurial ointment for rubbing the cords and tumours with before they break; and in order to disperse them when they are broken, to dress the sores with a mixture composed of equal parts of Venice turpentine and quicksilver. If the mouth become sore by this means, a gentle purge should be given to prevent a salivation. This is doubtless a very good method, and if care be taken will often prove effectual. He also recommends the following alterative ball.

1 oz. of Liver of Antimony.
1 do. Bezoar Mineral.
4 do. Cordial Ball.

Beat all well together, and give about the size of a walnut every day for some time, fasting, and to fast two or three hours after.

I have given you the best prescriptions that I am able to give, and such as will not fail to cure if properly applied, if the horse be not incurable. I have been more particular in treating of this disease, because it is common among horses, and very often managed improperly by those who pretend to cure it. Such therefore as have valuable horses in this disease, would do well to be careful whom they employ, and assiduous in observing the methods they make use of to cure it, if they do not think proper to attempt a cure themselves. But in my opinion they may do it better themselves, by following these directions, than most farriers they can employ.
THE WATER FARCY.

This disease varies very much from the last, and would more properly be called a Dropsy than a Farcy. There are two kinds of this disorder, but they are nearly of the same nature. One of them is produced by indisposition terminating in the skin, as is often the case in epidemic colds; the other is a true dropsy, where the water is not confined to the belly and limbs, but is found in different parts of the body, and a great number of soft swellings appear. When you press the finger pretty hard upon any of the swelled parts, or under the belly, it will leave a dimple, as if it were pressed on paste. When you find those swellings under the horse's belly, or on any part of the body, you may take it for granted that he has got the Dropsy, or what is called the Water Farcy.

This disorder mostly proceeds from foul feeding, or a continuance of very wet weather in the end of Summer. It mostly happens in the autumnal season, and greatly injures the health of such horses as stay abroad, rendering the blood sluggish and viscid.

CURE. Wherever the swellings appear, make scarifications, that is, holes through the skin. This may be done by a short fleam; and if you have not one short enough, put a collar made of a piece of leather on it. If the swelling be under the belly, strike a good many holes in at a time, but be careful to avoid the veins. By this means a great quantity of water will run out. Taps in the brisket are also
often of great service. I have fleamed horses four or five times before I could get the swelling to subside. When the water has subsided, the blood is left in a bad state, to remedy which a gentle purge should be given two or three times, eight days distance, to recover the crasis of the blood, and brace up the relaxed fibres of the whole body. Lime-water is very proper, with a little nitre in it, and let the horse's food be warm mashcs of bran, with a little malt in it. His keep must be increased by degrees. The disorder mostly happens to young horses that have not been used to high keep. You must give one of the following balls every day, omitting the time when the physic is working:

- 2 oz. of Squills.
- 1 do. Camphor.
- 1 do. Castile Soap.
- ½ do. Turpentine.
- 4 do. Yellow Rosin.

Make these into a ball with honey, and give one ounce at a time. These balls will work the water off by urine. When the horse has been treated in this manner till the water is evacuated, and he begins to recover, give him a pint of the following infusion every day for a fortnight, fasting, and let him fast one hour after each dose.

- 4 oz. of Gentian Root.
- 4 do. Black Hellebore
- 4 do. Camomile Flowers.
- 1 Handful of Centaury.

Boil all together in six quarts of water, for ten
minutes, let it stand till cool, and then strain it through a cloth. This strengthening drink will brace the fibres, cause the fluids to circulate quicker, and complete the cure.

SPRAINS.

All kinds of Sprains resemble each other. They are a relaxation of the tendinous fibres, from the muscular parts being overstretched.

A SPRAIN IN THE BACK.

Sprains in the back are mostly caused by over-weighting the horse, or by his losing his hind-feet on the side of a hill; and sometimes by putting him back too quickly. There is much difference between a Sprain in the back, and what is called tislfed in the back. Sometimes a horse catches cold in his loins by having his clothes or his saddle taken off when he is hot, and being turned out of doors; and some horses are subject to Rheumatics, which make them lame in many places, and are generally taken for Sprains.

To cure a Sprain in the back, first bleed pretty freely, and then give the following drink.

1 oz. of Tincture of Guaiacum.
1 do. Balsam Capivi.
1 do. Oil of Juniper.

To be put into a quart of strong parsley-root tea; half to be given at night, half in the morning, and plenty of warm water to work them off.

Also lay a sheep's skin with the flesh side to his loins for six or eight hours, if he can bear it; and then turn the wool side to him, and let it stay on a
day; and when you take it off, sheet him well for fear of catching cold. Also make a plaster of the following.

2 oz. of Oxycer seum.
2 do. Paracellis.
2 do. Red Dominion.
2 do. Burgundy Pitch.

Melt all together, and lay them on pretty warm, and put a little wool, clipped short, on the charge while hot, and then pour on a little cold water to fasten the whole together. These are the best methods I am acquainted with.

A SPRAIN IN THE SHOULDER.

When the shoulder of a horse is sprained, he does not put out that leg like the other, but in order to ease it sets the sound foot firmly on the ground. When trotted in hand he forms a kind of circle with his lame leg, instead of putting it forward, and when he stands in the stable that leg is advanced before the other.

There is what is called a Shoulder-slip, which is worse than a Sprain. When this happens the horse can neither lift his leg nor put it forwards. You may know this by the shoulder-blade standing higher than the other; but to discern that you must make him stand on the lame leg, for the leg he stands on will always appear a little higher than the other. The flesh will also shortly waste away from the shoulder-blade, which is a sure sign of a Shoulder-slip. When this accident has taken place, put a tap into the lame side of the animal's breast, and blow
the shoulder full of wind with a pipe. When you have rinded the skin to put the tap in, hold the skin fast to the pipe, and blow the part that you have rinded full, and let some one draw the wind up into the shoulder with the edge of his hand as far as the top of the shoulder-blade, and then put in the tap, or rowel, and stop the hole up well with tow and salve. Give warm water for three days, and then open the place, stir the tap round, and rub the shoulder all over with the following liniment.

2 oz. of Spirits of Wine.
2 do. Sweet Oil.
2 do. Spirits of Sal Ammoniac.

Shake them well together, rub the shoulder well with the mixture every third day for some time, and if the horse do not get better with three or four times’ rubbing, use the following.

2 oz. of Oil of Turpentine.
1 do. Oil of Origanum.
1 do. Oil of Bricks.

Shake these up together, rub all on at a time, and walk the horse about a little afterwards. When near the sea, swimming in the salt water is very proper, and I have known swimming in fresh water be of great use.

A Sprain in the shoulder point requires nearly the same treatment as a slip, but you need not blow it. When it is attended by inflammation, cooling mixtures, such as extract of lead and water, must be used. But when a swelling or an inflammation takes place, it is mostly caused by a hurt, or by a stroke
from another horse. If there be no swelling, rub the shoulder point well with the following mixture every third day.

1 oz. of Oil of Peter.
1 do. Oil of Amber.
1 do. Oil of Spike.
1 do. Oil of Bricks.

Shake these well together, and rub the shoulder point every other day. If the horse be not better, take

1 oz. of Oil of Turpentine.
1 do. Oil of Origanum.
1 do. Oil of Swallows.
1 do. Oil of Amber.

Shake these together, and rub the shoulder point well with them every third day; and if the horse continue lame, recourse must be had to blistering.

A SPRAIN IN THE COFFIN JOINT.

This is often a grievous disease, and it is difficult to discover where the lameness is. It is often neglected till the joint grows stiff, and then the horse pitches upon his toe, and is afraid of bearing any weight on his foot. If you press with your thumb in the hole in the horse's heel, and upon the cornet of his foot, you will soon discover whether the hurt is in the Coffin Joint.

