THE
POCKET FARRIER;
OR
GENTLEMAN'S GUIDE
IN THE
MANAGEMENT OF HORSES
UNDER VARIOUS DISEASES.
With an explanation of the Symptoms attending the different Disorders, and the shortest, plainest, and most humane methods of curing them.

DIRECTIONS
FOR JUDGING OF THE HORSE'S AGE;
AND USEFUL OBSERVATIONS
ON THE
Breeding, Raising, and Training of Colts.

HINTS TO PURCHASERS,
And general directions for using a Horse on a journey, with useful rules for riding with safety, gracefulness, &c. and directions to perform the necessary Surgical Operations.

RECEIPT FOR GELDING,
ON A NEW AND IMPROVED PLAN:
And for securing Horses from the dangers arising from Bots, Truncheons, &c.

TO WHICH IS ADDED,
THE HORSE'S SKELETON,
Taken from that of the Academy of Sciences at Paris.

BY JAMES WARE,
Amherst County, Virginia.

"A righteous man regardeth the life of his beast."
Prov. xii. 10.

T. W. WHITE, PRINTER.
1828.
EASTERN DISTRICT OF VIRGINIA, TO WIT:

BE IT REMEMBERED, That on the ninth day of October, in the fifty-first year of the Independence of the United States of America, James Ware, of the said district, hath deposited in this office the title of a book, the right whereof he claims as author, in the words following, to wit:

"The Pocket Farrier; or Gentleman's Guide in the management of Horses under various diseases, with an explanation of the symptoms attending the different disorders, and the shortest, plainest, and most humane methods of curing them.

"Directions for judging of the horse's age, and useful observations on the breeding, raising, and training of colts.

"Hints to purchasers, and general directions for using a horse on a journey, with useful rules for riding with safety, gracefulness, &c., and directions to perform the necessary surgical operations.

"Receipt for Gelding, on a new and improved plan, and for securing horses from the dangers arising from Bots, Truncheons, &c., to which is added, the horse's skeleton, taken from that of the Academy of Sciences at Paris.

"By James Ware, Amherst county, Virginia.

"A righteous man regardeth the life of his beast."—Prov. xii. 10."

In conformity to the act of the Congress of the United States, entitled "an act, for the encouragement of learning, by securing the copies of maps, charts and books, to the authors and proprietors of such copies, during the times therein mentioned."

RICHARD JEFFRIES,
Clerk of the Eastern District of Virginia.
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PREFACE.

This little work being intended for the pocket, I shall only offer to the public such information as I possess, with candor and brevity—always avoiding, as much as possible, all redundant and uncommon terms, it being my object to be useful and intelligible, rather than to appear learned.

I observe with surprise, that men of education and talents, who, in other respects, appear desirous of being serviceable to their country, seldom turn their attention to that noble and useful animal, the horse; whilst they every day uselessly throw away their time and knowledge on the description and anatomy of vile insects, useless animals, worms, &c.

Our country (and I am sorry to see it,) is more regardless of the welfare of this noble animal, than Europe, though his exertions are in as great demand here, as well for our pleasures as for our comforts and necessities. In the catalogue of Farriers, only one or two in the United States
are worthy of our perusal, or have turned their attention to this very interesting and useful subject.

Natural history has very deservedly become an object of general attention. It leads to discoveries of the greatest importance to mankind; and agriculture (the most useful of all sciences) is indebted to it for its most valuable improvements, and cannot be brought to any degree of perfection without some knowledge of that science.

Anatomy, a branch of natural history, is likewise of great importance to agriculturists, especially so far as it respects a knowledge of the horse—on whose exertions they not only depend, but likewise the whole human family. How often do we see him the sole dependence of the poor farmer, his wife and his children, sharing in their toils, and keeping them not only from want, but filling their granaries even to a luxury of abundance! In every species of drudgery, the horse bears the principal burden, and even seems to delight in being made the instrument of man's pleasure.

In a work of this nature, it would be presumptuous in me to claim entire originality; and so far from it, I confess having perused many authors on the subject, (all Europeans except one,)
and gathered from them much useful matter, when their opinions appeared to me to be founded on reason and experience. I hope this acknowledgment will be a sufficient apology for not marking quotations.

Several diseases, and among them some very fatal ones not noticed by other authors, will be found in this work; and among the receipts, those for gelding, and the bots, will alone be more valuable to the farmer than the entire cost of this little volume.

This little treatise contains, observations on breeding, raising, and training of horses; a description of the diseases to which they are exposed; the symptoms of the diseases, and the remedies to be applied for their cure; together with the necessary surgical operations to be performed on those animals.

To assist the well-meant endeavors of the husbandman; to eradicate dangerous and ill-founded prejudices; to guard the ignorant and credulous against the frauds and impositions of dealers and jockeys: and to show men what is in their power, both with regard to preventing and curing diseases in horses. These were the author's principal inducements for writing and publishing the following sheets—and he hopes that they will not
be found unworthy of any farmer's perusal. They were suggested by an observation of men's conduct with regard to their horses; a sincere desire to be useful to them, and confirmed by thirty years' experience and attention. During this period, it has often been the earnest wish of the writer, that his acquaintances and fellow creatures in general, had been possessed of some plain guide to direct their conduct towards this noble animal. How far he has succeeded in supplying the deficiency, he leaves to the candor and judgment of his readers to determine.

But if his endeavors have, in any degree, contributed to alleviate the distresses and losses occasioned by ignorance in the proper management of the horse, he will consider his time and labor not wholly unrecompensed.

The Author.
CHAPTER I.

SKELETON.

I have thought it best to present to the public the Skeleton of the Horse, as taken from the Academy of Sciences in Paris, in order to give an explanation of the different parts of that animal, without the tedious method of dissertation on the uses, shape and size of the different bones, the skeleton being sufficient to exhibit them, and to point out their different names and precise situations. It would be too tedious in a work like this, to give a complete detail of the numerous parts constituting the horse's frame; it is hoped that the skeleton, with its explanations and references, will be very useful to the farrier, by affording the necessary directions in the surgical operations.

2*
Nothing can be more interesting or beneficial to farmers, than the task of raising good horses, though it is attended with much trouble and expense. Raising from mean, old, or diseased horses, is neither entertaining nor profitable. In this country, a four years old colt seldom costs the owner less than a hundred dollars: if, therefore, your colt be worth only a hundred dollars, you lose your pains and time, besides other losses in proportion, when he falls short of that sum. It is evident, that a good colt may be raised on as moderate terms as a mean one. You should therefore be particular in the choice of the dam and sire, and attend to their blood, size, age, and the cross they would make. Some people pay no regard to the age or health of the horse, and had as well put a good mare to a blind horse, as to any other, not observing that the offspring seldom fails to inherit the diseases and vices of their ancestors, rather than their good qualities. In all things that have life, not excepting plants, the crop must depend on the quality of the seed. Weakly and diseased animals, as well as injured seed, seldom produce a vigorous offspring, or a plentiful harvest.
Sportsmen know that generous coursers cannot come from diseased jades, nor spaniels from snarling curs. This is contrary to the laws of nature. Why then should we be so careless in selecting the breed of horses from which we intend to raise? This noble animal has too great a share in the labors necessary for our existence, to be thus ungenerously neglected. We all know, that in the human race many diseases are hereditary; and experience teaches us that the same rule applies to animals. Young colts have often been known to wear the external appearance of old age, only from their having been gotten by old horses, or come out of old mares.

English authors have said a great deal concerning the blood, form, and speed of their horses; especially Douinat, Bay Malton, Eclipse, Shark, &c.; but I have no doubt that the American horses Eclipse, Sir Henry, Flirtilla, Florizel, Virago, Potomac, Leviathan, and many more, would have had an equal claim to fame and superiority, had they been in competition with them.

It is stated that Flying Childress ran a mile in a few seconds over a minute; but I never saw such running, nor do I believe it possible. I believe, however, that the speed of our best horses
is unknown, although they have contended with each other on the turf for many years.

Were I to choose a mare to breed from, she should not be under four, nor exceed sixteen years of age, and not less than fifteen and a half hands high. The horse should be sixteen hands high at least.

By breeding from such horses, you may reasonably expect something valuable; whilst from some breeds you never get but a poney, notwithstanding every care and attention.

I would likewise recommend to every one to endeavor to raise early colts, by putting their mares to the horse as early in the spring as possible. This is necessary, not only because mares are generally horsing in this season, and that this disposition of nature makes them produce a better offspring, but because the colt will by this means have the advantage of two summers to one winter, while young. When the mare colts late in the season, the colt is generally weak, because she does not yield a sufficiency of milk, for want of grass to feed upon.

Some people suffer their colts to run at large until they are three or four years old; but this renders them wild, inimical to man, and difficult to break. Many horses have been ruined by ne-
glecting to tame them before breaking, and making them fond of their master by gentle and tender treatment.

From what has been said, it is plain that docility is one of the first qualities that a horse ought to possess, and that it requires all the patience, skill and industry imaginable, to render a colt gentle, familiar, and fond of man. We now proceed to the manner of breaking colts.

Although a horse is unfit for hard usage before he is five years old, yet he should be broken at the age of two and a half, or three. You should first accustom him to be bridled, saddled, and loosely girded, and suffer him to remain so in the stable two or three hours a day. When you wish to break him to the bridle, you should use a snaffle, and rub the bit with salt to make him fond of it. You should raise his feet off the ground every day, and strike them with a hammer as if you intended to shoe him. When accustomed to suffer the saddle and bridle in the stable, have him mounted there by a light rider. Trot him every other day with a halter, and on level ground, without being mounted. After being trained to turn easily and willingly, have him mounted and dismounted for some days, or even months, without walking out of place; when sufficiently gen-
tle, he should be led by the halter in a walk, then a trot, but always for a short time, lest you should disgust him. With these precautions, you may succeed in breaking colts, however wild and untractable.

I shall conclude these remarks by recommending to all persons the practice of making gentle their colts from their infancy, and above all, not to break them too suddenly, and to do it by slow and gentle means. Many colts have been ruined by harsh treatment and excessive fatigue in the first rudiments of riding.

It is evident, from what has already been said, that this animal should not be forced to the full extent of his powers before a certain age; and consequently, his constitution may be impaired, (and it always is the case,) if compelled to hardship before the natural period: and even then it will prove hurtful, if abruptly applied. We know by experience, that men who have arrived at the age of maturity, lulled in the lap of ease, would be destroyed by hard labor, much sooner than youths nurtured to it from their childhood.
TRAINING.

Of the five senses of nature with which horses, as well as men, are endowed, there are three in which the horse must be exercised in training: the sight, the hearing, and the feeling. We train a horse in the sense of sight, when we accustom him to the approach of objects that might terrify him; for there is no animal so sensible to the impression of objects which he has not seen before, as the horse.

He is trained in the sense of hearing, when he is accustomed to the din of arms, drums, and other warlike noise; when he is made attentive and obedient to the call of the tongue, the crack of the whip, and sometimes to the gentle voice intended for caresses, or to the rougher tone employed in threats.

But the sense of feeling is the most necessary; for it is by that he is taught to obey the least movement of the hand and legs, by giving sensibility to his mouth and sides, if they be deficient in that respect—or by nursing that good quality, if he possess it already. For that purpose, aids and chastisements are employed—aids, to prevent the faults he might commit; chastisements, to punish him at the time he is guilty of them: and as horses obey only through fear of punishment,
aids are only warnings given to them, that they will be chastised if they answer not to their call.

TRAVELLING.

Before you undertake a long journey, it is necessary that you should take your horse from grass and stable him at least one week before you set out. If he has been a long time on grass, a gentle purge may be necessary to assist nature to carry off the foulness brought on by grazing. He should be fed on solid food, and be thereby rendered more capable of undergoing the fatigues of a long journey. I am not of the opinion of many who think that the horse should be entirely prohibited the use of green food while performing hard duty; on the contrary, a reasonable quantity serves to keep the bowels open, sharpen the appetite, add greatly to their courage, and promote perspiration—things as useful to animals as they are beneficial to the human species.

Persons who have constant occasion for riding, such as sheriffs, or other persons of active business, will bear me out in the assertion, that horses that have, when travelling, been suffered to graze at convenient opportunities, have, nine times out of ten, been found to perform much better than
those that were closely confined, and fed only on solid food.

When your horse is brought to you, it would be prudent to have him rode a few steps, instead of being led. You should examine the girths, stirrup leathers, saddle blanket, and other appendages, before mounting: this would obviate many inconveniences, and prevent many accidents that might befall you in the prosecution of your journey. Be careful to examine his shoes, and see if they are tight, and that the nails do not project over their hoofs to cut their ankles; these defects should be remedied before you proceed any farther.

Some horses are in the habit of swelling themselves when you attempt to tighten the girths; it is difficult to draw them too close on such animals, as they will slacken on breathing, or abandoning the strap. Those that are not inclined to this vice, may be so tightly girted as to occasion uneasiness, and obstruct the circulation of the blood: you should therefore avoid this fault, as it greatly tends to injure the performance, as well as the constitution of the horse. A snaffle bridle is, in my opinion, to be preferred on a journey; but if from any cause you be induced to use a curb, see that it is not drawn too high.
I would also recommend to travellers to have the bit wrapped with a rag impregnated with assafoedita: this has a tendency to guard them from infectious diseases on the road, increase their appetite, and add to their courage. When everything is rightly adjusted, make your horse stand firm till you are properly seated. When you would have him move forward, do it at first without using either whip or spur, as this has a tendency to make him start at the application of either: but inform him of your meaning by some signal that he understands. Ride moderately for a mile or two to avoid heating his blood too suddenly; you may then quicken his speed gradually, as the importance of your business may require.

You may safely permit your horse to cool his mouth at almost every brook, provided he be not suffered to drink too copiously; this has a tendency to refresh him, and to keep him in good spirits. If you perceive that your horse is thirsty, suffer him to drink his satisfaction about a mile from the inn at which you intend to tarry, provided he be not overheated: the exercise in this last mile will warm the water in his stomach and prevent its being injurious. Should you be inclined to have your horse watered in the stable,
it would be well to make his drink a little saltish, and throw a handful of meal into it—this practice is preferable to any other, and should be complied with on all occasions, especially if the horse be warm and fatigued. At the conclusion of your day's journey, turn your horse out in a lot, that he may have an opportunity of wallowing and cooling himself; fifteen or twenty minutes after, you should wash his legs clean with cold water, and rub them nearly dry: after which, wet them over with equal parts of vinegar and spirits, and rub them till dry; let him be well curried, brushed, and rubbed with straw or woolen; let his hoofs be nicely cleaned, especially under the toe of the shoe; this should be done every night, and occasionally stuffed with salt and clay, or cow-dung. Water again before feeding. Never let your horse stand on a plank floor if you can possibly avoid it. See that he has plenty of good sweet hay or fodder, and that his grain is sweet and sound. Let his stall be roomy, and well supplied with clean and dry litter.

Many of these valuable animals have been destroyed by feeding on unsound grain. The owners of horses have often been perplexed in discovering their diseases, or the cause of their death, never thinking of the above caution. If you
should be compelled to feed on newly gathered food, pick out as much of the stem as you can conveniently; cut, mash and mix the cobs with the corn, so as to force him to eat as much cob as belongs to the grain; give him after this, half a pint of spirits, and throw a handful of salt in the manger. This last caution will prevent the colic.

By carefully observing the above rules, and strictly attending to them every day, you will insure success.

RIDING GRACEFULLY.

Most gentlemen and ladies take a pride in knowing how to ride safely, gracefully, and with ease—to attain this talent, it suffices to observe the following short directions:

A snaffle bridle should be your choice in learning to ride.

Teach your horse to stand still while you mount him.

A gentleman should hold the reins even and firm in his left hand.

Place yourself firm in the saddle, the body erect, the head up, and the shoulders back. The arms should be kept close to the body, but with-
out constraint; the elbows bent at right angles, and even with the back; the inside of the thigh and knee firm against the saddle, the just position of the legs entirely depending upon it; the ball of the foot should rest on the stirrups to command your body and the motion of the horse; the leg steady.

The whip should be held in the right hand, resting over the arm, ready for use in case the horse should require chastisement.

The right hand three inches higher than the left.

As the movements of the bridle hand serve to notify the horse of the will of the rider, and the action produced by it in the mouth is the effect of different movements of the hand, it may not be amiss to state what they are, and their effects.

