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THE
COMPLETE FARRIER,
OR
HORSE-DOCTOR.

A TREATISE ON THE DISEASES OF

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.

MANY OF THE RECIPES IN THIS BOOK ARE WORTH ONE HUNDRED DOLLARS EACH,
AND THE WHOLE ARE NEW TO THE WORLD.

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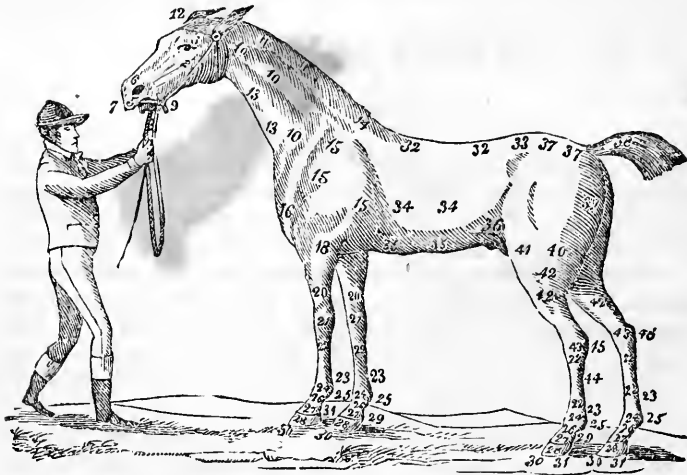
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AUTHOR'S PREFACE.

ABOUT twenty years ago many people pressed me much to write a treatise on **Horses**; but I then refused, thinking that one of my own family would succeed me in the business of a Farrier; but my hopes are cut off, and now, at the age of nearly ninety years, 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 benefitted by it. Should it be an instrument of good to one poor man's horse, 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 horses, 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 receipt in it, therefore it must be new to the world: and I have no other motive than to do good. One word as to drugs. When you buy them, 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. I wish also to caution you against taking advice of people who neither know the disorders of Horses, 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 Horse-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.

THE NAME AND SITUATION OF THE EXTERNAL
PARTS OF A HORSE.



The Fore-part.

- 1 The Forehead.
- 2 The Temples.
- 3 Cavity above the Eyes.
- 4 The Jaw.
- 5 The Lips.
- 6 The Nostrils.
- 7 The Tip of the Nose.
- 8 The Chin.
- 9 The Beard.
- 10 The Neck.
- 11 The Mane.
- 12 The Fore-top.
- 13 The Throat.
- 14 The Withers.
- 15 The Shoulders.
- 16 The Chest.
- 17 The Elbow.
- 18 The Arm.
- 19 The Plate Vein.
- 20 The Chesnut.
- 21 The Knee.
- 22 The Shank.
- 23 The back Sinews,
or Main Tendons.

- 24 The Fetlock Joint.
- 25 The Fetlock.
- 26 The Pastern.
- 27 The Coronet.
- 28 The Hoof.
- 29 The Quarters.
- 30 The Toe.
- 31 The Heel.

The Body.

- 32 The Reins.
- 33 The Fillets.
- 34 The Ribs.
- 35 The Belly.
- 36 The Flanks.

The Hind-part.

- 37 The Rump.
- 38 The Tail.
- 39 The Buttocks.
- 40 The Haunches.
- 41 The Stifle.
- 42 The Thighs.
- 43 The Hock.
- 44 The Instep.
- 45 The Point of the Hock.

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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 show, 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—*drunkenness*; 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 color, 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 *Back-sinews* 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 Tumors*.

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 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

* There are four kinds of Splents; viz. The Bone Splent, the Blood Splent, the Osselet, and the Horn Splent.

§ Windgalls are soft Tumors, seated on either side of the Fetlock Joint.

‡ There are two kinds of Spavins; viz. The Blood Spavin which lies in the 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.

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 humor till he has quite fatigued himself; and the latter only endeavors 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; 2 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 mashes, 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 pleurises, 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 be, and a quantity of 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 a 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, 3 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.
 $\frac{1}{2}$ do. Gum Galbanum, in powder.
2 drams of Saffron, brayed.
2 do. Assafetida, 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 mash, 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 endeavor 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 GRIPES.

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 straight 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 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 Cholick 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 Sal^t 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-colored 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 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 color 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 sometimes griped, but without the violent pains that attend the cholick, or stranguary; 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 them

selves so full as to loose 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.
 $\frac{1}{2}$ 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.
 $\frac{1}{2}$ 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 YELLOWS, 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 color; 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.
 $\frac{1}{2}$ 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 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 metallorum 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 anything 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 favorable 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 eeth.

$\frac{1}{2}$ oz. of Assaftetida.
 $\frac{1}{2}$ oz. of Gum Guaiacum.
 $\frac{1}{2}$ 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 oz. of Oil of Spike.
 1 oz. of Oil of Amber.
 1 oz. of Oil of Bricks.
 oz. of Spirits of Sal Ammoniac.

Shake them 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 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 Assafetida.

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 clothes stripped off; and by being turned out to grass; for many people turn their horses out to grass in the morning, and let them lay 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 horse 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 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 a 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.

4 oz. of Juice of Liquorice.
 4 do. of Liquorice Root.
 2 do. of Salt Petre.
 4 do. of Salt of Tartar
 8 do. of Good Raisins.
 2 do. of Aniseeds.
 2 drams of Saffron.

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, hoarseness, 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 any thing 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 anything 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 Pale Rape Oil.

The above will make three clysters, to be given at four hour's 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.