When people cannot tell the cause of a horse's lameness, they often say that he has got sprained in the coffin. In my opinion it is better not to doctor a horse than to apply stuff to you know not what. If people would have a little patience, most lame-
nesses would soon shew themselves, especially a Sprain in the Coffin Joint, for it would raise a ring round the cornet of the foot, not much unlike a Ring-bone, but closer to the foot.

The first thing to be done is to draw a little blood from the spurn vein, then mix an equal quantity of oil of bays, and oil of oreganum, beat well together, and rub well all round, just above the hoof. Apply this for three or four days together, and if no better, you must have recourse to repeated blistering.

A SPRAIN IN THE BACK SINEWS.

This kind of sprain is more frequent among horses than any other, and is so common that I need not describe it, but only inform you how to cure it.

If it be recent, bathe the leg with a little hot vinegar, or verjuice, with a little saltpetre dissolved in it, and put round it a proper bandage: or, curriers' shavings, wetted with a composition made of vinegar, spirits of wine, and a little tar, and laid on the swelling with a pretty tight bandage round them, will be of great use. Take it off once a day, and soak the shavings again, or get fresh. Injuries of this kind must not be expected to be removed immediately. Rest is absolutely necessary, and turning the horse out to grass would be of great service as soon as the swelling disappears, but not before. If these methods fail, the next thing is to blister; for I have known blistering succeed when all the former have failed. The last thing to have recourse to is firing.
SPRAINS OF THE KNEES AND PASTERNs.

The knees are liable to many misfortunes besides sprains. The Speedy Cut is done by striking one foot against the other leg, just below the knee, and is frequently done by a horse that trots high. Sometimes it swells very much, and is taken for a sprain. Sometimes horses get kicked by others, or meet with some other accident which causes a swelled knee, which is sometimes bad to remove. A poultice made as follows will have a great tendency to remove the swelling. Take

\[
\begin{align*}
4 \text{ oz. of Tar.} \\
4 \text{ do. Spirits of Wine.} \\
4 \text{ do. Hogs' Lard.}
\end{align*}
\]

Melt these together over a slow fire, and be careful not to set fire to them, and put in as much linseed-meal as will make them of a proper consistence. This is a very good poultice for many other kinds of swellings, and although but little known hitherto, I hope that it will be found of great service. If any substance be left which will not give way to this method, you must lay on a little blistering ointment.

LAMENESS IN THE STIFFLE.

The Stiffle is the tenderest part of a horse, except the eye. How many horses have lost their lives by misfortunes in this part, and how many have been left lame by not being properly cured! A horse that is lame in the stiffle generally treads on his toe, and cannot set his heel to the ground without great pain and difficulty. When you find this is the case, bathe
the part well with warm vinegar; and if a puffy swelling appear, foment it well with a woollen cloth wrung out of hot vinegar, wormwood and rosemary, having added half a pint of spirits of wine to a quart of the decoction. Let this operation be continued till the swelling is nearly gone.

When a horse has got a stroke and cut by the heel of his shoe, great care must be taken to keep out the cold air, and to keep him from drinking cold water, especially in winter time; for if the horse take cold, and an inflammation come on, there is reason to fear that death will follow. When you perceive that a horse has got a stroke, and is cut through the skin, bathe it well with the following mixture.

2 oz. of Spirits of Wine.
1 do. Spirits of Sal Ammoniac.
1 do. Oil of Amber.

Shake all well together, bathe the place well with it, and lay on a diachylon plaster with gum, in order to keep out the cold. If the horse grow very lame, and the place swell much, foment with the following.

Take Wormwood, Elder Leaves, Camomile Flowers, Juniper Berries, and Marshmallow Leaves, of each a handful, and boil them in two gallons of Chamberlie.

If the above cannot all be got, take double the quantity of juniper berries and camomile flowers, and foment for some time as before directed; and when you leave off fomenting, rub with the above mixture. Be careful to wrap the part up warm, and as soon as it comes to matter, dress it with basilicon ointment. If any brown lee appear, syringe tincture
of Benjamin, or balm drops, into the wound. When a callous substance, or proud flesh, appears, eat it off with red precipitate.—These are the best ways of curing a horse that has got lamed in the stiflfe.

LAMENESS IN THE CUP-BONE, OR WHIRLE-BONE.

A lameness in this part of the hip is discovered by the horse's dragging his leg after him, and dropping backwards on his heel when he trots. If the muscles of the hips only are injured, the lameness may be soon cured; but if the ligaments of the cup are affected, or relaxed, the cure is often very tedious; and when the cup is full of glueish liquor, the cure is doubtful. I have known the ligament which holds the hip bone in the cup to be broken, and then the hip bone has come loose; but this seldom happens, and when it does nothing can be done to relieve it. When a horse is lame in the cup-bone, rub him well with the following mixture.

1 oz. of Oil of Amber.
1 do. Oil of Bricks.
½ do. Oil of Origanum.
1 do. Oil of Turpentine.

Shake these well up, rub one half on the cup, and the other half the third day. I have known this mixture remove the complaint when of long standing; but if it fail, you must try what blistering will do. The last thing to be tried is firing. I have fired horses that have been lame above a year, and cured them by it.
It is very easy to fire a horse in this part. Take the iron and make a circle, eight inches in diameter, like a cart-wheel, with the scores about an inch asunder. Cut nearly through the skin; and if you do cut through in some places, it will be no worse. Then lay on the following charge.

- 2 oz. of Oxycroseum.
- 2 do. Paracellis.
- 2 do. Red Dominion.
- 2 do. Burgundy Pitch.

Melt these all together, lay them on pretty hot, lay a little wool, clipped short, on before it cools, and then throw a little water on to fasten all together.

Sprains in the Fetlock, or anywhere in the limbs, may be treated in the same manner, and if the oils will not remove the substances, blisters will; therefore I shall give you a recipe for a blister suitable for those complaints. Take

- \( \frac{1}{2} \) oz. of Quicksilver.
- \( \frac{1}{2} \) do. Venice Turpentine.
- 2 do. Flanders Oil of Bays.
- \( \frac{1}{2} \) do. Gum Euphorbium.
- 1 do. Spanish Flies.
- 2 drams of Oil of Origanum.

Rub the Venice turpentine and quicksilver well in a mortar for some time, and then put in the oil of bays and rub for some time longer, till the quicksilver is quite killed. Powder the gum and flies well, and then mix all together. When you lay the blister on, rub it well against the hair to get it to the bottom; lay it on with a broad-pointed knife, and cover it with a cloth, or the horse will get his mouth to it.
This blister will answer any purpose you want a blister for, but you must observe that there must be fifteen days between the times of laying it on.

THE BONE-SPAVIN.

Although this is a common disorder among horses, yet it is little understood by either breeders or farriers. The Bone-Spavin is a bony excrescence, or hard swelling on the inside of the hock in a horse's leg, and sometimes owes its origin to kicks and blows, and sometimes to natural causes; but in the former case it is much more easily cured than in the latter; and those that grow spontaneously on colts, or young horses, are not so bad as those that appear in horses that have arrived at their full strength and maturity. In old horses they are generally incurable.

Our horse-dealers and jobbers make a second kind of Bone-Spavin, which they call a Jack, but this is only a polished name for a Bone-Spavin, as there is no difference between the two. Some call it a Dry Knot, but still it is a Bone-Spavin.

Sometimes the horse is very lame when the Spavin is first coming out, and when it has come out is better for some time, and then grows lamer again as the bone hardens. I would advise you to apply a blister as soon as you have any suspicion that a horse is likely to put out a Spavin, and to continue blistering, every fortnight, for some time, by which means you may stop a Spavin in a young horse.