The hand ought always to commence the first effect, and the legs ought always to accompany that movement: for it is a general principle, that in all gaits, as well natural as artificial, the head and shoulders of a horse ought to commence the first motion; and as the horse has four principal movements—forward, backward, to the right, and to the left; the bridle hand ought likewise to produce four different effects, yielding, bearing up, turning to the right, and to the left.
The first effect, which is yielding to the bridle in order to go forward, is a movement produced by sinking the hand and turning the nails a little under; the second action, which is bearing up, is done by drawing the hand towards the pit of the stomach, and turning the nails a little up. This last action is to produce a check, or to back the horse. You ought not, in this action, to bear too much on the stirrups; and you must, as you draw in your hand, place your shoulders a little back, that the horse, in his stop, may bear on the hind legs. The third effect is to turn to the right, inclining your hand to that side, your nails turned a little up, that the left rein, which ought to produce that action, may act with promptness. The fourth effect is turning to the left, bearing your hand to that side, your nails turned a little under, that the right rein, which ought to produce that motion, may act.

From what I have just said, you may easily perceive that a horse, obedient to the hand, is he that follows it in all its movements, and that on the effect of the hand, is founded that of the reins which cause the actions of the head.

The Duke of Newcastle has written a dissertation on bridle reins, in which there appears to be some likelihood in speculation; but which, in
my estimation, destroys itself in the execution.—He says: "that on what side soever the reins may be held in, the mouth always goes to the opposite cheek of the bit: that when the cheek comes in, the mouth goes out; so that" continues he, "the reins being separated when you draw to the right, the mouth goes to the other side, and obliges the horse to look out of the volt."

This principle is destroyed by usage, which proves to us that the horse is inclined to obey the movement of the hand, to the side we draw the reins; for example, by drawing the right rein, the horse is forced to yield to the movement, and to incline his head to that side.

I admit, that by simply drawing the rein, without bringing your hand to you as ought to be done on this occasion, the bearing will be hardest on the opposite side; but that will not hinder the horse from obeying the hand, because he is obliged to follow the strongest impression, which proceeds not only from the bearing outside, but from the rein which acts on the mouth, drawing it, and consequently, the horse's head to the side you wish to go. Moreover, by using your hand in due time, you shorten the in rein a little, and then the bit bears on the part which you wish to determine.
A lady, "the master-piece of the Almighty," and before whose charms the soul of man bows with reverence and submission, ought not to neglect that accomplishment which is by no means the least to add to her graces, health and safety. She should, when seated on the saddle, take hold on the horn, and by a shake, try if it is well girthed and steady; if not, have them tightened by some person present.

As a particular knowledge of a horse’s age is drawn from an acquaintance of his teeth, I must explain their situation and differences.

Horses have forty teeth, which are divided, masticating, fore teeth and tusks.

Mares seldom have tusks, if they have, they are very small.

The masticating teeth are placed at the bottom of the mouth beyond the bars. They are twenty-four in number, to wit: twelve in the upper jaw, six on each side, and as many in the under jaw, placed in the same order. These teeth they never lose to make room for others, as the fore teeth do, and are not used to distinguish the horse’s age.

The fore teeth are twelve in number, to wit: six below, and six above. About a fortnight after the colt’s birth, they begin to grow, and are
called milk teeth; they are short and small, white, and not hollow—they are dropped to make room for others that serve to discover the age.

At two years and a half, four of them fall, in the room of which come the nippers, placed in the front of the mouth, two above and two below.

At three years and a half, or thereabouts, four more fall, and those that come in their places are called mean teeth; they are placed near the nippers, two above and two below.

The nippers and mean teeth obtain their growth in a short time. At four years and a half they lose the last four milk teeth, which make room for others that are called corner teeth. When the corner teeth begin to grow, the tooth just appears above the gums, and grows slowly. There is a hollow in the tooth, which serves to distinguish the horse's age.

The term marking, is derived from the black spot found in the corner teeth.

Between five and six years of age, the hollow begins to fill up, and before he is six, the two lower front teeth become entirely smooth; between six and seven, the two adjoining teeth, one on each side, become smooth, and the black spot decreases till he is seven and a half or eight years old, when it entirely disappears and leaves
a brown spot in its place; and before they are eight, the two corner teeth below become smooth, at which time all the natural marks of the lower front teeth disappear.

There are horses that always mark, which proceeds from the hardness of their teeth, which prevents the black mark from wearing out, and has been the means of many persons being imposed upon by jockeys.

As it is not necessary that the horse should have the black mark, but must have a hollow in his teeth to distinguish his age, it is by that difference that we discover a horse that is over eight, and one that always marks.

When a horse quits marking, and his age cannot be discovered by the corner teeth, you must then have recourse to the tusks.

The tusks are placed beyond the corner teeth on the bars, four in number, two above and two below, one on each side the mouth.

The lower tusks begin to appear sometimes at three and a half, sometimes at four, and the upper ones at four, and sometimes at four and a half years of age. At times they precede the corner teeth, and sometimes follow them. Until the age of six they are very sharp and fluted, that is, hollow in the interior of the mouth. Ma-
ny are sick while cutting their upper tusks, and are thus rendered incapable of great fatigue, which has caused many a fine young horse to be sacrificed through the ignorance of his master.

By the time they arrive at the age of eight years, one of the two hollows or flutes in the tusk fills up; and at nine the other one is full, and the tusk becomes entirely round on the inside.

About ten, the upper tusks appear much worn, and as the gums also begin to shrink at that age, and the teeth become naked, they seem to lengthen.

When a horse marks neither by his teeth nor tusks, we must examine his brows, chin, and bars of the mouth.

About thirteen or fourteen, we discover sometimes white hairs in his brows; his chin begins to wrinkle, and drops as he gets older, and the bars become lean and small, the tongue large, and the upper front teeth project over the lower.

The most convenient and certain method of distinguishing a young horse from an old one, is the following, which is recommended to the attention of inexperienced persons, viz:

Turn back both his lips: if the teeth are small, white, glossy, and fit evenly together, he is
young; if they are large, long, yellow, worn, dirty, and irregularly set, and the bars of his mouth lean and small, he is old. By these signs, you may discover the horses that always mark, or have been jockeyed, from those that are young. What is meant here by a jockeyed horse, is one whose teeth have been bored and burned to make him appear young; but however skilful a jockey may be in this operation, there always appears some scratches of the iron about the teeth, which may be discovered by minute examination. Those subtle jockeys have likewise the deceiving address of filing the tusks to make them sharp, but fortunately, they cannot lengthen them, and it is not sufficient that the tusks should be sharp and fluted to judge of the horse’s youth—they must likewise be long, which they many times attempt by pressing down the gums with some kind of an instrument.

Having given every necessary direction as relates to a discovery of the age of a horse, I shall proceed, in the next place, to point out many other things necessary to be observed and strictly attended to in the purchase of a horse.
DIRECTIONS TO PURCHASERS.

To give directions for the purchase of a horse, free from disease or imperfection, and to convey a correct knowledge of his age, is by experience found to be a more arduous and difficult task than is generally imagined, and I believe there is no kind of traffic wherein there are so many deceptions practised as in the sale of horses.

As matters now stand, it is more easy to cheat a man out of one of those valuable animals, than out of a dollar in cash. It will not, therefore, be improper or unreasonable to give such directions on the subject as will plainly point out to such as have been, or may hereafter be, the dupes of dealers and jockeys, whose business it is to impose on the credulity of the novice, by concealing every imperfection in the animal, and discovering all the good properties and imaginary beauties.

Before you make choice of a horse, you should consider for what particular use you may want him, as some horses will answer for one purpose, and some another; some but one, and some none at all, while others may serve for many.

When you have fixed on the horse you intend to purchase, have him brought before you in an open light place, but not near a white wall; let
him stand firm on all his feet. Place yourself at a distance of eight or ten feet in front of him, in a line with his breast. Observe well his countenance—it should be cheerful, sprightly, and not of a heavy, gloomy appearance; his ears thin, even, and terminate in a point; as a thick, drooping ear is not only a deformity, but the horse that wears them will be dull and sluggish.

The face should be lean, and broad between the eyes, which should be round, clear, and not too large, move about their orbits with a quick and lively motion, and at the same time but little or none of the whites appear. On your approaching him, if you can see your image deep and plain in every part, and he does not appear afraid of you, they may be supposed to be good: but, on the other hand, if they are yellow, moist, or sunk, and when examined the horse appears alarmed, and is on the doage, they are bad.

The nostrils should not be so large as for the muzzle to become so wide on every little effort as to make the redness in the inside appear, as this is a true sign of a short, thick, and sometimes a broken wind, especially if there be much moisture on the inside of his nostrils.
The lips should meet well together, as the upper lip, when it projects over the lower, denotes a horse to be sluggish.

Having satisfied yourself thus far, cast your eyes downwards to see if his breast is plump, full, and of a reasonable width; his fore legs straight, flat, sinewy and thin; his arms large and muscular, so that upon any little strain or movement, the muscles thereof may be easily and clearly observed.

The knees lean, sinewy, close, and evenly proportioned; if they appear large, as if wind had collected between the skin and flesh, or looks bristly, feels scabby, or the hair knocked off, they are marks of a stumbler, and it is ten to one if he is fit for the saddle.

The pasterns, straight and short, as horses with long pasterns never fail to tire on long journeys, although the horse that has them may be active and strong.

I have known some very fleet and strong horses with long pasterns; in fact, they are generally the swiftest whose pasterns are rather long than otherwise; but, as before observed, they never perform well on long journeys.

You will now take your stand at a convenient distance on the near side of the horse, and on a
line with his shoulder, in order to take a side view of him. Commencing again at his head, observe that there is no swelling where the head and neck join, or under the jaws; as the poll evil, common or colt distemper, &c. may be easily discovered by strict observation.

His neck should taper well, forming a beautiful gradation from the breast and shoulders; his mane half the width of his neck, thin, and a little inclined to curl; his shoulders high, tapering, and thrown well back; his back short, and not too much swayed for strength; his body rather round and swelling than flat, and of a proportionable size; his flanks plump and full, and the last rib approaching near the hips; his hips and buttocks full, round, and well covered with muscles; his tail well placed, and the bone stiff; long from the hip to the haunch bone; his hocks broad, sinewy, bony, and clear of puffs; his thighs long, large and bulging; his hind legs, below the hocks, short, bending a little, flat and sinewy; his patterns of moderate length, small and bony; his hoofs cupped, round and smooth.

It is as necessary to observe the hoofs in the purchase of a horse, as any other part, for they are the grand foundation of the whole animal; and if they are bad, the whole superstructure,
however well and properly proportioned, cannot be of any intrinsic value. A flat ridgy hoof denotes founders. If the hair on the top of the hoof lies smooth, close, and the flesh even therewith, it may be considered as sound and perfect; but if the hair on that part looks bristly, with scales or scabs on the skin, and the flesh rises over the hoof, they are the forerunners of scratches, quitter bones, or ring bones, and are brought on by founders, filthy stables, hard service, and neglect in cleaning and drying his legs after his day's service is ended.

The bottoms of his feet should be carefully examined; they must be hollow, the frog large, spreading, and sound; the custom of trimming the frogs of the hoofs is injurious, and ought to be forever discontinued. By pressing your thumb hard on the frog, you may discover if it is spungy, decayed, or has a running, all of which are serious objections. Next take your stand about four paces behind the horse, as you may the more advantageously take a view of the different parts; his hips should be even, broad and round; his hocks and ankles of equal size, and not swelled.

Be careful to see if there are no lumps on the inside bone of the hock joints, especially on the lower part, as such lumps are called the spavin,
and are among the worst of diseases. You ought also to see that no seams or scars appear; that he is not bow-legged, and that his fore legs show plainly by looking between the thighs; if he be a little cat-hamed, it is not a bad mark for a saddle horse, especially if you like a pacer.

Advance round him to the off side, and examine as you did the near. Having finished your examination, let him be rode in your presence, from, to, and past you. When mounted, if he is wanting for the saddle, his appearance should be bold, lofty and majestic; his eye shining with intrepidity and fire; his movements light and airy; his actions smooth and graceful.

Have him rode past you two or three times in every gait he may have been broke to, to wit: first, a walk, then a trot, &c.

When trotting, the off fore and near hind leg, or the near fore and off hind leg, should move at one and the same time, and act in unison with each other. After you are satisfied with seeing him rode past you, have him rode to and from you in a direct line, to discover whether he lifts his feet well off the ground or not, and with boldness, at the same time carrying them straight and smoothly. A horse should not cross his fore legs in trotting, as it is a sign of weakness.
If a horse make a clattering noise in his gallop, he is badly broke, or there is something wrong in the formation of him: that is, if by treading too far, or making too much play with his hind legs, he strikes his fore shoe, it is said that he interferes—it proceeds from a natural imperfection occasioned by uneven proportion; for, on a critical examination of such a horse, he will be found not only low in the shoulders, but that his hind legs are longer than his fore, which causes a weakness in the fore legs by forcing on them more than their due proportion of weight.

To make yourself fully acquainted, you must now mount him yourself; and with a slack rein, in the most careless manner, and without whip or spur, ride at least a mile, and if practicable, up and down a hill, as any horse that can move clear and with ease down a hill, can do the same on any ground.

As you return, put him up to at least three-quarter speed; this will enable you to try his wind, and moreover, make a discovery that cannot otherwise be conveniently done on such occasions: I mean a kind of spavin that is seated in the joint:

This may be partially relieved by rest and good management, but not cured. To make this
discovery, and prevent being imposed upon, as soon as you return, let him be rode into water up to his belly; if there is not water convenient to ride him into, have him wetted, then let him stand until cold; while standing, notice that he is not a crib biter, and that he stands well on all his legs. Then let him be moved gently; if he is spavined, and has received a temporary cure, he will now show a lameness which could not otherwise have been discovered.

Now slip off the bridle near some good ground for him to wallow, a thing he will be very apt to do if in good health.

If in wallowing he will turn entirely over, you need not dread any internal disease. Let him now be caught in your presence, and you will not only discover whether or not he is hard to take, but whether he can be easily bridled after being in hand.

I have known horses that were perfectly gentle after being bridled, that could scarcely be bridled by the most expert groom, and from that quality alone, rendered worthless.

Great regard ought to be paid to the qualities of a horse, it being universally acknowledged that habit is a second nature.
If you now think the horse you have been examining and trying is likely to suit you, the next step necessary for you to take is to examine his mouth to ascertain his age, paying strict regard to the rules laid down in the preceding part of this treatise—not forgetting, when you open his mouth, to notice if there be any sign of the yellow water.

Some writers have undertaken to point out the beauties of fine horses down to their flesh marks, but as I consider it impossible for one man to choose beauty for another, and that there are good horses of all colors, I shall content myself with what I have already said on the subject, well knowing that volumes could not contain all that might justly be said of this noble animal, in speaking of his gay appearance, elegance of shape, due proportion of form, and gracefulness of action, which qualities, added to his great services, raise him far above the rest of the brute creation.

Having finished my observations on what is necessary to be done before you purchase a horse, I proceed in the next place to point out what is necessary for his preservation, in order to secure his future services to the owner.
CHAPTER II.

OF THE DISEASES, AND THEIR SYMPTOMS.

ANTICOR.

The Anticor is the first disease of which I shall treat. It appears to have derived its name from its proximity to the heart: it is brought on by various causes, such as high feeding and too little exercise, exposing the animal to the inclemency of the weather, and letting him drink too freely of cold water after excessive fatigue.

SYMPTOMS.

Loss of appetite is one of the first symptoms of this disease; the next is a difficulty of swallowing water, and the great pain that it occasions; one or two swallows will produce so much pain as to cause him to groan, and sometimes stagger; he will seldom attempt to drink a second time. When the disease becomes serious, he seldom, if ever, attempts to lie down, as the pain is more acute in that posture than standing. As the pain grows more violent, he becomes
weary and restless. About the second or third day the breast begins to swell, and frequently extends as far back as the sheath.

Cure.

Copious bleeding is the first and most effectual remedy against this complaint. From two to four quarts, according to the size and condition of the horse, and the violence of the disease, may be taken twice or thrice a week. Cooling medicine, such as spicewood tea, nitre, and flaxseed powdered, mixed with his food, will be of service. He should every night take a half ounce of sulphur, and one ounce of liquorice, in a ball or drench.