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 color, 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 water. 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 perspi-

ration, 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-colored foetid 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

is 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 metaliorum every day in a mash of bran, and rub the swellings with mercurial ointment.

In the year 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 increasing 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 hitherto been as little understood as any to which a horse is subject. People 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 the 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 thorough 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.

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 boasting 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. Assafetida.
 4 do. Squills.
 ½ do. Saffron.
 6 drams of Cinnabar of Antimony.

Make the whole up into balls with honey and a little liquorice

* The Midriff, or Diaphragm, is that which is commonly called the Skirts, and separates the Chest (where the lungs lie) from the Bowels.

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 chamber-lic, which is much better than water; and in this disease the horse is always craving after water. Chamber-lic 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 labor 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 raw, he coughs violently by fits, sneezes often, and groans at the same time; he gleans 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. Ireland 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 made 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 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 be 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 loose 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 altogether 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 cams 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—

$\frac{1}{2}$ oz. of Rhubarb, in powder.
 1 do. Lenitive Electuary.
 $\frac{1}{2}$ do. Camphor.
 1 do. Powdered Ginger.

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.

1 oz. of Tormentil Root, in powder.
 $\frac{1}{2}$ do. Japan Earth, do.

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.

$\frac{1}{2}$ oz. of Isinglass, dissolved in a quart of warm Milk.
 2 do. Mithridate.

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 color; 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, Columbia 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 sickness, 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 fætid slime, and when the same matter gleans 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.

Inflammation 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 color; 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, "titled in the back." There is no method but observing the gait of the horse. If he have got titled 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. of 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 color, with a fœtid smell,—a sure sign that the kidneys are ulcerated; which generally terminates in a consumption, and the creature becomes absolutely incurable.

In treating of the Cholic I have recommended a method for removing the Stranguary, 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 Stranguary 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 color, 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. Jalap.
 2 do. Oil of Juniper.

To be made into a ball with syrup of buckthorn. By pursuing this method the horse will soon be recovered, 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 color, 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 humor 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, dandriff, 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 humors. 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 drams 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 labor 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.
 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. Make 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 chamber-lice; 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 FARCY, 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 tumors, resembling grapes, are found on the veins, which are so painful to the touch that the creature shows 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 show 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, withinside 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, 3 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 to 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 tumors 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 tumors, which will leave small bald spots on the skin, but the hair will grow again in time. If the tumors 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 a cure. The medicine must be used in the follow

ng manner. Rub the parts affected with a woollen cloth, and then apply some of the compound oil to every bud and tumor. 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 tumors 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 Aquafortis.
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 tumors and corded 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. Brackden recommends the strong mercurial ointment for rubbing the cords and tumors 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 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 epidemical 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 crisis 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 mashes 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.
 $\frac{1}{2}$ 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.
 2 do. Jesuit's Bark.
 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 loosing 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 tifted 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 Oxyceroeum.
 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 lamenesses would soon show 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 origanum, 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

4 oz. of Tar.
4 do. Spirits of Wine.
3 do. Hogs' Lard.

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 puny 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 Marsmalow Leaves, of each a handful, and boil them in two gallons of Chamber-lice.

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 stiffle.

LAMENESS IN THE CUP-BONE OR WHIRLEBONE.

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.
 $\frac{1}{2}$ 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 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 Oxyroseum.
 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 Euphorbiuim.
 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 tumor 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 anything 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-spavin does not come by breeding from spavined mares, nor by being got by spavined horses, as the Bone-spavin 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 labor 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 gelatenous 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 chamber-lee, 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.

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 disorder 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 little 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 physick also.

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.

SWELLINGS AND IMPOSTHUMES.

It is difficult to treat on Swellings, as so many external 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 oz. of 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 oz. of 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.	mmmm	$\frac{1}{2}$ oz. of Oil of Origanum.
1 do. Oil of Amber.	mmma	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 lie 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 color, 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.
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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 any where 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 he 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-bour'd, 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 coronet. 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 oz. of Sublimate, in fine powder, put into 1 oz. 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 thicknes 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 oz. of Oil of Origanum. 4 oz. of 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.

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 oz. of White Vitriol.
4 do. of 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 tumors often arise in the Withers from internal causes, such as the crisis of Fevers. When this happens you must not attempt to stop it, nor use anything 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 everything you can to assist nature in bringing it forward. You cannot do better than lay on poultices twice a day till it breaks, for reason tell 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 oz. 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 oz. Spirits of Wine.
$\frac{3}{4}$ do. White Copperas.	4 do. Soft Water.
℥℥℥℥℥ 1 oz. Spirits of Sal Ammoniac.	

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.

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 eyesores, 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.

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.

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.

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 chamber-lice, 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.

2 oz. of Yellow Rosin.
2 do. Salt of Prunel.
1 do. Oil of Juniper.

2 oz. of Salt of Tartar.
8 do. Castile Soap.
1 do. Camphor.

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 swell oftener 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 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 answer his master's expectations.

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 pair 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 prepared, 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 discoloration vanishes; then the wound should be dressed with the following balsam.

$\frac{1}{2}$ oz. of Gum Benjamin.	3 drams of Storax.
$\frac{1}{4}$ do. Balsam of Peru.	3 do. Socotrine Aloes.
6 drams of Myrrh.	3 do. Frankincense.
3 drams Gum Guaiacum.	

Powder the ingredients that will powder, and put them in 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 anything 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.

9 drams of Tincture of Opium.	1 oz. of Spirits of Sweet nitre.
2 oz. 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

he 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 endeavor 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 forerunner 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 wagon. 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 anything 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.