CURE. Mild medicines should be used if the horse is young, as they will in a short time wear the tu-
mour down by degrees, which is much better than trying to remove it at once by severer methods, which often have a very bad effect, and produce worse consequences than those they were intended to remove. But in full-grown horses they are absolutely necessary, and accordingly various authors have given prescriptions for compounding medicines to answer the intention; but I will not enumerate them here, as the blistering ointment given in the last chapter will be found to answer better for young horses than any thing yet found out; and for an old horse, or one that has come to his full strength, you may add a dram of sublimate, finely powdered, to two ounces of the blistering ointment, and stir it well up.

Before these are applied, the hair must be cut off very close, and then the ointment laid very thick on the affected part. It is proper to make the application in the morning, and to keep the horse tied up to the rack all day without any litter; but at night he must be littered in order that he may lie down; and to prevent the blister from coming off, put a white pitch plaster over it, and tie it on with broad tape.

When the blister has done running, and the scabs begin to dry and peel off, it should be applied a second time in the same manner as before, and the second will have a much greater effect than the first.

When the Spavin has continued long, the blister will have to be often renewed, perhaps five or six times; but it is necessary to observe that after the second time you must not be less than three weeks
before you lay on the third, or you will destroy the roots of the hair and leave the place bald. By these means Bone-Spavins may often be cured; but when they fail, recourse must be had to firing.

Before you fire a horse for the Bone-Spavin, be careful to take the vein out of the way, for it generally lies over the Spavin, and you cannot fire deep enough to come at the callous substance without its removal. In order to destroy the vein, cut a nick through the skin upon it, just below the Spavin, and another just above it, and put a crooked needle under the vein, and tie both ends: then cut the vein across between the tyings, both above and below, and you may either draw the piece of the vein out or leave it in.

Let the iron you fire with be pretty sharp; cut four or five nicks upon the bone, and let the iron take hold of the superfluous bone, in order that it may waste away by mattering; and when you have done, lay on some white pitch, pretty hot, and put a cloth round it to keep it on. In three days open the place, and dress it with yellow basilicon.

Some people put lunar caustic, or sublimate, into the places; but it is a dangerous practice, and often lames the horse for ever. I wish those who have got a horse that has a Bone-Spavin to make a full trial of the directions here given, and I trust they will find them to answer the purpose as well as any hitherto found out.

THE BLOOD-SPAVIN, OR BOG-SPAVIN.

Many farriers and horse-dealers divide this disease
into two heads, and give them different names; but to my certain knowledge they are both one, for I have proved it many ways. A Blood-spavín does not come by breeding from spavined mares, nor by being got by spavined horses, as the Bone-spavín does; but you may safely breed out of a blood-spavined mare, or have foals got by a blood-spavined horse.

In my opinion Blood-spavins are generally brought on either by Sprains, or hard labour when the horse is young, and sometimes when he is full-grown.

The blood-spavin, or bog-spavin, is a dilation of the vein that runs along the inside of the hock, and forms a small soft swelling in the hollow part, which in time renders the creature lame, but seldom till the gelatinous matter becomes ropy, like melted glue in a bag, and is situate on the inside of the hough. Sometimes it goes through to the back part of the joint, and then it is called a thorough-pin.

Cure. Soon as you discover the vein puffed up, or forming a bag, lay on some blistering ointment, and in four days after bathe the swelling well with hot vinegar, with a little saltpetre dissolved in it. Also put a bandage round it to disperse the swelling as much as you can. If this method do not succeed, you must make two incisions in the skin lengthwise, as the vein runs, one just above, and the other just below the joint, and lay the vein bare: then put the end of a buck's horn under it, raise it up, and fasten it in both places with waxed thread: then cut the vein in two at both places, within the tyings, and if
you think proper, draw the vein out. This method of proceeding will cure most Bog-spavins at the beginning. Spring, or the back end of the year, is the most proper time for this operation, but the latter is preferable, as you can then let the horse run out most of Winter, which will be of great service to him.

If the above method fail of a cure, you may make an incision into the bag with a knife, and let out the gelatous matter, and then dress the wound with a digestive ointment till the bag be destroyed. But this is a dangerous method; and although it may answer in some cases, it will not in others. Should the joint run a joint-lee, the cure is not to be depended on. In old horses nothing can be done that will be of service.

A CORB.

This is a soft swelling that rises out of the joint on the back part of the hind-leg, just below the hock, and mostly lames the horse, besides being unpleasant to the eye. To cure it, strike a few holes into it with a pricker, made so as just to go through the skin, then rub well with oil of origanum, and blister as often as needful.

A RING-BONE.

This is so well known that I need not describe it, but only point out the remedy; yet I must observe that a Sprain in the Coffin is sometimes taken for a Ring-bone when it causes a rim to rise just above the foot. Ring-bones come out from the pastern,
between the fetlock and the foot; but if the pastern is long, they are nearer the foot.

They will generally yield to the same method of cure as a Corb, especially if just coming out, but if not, recourse must be had to firing.

Splents, Osselets, or any other bony or fleshy substances on the legs, may be cured in the same manner. A Splent on the shank-bone is only a grievance to the eye, and will go away of itself when the horse comes to age; but the sooner those that are near the knees or the tendons are removed, the better.

**MALLENDERS AND SALLENDERS.**

The first is on the fore-leg, at the bend of the knee, and the last on the hind-leg, at the bend of the hough. They crack and throw out a thin brown matter, and sometimes a hard scurf, or scab, which prevents the horse from bending the limbs which are affected as he should do.

**Cure.** They both proceed from the same cause, and consequently require the same treatment; which consists in washing the parts with old chamberlie, or a warm lather of soap suds, and afterwards applying strong mercurial ointment, spread on tow, to the cracks, once a day till the scabs fall off, when the cure will be completed; and then it will be necessary to give him a dose or two of physic. If the disorder will not yield to the mercurial ointment, make a strong mixture of vitriol water, and wash the cracks with it, and it will dry them up, and cause the scabs to fall off.
STALING BLOOD.

This disorder frequently happens among horses, and especially among the female kind, but few authors give any account of it. It is most common in Spring, and affects a horse very much, and soon reduces its strength. I need not explain how the horse is afflicted, for it is visible to any one who sees him. I shall give you a recipe which I have not known to fail in fifty years, when it has been given soon enough, and in that time it has cured a great many. Take—

1 oz. of Japan Earth.
1 do. Irish Slate.
1 do. Gum Juniper, in fine powder.

Mix these in three gills of black beer, and if the disorder do not abate in twenty-four hours, repeat it. I never had to give it a third time; but, if needful, it may be done with safety. If the weather be either very hot or very cold, keep the horse in the house, for it can bear neither. Let its drink be water with a little meal upon it. You are also to observe that the horse can bear no work, and but very little exercise of any kind; and when it gets better, let it have a few days' rest to recover its strength. Should the disorder leave a heat, or uneasiness in making water, give two ounces of spirits of nitre.

THE STRANGLES.

Most horses have this disorder while young, but at seven years' old they are out of danger. There are two kinds of this disorder. The common kind
is a swelling under or between the jaw-bones. The other, which is called the bastard kind, is much the worst. Sometimes swellings appear on the buttocks, break, and discharge matter for a few days, and then dry up, after which others appear in a fresh place in the same manner. I have known horses that have had this complaint eight or ten weeks.

The common kind begins with a swelling between the jaw-bones, which sometimes extends to the muscles of the tongue, and is often attended with so much heat, pain and inflammation, that before the matter is formed the creature swallows with the utmost difficulty.

Symptoms. The Strangles is attended with great heat and fever, a painful cough, and great inclination to drink, without being able. Some horses lose their appetites entirely, and others eat but very little, occasioned by the pain resulting from the motion of the jaws in chewing and swallowing. When the horse runs much at the nose, it is not a good sign.