Clysters of oil and salts must be used to keep his bowels moderately open. I will remark, that the use of injections, although strenuously recommended, is of little service, unless the horse be previously prepared for it by proper raking. Some one who has small hands, may perform this operation with convenience.

The hand should be greased before its insertion into the fundament for the purpose of withdrawing the ordine. If an abscess should already have been formed, and was such as to require separating, a poultice of boiled oats, or
wheat bran, scalded in a sufficient quantity of water to moisten it, and some lard to keep it soft, must be applied to the swelled part, as warm as it can be borne conveniently, and continued until it be brought to a head: after which, an incision must be made sufficient for the free discharge of the matter.

If from the commencement of the swelling, it be frequently bathed in a decoction of bitter herbs, it may sometimes have the happy effect of preventing its further progress.

After opening, the sore must be repeatedly washed with good old soap, and water, and salt and water alternately.

OINTMENT FOR THE SAME.

Take of beeswax about the size of a hen’s egg, one table-spoon full of the spirits of turpentine, or as much white turpentine as you have wax, and half the quantity of hogs’ lard: melt this, and add about one ounce of verdigris thereto; mix the whole together in some clean vessel (earthen is best,) over a moderate fire. Without great care after adding the verdigris, it will boil over. A little of the flowers, or tops of elders, may be added to advantage; strain and bottle it for use. This ointment is serviceable, not only
for this ulcer, but for many other sores to which horses are subject.

ABSCESSES.

These are swellings that make their appearance on many parts of the animal, and may sometimes be removed by the application of strong salt and water, vinegar and salt, or a decoction of bitter herbs, and blood letting. If this should fail, apply the spirits of turpentine, which, after one or two applications, will prepare them for incision, or reduce them. Proceed then as directed in the case Anticor.

APOPLEXY.

Apoplexy proceeds from too great an accumulation of blood about the brain, and is known by the animal’s falling suddenly to the ground. When the paroxysm is a little abated, he will reel or stagger, and sometimes fall. From this circumstance, many call it the staggers. His eyes inflame and become watery, and he fails in appetite. These are the natural and ordinary symptoms of this disease.
CURE.

Speedy and copious bleeding must by no means be neglected. A bran wash must be given warm twice a day, with about half an ounce of asafoetida, and a pod of red pepper added thereto. The food must be of a cooling nature. Bathe his feet and legs in warm water; and every thing else that has a tendency to lessen the force of the circulation of the blood towards the head, will be of great service.

BAD APPETITE.

Horses lose their appetite from various causes, viz: want of change in food, want of exercise, dirty and unsound food, &c., and is frequently the forerunner of many serious diseases.

CURE.

Draw two or three quarts of blood from the neck vein; take a quarter of an ounce of asafoetida, a table-spoon full of salt, and mix them with one quart of sassafras tea, and give it as a drench. On the second day, dissolve one pound of salts in a quart of warm water, and give it as above. If the appetite be not restored in two or
three days, you may conclude that the animal labours under some disease, which you should endeavor to ascertain by the symptoms.

BARBS.

Barbs are little excrescences resembling bladders, which make their appearance at the lower part of the palate of the mouth, about an inch or an inch and a half above the corner teeth, and can only be discovered by drawing the tongue to one side. These, if suffered to remain long, will so much interfere with his feeding and drinking, as to become of serious disadvantage.

CURE.

Clip them off as close as possible, and wash the sores with a sponge, or linen rag, dipped in strong salt and vinegar, two or three times a day. Bran and other soft food, would be proper during the continuance of the soreness.

BIG SHOULDER.

There are so few persons acquainted with this disease, that it is frequently mistaken for the
chest founder. It is considered by the best judges to be the most fatal disease of those that are not considered infectious; and although many of our valuable horses have irretrievably been lost by it, it appears that a large majority of our countrymen are utterly unacquainted with it.

SYMPTOMS.

This fatal disease is first discovered by the horse's standing over more ground than usual, and stretching his feet forward. After continuing this practice for some time, the lower points of his shoulders begin to grow, and continue so to increase until they project forward to a great extent. As the shoulders grow larger, the breast shrinks away till it becomes quite hollow, and that round, plump and muscular appearance at last disappears. It is attended with great stiffness and excruciating pain. The horse seldom loses his appetite, and I have known some to perform well for many years after being attacked by it, from good treatment and attention, although the horse could not be cured.

CAUSE.

Various are the opinions of the best judges as to the causes of this disease; some persons in the
southwestern States, where it is more common than elsewhere, attribute it to the food. I differ from them in opinion: for I never knew a horse to have this disease that had not been worked hard, or rode by heavy persons.

But most commonly, so far as it has come within my knowledge, it appears to have originated from horses working at the wheels of carriages, and from the draught bearing too low on the points of the shoulders.

CURE.

Bleeding, rest and rowelling, is indispensable in the cure of this disease. It is better to lose six months' labor, than to rear or buy a horse. Copious bleeding the first month; rubbing and bathing twice or thrice a week for six months, as hereafter directed; and rowelling, or the use of fire, the same length of time, together with letting him run at large in a good grass lot, and other good treatment, especially rubbing, will seldom, if ever, fail to perfect a cure.

A BATH.

Take of the spirits of turpentine alone, and bathe the shoulders and breast well every other day for one week: after which make an oil, by
stewing two hands full of red worms in a pound of fresh butter, and mix therewith an equal quantity (after being strained,) of the spirits of turpentine. With this mixture, bathe and rub the parts until warm, three times a week, until the animal is cured.

His food should be cooling, and easy of digestion.

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**BLOOD SPAVIN.**

The Blood Spavin is known by a soft swelling on the inside of a horse's hock joint; but the master vein is not, as is generally supposed, appealed thereby. It occasions a horse to move exceedingly stiff, and when appealed in both legs he appears as if he had been hurt in the loins. If one leg only is diseased, it is sure to make him go lame, as he cannot bring up the leg, or make as long a step with it as he otherwise would.

**CURE.**

Shave the hair from off the swelled part, and apply a blister plaster large enough to cover the swelling; after this is done running, repeat it
again, if necessary, and cause each of them to run as long as you can. Two blisters are sufficient, if they run well. After the last one is cured up, wet the place with spirits of turpentine once a week for three weeks; rub him often, and let him run at large in a place where he can lie down and take his rest. After you have done with the turpentine, anoint the parts twice a week for three months, with an oil made of two hands full of red worms stewed in a pint of cream, or fresh butter. This, with six months' rest, will effect a cure, although many think the disease incurable. It certainly is much better to lose the use of a horse six months, than to raise or buy one.

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**BONE SPAVIN.**

The Bone Spavin is known by a swelling or knot on the inside of a horse's hock, just below the joint, and a little below where the blood spavin makes its appearance: it should be treated precisely in the same manner as the blood spavin; only, the use of the turpentine may be continued longer. Rub the place often, and never, in any kind of spavin or founder, let your horse be confined in a stable.
BLIND SPAVIN.

The Blind Spavin is seated in the joint, and there is no visible appearance by which it can be seen or known, except the lameness which it occasions. It may be discovered in the following way, when a horse has had a temporary relief from rest, blistering, bathing, &c., without giving time for it to become round, and for the purpose of imposing on the purchaser:

Have him rode about three-quarter speed for one mile, and back, occasionally fretting, cracking, and drawing him up suddenly and short; after which, let him be rode in water to the belly, or, if this is not convenient, wash his legs in cold water, and let him stand uninterrupted for about half an hour, or until he gets perfectly cool: then have him moved gently, and if he has received a temporary cure, he will shew a lameness. Mr. Mason says, a blister drawn on the part affected, with a bath of strong spirits or vinegar, and a week’s rest, will frequently suspend the lameness produced by the spavin, for a time; but a radical cure cannot be expected. For my own part, I firmly believe, and do know, that a cure can be made, and his acknowledging a temporary relief in so short a time, and in so simple a way, is a proof of my assertion.
BOTS, GRUBS OR TRUNCHEONS, AND OTHER WORMS.

Horses are liable to be infested with three different kinds of worms, which are distinguished among Farriers by the names of Bots, Truncheons or Grubs, and Maw Worms. Of these, experience has taught me that the Truncheons or Grubs, are the most dangerous. Although thousands of those noble animals have been destroyed by these insects, I am convinced, from thirty years' practice, that all the danger arises from want of experience, or from want of attention. I have been the owner of horses for thirty years, and for the most part of that time have had teems, always saddle horses, and sometimes stallions and race horses, and never lost one by those insects, nor with any other disease: although fully convinced that I should have lost many, if I had acted as the most of my neighbors and others who were losing every year.

The Grubs are short thick worms, with blackish colored heads, and are principally confined to the maw, where, if they are suffered to remain long, will eat their way through. If horses were strictly attended to, the insects might be discovered as soon as they fasten to the maw, and the animal might at that time be easily saved.
Whereas, if they continue there until the horse appears to be in extreme pain, neither art nor medicine can in the least affect them, and nine times out of ten the horse would die, (though they could all be killed at the first appearance of those symptoms,) the maw being eaten through. If they are rightly managed from the time the attack is first made, as before observed, a cure may be effected.

**SYMPTOMS.**

When you see your horse occasionally stamp with his fore feet when not troubled with flies, and frequently appear as though he attempted to strike his belly with his hind feet, you may expect that the maw is attacked; as they progress, the symptoms increase; he will frequently turn his head to his sides, and sometimes groan, and as the pain increases, he will at times quit his food, drop down on his side suddenly, rise up again and return to his food. These symptoms may be discovered several days before his appetite leaves him and he becomes entirely restless.

**CURE.**

On the first appearance of the symptoms, bleed him in the mouth, and give him salt to lick; by
this means you will get him to swallow the blood. If the heads of the insects are not too deeply buried, so as to prevent them from tasting or smelling the blood, they will be induced to abandon their hold, as nothing in the world appears to be more fond of blood and salt than they are. A drench of beef’s blood and salt, is said to be better than the blood of the horse. If this should give ease, a half pint of tar, or spirits of turpentine, may be given, and in half an hour afterwards, a pint of linseed oil.

The spirits of turpentine is the only medicine I have ever found to have any impression on them after they attach themselves to the maw. The Grubs and Bots are found, on strict examination, to be extremely porous, consequently, the sudden and powerful effect of this medicine on them by external application, is not to be wondered at. When the Grubs have gathered in knots in the upper part of the maw, and above, so as to endanger the horse’s life by choking him, a half pint of the spirits of turpentine will relieve him almost instantaneously; so soon as the turpentine touches them, they become restless, and are in constant motion until dispersed, which occasions the horse to cough incessantly until the throat is entirely cleared of these insects.
The most strict attention should at all times be paid to the carrying them off after they have been loosened. For this purpose give one pint of linseed oil; if the oil cannot be had, one quart of molasses, and one quart of new milk, must be given in its stead, blood warm; a pint of powdered flaxseed may be given to advantage once a day for three days in succession, after the molasses has been used.

The food should be green wheat, clover, or some good grass; if this cannot be had, good hay or fodder, wetted with weak salt and water, and in both cases, about one quart of meal given in water five or six times a day; one quart of the tea of slippery elm might be given to advantage once a day. The Bots resemble the Grubs so nearly, that but few know the difference, or can draw the distinction between them; they are a small worm with a large head, and are confined principally to the great gut near the fundament, and are often seen dropped with the dung.

The same remedy that is used for the Grubs, will have the desired effect on the Bots.

Be it remembered, that if you will at all times keep the nits scraped clean off your horse, (not scrape him where he feeds, least he eat them,) and give him salt regularly three times a week,
it will save greatly in his keeping, and render him perfectly secure from those insects.

MAW WORMS.

These insects are of a pale red color, resembling earth worms, and when grown, are from one to two inches long. They are confined principally to the maw, from whence they derive their name, and may be destroyed by the same medicine, and in the same way that Bots and Truncheons are. Horses subject to this kind of worms, as all young horses are more or less, should have hickory ashes kept in their trough, or let run where there are tobacco suckers frost-bitten and dried, or have tobacco frequently crumbled in small quantities over their food.

BLOODY FLUX.

This disease makes its appearance so seldom in this country, as not to deserve a place here, were it not for the great danger and obstinacy attending it when it does attack. It is known by a discharge from what is called the gall ducts,
through the fundament, of a slimy, and to all appearance, a kind of bilious matter mixed with blood, and not unlike some of the discharges from a man in an extremely bad flux.

CURE.

As the inflammation is always considerable in this disease, as soon as it is discovered the animal should be bled according to his strength, but not after the first week. This disease, like all others of the same nature, originate in the stomach; for the cure of which give the following drink: Take one hand full of camomile flowers, or Virginia snake root, half the quantity of dogwood or poplar root bark, two ounces of cedar or juniper berries, and a table-spoon full of ipecacuana, or half a handful of the root of Indian physic, and a table-spoon full of rhubarb: add thereto three pints of boiling water; after it has become cool enough give it as a drench, and repeat it every other day, or every day, if necessary. The food should be easy of digestion, and nourishing. After raking him properly, give him the following injection:

Take two hands full of red roses, four ounces of red oak bark, and add thereto one quart of strong mint tea, boiling hot; when blood warm, strain and give it as directed in page 78.
Broken Wind is one amongst the incurable diseases to which the horse is subject. The cause is so obvious as to require no remarks; and as it is incurable, shall only describe the symptoms, and endeavour to prescribe such medicine and treatment as may enable him to be of some service to the person who may be so unfortunate as to own such an animal.

SYMPTOMS.

By giving him brisk exercise, you will discover an irregular and quick motion of the flanks, wide nostrils, difficulty of breathing, and a disagreeable wheezing noise.

The seat of this disease appears, from dissection, to be in the lungs—the heart and lungs being found to be twice their natural size, which prevents their performing their office with ease in the action of respiration.

TREATMENT.

Take an ounce of asafoetida, one ounce of elecampane, one ounce of colt's foot, and two table-spoons full of linseed oil: make them into a ball, or mix them with warm water, and give it occasionally morning and evening. Nourishing
food given in small quantities, and often, and the same regard paid to his drink, will enable him to render some service. Nothing dry should be given him, but all his food sprinkled before he eats it.

BUFFALO FLY.

The Buffalo Fly has never made its appearance in this State, or if it has, it has never come within my knowledge; but it seems its effects are more serious and fatal among the horses of the District of Tennessee, and some other parts of the southwestern States, than could have been imagined. No insect that ever made its appearance in these countries, has done so much injury in so short a time.

The injury occasioned by them appears to arise from the depositing their eggs in the nostrils, ears, and sheaths of horses, which, in a few hours after, produces an inflammation that terminates in the death of the animal. As I have never seen the insect, or its effects, I feel at a loss to prescribe; but it seems to me that laudanum alone will expel such insects, and I am confident that if the parts which these insects attack were
greased three or four times a week with the ointment directed in page 49, about the time they make their appearance, or during their continuance in the neighbourhood, that no insect whatever would deposite an egg in them while either the scent or taste remained. I would therefore recommend all persons to try this medicine, or any other that may be recommended, till they can ascertain what may be relied on in this extraordinary disease.

BIG HEAD.

The Big Head made its appearance in this State about the year 1796 or 1797, and for some time was fatal in its consequences; but for the last ten or fifteen years it seems to have done but little injury.

Whether this is owing to a knowledge of the management of the disease, or whether it has become less frequent, I cannot tell; it seems to be a nervous affection, although the cure is easy.

SYMPTOMS.

This disease first makes its appearance by a swelling of the head between the eyes and nos-
trils, sometimes on one side only, and at other times on both; at first, a lump appears on the side of the upper jaw, and seems as if the bone had been affected by a stroke; the bone commences growing rapidly at this place, and continues to spread over the other parts of the jaws and sides of the head until it puts an end to his existence if not stopped by medicine.

The horse becomes stiff and useless by degrees, more especially in his hind legs, which he will in a short time be unable to lift over a single rail.

CURE.

The cure for this disease is both simple and easy: first bleed him in the neck, (once is sufficient,) then bathe the swollen part in spirits of turpentine about once a week till you discover that the growing is stopped. The lumps always remain, but as they cease to grow, the horse's activity returns.

CROWN SCAB.