Although this disease is very troublesome, it is not dangerous, except when the swelling turns upwards against the windpipe and gullet, and then there is danger of suffocation if it do not break soon.

Cure. The Strangles is not properly a disease, but a discharge common to young horses, and therefore it follows that the discharge must be promoted in order to throw off the offensive matter. The best method of doing this is to keep the swelling always soft by soaking it with softening ointment, such as
marshmallows, or elder ointment. I have known oil
of swallows, with a little spirits of hartshorn in it,
be very useful in bringing the swelling forward and
causing it to break. A cloth in the form of a cap,
put on the horse's head, and stuffed with wool to
keep the swelling warm, will be of great service.
Some people apply a poultice, but there is no need of
this if the above be properly used. Give plenty of
warm water, with a little meal on it; for in this dis-
order a horse cannot swallow dry meat enough for its
support.

Sometimes the Strangles gather four or five times,
and break in many places; and you must observe that
if the orifices are not wide enough, they must be
opened with the point of a knife, and by this means
it will be prevented from breaking out in so many
places. After the swelling appears, it will be five or
six days before it breaks and discharges. There is
always a small discharge at the nostrils, but it is lit-
tle or no grievance to the horse.

When the swelling is broken, and the orifice of a
proper size to discharge the matter, dress with the
following ointment spread on tow.

Take Yellow Rosin and Burgundy Pitch, of each one pound;
Honey and Common Turpentine, of each half a pound; Bees' Wax,
four ounces; Hogs' Lard, one pound and a half; and of Verdigrise,
finely powdered, one ounce. Melt the ingredients together, but do
not put the Verdigrise in till nearly cold, and keep stirring all the
time till cold, or the Verdigrise will fall to the bottom.

This is one of the best salves for wounds that has
been found out, and especially for old ones.
The Bastard Strangles requires the same kind of treatment, but it is proper to give the horse a dose or two of calomel physic also.

**THE VIVES.**

This distemper often takes place, and so frequently attends the Strangles, that it is a hard matter to distinguish it from that complaint. Sometimes the Strangles begins with the Vives, and settles down under the jaws. A horse having been some time in the stable, being then turned out to grass, will swell in the Vives. Sometimes catching cold, blows, or other misfortunes, will cause the Vives to swell; but the swelling very seldom breaks there, but mostly under the jaws.

When a horse has got a Swelling in the Vives that has become troublesome, rub the part with extract of lead and spirits of wine. In some horses the Vives keep swelling and falling again for a whole Summer. Some people rub the Vives with strong mercurial ointment, in order to depress them; but this is a dangerous practice, for if the mercury get into the blood, it will endanger the horse's life. If the horse swell much in the Vives, and there is no appearance of its falling down under the jaws, put a tap under the jaws, and it will draw it down.

**THE GLANDERS.**

This disease has baffled all who have tried to cure it, and probably will do so to the end of time; so I advise those who may have a glandered horse, to put
him off as soon as they shall be certain that he is so. People often mistake other disorders for the Glanders. A violent cold sometimes causes a running at the nostrils, and kernels under the jaws, when the horse is free from the Glanders. Sometimes a running at the nostrils is caused by laying too much weight on a horse. I once bought one at Boroughbridge fair, which I soon after sold, and eleven weeks after that had him returned as a glandered horse; but I kept him for some time afterwards, and he neither infected others nor lost his flesh. This horse was bought from a miller, who had overloaded him, which caused him to bleed at the nose; afterwards he began to run at the nose, and did so during the time that I had him, which was nearly half a year. I do not pretend to cure this disorder.

**Symptoms.** The matter discharged from the nostrils of a glandered horse is either white, yellow, greenish, or streaked or tinged with blood. When the disease has been of long standing, and the bones are fouled, the matter turns blackish, and becomes very bad.

The Glanders is always attended with a swelling of the kernels, or glands under the jaws, but in every other respect the horse is generally healthy and sound, till the disorder has continued some time, and the morbid matter has affected other parts.

If a thin limpid fluid be first discharged, and afterwards a whitish matter; if the gland under the jaw do not continue to swell, and the disorder shall have
been recently contracted, a speedy cure may be effected by applying the following.

1 oz. of Roach Alum.  
1 do. White Vitriol.

Powder these well, put them into a pint of warm vinegar, and syringe about an ounce up his nostrils every day. This may do good if the disorder be newly caught.

M. de la Fosse says the seat of this disease is in the pituitary membrane, which lines the partition along the inside of the nose, the cavities of the cheek bones on each side, and the cavities above the orbits of the eyes. If this be true, pray what chance is there of a cure, when nearly all the bones in the horse's head are affected? I have known the spongy bones in the nostrils nearly eaten away, and the eye on the side most affected nearly wasted away.

I once knew a farmer who had a horse that had begun in the Glanders, and he brought him to me to examine. I told him that I thought the horse was glandered, and wished him either to put him away, or to keep him separate from the rest, but he did neither till too late, as some people told him it was not the Glanders. He kept the horse among five others, and they all took the infection, so that he had a new set to buy, besides cleaning all the places they had been in. I mention this as a caution to others.

SWELLINGS AND IMPOSTHUMES.

It is difficult to treat on Swellings, as so many ex-
ternal or internal accidents happen to horses; the former by blows or bruises, and the latter by disorders.

When a swelling is in its first stage, bathe it well with verjuice, or vinegar, with a little saltpetre dissolved in it; and if the swelling still continue, mix—

1 oz. of Extract of Lead.
1 do. Spirits of Sal Ammoniac.
1 do. Spirits of Wine.
3 do. Vinegar.

Rub the swelling well with it; but if it be very hot, add four ounces of water instead of the vinegar. Should the swelling come forward and form matter, which you may feel by the pressure of your finger, let the matter out, but be sure to make the incision large enough that you may dress it with ease. When you have laid the part open, dress it with the green salve before recommended, on tow, for you cannot have a more proper salve. The next time you dress it, that is the day after, make a wash of the following:

2 oz. of Spirits of Wine.
1 do. Roach Alum.
2 do. Spirits of Rosemary.
2 do. Water.

Mix these all together, and they will answer the purpose extremely well. When you have washed the wound with the above mixture, lay on a little green salve, on tow, and bind it on if you can, but if you cannot, lay on a plaster to keep it on.

Some swellings, such as have been caused by bad barfens on the shoulders, or blows on the legs, will not submit to weak mixtures, nor come to matter in
a reasonable time. Mix the following, and it will either take them off or bring them to matter.

- 2 oz. of Oil of Spike.
- \(\frac{1}{2}\) do. Oil of Origanum.
- 1 do. Oil of Amber.
- 1 do. Oil of Turpentine.

Mix these well together, and rub the swelling well with them every other day. I have known this remove obstinate swellings.

**WOUNDS.**

Wounds are caused by accidents of various kinds. When the skin is much torn from the flesh, if you are at hand while the wound is quite fresh, take a square-pointed needle and a waxed thread, and sew it up. Mind to put the needle in straight, one side over against the other; draw the skin tight, and tie a knot; cut off the thread, and then take another stitch about an inch off, and so proceed. When some people sew up a wound they do it the same as they would sew a piece of cloth, but that is quite wrong, for they should tie a knot at every stitch, and cut the thread off.

But when you do not see the wound till the place is growing dead, and the skin is drawing up, then take off the loose skin; for if you keep it on it will curl up, and leave a blemish. Always keep the lips of the wound down.