The Crown Scab is only a species of the scratches, and is brought on in the same way, to wit: by founders, filthy stables, &c.
SYMPTOMS.

This disease is known by the breaking of a filthy sore on the top of the hoof, which oozes out a thin fetid matter that destroys the hair about it, and occasions a whitish kind of scab over the affected part.

CURE.

Cleanse the parts by washing them with strong soapsuds, and scraping; after drying, apply the spirits of turpentine in sufficient quantities to wet the place effectually; about the second day wet it again with spirits of turpentine, and from the fourth day wash them daily with the greasiest liquor you can get out of a pot wherein bacon and greens have been boiled, and as hot as your hand can bear it. The salt, grease, and vegetable substance contained therein, will complete the cure, provided the horse be kept nice and dry.

Colds.

Colds are not more common among the human family than among horses. They are frequently produced by negligence after hard usage. From
want of a little labour in rubbing, and a good stable, many horses have been greatly injured, and some lost.

Any thing that has a tendency to relieve persons with colds, will have the same effect on horses.

CURE.

Copious bleeding is the best remedy in this disease, and never fails to effect a cure if good treatment be added to it—though a little nitre may be used to advantage, if the animal has a fever or a cough.

CONSUMPTION.

This disease is known by a discharge of thin matter from the nose of the horse, a cough, and slight fever: but as the disease gains ground, all the symptoms increase; the matter becomes of a more malignant quality, and resembles the glanders so much as to render it extremely difficult to distinguish one from the other, and can only be done by the glands discharging itself mostly from one nostril.
CURE.

After the disease has seated itself, a cure ought not to be calculated on; however, before it changes its appearance, and only the first mild symptoms appear, the mercurial salivation and other treatment, as recommended in the glanders, is worthy of a trial.

CONVULSIONS.

Convulsions proceed from various causes, and not unfrequently by worms fastening in the intestinum rectum, or straight gut, when the horse has lived long on grass, and then stabled and fed high on grain, without first cleansing the intestines by gentle purges. Young horses are much more liable to this disease than old ones.

SYMPTOMS.

This disease is known by the horse's suddenly raising his head higher than usual; pricking up his ears; an entire stiffness of the neck; tightness of the skin, and the straddling posture in which he stands. At every attempt to walk, he will almost fall, pant and breathe with difficulty. This disease has often been taken for the staggers, al-
though different in every respect except his movements.

CURE.

Bleeding copiously must not be neglected, and the quantity of blood ought to be regulated by the strength and condition of the horse. The worm destroying medicine prescribed in page 59, may always be used with safety, and generally to advantage, as the disease generally proceeds from worms.

Give one-fourth of an ounce of rhubarb, half an ounce of aloes, and about one-fourth of an ounce of cream of tartar, and repeat it often enough to keep his bowels open, after giving an injection of ambia.

OINTMENT.

Take half a pint of hog's lard, two table-spoons full of spirits of turpentine, and half a pint of salad oil; simmer them over a fire, and stir them till they are well mixed, then add one ounce of camphorated spirits, and with this mixture as hot as you can bear your hand in, bathe the contracted parts.
CHEST FOUNDER.

The Chest Founder appears to be one of those dreadful diseases to which horses are subject, and which admits of no cure. It is true, that farriers speak of it as of other founders, and prescribe remedies which they say will give immediate relief; but experience has proved, beyond the possibility of a doubt, that they are, at least in part, mistaken. I acknowledge that there is no rule without some exception, and that there are constitutions that can bear almost any thing; on this account I would recommend to those who are so unfortunate as to have such horses, to use every exertion, as some cures have sometimes been effected; at least, a horse of good constitution may obtain a partial relief.

SYMPTOMS.

This founder may be easily distinguished from any other by the manner in which the horse stands, and its affecting only the fore legs, except when the attack is so violent as to affect every part, as is sometimes the case. He will stand with his fore feet twelve or eighteen inches apart; is remarkably stiff in the fore legs; breathes badly, and has a continual uneasiness in the chest, which is occasioned by the disease being seated
in the lungs. On dissection, it is found that the heart and liver are considerably enlarged, so much so that they have not room to perform their ordinary functions. The liver, lungs, and surrounding parts, are all covered with large brown spots, and are considerably inflamed.

CURE.

If a cure can be made, it is by bleeding immediately, and repeating it every other day for a week, taking at each time as much blood as you think he can bear; keep his bowels open by giving a pound of salts every third, and a dose of senna every second day. His drink should be spicewood, sassafras, flaxseed and elm tea, with small quantities of nitre added occasionally; his food nourishing, and in small quantities. Rest is indispensable in this case.

CORNs.

This disease is not very common; but as it sometimes happens by bad shoeing, it may not be amiss to mention what it is, and how it may be cured. They are known by lumps making their appearance inside of the heel, and which,
when suffered to remain, become painful when pressed by the shoe or otherwise.

CURE.

Cut them off as close as possible with a sharp knife, and bathe them with spirits of turpentine: two or three times is sufficient.

COUGH.

If your horse has a cough, take a reasonable portion of blood from the neck vein about twice in the course of the first week, and give him every night half an ounce of nitre, half an ounce of the cream of tartar, and half an ounce of liquorice, and keep him dry and warm.

CHOKED.

(Substances stopping between the mouth and stomach.) Accidents of this kind are extremely dangerous and very common, on account of the want of attention in feeding—for I never knew a horse to be choked in any other way but by piling the food before him when very hungry; in which
case, it should always be given at first in small quantities, and that wet. When this accident happens, we should endeavor to extract the obstructing body, if large enough, by pressing the thumb and finger on each side of the oozens, and slipping it up; if this cannot be effected, then endeavor to press it down so as to force it into the stomach: but if you should fail in these attempts, recourse must be had to swimming, in which act you will discover every nerve and muscle in him put in motion; the parts so contracted, and the motion, will have a tendency to force every thing that may be lodged in the way, upwards. I have known, in extreme cases, substances forced down by fastening a sponge or a soft mop, to the end of a smooth limber stick, or a piece of lead made long for that purpose.

CURB.

This disease is known by a swelling of the great sinew below the hock, and extending downwards. Great stiffness, and sometimes lameness, is occasioned thereby.
CURE.

Draw a line down the middle of the curb; and afterwards apply the blistering ointment, giving him rest.

CRACKED HEELS.

The Cracked Heels are cured first by poulticing the parts with roasted turnips, cow manure or bran and lard, mixed. After poulticing sufficiently, anoint the crown of the hoofs and heels with tar and tallow, or spirits of turpentine and tallow when quite warm, every day or two until well.

CHOLIC.

Man is subject to several different kinds of cholics, such a flatulent, bilious, nervous, &c. &c. Among horses, it appears to be confined to the flatulent and nervous alone, more especially the former. It is a disease to which the horse is very subject, and often proves fatal in consequence of improper treatment. The causes are various: as improper feeding, watering or riding, or the want
of energy in the stomach and bowels, which occasions a spasmodic construction of the intestines and a confinement of air.

Sometimes the pangs of the cholic appear so excruciating, and the symptoms so violent, as to alarm generally those who are unaccustomed to it, and cause them to be apprehensive of dangerous consequences; but by using proper remedies the cure will be made easy, and the animal speedily relieved from his painful situation.

SYMPTOMS.

Great restlessness and uneasiness, frequently pawing, often looking round at his sides, voiding small quantities of excrement, groans, lies down, rolls, gets up again, and sometimes for a moment appears to find relief; but the pain returns with double violence, his ears are cold, the roof of his mouth is pale, and he often sweats about the flanks and shoulders.

CURE.

Take from the neck three quarts of blood: take an ounce of laudanum and one pint of good spirits, (apple brandy is best,) or if the laudanum cannot be had, a gill and a half of the spirits of turpentine may be used in its place.
Or, take a quarter of an ounce of camphor, a gill of the spirits of turpentine, mix them in a quart of mint tea and give it as a drench. In either case, an injection is necessary to insure relief, and should be made of two table-spoons full of the spirits of turpentine, half a pint of oil, and one quart of weak ambier, given warm.

Put the horse into the stable, cover him well, and place under him two large tubs of boiling water, with bitter herbs in it: this will make him sweat profusely, and relieve the pain.

CRIB BITING.

Crib Biting is perhaps the worst practice that is brought on a horse by habit, and is very ugly, disagreeable to the owner, and more injurious to the horse than any other habit.

It consists of his catching hold of the manger or any other hard substance within his reach, grunting, and sucking wind until he is perfectly full. To discover this abominable practice, it is only necessary to tie him near a fence or any other place where he can conveniently reach and bite. Whenever this habit is acquired, it is practised as long as the animal lives: but I cannot
agree with Mr. Mason, when he says, "many experiments and fruitless attempts have been made to remedy it, but without success, and the most elegant horse, when he once becomes a crib biter, is reduced in value to little or nothing; he always looks hollow, jaded, and delicate; is incapable of rendering service in any situation."

As before observed, I agree that the habit is never left off entirely—but I know, that by fastening a broad collar around the neck, as tight as possible, so as not to occasion uneasiness, it will prevent them in a great measure from sucking, as it prevents the neck from swelling, bending, or expanding, as it otherwise would do; this method occasions an uneasiness when biting and sucking, and causes the practice in a great measure to be discontinued. By adopting this rule, I have known many horses to be made fat, and perform well.

DROPSY.

The Dropsy is a preternatural swelling of the whole body, occasioned by a collection of watery humour by reason of the very thin and impoverished state of the blood. It may be brought on
by various kinds of bad treatment, or bad management.

Injudicious bleeding and purging beyond the strength of the animal, is very likely to terminate in a dropsy.

**SYMPTOMS.**

The symptoms are a soft, cold, watery feeling, so that if you press your fingers against the skin, the print will remain for several minutes; the hair becomes rough, which invariably changes its colour, as from bay to dun, from black to the colour of rusty iron, &c.

Shedding the hair in spots, the urine thin and of a whitish colour, want of appetite, and a difficulty in breathing, are all symptoms of this disease.

**CURE.**

Although this disease is often brought on by purging, yet in order to effect a cure, it is necessary to cleanse the stomach and intestines by giving the following gentle purge:—Gamboge and precipitated sulphur of antimony, of each one-eighth of an ounce; aloes, half an ounce; rhubarb, one-sixteenth of an ounce; gum guiacum, half an ounce, and a small quantity of ground
ginger, given in three half pints of warm water, or what is much better, ale or cider, every other day for two weeks. In the intermediate days, give him three-fourths of an ounce of antimony in a pint of warm ale or flaxseed tea; and about the third week give one or two sweats, say one quart of strong Virginia snake root tea, one-fourth of an ounce of camphor, and a small quantity of the spirits of hartshorn; keep him dry and warm, and feed him on solid, wholesome diet in small quantities, moist and warm.

DIABETES.

The diabetes is a frequent and excessive discharge of urine, which often exceeds in quantity all the liquid food the animal takes; it is attended with great weakness, loss of appetite and flesh, with every appearance of decay and approaching dissolution.

It is frequently the result of old disorders, excessive fatigue, &c.

A horse of a weak constitution is extremely difficult to cure: but if his constitution is good, and the following remedies are applied when the disease first makes its appearance, the cure, by proper attention, may be rendered almost certain.
TREATMENT.

Take of opium, one drachm; asafoetida, two drachms; powdered ginger, two drachms; red oak bark powdered, one ounce; syrup of any kind sufficient to make it into balls, and give it for one dose; repeat this three times a week. The horse must not be permitted to drink as much water as usual, and what he drinks should have a small portion of salt thrown into it.

Or, if a drench should be preferred, take one pint of port wine, one pint of water, and one ounce of gum arabic; mix and give it as a drench three times a week till you find that the disease abates, then only as often as you may find it necessary.

Nourishing food, moderate exercise, and clean dry stables, will assist much in effecting a cure.

EYES.

Every one knows that the eye is the most sensible external member of the body, and should always undergo an examination by the purchaser with the greatest attention and minuteness. Nothing can more affect the value of the horse than the want of vision, which at once proves the necessity of using the greatest caution on this subject.
In the preceding part of this treatise, I have pointed out what is considered a good eye, and as it would be too tedious to give a full description of the anatomy of a horse's eye, the reader must be contented with a description of those parts and those diseases most familiar and important. The gutta serena, moon eye, weak and watery eye, &c. will be treated of separately in the following pages.

Nature has been as bountiful to those creatures as to man, in bestowing the same shield which their eyelids afford to protect this tender member from any inconvenience which might arise from dust, blows, or noxious insects. It is well known that the finest powder blown into the eye would cause the most excruciating pain that could possibly be imagined, for which reason I would caution all persons against the abominable practice of blowing composition of powdered glass and slate, &c. into the eye, which never fails to inflame instead of cooling and strengthening that member.

MOON EYES.

There is a periodical disease which we may observe in horses that attacks the eyes about
once in every four weeks, and is commonly called moon eyes, from the prevailing opinion that the affection increases or decreases with the course of the moon, as the eyes change their colour and vary in appearance monthly. Eyes thus affected, at times appear muddy, watery and dull, and at other times clear and good. When at the worst, the veins near the eyes and temples appear full, and generally one eye is much more affected than the other: therefore, it seems best to apply a remedy to the strong eye, and suffer the sight of the other to be lost as speedily as possible, as one never fails, from good management, to become good on losing the other.

CURE.

Copious bleeding, and bathing the eyes in cold spring water, gives temporary relief. The eyes of a horse that are wounded or injured by blows, flies, and other accidents, can always be distinguished from diseased eyes by a proper examination. When the eye is so inflamed as to close up, and appears too tender to bear any thing strong, use cold spring water as above directed. So soon as it will justify the use of medicine, which is commonly when it opens of its own accord, use the following
EYE WATER.

To one pint of clear spring water, add three drachms of the sugar of lead and two of white vitriol, and apply one or two drops to each eye, morning, noon and night, with a feather or linen rag. Tar water is an excellent remedy for sore eyes.

If a film is observed to grow over the eye, which must be the case before it heals if the eye has received a wound, take of double refined loaf sugar, salt, and white ginger, of each an equal quantity—grind them to dust, and place a small quantity in a quill and blow it in the eye every other morning until the film disappears: using at intervals the eye water above directed, and weak salt and water.

FARCY.

The Farcy is a kind of leprosy or creeping ulcer, caused by the corruption of the blood and other juices, and is as much to be dreaded as any malady to which a horse is subject. It is contagious in the extreme, and if not cured in the first stage, never fails to terminate in the glanders.
It sometimes makes its appearance on a particular part, whilst at other times it spreads its horrid ravages through the whole system. It begins in hard knots about the veins in various parts of the body, and sometimes spreading all over it. These knots soon turn into soft blisters, which ought to be opened with a lancet to keep the humours from returning into the system. These blisters discharge an oily ichor, and turn to foul spreading ulcers.

The poison of this disease, though sure, appears slow in its operation, as a horse will frequently linger and dwindle away for six or twelve months; and the ulcers will increase in number and size till the flesh appears almost disposed to fall from the bones before life is destroyed. The horse's appetite continues good during this disease, and he may be of some service to the last. His hair appears dead, and his eyes look sad and desponding.

CURE.

The Farcy, in its first stage, readily admits of a cure; but after running on for a length of time the cure is extremely difficult. To effect a cure in this distressing disease in the first stage, bleed three times the first week, taking half a gallon
of blood at each bleeding; feed on green wheat, clover, or other long food, (if to be had,) or oats, bran, and such other things as are easy of digestion; remove all filth from the stable, and take care to keep it neat and clean; give three mash-es of bran a week, scalded with sassafras tea, one table-spoon full of powdered brimstone, and one tea-spoon full of saltpetre; six hours afterwards place at least half an ounce of asafaetida in his watering bucket in a linen rag, nailed to the bottom, and give him as much as he chooses to drink out of the said bucket of equal parts of water and strong sassafras tea; this tea and water mixed, should be his constant drink. Place in his trough asafaetida, as directed to be put in his watering bucket. The ulcers should be washed well once a day in strong soapsuds, and after they are dry bathe them with the spirits of tur-pentine, and if swelled, apply an ointment of hog's lard and sulphur, or mercurial ointment.

The second week bleed twice, and if the horse is able to bear it, take half a gallon from him each time; give the same number of mashes as directed for the first week, and continue the same drink, taking care to renew the asafaetida when necessary. The third week bleed but once, and
take but one quart; in all other respects continue as before.