When a wound is upon or near a joint, there is danger of its throwing out a joint-lee, of which there are three kinds. One, and mostly the first, is thin
and brown, something like sweet wort: the second is rather thicker and tougher, something like melted glue; and the third, which is the worst, is like muddy water and snort mixed together. This last has deceived many people; for when the wound has thrown out this kind of lee, with little white slippery pieces, something like matter, it has often been taken for such. When you find any of these kinds of lee, get a bottle of Riga Balsam, and syringe the wound every day. If Riga Balsam cannot be got, use Tincture of Benjamin. I have known fomentations be of great use, especially on the stifle joint. When the wound is of a dead colour, and the lips rise, and the dirty lee flows profusely, the cure is to be despaired of.

If proud flesh rise when a wound is in a fair way for healing, take—

1 oz. of Basillicon.
2 drams of Red Precipitate.

Mix them well together, and lay them on the proud flesh. This ointment is also very proper to dress a wound with that appears dead, and does not discharge a proper matter. If the proud flesh do not submit to the above, lay on a little blue vitriol, in powder, or touch it with caustic, or oil of vitriol; and should none of these make it give way, lay on a little corrosive sublimate. The salves, tinctures and mixtures already laid down are sufficient to cure any curable wound.

HURTS IN THE FEET.

Horses are oftener hurt in the Feet than anywhere
else, and those hurts are often received from the blacksmith. Every blacksmith should be a farrier, and every farrier a blacksmith, for these businesses should go hand in hand. What is a man fit for who has got the theoretical part without the practical? A man that has a head and no tongue will do but little mischief, but one that has a tongue and no head may do much. Few of the fine farriers sent from the hospitals have done any good, but many of them a great deal of hurt. A man without education who has a gift, is better than a man who has education but no gift; and a man of sobriety will far excel one without it. A fine tongue often proves a snake in the grass.

Sometimes a horse is lamed by being shod into the quick. The foot should always be carefully examined on the first appearance of lameness. Sometimes a nail with a flaw in it will cause a great grievance, as one part will come out and the other will go into the foot. Blacksmiths should never use such nails except in a frost, when they can put them into the old holes. Sometimes they leave stumps, or pieces of nails in the feet; and sometimes when they drive a nail they turn the point into the foot, and then draw it back and put in another, taking no further thought about it, and when the horse becomes lame they say he is gravelled. Few blacksmiths will stop at telling a lie to clear themselves.

When a horse has got lamed in the foot, be careful to cut it well out, and to damage the hoof as little as
possible, and dress the place with oil of turpentine, spirits of tar, and common tar. Lay no hot, drying drugs on, unless proud flesh rise.

Sometimes corns in the heels cause a horse to be lame;—cut them out, and dress the place with aquafortis. There is another fault which blacksmiths are guilty of, and which is a great hurt to a horse, that is, cutting or paring the heel down too much. The heel being best to come at, they clap the paring-knife there and cut them down, when there is no need to take any off them at all. The heels are the greatest support of the horse, and by paring them too thin, both corns and lameness in the back-sinews are produced.

Before a blacksmith begins to shoe a valuable horse, especially a road-horse, he should examine how he stands and how he goes. If he go low, heavy shoes should be used; but if high, light ones. If he turn his toes out, he will cut with the heel, and if he turn them in, will cut with the spurn. If he have a thin, flat foot, he should have broad shoes; but if a hollow, dished foot, narrow ones. If the crust be thin, and the vein near, small nails should be used.

Some horses are hoof-bound, that is, have strait heels which pinch the vein between the hoof and the coffin. When this is the case, thin the soles of the feet till the blood springs through, and then put on screw-shoes, and screw the feet out. Let the screw-shoes stay on a fortnight. You may screw the feet out more than half an inch.
The next thing to be considered is gravel rising from the bottom to the top of the foot, and breaking out at the cornet. How many twitter-bones have been thus formed that might have been prevented! When the gravel comes up to the top of the foot, take away the sole at the bottom, and the hoof at the top, and mix equal parts of oil of turpentine and oil of origanum, and bathe the top part of the foot.—This will prevent a Twitter from forming.

A TWITTER-BONE.

A Twitter-bone makes a horse very lame, and not fit for work. It keeps throwing a tough white matter out of what is called a pipe. In order to cure it, first find out to where the pipe leads. This you may do with a piece of round lead, the size of a small quill barrel. Have the following ready, viz.

Half an ounce of Sublimate, in fine powder, put into one ounce of Spirits of Salt; and as soon as the Spirits dissolve the Sublimate, put to it the Juice of a middle-sized Lemon.

Mix all together, and syringe a squirt full into the pipe when you take the lead out; and when you draw out the point of the syringe, put your thumb upon the place to prevent it coming back again, and then put on a pledget of green salve and tow. Do this every other day, for three or four times, and by this method most Twitters may be removed. But, if this method fail, the next thing to be done is to put a hot iron, the thickness of a small finger, where the pipe leads to, and to fill the hole with sublimate, and
bind on it a pledget of green salve with a cloth. Let it be five days, and then lay on some more salve and tow, and in five days more the twitter-bone and pipe will come out. The wound must be washed with the following mixture, and dressed with green salve and tow every other day till nearly well.

1 oz. of Bole.
1 do. Oil of Origanum.
4 do. Oil of Turpentine.

Shake them up well together, and they will both help to heal the wound and to bring down the substance. If any more twitter-bones or pipes form, you must take them out in the same manner.

THE POLL-EVIL.

This disease may be stopped at the beginning by rubbing well with equal parts of oil of origanum and oil of turpentine; but should this fail, and the abscess break and throw out matter, you may cure it without laying the poll open, but if the bone be damaged it will be longer in curing.

CAUSES. This disorder is sometimes brought on very foolishly and wickedly by blows with forkshafts, whip-stocks, or any thing a hot-brained fool has in his hand, not considering that the poll of a horse is a very tender part. Some people thrust a horse out of the stable backwards, and sometimes when nearly out he throws up his head and hurts his poll. And sometimes this disorder is caused by hanging back in the halter.
Cure. Some years ago, in order to cure this disease, I cut the horse on both sides of the head, and dressed the places with digestive ointment, and by this means cured many, but mostly left them a stiff head. Of late years I have cured many by syringing with the following mixture.

1 pint of Spirits of Wine.
2 oz. of Blue Stone Vitriol.
2 do. White Vitriol.
2 do. Crude Sal Ammoniac.
1 gill of Distilled Vinegar.

Put these all together, and syringe two or three squirts full into the wound every day, for seven or eight days, and then every other day. By this way of proceeding a cure will mostly be performed; but when you think the place is cured it will break out again two or three times, but not swell so much as before. Should it break out again and again, follow the same method till well.

But should the above method fail, which it seldom does, then the knife must be applied. Lay the cavity quite open, but be careful not to cut across, for fear of cutting the vertebrae of the neck. The wound may be dressed in the usual manner, only wash with the above mixture.

A Fistula, and Bruises of the Withers.

This disorder has formerly baffled many people who were expert in surgery, but of late years it has been better understood, and the cure more easily performed. The Withers are very subject to bruises,
which are often caused by bad saddles, or such as are too wide in the front; but, whatever be the cause, it is well known that by neglect they often terminate in a Fistula.

When the Withers are bruised and a swelling appears, lay a poultice of bran and vinegar over the part. People who have a horse which is crushed in the Withers, and pay no regard to it, are worse than savages, and are not fit to have such an useful animal.

Cure. After a horse has been bruised in the Withers, the skin breaks and matter is discharged, and then the owner supposes that the abscess will subside, but he is often mistaken; and the pipe which he perceives throwing out matter, is at the same time running forwards in the Withers, and forming a Fistula. When you find the disease proceeding in this manner, lay the pipe open with a sharp penknife all the length; for if you leave any unopened, it will form a Fistula. After you have laid the place open, dress it with the following mixture.

4 oz. of Potashes.
2 do. White Vitriol.
4 do. Honey.
1 pint of Vinegar.

Boil all together, wash the wound well with the mixture, and lay on the green salve and tow. If the above be not dry enough, add two ounces more of white vitriol, and two ounces of bole. These will make a salve by themselves; and by these methods you may cure any disease of the Withers arising from external injuries.
But tumours often arise in the Withers from internal causes, such as the crises of Fevers. When this happens you must not attempt to stop it, nor use any thing to put it back, for by this means you would drive it more into the shoulder-blades, and make it worse to cure; but, on the contrary, do every thing you can to assist nature in bringing it forward. You can not do better than lay on poultices twice a day till it breaks, for reason tells us that it is better to do so than to cut it; but when it is broken, open the orifice with a knife, that you may have more freedom in dressing it; but be careful in using the knife, that you do not catch hold of the ligament which turns along the neck to the Withers. Sometimes it runs to the other side of the neck, under the Withers. The cure is the same as before. Lay all the cavities open with the knife, and do not cut across if you can avoid it. Then take the following never-failing mixture to dress with.

4 oz. of Crude Sal-Ammoniac.
2 do. Pearl-Ashes.
2 do. Bole.
2 do. White Vitriol.
8 do. Honey.
1 pint of Vinegar.

Boil all together, and apply it to the wound every day at first, and afterwards every other day till well.

WARBLES, GIRTH-GALLS, AND PLUSHES FROM SADDLES.

These grievances are commonly known, and every
one has a cure for them, as he calls it. Some lay on hot spirits, and others blue stone vitriol, and many other things; but such things are very improper, for they always leave the grieved part hard and sore; but the following mixture will effect a cure, take off the soreness, and leave the skin kind. I may affirm that it is one of the best recipes yet found out for the purpose. Take—

2 oz. of Extract of Lead.
2 do. Spirits of Wine.
1 do. Spirits of Sal Ammoniac.
½ do. White Copperas.
4 do. Soft Water.

Mix all together in a bottle, keep shaking it up, and rub the affected places well with it, and put your saddles and barfens on while the places are wet, in order to prevent them from infecting other horses.

Sometimes horses have what are called Setfasts on their backs. Rub them with a little mercurial ointment, in order to raise them and make them come off; and if you cannot pull them out after using the ointment, cut them out with a sharp knife, and apply to the place the above mixture, or heal it up as a common wound. I wish my readers to observe that the above mixture is good for many things both in man and beast. It has got the name of cure-all, and in some places farmers are seldom without it.

WINDGALLS.

These are mostly on the hind-legs, near the fetlock, but I have known them above the fetlock, and on
the arm. Windgalls are not only eye-sores, but lame many a horse. Many methods are tried to disperse them without effect. If you put your finger on one side and your thumb on the other, and press with one of them, you will find the Windgall to go quite through the leg. The reason that they are mostly on the hind-legs is, because the horse stands lower behind than before, and throws most weight on the hind-legs.

Windgalls commonly owe their origin to Sprains, when near the joint, and for this reason they generally contain a small quantity of tough, ropy matter, besides air; for when I have laid them open, both the wind and matter have been forced to some distance.

Cure. On the first appearance of a Windgall, bathe the place well with warm vinegar and spirits of wine, and put a pretty tight bandage round it. If this do not remove it, lay on blistering ointment till the cure shall be completed. But should this method also fail, which it seldom does, you must lay the Windgall open, and dress it as a common wound. Before you use the knife, be careful to get the horse's body into a proper cool state by physic.

Some people fire to cure Windgalls, running the iron on the skin, (what is called scoring,) but thereby do little good, as that cannot destroy the bag of wind and matter. It may draw the skin a little tighter, so that the Windgall will not appear so large. When the fore-legs are galled, they are better to cure than the hind-legs, being freer from humours.
THE GREASE.

This disorder is mostly brought on by soft corn, hard usage, want of proper cleaning, or a depraved state of the blood and juices; therefore it is proper to divide it into two heads. This observation alone is sufficient to convince the reader that very little can be expected from those who, being ignorant of the nature of the disease, use the same remedy in all cases, and pretend they have a never-failing nostrum which will infallibly remove the complaint.

CURE, WHEN THE VESSELS ARE RELAXED. On first observing the legs of a horse to swell after standing several hours, and to recover their proper dimensions with exercise, be careful to wash them clean with chamberlie, soap suds, or vinegar and water, every time he comes in, for this will prevent or remove the disorder. Horses that have round or fleshy legs are more subject to the grease than those that have flat legs; but a flat-legged horse is more easily sprained. Nitre, sulphur, and liver of antimony, are proper both to prevent the grease and to refine the blood. Mix equal parts of each, and give a meat-spoonful every day in his food.

CURE FOR THE GREASE FROM INTERNAL CAUSES. If the horse be full of flesh, the cure must be begun by bleeding, rowels, and repeated purging; after which two ounces of the following balls should be given every other day for some time, and they will work by urine the day following.
THE COMPLETE FARRIER.

4 oz. of Yellow Rosin.
2 do. Salt of Tartar.
2 do. Salt of Prunel.
8 do. Castile Soap.
1 do. Oil of Juniper.
1 do. Camphor.

Put these into a mortar with about two ounces of honey, or as much as will make them into balls, and they will carry off the offending humours, and free the blood from its noxious qualities. But, at the same time that these internal remedies are taken, outward ones should not be omitted. The legs should be bathed with warm verjuice, and, if very bad, a poultice of boiled turnips applied. If turnips cannot be got, make a poultice of linseed meal and bran, with a little hog's lard in it to prevent it from growing hard.

Sometimes horses are neglected when in the Grease till they have what are called grape-legs. These may be cured on their first appearance, when they are in the bud, by laying on caustic, or corrosive sublimate. When the swelling is abated, make the following into a salve to dress the sores with.

4 oz. of Honey.
2 do. White Lead, in powder.
1 do. Blue Stone Vitriol, in powder.

Mix these well together, and lay them on the sores with tow to heal them; but, should they continue foul, and not frame to heal, mix four ounces of green salve, and four ounces of Egyptiacum ointment well together, and lay it on in the above manner. This mixture will both heal and dry up the sores.
SCRATCHES.

This disease is a forerunner of the Grease, and is a hot oozing matter that breaks out like kins, with a nauseous smell. It is very troublesome to a horse, causing his heels to look red and angry, and to be very sore; and sometimes it is so violent as to render a horse lame, and unfit for use.

If you do not bleed and physic as soon as you find a heat in a horse's heels, you may soon have him laid up in the Grease. Sometimes in slight touches of this complaint the heels are not hotter than usual. In that case, take a little flour of sulphur and spirits of wine, mix them together into an ointment, and fill the cracks well with it. When the disorder is too hot to be healed by this ointment, rub with a little Ægyptiacum ointment, but be careful not to lay too much on, for it is a great drier.

Rat-tails at first resemble the Grease, and are attended with a hot scorbutic humour at the beginning, and often by neglect destroy the roots of the hair, and then there is no complete cure for them, but they may be relieved by rubbing with equal parts of strong mercurial ointment and Flanders oil of bays.

If a horse have got the Scurvy, or Scabs on his legs, this ointment will mostly take them off; but if not, mix well with hog's lard, one dram of sublimate, in fine powder. These two last mixtures will cure most Scabs, and mixed together they will cure the Itch.
THE CROWN SCAB.

This disorder is similar to the last. It breaks out on the cornet of the foot, and is at first a hot running tumour, and afterwards a dry, scurfy scab. Let the horse be bled and physicked, and then rub him with either of the above ointments, and the cure will be effected.

DIRECTIONS FOR MANAGING A HORSE ON A JOURNEY.