Moderate exercise twice a day, and a little hominy, should be given to keep up his strength and appetite. At the end of the third week, if the disease is only local, it will be removed.

If the farcy is epidemic, the cure is difficult, and will require more active medicine. In this case give a ball every night for a week, composed of twenty-five grains of calomel, a quarter of an ounce of powdered fennel seed, a small quantity of any kind of syrup, and as much of the crumb of bread as will make it into a ball; wash the buds or ulcers clean once a day with bluestone water, and rub them with mercurial ointment; a narrow pitch plaister should be laid on at the joining of the head and neck in the direction of a throat latch, (see plate,) for the purpose of taking off the hair, which will happen in two or three days; after which a lump of mercurial ointment about the size of a hickory nut, must be rubbed on the naked part amongst the large glands of the throat until it is entirely absorbed, every night and morning for one week; added to which, the treatment may be the same as before, with the exception that the drink should be blood warm: and whilst the balls are giving,
the sulphur must be omitted, as it counteracts the effects of the calomel and ointment; and he should not be bled. Great care should be taken to prevent his catching cold in any way while under the influence of medicine.

At the expiration of the first week stop using the balls and ointment for a few days, adding sulphur to the mashes, as directed in the first stage. At the end of the second week discontinue the sulphur and go on with the pills and ointment, continuing to change in this way until the cure is performed. Should his mouth become sore at any time before the expiration of a week, stop the balls, and add the sulphur to the mashes.

The farcy is so contagious that it often destroys every horse on a plantation, and leaves the farmer's plough standing still in the field. Some few years since, a gentleman in this county lost ten or twelve horses without being able to save one, although one of the best judges of a horse, and one of the most attentive men in the State to those useful animals. In every case it terminated in the glanders.

The farcy has been known to visit several farms in the United States with effects so dreadful as not only to destroy every one of the species without respect to age, but could not be di-

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verted from its stand, or completely eradicated, until stables, shelters, pens, litter, &c. were completely consumed and reduced to ashes.

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**FISTULA.**

The Fistula in the withers is most commonly produced by bruises from going in and out of low doors, bad hames, &c.

I have been surprised that farriers view this as one of the most disagreeable and difficult diseases to which a horse is subject.

Mr. Mason goes so far as to recommend to every person whose situation will admit of a sacrifice, to dispose of a horse thus affected, for whatever sum he will bring, or even give him away, sooner than be at the expense and trouble, and running the risk of performing a cure, which, if completed, would be tedious, and the horse much lessened in value in consequence of being disfigured by the scar, which unavoidably will be left.

I have been in the habit of curing, and seeing others cure this disease, for thirty years, and never knew a scar left where the disease was well managed, or a hair amiss.
True it is, when the cure is performed the horse's withers are sunk lower than before, and is what is commonly called crest-fallen; but this, in my humble opinion, disfigures a horse but little, if any; and sometimes helps his appearance, especially if he be what is called ewe necked.

**SYMPTOMS.**

This disease first makes its appearance by a swelling of the withers close to the points of the shoulders, and generally speaking, is confined mostly to one side.

**CURE.**

When this disease first makes its appearance, bleed copiously, and give him a pound of salts; then take an axe, or some other heavy well tempered sharp piece of steel, and after wetting and dividing the hair so that the skin can be seen from the head to the root of the tail, and from one ancle, over the withers, to the other, run the edge along slowly each way, taking care to cross about the centre of the swelling, pressing it so as to cut the skin nearly through the grain in every part: when you come to the swelling, hold your axe, or other instrument, on the centre, with
the edge so bearing as to enable you to feel with your fingers the inner skin or feel it give way and separate without cutting through the outer part.

This being done, across the swelling apply a bag of salt and Japan earth, as hot as he can bear it, then use the spirits of turpentine twice or thrice the first week, and once for two succeeding weeks, by bathing the part well; put a small rowel in the lower point of each shoulder, and there is ten chances to one if your horse is not well in a month—provided you do not use him, nor suffer the part to be bruised.

If, contrary to what might be expected, it should assume a formidable appearance, fomentations of bitter herbs should be employed in addition to the turpentine.

This application is intended to promote suppuration, and when the matter is sufficiently formed, make an incision of sufficient size to let the matter discharge itself freely, observing to range your lancet with the blood vessels and hair in such a manner as to avoid the former, and prevent making a greater scar than necessary by crossing the latter. After it has been running a day or two, inject into it strong soapsuds, and wash it until properly cleansed both inside and out. Then fill it with parts of oil and spirits of
turpentine twice in the course of the first week, often bathing and cleansing the parts with a strong decoction of slippery elm; after which wash it once a day with apple balsam and old apple brandy well mixed; keep the air and sun from it by applying a plaister of any kind of good salve over the wound, that being first filled with lint or soft tow dipped in the balsam. Continue this until well.

FEVERS.

Fevers in horses are generally produced by excessive labour, or the rays of the sun, or both. The symptoms are, a restless, heavy, dull look; swollen and inflamed eyes; strong, high coloured urine, and an immoderate loss of appetite.

CURE.

Moderate bleeding at the commencement of this disease, is of infinite service; the food should be light, and of a cooling nature, such as green wheat, clover, or other good grass or hay, bran mashes, &c. He should not be exposed to the sun, or bad weather; the body kept open by the following injections:
Take one ounce of senna, one handful of meal, a handful of salt, and a small quantity of camomile flowers or black snakeroot: add to them one quart of boiling water: when only blood warm strain it, and add thereto half a pint of sweet or castor oil.

DRINK.

To one handful of spicewood add one ounce of liquorice, one handful of Indian physic, one pennyweight of nitre, and half an ounce of wild cherry or dogwood root bark when dry, or double the quantity when green: put this into one quart of boiling water, and when cool, strain and give it as a drench once or twice a day, according to the fever. You may allow him as much cold spring water as he will drink, but it must be often, and in small quantities.

FATTENING.

It appears to be the opinion of a great many, that it is necessary for a horse to swallow a certain quantity of medicine before he can be fattened to advantage, while others rely on an uncommon or peculiar kind of food; but experience
has proven that both opinions are erroneous, and that the few simples which I shall here recommend, together with good rubbing and a particular manner of feeding, will accomplish the fattening of a horse in a short time. After preparing your stable in a proper manner, a thing that every one understands, and will do if he has industry, he must provide a sufficiency of good sweet corn, hominy, oats, chopped rye, bran and fodder; also, a sufficient quantity of straw to make him a comfortable and clean bed; then notice the condition of the animal for the purpose of bleeding in the neck. Should he be very poor, take from him only one quart; if in tolerable plight, two—repeating the bleeding every eight or ten days until he is fat. Take of the flaxseed one pint, out of which make one quart of strong tea; take of powdered brimstone one table-spoon full; saltpetre, one tea-spoon full; bran, one peck—mix them all together, scalding the bran with the tea, forming a mash, which may be given every eight days, not permitting the horse to drink cold water for eight or ten hours afterwards. Take of asafoetida half an ounce, wrap it in a clean linen rag, and nail it to the bottom of the manger in which the horse is fed;
at first he will eat unwillingly, but in a few days he will grow remarkably fond of it.

When you commence treating a horse kindly that has been cruelly used, it should be with great caution, to prevent founders or other injuries, those serviceable animals being too often hard used and half starved.

For three or four days he should be allowed from two to two and a half gallons of grain a day, six bundles of fodder, and the same quantity of hay: or instead of hay, a reasonable proportion of green wheat or red clover, if the season permits it.

After the third or fourth day, never permit the manger to be entirely empty, taking care to change the food every day, giving the largest portion in bran, viz: bran and hominy, bran and oats, bran and corn, bran alone, oats, corn, hominy, &c.

The food moistened occasionally with strong sassafras tea, has an admirable effect: it whets the appetite, enriches the blood, and opens the bowels.

Whenever a horse is fed, all dust, sour food, &c. should be removed from his manger, which should be washed twice a week with vinegar and salt, or strong salt and water; this kind treat-
ment will aid the appetite, and keep the manger sweet and clean.

If the season of the year affords green food of any kind, a tolerable chance of it three times a day, will greatly assist in the accomplishment of your object. Wheat and clover is preferable to any other green food.

Throw a handful of salt into his water at least three times a week—it will become very grateful to the taste after a few days' confinement, and will prevent him from eating dirt.

If the object be to fatten a horse as speedily as possible, and give him unusual life and spirit, he should not be brought out of the stable, not even led to water; but if you want him to render hard service, I would recommend moderate exercise every two or three days, carefully avoiding fretting or alarming him; more injury may be done to a horse by fretting him one day, than you can remove in a week by the kindest treatment.

The hoofs should be cleaned every morning and evening, stuffed with clay and salt, or fresh cow manure, to keep the feet cool and prevent a swelling in the legs. A plenty of good rubbing is absolutely necessary for placing flesh speedily on a horse; and a blanket or other co-
vering, at any time, except in the summer months, will give his coat of hair a beautiful gloss, and add much to his comfort and appearance.

FOUNDERS.

Having treated on the Chest Founder (the worst of all founders,) in a former chapter, I shall here point out the symptoms attendant on a common founder only, and prescribe such medicine, and the manner of treatment, as experience has proven to be most expedient and beneficial in this disease.

The injury sustained by a horse being foun-dered, is sometimes produced by the cruelty of his master, and at other times by injudicious treatment, but more frequently by carelesness or want of necessary knowledge in the treatment of those excellent animals.

Although the horse is endowed with great strength and powers, yet he seldom exerts either to the prejudice of his master; on the contrary, he shares with him in his labours, and seems to participate with him in his pleasures. Generous and persevering, he gives up his whole powers to the service of his master: and though bold
and intrepid, he represses the natural fire and vivacity of his temper, and not only yields to the hand and words, but seems to consult the inclination of his rider.

Must it not then be a matter of regret to every feeling mind, that these excellent qualities should be so often shamefully abused in unprofitable exertions, and the honest labours of this noble animal thrown away in the ungrateful task of accomplishing the purpose of an unfeeling folly, or lavished in gratifying the expectations of an intemperate moment.

A horse may be foundered by excessive hard rides, permitting him to get wet while hot and sweating, and drinking great quantities of cold water, eating large quantities of new corn and fodder, and then briskly exercised; over feeding with bran alone whilst performing hard labour; drinking plentifully at every branch when travelling; feeding with too great quantities after being half starved; violent exercise on a full belly; or not permitting a horse, when very hot, to cool before he has as much as he can eat, drink, &c.

SYMPTOMS.

The symptoms of an approaching founder are so few and so common, that the most ignorant
persons rarely can be mistaken. They are, great heat about the legs, pasterns and ears; a soreness in the feet, together with a great stiffness in his limbs; his flanks, and the lower part of his belly, draw up; his hide becomes tight; his legs thrown a little more forward than usual; swelling of the ankles, and a continual thirst, &c.

CURE.

So soon as you find that your horse is foun-dered, take at least a gallon of blood from his neck vein; give him one pound of salts in three pints of water, and if in the summer, spring, or fall season, let him stand for three hours up to his belly in water, after which, rub his legs until quite dry; clean out all his hoofs well, and fill them with cow manure, or clay and salt, and there confine it—this should be repeated every twelve hours. His constant drink should be one half sassafras tea, and the other half spring wa-ter; a handful of salt should be added occasion-
ally. Of this mixture he may be suffered to take as much as he pleases once in four hours.

Let all his bran and oats be scalded with sas-safras or spicewood tea, and if the season will permit it, his food should be mostly green wheat, clover, or some other green grass, for it has the
happy effect of opening the bowels and cooling the system. If he should not have mended very perceptibly before the next morning, take half a gallon or three quarts more of blood, and give him another drench. If he should have mended considerably, nothing more will be necessary, except being careful not to overfeed him. He should be fed on green food, his legs often bathed; and if there be no change for the better, bathe them in equal parts of strong vinegar, spirits and sweet oil; tie a cord just above his knees, and with a lancet, or fleam, bleed above the hoof in a vein that runs round the coronet: take from each leg one pint of blood, and continue the stuffing in his feet.

A horse in this unpleasant situation requires great attention. Whenever they are foundered, they search for a bank of manure to stand on, which should always be prevented, as its heat increases the fever.

A foundered horse is generally very much reduced in flesh before a cure is effected, and is always more subject to founder afterwards.

Large ridges on the hoofs, or turning up of the feet, are strong indications of old founders or other injuries.
GONORRHŒA.

This disease, so called, is properly a running at the reins, occasioned by too hard and frequent covering and spending upon mares.

SYMPTOMS.

It is known by a discharge of yellow matter from the yard, and a swelling of the penis: he stales with considerable pain, and can with difficulty draw up his yard when down.

When this happens, the speediest and most certain remedy is to geld him. If you should not think proper to resort to this method of cure, bleed him moderately, and give the following medicine made into a ball, one of which should be given every night: Take diapente, half an ounce; common turpentine, half an ounce; liquorice, half an ounce; and wheat flour sufficient to form a ball. At least half his drink should be slippery elm or flaxseed tea.

The sheath and penis should be fomented with the elm tea two or three times a day; a small quantity of the sugar of lead added once in a while, will not be amiss.
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GREASE.

This is a very common disease amongst horses in some countries. It arises from hard labour and bad, th gymlth dirt, and an an suffering the ankles, fettloc's settles to the quick and stinksy for a considerable. A kind of stinking stuff reman prevent this which heats the feet and legs to a degree that affects every part of the leg as well as the foot.

SYMPTOMS.

This disease is known by a swelling of the leg and heel, and a discharge of a kind of matter resembling grease, (from which it derives its name,) attended with a stiffness of the joints, which many times renders the animal unfit for service. Persons unacquainted with the management of a horse, suffer the hair to grow about the heels, under the absurd idea of its preventing the stones or flints from cutting or bruising them. This argument is so plausible to ignorant people, that they transmit it from sire to son. Could they be prevailed upon to keep the hair as short as possible on that part, they would soon be convinced of the advantages arising therefrom.
CURE.

The strictest attention should be paid to the keeping his legs and feet clean, by washing them every morning in soapsuds and scaldes. Let them dry; after which, rub them with the following ointment: Take one gill of tincture, four table-spoons full of powdered yellow me, one pint of lard, and one table-spoon full of powdered copperas; mix all together, and it will be fit for use—with which ointment anoint the part once every day for a week. Bleed him moderately, and give a mash of bran every night scalded with sassafras tea, to which must be added a table-spoon full of powdered sulphur; continue this one week, then add a tea-spoon full of antimony, cover him with a blanket, and do not suffer him to drink any thing cold for forty-eight hours. One dose of the antimony will be sufficient. Nothing more will then be necessary to keep the feet and legs clean, but by washing them twice a day with pot liquor. It might not be amiss about the time you first undertake the cure, to clean out the insides of the hoofs and fill one at a time with the spirits of turpentine, holding it up until it is absorbed.
GRAVEL IN THE HOOF.

This is an accident which happens to horses in travelling, occasioned by small stones or grit getting in between the shoe and hoof; and, by being pressed with dirt, sand and other things that follow it, settles to the quick, and then inflames and festers.

To prevent this disease, every person ought to have the feet of the horse that is in constant use cleaned out at least once every day. In scraping out the hoof, it will always be found that the dirt, sand, &c. gathers towards the toe, becomes extremely hard, and presses to that degree between the shoe and toe of the foot, as to occasion uneasiness, and if suffered to remain, makes a horse travel much worse than he otherwise would if that part was kept well freed.

CURE.

The first step is to take off the shoe, then ascertain where the gravel lies by pressing the edge of the hoof with a pair of pincers. After all the gravel has been removed, which may be known by a discontinuation of the blackness of the place, the wound caused by cutting for the gravel may be easily healed by melting together equal parts of beeswax, lard or oil, and rosin.
and pouring the mixture on the wound as warm as it can be borne without giving pain; then apply a little tar or pitch to a hot iron, hold it over the wound and its neighbouring parts until well covered—this will keep out the dust and defend the foot from any hard substance for a few days, in which time it will get well.

HIDE BOUND.

A horse is said to be hide bound when his skin will not slip under the pressure of the hand.

CAUSE.

Horses are sometimes hide bound in consequence of feeling the effects of some approaching violent disease, and is often a bad symptom; but generally, the tightness of the skin proceeds from poverty, cruel usage, or from worms.

CURE.

First offer better treatment by giving plenty of wholesome food, salt, and a clean stable, with fresh litter; then take from the neck vein half a gallon of blood; at night give a mash composed of one gallon of bran scalded with sassafras tea,
one table-spoon full of powdered brimstone, and one tea-spoon full of saltpetre, not permitting him to drink until the next morning.

On the second day, give him two table-spoons full of copperas, one quart of warm sassafras tea, and one tea-spoon full of saltpetre, as a drench.

Have the animal well rubbed three or four times a day, and in one week he will be relieved.

HOOKS, OR HAW.

This appears to be a nervous affection, and if allowed to continue long, will not only occasion blindness, but affect the whole system and terminate in a general spasmodic affection.

Much has been said about the best method of cutting the hooks, and as there are many who will not be convinced that there is any other remedy for this disease, after describing it, I will lay down the most approved plan of performing this operation.

The hooks in a horse, is the growing of a horny substance upon the inner edge of the washer of the eye, which may be found in the corner next to the nose.
When this disease makes its appearance, the washer is enlarged with great rapidity, and the ligament that runs along the edge of this membrane becomes extremely hard, and whenever it arrives to this state, it draws, compresses, and causes great pain to the eyes.

As the eyes of horses are often inflamed and diseased without their having the hooks; for the purpose of ascertaining the fact, stand before him, and with the bridle raise the head as high as you can: if he has the hooks, the washer of the eye, while the head is raised, will cover at least one half of the ball, which is not the case in any other disease.

CURE.

Take a common sized needle, with a strong thread, place on the horse's nose a twitch to prevent his moving, then between your thumb and finger take the washer of the eye and pass the needle through it about the eighth of an inch from the outer edge and inside the horny substance, draw it gently with the needle and thread until you can have a fair chance of performing the operation: then, with a sharp knife, cut the piece out taken up with the needle, which must not be larger than one-fourth part of a four-
pence half-penny; wash the eyes for two or three mornings with salt and water, and it is said the cure will be performed in a few days.

For my own part, I am not an advocate for the above practice, (as it never fails to weaken the sight and disfigure the eyes,) and have only, as before stated, laid down this method of cure to gratify those who will not be convinced it can be performed in any other way.

The powders and eye water recommended in cases of films, will alone have the desired effect.

Some horses have a nervous affection called the wolf teeth, which occasions the eyes to have very much the appearance of the hooks; this disease you will see explained under the title Wolf Teeth.

HUNGRY EVIL.

This disease can only be known from the rapid eating and large quantities of food it takes to satisfy the animal, which makes it extremely difficult to ascertain, in a country like this, whether a horse has this malady or not, there being a great many that are always half starved, and consequently eat as though they were diseased.
CURE.

The Hungry Evil proceeds from crudities in the stomach: therefore, purging is necessary to carry it off. After his stomach is well cleansed, give him every morning a lump of chalk in his feed about the size of a goose egg, and exercise him freely.

INJECTIONS, HOW TO GIVE.

As injections are very often the means of saving horses' lives, I shall here recommend the best and simplest mode of giving them.

First, rake your horse as directed in page 48; then take a large bladder and soften it in warm water; take a pewter pipe, common reed, or any other smooth tube, nine or ten inches long, and not exceeding one inch in diameter; pour the clyster through a funnel into the bladder, and securely tie the neck around one end of the tube; the other must be made perfectly smooth and rounding, well oiled, and introduced into the anus several inches; the liquid in the bladder must be forced through the tube by pressing it with both hands.

Great care is necessary to be observed in introducing the tube into the anus, to prevent hurting or alarming the animal.
LAMPASS.

This is a disease which all young horses are subject to, and some suffer and decline very much before it is discovered: it prevents a horse from eating as fast as he otherwise would, which makes it necessary to feed him alone.

SYMPTOMS.

It is known by a swelling of the first bar of the upper palate adjoining the front teeth, which frequently rises above them, and prevents him from biting his corn off the ears, and grazing with dexterity.

CURE.

It is a common practice in this country to burn it down with a red hot iron, which almost every blacksmith has made for that purpose.

It is surprising to see such a barbarous and injurious practice recommended and followed by farriers themselves. Had these men been studious to devise the most inhuman methods of curing the diseases of horses, they could not have succeeded better in uniting art and cruelty together.

To cure this disease, it is only necessary to scarify the swelled part with a sharp knife, which
at once gives a temporary relief; then take half a pint of vinegar, one table-spoon full of salt, one gill of sweet oil, and half a gill of the spirits of turpentine: mix all well together, and anoint the swelling with a sponge or linen rag dipped in this mixture three times a day, as warm as the horse can bear it—in a short time the swelling will disappear.

LETHARGY.

When the chyle is too quickly converted into blood, which is propelled through the left ventricle of the heart, by the different canals, to the various parts of the body, the quantity thereof will be increased, and will become too thick, which will consequently occasion a dull, heavy, and sleepy appearance.

CURE.

Lessen the quantity of blood by one or two copious bleedings, and thin it by giving the following ball every night till you find the disease abates, viz: Linseed, powdered, half an ounce; the same quantity of cardanum seed; forty grains of calomel; sixty grains of Peruvian bark; and
half an ounce of rhubarb: make this into a ball by adding a sufficient quantity of the spirits of lavender.

This medicine has a wonderful effect on a horse; it is calculated to enliven him, as also to thin and sweeten the blood.

Warm bran mashes should be given once or twice a day while he is taking the medicine, and prevent his sleeping as much as possible by moving him about and blowing snuff in his nostrils.

LAXITY

Is a flux or running of a thin watery matter from the intestinum rectum, and is very frequently the effect of a preceding costiveness.

A looseness will frequently happen when the pores of the skin or other customary evacuations are suddenly stopped, by which means the animal juices obtain a putrefactive and corrosive quality, which causes a scouring discharge of the excrements; after which, a running of the before mentioned matter will ensue—which matter, if forced from the gall duct, will be of a yellowish, and sometimes a red colour.
Instead of stopping this disease on a sudden, it should rather be encouraged by gentle purges, to render this discharge regular and uniform; after which, the acidity of the stomach (which is nothing more than the profusion of bile,) must be corrected and destroyed by degrees with alkalies and absorbent medicines, viz:

Take one ounce of rhubarb, one gill of linseed oil, and one ounce of liquorice, mix it in a quart of elm tea, and give it as a drench: his constant drink should be weak elm tea.

The following clyster should be given once a day: Lime water, one quart; red oak bark, one handful; boil them together, strain and give it as other injections.

Or, one quart of the tea of dewberry root, with half an ounce of Castile soap dissolved therein.

MALENDERS

Are cracks situated on the inside bend of the knee, which discharges a thin, sharp, watery matter: are painful, causing great stiffness, but not difficult to cure.
CURE.

Wash the parts with copperas water; and after it dries, wet it with pot liquor twice a day, and the cure will soon be performed.

MANGE.

This appears to be a disease of the skin, and is in horses something like the itch in persons. No disease is more infectious; it has been known to be taken by carrying a horse into a stable where one has been with that disease: in fact, he will be almost certain to take it in that way unless the litter has been removed and the stable well cleansed and aired.

The burning of sulphur, vinegar or tar, in the stable, after it has been cleansed, will be of service.

SYMPTOMS.

The skin becomes rough, thick, and full of wrinkles, especially about the mane, tail, and thighs; the greatest part of the hair on those parts shed off, and the little that remains stands up like bristles.
The cure in this disease, by proper attention, is rendered both safe and easy.

First, bleed him copiously: then make an ointment of hogs' lard and powdered brimstone, and anoint the parts affected twice a day; give about three bran mashes scalded with sassafras tea, with a reasonable portion of sulphur and saltpetre added thereto, in the course of a week; keep him in a clean stable, and have a nice straw bed for him to lie on; rub him regularly and well, and the cure will soon be effected.

MOULTEN GREASE.

This disorder so seldom happens in this country that it scarcely deserves a place here; over-fat horses only are subject to it.

SYMPTOMS.

It is known by a discharge of an oily matter with the excrescence, and by a restlessness, frequent strainings, &c.

CURE.

A cure is made in this disease by moderate bleeding and purging, a moderate and regular
manner of feeding, and constant exercise, in a walk only.

Give a ball once a week, made of three-fourths of an ounce of aloes; half that quantity of antimony; about the same of rhubarb; and a teaspoon full of powdered ginger, with any kind of syrup: continue this for one month.

Take of cream of tartar half an ounce, the same quantity of Japan earth, and one ounce of nitre; make this into a ball by adding honey or syrup, and give one morning and evening, except on the days you give the above purge.

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OSSELETTS

Are occasioned by the same treatment, and are of the same nature as splents, and are very frequently taken for the same thing; they are, however, somewhat different, for splents are situated near the knees, and osseletts near the fetlocks.

CURE.

Excite the parts by rubbing with a round stick until they feel warm, then apply the blistering plaster as directed in the case of the spavin; after the blister is cured, use the spirits of turpen-
tine one day, and warm salt and vinegar the other, rubbing it twice or thrice each day with a round stick until well, as before directed.

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POLLEN EVIL.

This disease, like the fistula, proceeds from some external injury, and its consequences and manner of treatment is much the same.

It is an abscess or swelling found immediately on the poll, or nap of the neck, and from first to last, should be treated in every respect like the fistula.

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QUITTER BONE.

This is a little round, hard swelling, situated at the coronet in the inside of the hoof; it is generally attended with lameness, and if neglected too long, will break, and ulcerate the foot.

CURE.

Open the place with a lancet or knife, and put a little oil of vitriol into the incision, which will so eat and separate the flesh from the bone, that
you may without difficulty extract it with your finger and thumb; if you find the vitriol eats too much, put a stop to it by pouring on cold water.

After the bone is got out, heal up the wound with a salve made of equal parts of turpentine, oil, and the yolk of an egg.

RING BONE.

This disease partakes of the nature of the spavin, and proceeds from the same cause. It makes its appearance on the lower part of the coffin joint.

It is a hard boney substance, and generally reaches half round the ancles like a ring, from which it takes its name. It gives the ancle an unusual appearance, and causes both stiffness and lameness.

CURE.

This disease is easily cured if attacked when it first makes its appearance; as it continues longer and grows larger, it becomes more and more obstinate.

The same conduct must be observed as in the spavin. See page 55.
RUPTURE.

When the thin caul which holds up the entrails is strained or broken by an overreach or blow, the intestines will descend with a soft yielding swelling towards the hock, which is termed a rupture.

CURE.

The parts must be fomented three or four times a day with emolient herbs. His drink should be elm tea, and meal and water; his food in small quantities, and cooling.

Apply a large strengthening plaster over his loins, and let it remain as long as it will stick. A soft bandage will greatly assist in effecting a cure.

RAT'S TAIL.

This disease is known by a kind of channel which makes its appearance on the horse's hind legs, (for it seldom appears on the fore legs,) extending upwards from the fetlock to the hock, by the hair separating to both sides. It sometimes occasions a stiffness, but not often lameness.
CURE.

Rub the part well with a round stick, and anoint it with the spirits of turpentine two or three times a week.

SIT FASTS

Are occasioned by the part being frequently bruised with the saddle until it becomes hard and of a horn appearance; the gristle that always attends this complaint will continue to grow under the skin (if the animal is used,) until a remedy is applied. I have known it to extend six inches downwards on each side from the back bone.

It is really surprising that many persons will not be convinced that this complaint can be cured without the use of the knife.

I have many times purchased horses thus diseased at reduced prices on that account, and never yet failed to make a perfect cure without cutting or burning, or losing one single day's service on that account. It is true, I always put them to work in preference to riding, there being less difficulty in using them without bruising the wound, which must never be done. The gear
can always be placed on so as not to touch the sore.

If it should be necessary to ride a horse in this situation, have a good pad provided to go under the one belonging to the saddle. Before you use this false pad, cover the whole of the swelled part, including the gristle, with flour; place on your pad as if you were going to ride, press on it with your hand so as to make every part touch; then take it off and gently turn it over; you may then plainly discover where the pad covers the sore, which will enable you to ascertain precisely where the pad wants cutting—then cut the piece entirely out where the pressure of the pad or saddle might prove injurious. This being done, quilt your pad around the hole thus cut to prevent the stuffing from falling out or gathering in knots, always placing this pad under your saddle when you are going to ride, until the back gets entirely well.

CURE.

Bathe the sore well with the spirits of turpentine twice the first week, then once each succeeding week for two weeks. After the third week, wash the sore well every other day with equal parts of strong vinegar and spirits of turpentine,
with as much salt as can be dissolved therein; continue this two weeks: after which rub the parts often, but not so as to bruise them, and in one week more the cure will be perfected.

SORE TONGUE.

This disease first made its appearance in Virginia about the year 1807, and appeared to have been brought from the western States; how long it has existed in other States, I am not able to say. It is a most contagious malady, and for the first year or two did much mischief on that account. Although the disease itself, when properly managed, seldom proves fatal, yet the consequences are often troublesome when badly managed, and seldom fails to reduce a horse's flesh.

SYMPTOMS.

When a horse is attacked with this disease, he fails to eat as before, on account of the extreme soreness of his tongue, and sometimes of the roof or palate of his mouth; there is a continual dripping from the lips, and on opening his mouth, his tongue will be found indamed and full of sores.
CURE.

Give him salt to lick (in small quantities,) two or three times a day; if he will take it wash his mouth with alum water every morning; and in the evening, anoint the sores with equal parts of spirits of turpentine and sweet oil.

His food should be bran, hominy, green hay, or stemmed fodder, softened in weak salt and water, or any thing that is soft, to prevent his falling off.

I have known a horse kept fat in this disease by having corn meal mixed in all the water he drank.

Wrap the bit of his bridle in a linen rag, in which enclose a small quantity of saltpetre and liquorice, and occasionally put it on and let it remain a few minutes, and the cure will soon be made.

SALENDERS.

This disease differs but little from that called the Malenders.

The Malenders are situated on the inside bend of the knee, and the Salenders, on the inside bend of the hock.

Their method of cure is precisely the same.
STIFLE.

This disease takes its name from the joint that is affected, and is the dislocation of the stifle joint; the bone is more easily reduced in this joint, and consequently more easily cured, than any other belonging to the whole anatomy of the horse.

It may be mistaken for a hoof founder, as the lameness occasioned thereby has greatly the same appearance unless closely examined.

SYMPTOMS.

So soon as the accident happens, the animal becomes quite lame, and is unwilling to bear on that foot, resting it on the toe and bending the stifle joint.

CURE.

To reduce the bone and effect a speedy cure, you must have a shoe made and put on the foot of the well leg in such manner and form as to compel him to stand altogether on the diseased leg, this being the only certain means that can be made use of, except ham-stringing, to compel him to bear on the sore side.

When his weight falls on the diseased leg, place your hand over the round bone that has slipped
out of its socket, and press it gently in until you feel it return to its proper place.

The shoe should be made in the usual way, with two bars extending across each other opposite to the centre of the hoof, forming a point about three inches below the frog, so that his foot will turn whenever pressed on.

This is all that is necessary in the complaint, except bathing the part with the mixture recommended in strains; the cure will be performed in nine or ten days, when the shoe may come off.

STRAINS.

All kinds of strains, whether in the shoulder, back, sinew, or any other place, are occasioned by slips or blows, and are the relaxing, overstretching, or breaking of the muscles or tendinous fibres.

A strain, unless uncommonly bad, may be cured in a short time by applying the following remedies:

CURE.

Take of the oil of turpentine one gill; one pint of sharp vinegar; half a pint of spirits, and
one ounce of camphor; mix them well together, and bathe the injured part twice a day; wrap a piece of flannel wet with the mixture around the part, and bleed him.

This mixture is good for spavins, and many other diseases.

Or, take of opodeldoc about the size of the end of your finger, and rub on the strained part with the naked hand twice a day until the hand becomes dry.

In all cases of strains, rest is necessary; and if continued a sufficient length of time, nature herself will perform the operation.

If the weather will permit, the animal should run in a lot separate from any thing else.

SCRATCHES.

This disease is brought on in many different ways: such as hard riding; dirty stables; founders; legs left wet at night without being rubbed; standing in his own manure, or in mud, &c.