In the first place, find out whether the horse is in health, and has been properly fed and exercised; for when a horse is flushed up, and has had no exercise, he is very unfit for a journey. Before you set out be careful to observe if his shoes are fast, and if they sit easy; also whether he cuts before or behind, or interferes, as it is called. If a horse cut with bad shoes, he will probably do it with new ones, notwithstanding what horse-dealers may say to the contrary.

If your horse's back inflame by the rubbing of the saddle, wash the part, as soon as you perceive it, with salt and water, or vinegar and water, and have the stuffing of the saddle altered so as to remove the pressure from the part affected: but if the skin be broken before you perceive it, the injured part should be washed with a mixture, composed of equal parts of extract of lead, spirits of wine, and water. You must look well after his back, and walk sometimes, in order to ease him, especially when going down a hill.
It often happens, especially to young horses, that the legs swell, or become gourdy, as farriers call it, with travelling; and more frequently when a horse cuts. It is also observed that the hind-legs oftener swell than the fore-legs, because the fore-parts stand highest in the stall, and consequently the greatest stress lies on the hind-legs. The best method of prevention is to wash the legs well with warm water every time you bait, by which means the disease will be prevented, and much time, trouble and expense saved. Soft warm water that will bear soap, is as good for the purpose as it can be made by any addition, and washing the legs with it, when made pretty warm, will seethe out the sand and the dirt, open the pores, give circulation to the blood, much defend the juices in these depending parts, and prevent other disorders. You should also see that your horse has a wide stand, good dressing, and proper bedding, as these things will be of the greatest use in preventing the limbs from swelling.

Few grooms dress a horse properly, but it should be remembered that he who intends his horse to perform his duty well, must take care that he is well cleaned; and as nothing is more conducive to health than friction, his skin should be rubbed till the whole is of a glowing heat, and then with proper feeding he will always answer his master's expectation.

Nothing is of more consequence in travelling than to take care that your horse has water at proper
times and in proper quantities. When a horse travels he perspires considerably, especially in hot weather, and should therefore be allowed to drink a little more than usual, as opportunity offers, which will refresh him greatly; but never suffer him to drink much at a time, for if you suffer him to drink his fill he will be dull and sluggish afterwards, besides the harm he may receive from drinking too much cold water when he is hot. When you come near the place you intend to bait at either at noon or night, that is, within a mile, or a mile and a half of it, you may suffer him to drink more freely, going at a moderate trot afterwards, by which means the water will be warmed in his belly, and he will go in cool. Observe, however, that if there is no water on the road, you should never suffer your horse to be led to water, or to have his heels washed, after you have arrived at your inn, but let him have luke-warm water when he has stood some time in the stable. Much mischief has been done by imprudent riders, who after travelling hard, have suffered their horses to drink as much as they would just at going into the town, or inn where they intended to lie.

It is a general rule that when any extraneous body, or foreign matter, such as sand or gravel, is lodged in any part of the animal's body, it must be extracted as soon and as easily as possible. When gravelly matter has got into the quick at a nail-hole, or any other aperture, it ought to be removed as soon as possible, but with as little loss of substance as the
nature of the case will admit of, for it is a folly to cut and pare away the hoof as some ignorant farriers do; because by that means they increase the evil instead of removing it, as it is a considerable time before the breach is repaired, and till that is done the same part is likely to admit more gravel. So much, therefore, and no more, of the hoof should be taken away as is absolutely necessary, viz. till the blackness or discolouration vanishes; and afterwards the wound should be dressed with the following balsam.

\[ \begin{align*} &1\frac{1}{2} \text{ oz. of Gum Benjamin.} \\
&3 \text{ drams of Storax.} \\
&\frac{1}{2} \text{ oz. of Balsam of Peru.} \\
&3 \text{ drams of Socotrine Aloes.} \\
&6 \text{ do. Myrrh.} \\
&3 \text{ do. Frankincense.} \\
&3 \text{ do. Gum Guaiacum.} \end{align*} \]

Powder the ingredients that will powder, and put them all into a bottle with one quart of spirits of wine, and let them stand warm for eight or ten days, shaking the bottle up every day. This is an excellent balsam for green wounds, and no person that keeps valuable horses should be without it. Apply it warm to the wound, dipping a piece of tow or lint into it, and fastening it on to the part out of which the gravel or thorn has been taken, and renew it as it grows dry.

Sprains and twistings of the joints sometimes happen on a journey without any sensible heat or swelling, so that farriers often mistake where the
ailment lies. The place must therefore be carefully sought for, and if you cannot find it, do not begin to doctor where there is no grievance. It may be a slight rheumatic affection, and go off of its own accord. In a sprain of the back sinews, be careful not to lay on any thing hot or blistering while on your journey, if you can avoid it.

A horse is often seized with the Gripes on a journey, the best and shortest cure for which is the following.

6 drams of Tincture of Opium.
1 oz. of Spirits of Sweet Nitre.
2 do. Olive Oil.

Mix the above in half a pint of mint-water, give it to the horse, and at the same time bed him well, that he may lie down to rest, and be careful not to give him cold water for a day or two after.

A horse that is subject to scouring, or purging, upon the road, has what is called a washy constitution, and such horses seldom bear hardships well, because the aliment passes off before it is thoroughly digested, which is a sign that the fibres of the stomach and bowels are lax; therefore such horses should not be chosen. The best method of curing this disorder is, to keep the horse chiefly on hard meat, and to give him proper exercise, also adding a little of the following composition to each of his feeds.

Aleppo Galls, finely powdered.
Japan Earth, in powder.
Irish Slate, in powder.
Mix these all together, and put them into a bladder for use. Sprinkle a little water on the horse's oats, rub them awhile, and then sprinkle about half a spoonful of the powder upon them, and if he have not a very squeamish stomach he will eat them as well as usual.

But remember to proportion the quantity of the powder to the degree of the disorder, or you may make him too costive, which will be as bad as the other extreme when the horse's constitution shall require his being laxative rather than costive.

When a horse purges upon the road, occasioned by foul feeding, or catching cold, give him the following.

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 oz. of Venice Treacle</td>
<td></td>
</tr>
<tr>
<td>1 do. Japan Earth</td>
<td></td>
</tr>
<tr>
<td>2 do. Armenian Bole</td>
<td></td>
</tr>
<tr>
<td>1 do. Powdered Ginger</td>
<td></td>
</tr>
</tbody>
</table>

Make these up into four balls, and give them night and morning.

When a horse has got a cough by catching cold, give

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 oz. of Cordial Balls</td>
<td></td>
</tr>
<tr>
<td>1 do. Liquorice Powder</td>
<td></td>
</tr>
<tr>
<td>1 do. Elecampane do</td>
<td></td>
</tr>
</tbody>
</table>

Give all together in warm ale, fasting, and to fast two hours after.

I shall not here enlarge on the other diseases and accidents to which horses are continually liable, as that is sufficiently done in the foregoing pages.

Before I conclude this chapter, I will give you the
horse's address to his rider, (from the worthy Mr. Bracken's treatise,) which is well worth observation.

Up the hill spur me not;
Down the hill ride me not;
On the plain spare me not;
To the Ostler trust me not.

DIRECTIONS FOR RIDING.