This disease is so well known, that it is thought unnecessary to say much about the symptoms here. I shall, however, point out the most common, which is a swelling of the legs, attended
with considerable inflammation, and a roughness over the skin, so much so, that when you rub your hand over the part it feels as if there were hundreds of shot sticking in the skin, and is attended with great stiffness.

If permitted to run long without any remedy being applied, he will scarcely be of any service.

Although this disease may discover much inveteracy, the cure ought not to be considered difficult.

CURE.

Take from his neck vein from half a gallon to a gallon of blood, (according to the size and condition of the animal,) and give him a mash twice a week of one gallon of bran, one tea-spoon full of saltpetre, and one table-spoon full of powdered brimstone. Take great care to keep your stable dry and nice from the commencement to the end of the cure.

Wash his legs all over with strong soapsuds, observing to get all the scabs and lumps entirely off them; after which rub them until dry, then bathe the inflamed parts (once only) with a strong decoction of red oak bark, to which may be added a reasonable portion of alum and bluestone.
Six hours after, take of powdered brimstone, spirits of turpentine, and hogs' lard, of each an equal quantity: mix them well together, and anoint the parts twice a day for one week; then wash them well once a day in liquor that bacon and greens have been boiled in, and the cure will soon be effected.

SWINNEY.

This is a disease that has become quite common in this and many other countries; and although fatal in its consequences if entirely neglected, is attended with no danger if properly managed.

SYMPTOMS.

It makes its appearance by a gradual decrease, shrinking, or wasting away of one or both shoulders, which occasions lameness if suffered to continue long.

CURE.

There are many persons in this country, especially the Dutch, who think this disease is cured by some kind of conjuration; and where people
expect things to act as charms, they are seldom persisted in a sufficient length of time to be of any real service. Those persons will not have any thing done towards effecting a cure, only at certain times of the moon; consequently, the poor animal is let to suffer for days, or weeks, as it may happen, until their supposed proper period arrives. It is reduced to a certainty, in my humble opinion, that this disease is brought on by strains, and ought to be treated as such.

First, rest is absolutely necessary to insure a speedy and permanent cure. Second, bleeding and rowelling is of infinite service in this disease. Then proceed as directed in cases of other strains for the first week; the second week, make an oil by stewing two hands full of red or earth worms in a pint of fresh butter: strain it, and add thereto as much of the spirits of turpentine as you have oil. Bathe the parts with this mixture, and rub well twice a day to the end of the second week, and you will have done all that is necessary.

SPLINT.

The Splint is a hard lump or excrescence that grows upon the fore legs of a horse just below
the knee. It is unpleasant to the eye, but seldom does injury unless situated on the back of the leg, and immediately under the large tendons, in which case lameness is always produced, and the cure rendered more difficult. The most favourable kind is painful, and sometimes occasions lameness whilst growing, but will get well of itself, except the knots. If the lumps should grow so large as to injure the looks of the legs, they must be removed by bathing with equal parts of hot vinegar and spirits of turpentine made strong with salt, twice a day, for at least one week, and rubbing the knots afterwards for ten minutes with a round stick.

Should the disease appear obstinate, and not perceptibly decrease in size in the course of a week, the parts must be shaved, and a blister drawn over each knot, then (as soon as healed over,) renew the mixture and rubbing.

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STRANGUARY, AND DISORDERED KIDNEYS.

The symptoms of disordered kidneys are the discharge of urine in very small quantities, in a dribbling manner, and is often attended with pain. Hard riding often occasions an inflammation of
the kidneys as well as retention of urine. When a horse's kidneys are disordered, he is almost certain to shrink from the saddle when it is thrown on him, and is certain to do it when you mount him.

CURE.

Take one gill of the spirits of turpentine, one table-spoon full of sweet spirits of nitre, and one ounce of loaf sugar: put them into one pint of elm tea, and give it as a drench every night.

In the morning give an injection of four tablespoonfuls full of castor oil, and one quart of gruel.

STRANGLES.

The Strangles is a disease that is incident to all young horses, and one which a horse seldom escapes until he is five years old.

It has long since been known in this country by the name of the common or colt distemper, and seldom, if ever, attacks a horse severely a second time.

SYMPTOMS.

This disease is known by a dulness of countenance; watery eyes; a distressing hollow cough;
high fevers; loss of appetite; the glands being enlarged between the jaws; and a constant thirst without being able to drink unless the water be placed as high as his head, in its natural position; after which, a swelling of the jaws and running at the nostrils, ensues.

CURE.

Take from the neck vein half a gallon of blood every other day for eight days; give two mashes the first week of bran or oats scalded with sassafras tea, and add thereto one table-spoon full of powdered brimstone, and one tea-spoon full of saltpetre.

Take of asafoetida half an ounce: divide it, placing one half in his watering bucket, (which he ought to take once an hour at discretion, in fresh spring water,) and the other half in his manger.

His food should be principally green wheat, clover, or grass, if to be had, if not, such as is light, cooling, and easy of digestion.

Elm or flaxseed tea may be given in the place of asafoetida, if his cough be bad; or, it may be changed and given alternately with a little saltpetre thrown into it, when the fever appears high. Should an abscess form under the jaws, (which
is very common,) a suppurating poultice ought to be applied; and when the matter is sufficiently formed, make an incision of a sufficient size to discharge the matter freely, fomenting it with a decoction of bitter herbs two or three times a day.

Moderate exercise, by walking him twice or thrice a day one or two miles, after the fever abates, and the running at the nose commences, will be beneficial. A pint of hemp seed, in the latter part of the disease, has been known to have a wonderful effect.

SURFEIT.

This is a disorder in the blood, occasioned by poor living, hard labour, and various other kinds of bad treatment or injudicious management. Sudden changes from heat to cold, unsound food, &c. will bring on this disease.

SYMPTOMS.

It makes its first appearance by innumerable quantities of small lumps under the skin, which can be felt before seen; after which they are visible to the sight, and the hair partially falls, or
is rubbed off by the animal, which has a constant itching. After which, a great number of scabs are formed, and some small ulcers, and unless some remedy be employed, the whole coat of hair might, in some cases, fall off; (in the place of which, the horse is covered with scabs,) or the little that remains will stand erect.

CURE.

Take from him in the course of the first week one gallon of blood, at different times; give a mash of one gallon of bran or oats; one tablespoon full of sulphur; one tea-spoon full of saltpetre; and one quart of strong sassafras tea, well mixed together, every other morning for one week—not permitting him to drink for six hours after.

In the intermediate days give him a quart of sassafras tea, with a tea-spoon full of saltpetre dissolved therein.

Let his stable be kept clean by frequently changing his litter, and do not permit him to get wet.

Take equal parts of hogs' lard and powdered brimstone, mix them well, and anoint the surfeited places once a day for a week, by which time
the disease will abate, and nothing more will be necessary but good treatment.

STRING HALT.

This is a disease that affects the hind legs only, and is occasioned by an over-strain or violent blow on the muscle.

SYMPTOMS.

This disease is known by an involuntary contraction of a muscle which draws one or both legs when the animal first moves off, almost up to the belly.

A horse thus injured is incapable of performing long journeys, although he may be rode short distances without appearing much fatigued.

Such a horse is very objectionable, being uneasy to the rider, and unpleasant to every person to look at when rode.

Good rubbing, and baths of warm vinegar and sweet oil, may afford momentary relief; but a permanent cure ought not to be expected if the horse is old.
THUMPS.

This disease is occasioned by bad treatment: and very fat or weak horses, especially the former, is almost certain to have it if rode or worked hard in extreme hot weather; and although a horse is better by not having this disease, he ought not to be considered of much less value if it has not been suffered to remain too long.

SYMPTOMS.

This disease is known by an involuntary motion of the flanks, and a noise which accompanies that motion like the beating of the heart, though louder.

CURE.

When you first discover that your beast is attacked with this disease, give him, at the first place you stop, a piece of chalk about the size of an unhulled walnut, pulverized and mixed well with a pint of good vinegar. Use him moderately, and feed him as you would a broken winded horse, repeating the dose of chalk and vinegar as occasion may require, and the disease will soon disappear, to the satisfaction of the owner.
AVIVES, COMMONLY CALLED VIVES.

The disease so called is a swelling from the roots of the ears downwards, between the jaws and neck, and most frequently attacks young horses.

CURE.

Moderate bleeding and gentle purging ought to be used as soon as the disease makes its appearance, together with emolient clysters, and the swelled parts rubbed with the following ointment, viz:

Hogs' lard, two ounces; beeswax, one ounce; spirits of turpentine, two spoons full; melt them together over a slow fire, then take a new laid egg and beat it to an oil, which is to be added to the other ingredients, stirring them together until they are well incorporated: rub the swelled part therewith twice a day.

WARTS.

There is a kind of spongy knot frequently found sticking to horses in various parts, called warts: they are extremely troublesome, and moreover disfigure the animal more than any other
thing that could happen to him, not to be dangerous.

CURE.

Take three or four horse hairs, and tie them very tight around the neck of the wart, making them still tighter every day till the wart falls off; then apply to the wound tow or lint dipped in alum water, for twenty four hours; after which, dress and heal it as other wounds.

WARBLES

Are little lumps or hard swellings on the back of a horse, commonly called biles; they are occasioned by heat, and seldom make their appearance any where but under the saddle. If they are neglected, they will burst and become sit-fasts.

CURE.

If you have occasion to use a horse in this situation, you should wash his back well in cold water every time the saddie is taken off; and at night bathe the swellings in hot vinegar and salt, and if not used too severely, they will soon disappear.
WOLF TEETH.

The disease called Wolf Teeth appears to be a nervous affection, and injures the eye more than any other part.

SYMPTOMS.

The eyes become weak, watery, and inflamed, if suffered to remain without a remedy. As this disease has become quite common, it is necessary to examine well the upper palate of the mouth in order to distinguish it from other sore eyes; if you discover a small tooth on one or both sides of the roof of the mouth just below the masticating teeth, it plainly proves he has this disease.

CURE.

The teeth which make their appearance in this way are easily extracted by a punch, or nippers, which must be done instantaneously, it being the only thing necessary to effect a cure, except the common eye-water.

GUTTA SERENA

Is an abolition of the sight, without any apparent cause or defect in the eyes.
SYMPTOMS.

It may be discovered by the horse's raising his head and looking upwards when coming out of a stable, as if wanting a greater portion of light, and by lifting his feet high and putting them down cautiously.

CURE.

There is no cure for this disease when it is brought on by a decay, or wasting of the optic nerve; but when it proceeds from a compression of the nerves by redundant humours, these may in some measure be drained off, and the horse partially, if not entirely relieved.

For this purpose the body must be kept open with laxative mercurial pills. If the horse be young and fat, he ought to be bled. Scarifications, cupping, barring the lachrymal vein, and blistering on the jaws and poll of his head, have often been known to restore the sight: and anything that will promote a running at the nose, will be of service.

If these fail, recourse must be had to a mercurial salivation—or what will answer better, thirty grains of corrosive sublimate of mercury may be dissolved in about a pint of apple brandy, and about a gill taken twice a day, and one pint of
the decoction of sassaparilla taken after it, and use the eyewater as recommended in page 85.

GRAVEL, OR STONE.

The symptoms of this disease are, a frequent stretching, groaning, and fruitless attempts to pass water, and when discharged, it will be in very small quantities, with great apparent pain; a gradual decline, although the appetite may be good; dull, sluggish, and sleepy appearance; little or no fever; and much short of his usual spirits.

CURE.

If the horse is suffered to remain in this situation, he will linger and pine away until he dies: some remedy, therefore, should be immediately employed to carry off the small gravel or stones that are lodged in the bladder, which prevents a free discharge of urine, and produces the most excruciating pain.

The best remedy yet known in this disease is, marsh mallows, watermelon seed, and asparagus, (improperly called by some, sparrow grass;) take of each of these two large hands full, and boil
them in three quarts of water until reduced to one: then add a tea-spoon full of saltpetre, strain it nicely, and give it as a drench.

Take half a pound of fresh butter, and one large handful of red or earth worms, stew them together in an earthen vessel till they turn to oil: strain it, and anoint his sheath and penis well, also the large seam from the penis up, and pressing your hand on it lightly, stroke the seam downwards to the extreme end of the penis for at least ten minutes every hour until there is an urinary discharge, which ought to take place in three hours, or less; should this not be the case, the dose must be repeated. Should blood be passed, it will clearly prove that there is gravel in the urinary passage, but it need not occasion alarm. About a quart of the decoction of sycamore bark, with a tea-spoon full of saltpetre, has been known to give relief in this disease in a few minutes. It should be given warm.

Beat the yolks of four eggs to an oil, and give them in one pint of strong vinegar, and it will have a good effect.

A small quantity of shell lime should be put into all the water he drinks whilst in this situation, and let steep for some time, when it may be teemed off and given.
YELLOW WATER.

This disease has become very common in the western States, and being infectious, has been known to be carried in droves from one State to another. It is in a horse to all appearance what physicians term jaundice in a man, though it is not infectious in the human.

SYMPTOMS.

The nostrils, lips, tongue, ears, and bars of the mouth, turn yellow; some difficulty in stalling; the urine high coloured; and when discharged any length of time, has the appearance of blood; the excrement hard, dry, yellow, and sometimes of a pale green.

CURE.

Copious bleeding appears, from experience, to be one of the first and best remedies in this disease. Then take two quarts of lie made by dripping four times through half a bushel of nice hickory ashes; add thereto one pint of sweet or linseed oil; give about half a pint of this three or four times a day, taking care to keep him in a clean, dry, and dark stable, far removed from any other horse, as this disease is remarkably infectious. He should live principally on water.
thickened with meal, instead of grain; good fodder or hay moistened with sassafras or spicewood tea; or bran, wet with the same.

Or, take one ounce of asafoedita and four tablespoons full of camphorated spirits: put this into a pint of warm water and give it for about four mornings successively, and it seldom fails to perform a cure.

His bowels must be kept open by giving him rhubarb, aloes and senna, sufficient to operate, twice a week, with one ounce of Castile soap added thereto each dose. Moderate exercise occasionally will not be amiss.

GLANDERS.

This disease is contagious among horses, and is more to be dreaded than any malady to which they are subject.

It may proceed from bad management in the common or colt distemper, or from various other causes, especially the farcy; which latter disease, if not properly managed on its first appearance, is certain to terminate in this incurable malady; for, be the cause what it may, it is only necessary to know that it is the glanders to prove
to you that all your efforts to cure it will be abortive. Any person, therefore, who has the misfortune to get this disease among his horses, no manner how valuable they may have been, will save greatly by killing and burying them the instant they are known to have it.

**SYMPTOMS.**

The Glanders have at first very much the appearance of the common distemper, only the blood vessels about the glands of the neck appear much more full, become painful, and adhere to the bone. If the skin does not adhere, (which is in some instances the case,) but the glands are painful, it is a proof of its being the glanders. It is also to be remarked that the discharge is generally from one side. If you dip a rag into strong vinegar, and run it up his nostrils, the horse will sneeze if he has not the glanders: for if there were ulcers in his nose, he could not make so violent an effort.

It may also be tried by putting a bucket of clear water under his nose, and if the matter sink to the bottom, he is certain to have the glanders: if it swims, it is only thickened lymph. If the discharge is mixed with blood, or of a yellow or
greenish cast, you may readily conclude it to be fruitless to attempt a cure.

It will not be amiss to use the same medicine, and treat him in every other respect as if he had the strangles, until you are certain he has the glanders.

Even the glanders have been cured by salivating immediately on the appearance of the first symptoms, before the disease is confirmed.

LOCK-JAW.

This fatal disease has never occurred but once in my presence, and I think it a fortunate circumstance that it so seldom makes its appearance.

It may be brought on by trifling causes, such as the wounding of nerves, tendons, &c., though it is most often the symptoms of approaching dissolution.

SYMPTOMS.

A difficulty in mastication, followed by the jaws being closed and immovable, and a contraction of the muscles of the neck, attended with great pain, are the certain symptoms of this disease.
CURE

Although it is considered generally that this disease bids defiance to the power of medicine; from the case that occurred in my presence, I am confident the following well deserves a trial:

Take from the neck vein all the blood the animal can spare, to leave life; when he is about to expire, after fainting, the jaws fly open—then stop the blood, and give half an ounce of laudanum in a pint and a half of spirits. Ether and hartshorn may be given with success.