If people who have young horses would take a little pains with them at a year old, and halter them and make them tractable in hand, and at two years old put the bridle on, endeavouring to get them a mouth, and to make them submissive, their labour would not be lost. A horse should not be ridden till he is three years old, and care should be taken while he is breaking to cut his mouth as little as possible with the mouthing-bridle; for when the mouth is much cut, it grows hard and horny afterwards, which hinders the animal from yielding to the pressure of the reins. When a horse is left at liberty till he is four years old, he will be very restive and stubborn. Most inexperienced riders hold the bridle tight when they discover the horse to be frightened, whereas, on the contrary, they should let the reins lie loose on his neck, and he would quietly pass the object that offends his eye. Others turn the horse out of his track, and endeavour to make him face the object; but this method seldom has a good effect. When a horse starts at any thing, keep him in the road, and hold his head on the contrary side to the thing he starts at, pressing your legs tight against
his sides, by which means he may be led, for a horse will not always be forced up to what has frightened him: gentle methods generally operate better than severe ones. The above method may perhaps be unnecessary in a managed horse, but even such a one should be made to look another way at the time of passing, unless it is something you wish him to become accustomed to the sight of. A horse whose fear arises from not being accustomed to objects should not be treated in this manner, because his starting is merely owing to an active and lively disposition.

The best way to reconcile a horse's ear to the sound of a drum, is by beating one near him at the time of feeding; but when you are learning him to bear this, or the firing of a gun, do it at some distance at first, and by that means you will not only familiarize him to it, but make it pleasant as a fore-runner of his meat; whereas if he were forced he might start at it as long as he lived. May not this method be applied to his starting at other things, and show that it would be better to suffer him, provided he does not turn back, to go a little from, and avoid an object he dislikes, and to accustom him to it by degrees, convincing him that it will not hurt him, than to punish him?

It is a common supposition that a horse fears nothing so much as his rider, but this supposition is not true; for it is no wonder that a horse should be afraid of a loaded waggon. May not the hanging
load seem to threaten to fall upon him? To mitigate such timidity, press your leg hard on the opposite side, turning his head at the same time, and he will quietly pass.

Is it not natural to suppose that when a horse is driven up to a carriage that he starts at, that he conceives himself obliged either to attack or run against it? How can he otherwise understand his rider when he spurs him on with his face towards it? A horse is easily alarmed, for he will even start from a hand that is going to caress him; therefore he should not be forced to that which he dislikes; for, if he once gains his end, he will repeat that which has foiled his rider. The proper way is to use him to some tone of voice which he may understand as an expression of dislike to what he is doing, for in all horses there is a spirit of opposition.

When you meet with a carriage on the road which you think will frighten your horse, if you once let him know he is to pass it, be sure you remain determined, and press him on, especially when part of the carriage is past, for if he is accustomed to turn round and go back when he is frightened, he will certainly do it if he finds by your hands and legs slackening that you are irresolute; and this at the most dangerous point of time, when the wheels of the carriage take him as he turns. Remember not to touch the curb rein at this time, for that would certainly check him. Ride with a snaffle, and if you have a curb, only use it occasionally. Choose a snaffle that is
full and thick in the mouth, especially at the ends where the reins are fastened. To regulate the management of the curb is a nice matter—some people apply the weight of the arm where only a slight turn of the wrist is required.

Some people think the bridle has the chief power over a horse, but it has not; for instance, if the left spur touch him, and he is at the same time prevented from going forward, he has a sign which he will soon understand, to move sideways to the right. In the same manner he moves to the left if the right spur is closed to him; and afterwards from fear of the spur he obeys a touch of the leg, in the same manner as a horse moves his croup from one side of the stall to the other when he is touched by the hand. In short, he will never disobey the leg unless he become restive. By this means you will have great power over him, for he will move sideways if you close one leg to him, and forward if both; and even when he stands still, your legs held near him will keep him on the watch, and with the slightest unseen motion of the bridle upwards he will raise his head and shew himself to advantage.

On this use of the rider's legs in the guidance of the horse's croup are founded all the airs, as riding masters call them, by which troopers are taught to close or open their ranks, and indeed all their evolutions.

When a horse starts and is flying on one side, if you put your leg on that side it will stop his spring
immediately, and he will go past the object he started at, keeping straight on, or as you choose to direct him; and he will not fly back at any thing if you press him with both your legs.

You must keep his haunches under him when going down a hill, and help him on the side of a bank more easily to avoid the wheel of a carriage, and to approach nearer and more gracefully to the side of a coach or horseman.

When a pampered horse curvets irregularly, twisting his body to and fro, turn his head either to the right or left, or both alternately, but without letting him move out of his track, and press your leg to the opposite side: he cannot then spring on his hind-legs to one side, because your leg prevents him, nor to the other, because his head is turned that way, and a horse does not start and spring the way he looks.

The above rules may be of some use to inexperienced horsemen, by shewing them that something more is needful than what is taught by the breakers, and that force will seldom, if ever, make a horse subservient to his rider.

As to Nicking, Firing, Cropping, and Wrapping a broken bone, I must leave them to those that have knowledge of such things, for no general rules can be given for them.
## INDEX

**General Remarks**, 147

How to Choose a Horse, 148

A Cold, 155

A Cough and Asthma, 159

The Cholic or Gripes, 162

The Flatulent or Windy Cholic, 163

The Bilious or Inflammatory Cholic, 166

The Dry Gripes, 168

Worms and Bots, 169

The Yellows or Jaundice, 174

The Staggers, 176

Convulsions or the Stag Evil, 178

Fever, 181

A Compound Fever, 185

A Broken Wind, 190

A Consumption, 195

A Scouring, and other Disorders of the Intestines, 197

Disorders of the Kidneys and Bladder, 202

The Molten Grease, 207

A Surfeit, 209

The Hidebound, 212

The Mange, 213

The Farcy or Farcin, 215

The Water Farcy, 222

Sprains, 224

The Bone Spavin, 233

The Blood or Bog Spavin, 235
<table>
<thead>
<tr>
<th>Condition</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Corb</td>
<td>237</td>
</tr>
<tr>
<td>A Ring Bone</td>
<td>237</td>
</tr>
<tr>
<td>Mallenders and Sallenders</td>
<td>238</td>
</tr>
<tr>
<td>Staling Blood</td>
<td>239</td>
</tr>
<tr>
<td>The Strangles</td>
<td>239</td>
</tr>
<tr>
<td>The Vives</td>
<td>242</td>
</tr>
<tr>
<td>The Glanders</td>
<td>242</td>
</tr>
<tr>
<td>Swellings and Imposthumes</td>
<td>244</td>
</tr>
<tr>
<td>Wounds</td>
<td>246</td>
</tr>
<tr>
<td>Hurts in the Feet</td>
<td>247</td>
</tr>
<tr>
<td>A Twitter-Bone</td>
<td>250</td>
</tr>
<tr>
<td>The Poll-Evil</td>
<td>251</td>
</tr>
<tr>
<td>A Fistula, and Bruises of the Withers</td>
<td>252</td>
</tr>
<tr>
<td>Warbles, Girth-Galls, and Plushes from Saddles</td>
<td>254</td>
</tr>
<tr>
<td>Windgalls</td>
<td>255</td>
</tr>
<tr>
<td>The Grease</td>
<td>257</td>
</tr>
<tr>
<td>Scratches</td>
<td>259</td>
</tr>
<tr>
<td>The Crown Scab</td>
<td>260</td>
</tr>
<tr>
<td>Directions for Managing a Horse on a Journey</td>
<td>260</td>
</tr>
<tr>
<td>Directions for Riding, and for Breaking a Horse in</td>
<td>266</td>
</tr>
</tbody>
</table>

PRINTED BY WILLIAM WALKER, OTLEY.
**The Farmer's Ready Reckoner;**

Or Complete Table

Shewing at one view the expiration of Forty Weeks (being the time a Cow goes In-calf) from every Day in the Year.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

*N.B. From May 20 to February 24 is Forty Weeks, see Column 5.*
UNIVERSITY COLLEGE, SOUTHAMPTON
THE LIBRARY

This book is to be returned to the Library on or before the
last date stamped below

Date 16.11.74
No Renewal
Issue 22.5.74