POISONS.

Every person ought, in some measure, to be acquainted with the nature and cure of poisons in both man and beast.

They are generally taken unawares, and their effects are often so sudden and violent as not to admit of delay, or allow time to procure the assistance of physicians or farriers. Happily, indeed, no great degree of medical knowledge is here necessary, the remedies for most poisons being generally at hand or easily obtained, and nothing but common prudence needful in the application of them.
The vulgar notion that every poison is cured by some counter-poison, as a specific, has done much hurt. Some people believe they can do nothing for the animal unless they know the particular antidote to that kind of poison which he has taken. Whereas, all poisons taken into the stomach, without exception, depends with the human on discharging them as soon as possible; and with brutes, by absorbing and passing them off.

I shall not take up the reader's time with a detail of the ridiculous notions which have prevailed among the ignorant people in different ages with regard to poisons; neither shall I mention the boasted antidotes which have been recommended either for preventing or obviating their effects, but shall content myself with pointing out the poisons most common in this country, and the means of avoiding their dangerous consequences in horses only.

Poisons either belong to the mineral, the vegetable, or the animal kingdom. Mineral poisons are commonly of an acrid or corrosive quality, as arsenick, cobalt, the corrosive sublimate of mercury, &c.

Those of the vegetable kind are generally of a narcotic or stupefactive quality, as poppy, hem...
lock, henbane, berries of the deadly nightshade, &c. The nightshade, poison oak, mayweed, &c. has no effect on a horse in the way of internal poison, but may affect the skin by being often rubbed on it.

Poisonous animals communicate their infection either by the bite or sting. This poison is very different from the former, and only produces its effects when received into the body by a wound.

Mineral Poisons.—Arsenick is the most common, and to the lower class of people best known; and as the whole of them are pretty similar both in their effects and method of cure, what is said with respect to it will be applicable to every other species of corrosive poison.

SYMPTOMS.

When a horse has taken poison sufficient to endanger his life, he suddenly becomes giddy and dejected, by means of the sympathy that exists and acts on the nerves of that organ and the large nerves of the head. The poison is then removed from the stomach (if no remedy be applied,) by the activity of the sympathetic and absorbent vessels, thrown into the circulation of the blood, diffused over every part of the system, and finally carried by the arteries to the lungs,
through which all the blood in the body of a horse passes many times in an hour, and undergoes a change. Should a termination of blood to the head take place, as is often the case where the animal is not properly managed in time, it produces the staggers, and a delirium that generally ends fatally.

CURE.

Copious bleeding two or three times the first week, will be found beneficial. Give immediately after the symptoms of the disease make their appearance, large doses of new milk and charcoal, (pulverized;) oil and charcoal; plantain juice and charcoal; and green plantain to feed upon if he will eat; salad oil, asafoetida, salt-petre and spirits, as a drench, changing them occasionally; give an injection composed of half a pint of meal, two quarts of water, one pint of molasses, and half a pint of lard; let the animal be well rubbed when standing, and give him moderate exercise every day; the injections should be repeated from one to three times a day, as may be found necessary.

He should be fed on bran impregnated with sulphur, nitre, asafoetida, camphor and opium. Oily or fat substances blunt the acrimony of the poison, and prevents its wounding the bowels.
After the poison has been evacuated, the horse ought for some time to be fed on such things as are of a cooling and healing nature, as bran, small quantities of green food, or fodder wet with sassafras tea, and any other thing easy of digestion. His drink should be flaxseed tea, spice-wood tea, and the tea of slippery elm.

*Vegetable Poisons*, when allowed to remain in the stomach, often prove fatal: yet the danger is generally over as soon as they are discharged. Not being of such a corrosive nature, they are less apt to inflame the bowels than mineral substances: no time, however, ought to be lost in having them discharged.

**Bites of Poisonous Animals.**

I shall begin with the bite of a mad dog: if it is not the most common, it is the most dangerous animal poison in this country.

The symptoms of madness in a dog are as follow:—At first he looks dull; shews an aversion to food and company; he does not bark as usual, but seems to murmur and howl; runs about and appears restless; is peevish, and apt to bite strangers; his ears and tail droop more than usual,
and he appears drowsy; afterwards he begins to loll out his tongue and froth at the mouth; his eyes seem heavy and watery, and turn red; he now (if not confined,) takes off, runs panting with a kind of dejected air, and endeavours to bite every person or animal he meets. Other dogs are said to fly from him.

Some think this a certain sign of madness, supposing they know him by the smell; but it is not to be depended on. If he escapes being killed, he seldom runs above two or three days before he dies, exhausted with heat, hunger and fatigue. It has been ascertained to a certainty, that the hydrophobia comes on by fits; that persons who have laboured under this deplorable malady, occasionally appeared quite rational, and many times would inquire what were there situation when the fit was on them; and moreover, dogs appear at times quite friendly and subservient, when all at once they become unmanageable and dangerous in the extreme.

Their seldom or never failing to return (if they are not killed,) to the place from whence they started, may be attributed to their state of mind, and a desire to return to their place of residence when the fit is off.
The animal labouring under this misfortune, if bitten in a fleshy part, and where there is no danger of hurting any large blood vessel, should have all the wound occasioned by the bite, and the adjacent parts, cut off with all possible dispatch. If this cannot be done, the part should be scarified, and in both cases washed with salt and vinegar, and pulverized charcoal and salt applied to the wound; this should be repeated for several days, after which a mercurial salve may be applied, and the animal salivated as directed in case of the farcy.

The next poisonous animals which I shall mention, is the Rattlesnake, Copperhead, and the Viper—these being the most common and dangerous of all the poisonous insects in the United States.

As the Rattlesnake is the most dangerous of all others, and as the same manner of treatment will apply to all, I shall here lay down the plan necessary to be observed in this most common, and often most fatal of all animal poisons, the mad dog excepted.

As soon as it is known the animal is bitten, give him a drench of an half pint of the juice of horehound and green plantain; scarify the wound.
and apply a poultice of pulverized charcoal softened with oil or lard; repeat the drench every day for three days, and in two hours after give a pint of spirits impregnated with pulverized charcoal. Nothing more will be necessary but to take about five quarts of blood from the neck vein at two different times.

Trifling as the charcoal may appear to some, it is reduced to a matter of fact, in my opinion, that nothing is equal to it to absorb poison, and nothing more proper to be applied externally or internally.

It must be observed in all cases where charcoal is used, that it must first be thrown into the fire and remain until red hot, then pulverized and sifted through a fine sifter or cloth.

The animal should live for some days on plantain and other green food, and bran scalded with sassafras tea—his drink, elm, linseed, sassafras, and spicewood teas.

With regard to poisonous insects, as the bee, the wasp, the hornet, &c., their stings are seldom attended with danger unless the animal should happen to be confined near a nest of them, and stung by a great number of them at the same time, in which case something should be done to abate the inflammation and swelling. Some for
this purpose apply honey to the part, others pounded parsley: but I have always succeeded very well by washing the part with salt and vinegar, and applying a poultice of slippery elm.

Poisonous vegetables abound almost everywhere, and often prove fatal. Such plants have no doubt their use, and they ought to be propagated in proper places: but as they often prove destructive to cattle, they should be rooted out of all pasture grounds, which might be done with but little trouble or expense.

WOUNDS.

No part of medicine has been more mistaken than the treatment or cure of wounds. Mankind in general believe that certain herbs, ointments, and plasters, are possessed of wonderful healing powers, and imagine that no wound can be cured without the application of them. It is, however, a fact, that no external application whatever contributes towards the cure of a wound, otherwise than by keeping the parts soft and clean, and defending them from the external air, dust, flies and sun, which may be as effectually done without medicine, as by the most pompous applications,
whilst it is exempt from any of the bad consequences attending them.

The same observation holds with respect to internal applications. These only promote the cure of wounds as far as they tend to prevent a fever, or remove any cause that might obstruct or impede the operations of nature. It is nature alone that cures wounds. All that art can do is to remove obstacles, and to put the part in such a condition as is the most favourable to nature's efforts.

With this simple view I shall consider the treatment of wounds, and endeavour to point out such steps as ought to be taken to facilitate their cure.

The first thing to be done when a wound has been received, is to examine whether any foreign body be lodged in it, as wood, stone, iron, lead, glass, dirt, sand, or the like; these, if possible, must be extracted, and the wound cleansed before any dressings be applied. After this is done, nothing more is required than the bringing the lips of the wound in contact by sewing it with a small needle, and strong thread or silk: about two stitches to the inch will be sufficient, and that must not be so tight as to prevent it from discharging the bruised blood, matter, &c.
Should the loss of blood be too great, the vessels must be taken up with a crooked needle, as directed in the chapter treating on surgical operations.

Cover the wound with lint or soft tow wet with equal parts of sweet oil and the spirits of turpentine, confined with a rag to keep out the dust and air, and to prevent the dust and flies from having any effect on it.
CHAPTER III.

SURGICAL OPERATIONS.

I have thought proper to give in this work a short description of the surgical operations practised on the bodies of horses, and the manner of treating them after the operations. As the same operations are practised on different occasions, and for different diseases, it would have been difficult to give them a suitable place in the course of this work: and we will have the advantage of seeing in abbreviation a species of surgery appertaining entirely to horses. I might have swollen this chapter by a larger detail, but being unwilling to advance or borrow any thing from others, even the best, whose experience (which is the surest ground on which to rest,) has not convinced me of their knowledge or skill, I shall content myself with making observations upon the operations that have been made in the presence of every body.
BLISTERING.

The application of blisters has become so common in this country, that scarcely any person is at a loss to know how to prepare a plaster, or how to manage a blister after it is drawn. The only difference in drawing a blister on a horse, from a man, is, that the hair must be shaved close, the part rubbed more, and washed with strong vinegar, or spirits made warm, and the plaster continued on longer. If any person should have occasion to use a blistering plaster who does not know how to make one, the following rule will answer:

Take about a quarter of a pound of tallow and two table-spoons full of the oil or spirits of turpentine, to an ounce of Spanish flies; mix them well together, and it is fit for use. If it should be too soft, add a little beeswax.

This mixture should be spread on strong linen, cotton cloth, or (what is better,) soft leather, of sufficient size to cover the part you may want to blister; let it remain twelve hours at least, and see that the animal is so confined as not to be able to bite or rub it off.

After the blister is sufficiently drawn, take off the plaster and let out the contents, then apply
cabbage or plantain leaves dipped in hot water, and repeat them as often as necessary, until the blister is done running.

SETONS.

A Seton should be made in the shape of a small cord, half tow and half hair, and introduced between the flesh and the skin, to give issue to injurious matters.

This operation is performed on various parts of the body, as on the poll, shoulders, jaws, &c. But the principal one being made at the shoulder, we shall easily discover the manner of performing the others without the necessity of pointing out the manner in which each separate one should be treated.

When we wish to apply a seton to the shoulder, we must begin by rubbing it with a brick, or any other hard substance, because the skin is by that means more easily separated from the flesh. When you have rubbed the part, cut a small place across the skin three or four inches above the junction of the elbow; then with a polished buck horn destined for that use, directing it towards the withers, rubbing around the
wound and towards it, that the coagulated matters may gather in that place; when your seton is introduced, make it fast by tying both ends together, but not so tight as to prevent its moving, which should be done every day for the purpose of cleansing and keeping the wound open.

It should be continued eighteen or twenty days, although some impatient persons who wish to see at once the evil or good effect of the operation, withdraw it on the ninth day: but experience demonstrates that in serious cases this term is too short. During the continuance of the seton, the horse should be fed on bran, hay or fodder, green food in small quantities, and his drink occasionally enriched by throwing a handful of meal and a spoonful of salt into it.

When this operation is performed on any part, the wound should be in proportion to its size.

This manner of operating is well imagined, because it attacks the disease in its principal, and gives vent to humours that might otherwise be pernicious.

The danger to be met with is a great ramification of veins spreading over that part, and which prevents the operation from succeeding under the hands of a person unless well acquainted with the situation and structure of those vessels.
But for this knowledge the horse might lose his life with his blood—for this misfortune is without a remedy. The effect of this remedy is to procure an abundant discharge of superfluous matter formed by bruised and lacerated fibres which are destroyed by the introduction of the seton between the skin and the frame of the shoulder.

The neighbouring parts are likewise greatly improved by the operation.

Bleeding.

Bleeding is one of those operations that are most often practised on animals as well as men. This operation is only an incision made in the vein for the purpose of drawing blood. As there are two kinds of vessels that contain it, to wit: the veins and arteries, this incision may be made in both.

Every part of the body is pervaded with veins and arteries, and every part would likewise be subject to the operation of bleeding if the smallness or bigness of the vessels did not reduce the operation to a few parts in which the vessels are of a moderate size.

The extreme ramifications of the vessels called capillary extremities would afford too little blood,
and the large vessels, such as arteries, would yield so much, and with such impetuosity, that it would be difficult to arrest its course.

I shall therefore reduce to the following number, or thereabouts, that of practical bleedings, or, at least, necessary ones. This operation is commonly made in the tongue, roof of the mouth, neck, arm, flanks, inside of the thigh, crown of the hoof, and tail.

Divers instruments are made use of for this operation: such as the lancet, fleam, knife, &c. The fleam is most in use, and is the safest in horse bleeding.

BLEEDING IN THE NECK

Is the only operation in which ligature is necessary: for I do not speak of that which is made in the pastern joints when we wish to bar the vein for the purpose of drawing blood, which is done rather to secure the tying of the vein than for the sake of bleeding.

I would advise all persons in bleeding to have a large rope, sursingle, or leather strap, and to tie or buckle it as near the shoulders and withers as possible; in using the rope, many persons are
in the habit of making a tight knot on the running noose—this should be avoided on account of the difficulty in untying it in case of emergency, for it often happens that the horse faints under the operation. For another reason the rope, &c. should not be too tight, as it might cause the horse to stagger and fall by compressing the neck vessels too much.

If he have a bridle on, the bit should be kept in motion, that the working of his jaws may serve to swell the vein; if a halter be on instead of the bridle, the same effect may be produced by putting the finger, or a stick, in the room of a bit. When the vein is sufficiently raised, place your fleam firmly upon it, and if it has not a spring, strike with a crooked stick or bone sufficiently hard to make the incision at one blow; by striking too softly, we cut the skin without opening the vessel, and by striking too violently, we might injure the horse. Practice will point out a just medium, which books cannot indicate.

When you have drawn a sufficiency of blood, you must, before you close the incision, press lightly around it, (which is commonly done by running the rope over that made the ligament,) and with the fingers close the orifice and remove the calcinated blood.
It is best to use this precaution, because it sometimes happens that inflammations and sores are occasioned by neglecting it: the consequence of which might produce gangrene, especially in very warm weather. Then take the lips of the incision between the finger and thumb, run a pin through them as near the edges as possible, and wrap it with a few hairs wet with the blood; about the second day, or as soon as you can with safety, draw out the pin to prevent the scar from being too large, or remaining too long.

BLEEDING IN THE TONGUE.

All other bleedings are performed without a rope, even that of the tongue. This is done by drawing out the tongue cautiously, turning it a little, wetting it with a sponge, and cutting with a fleam or lancet any of the inferior veins. You may let it bleed at discretion, because the blood will stop of itself, the veins being small.

This is generally practised for the Vives.
BLEEDING IN THE PALATE.

Nothing is more common than this. Horsemen use it without asking advice, so soon as they perceive that their horses are uneasy, or refuse food. A sharp knife, pointed buck horn, or any other sharp instrument, is used in this operation, which they stick in the first, second, or third bar. This bleeding, if performed any farther, would be attended with danger, on account of the difficulty of arresting the blood:—when this accident happens, you must draw a cord or twine as tight as you can just above or on the incision, and tie it under the upper lip in front of his mouth; apply a little vitriol and flour to the wound, tie his head high, and keep him from food five or six hours. It is likewise used in the lampas, because it frees the vessels, whose fullness occasions the disease.

BLEEDING IN THE ARMS.

This kind of bleeding among farriers is considered to be the most difficult. We place no ligament for the purpose of swelling the vessel, because it is sufficiently apparent: but as this vessel easily moves, you must place the point of the fleam as nearly as possible on the centre of the
vein, and strike it a little harder than when bleeding in the neck, on account of the toughness of the skin; then you treat the incision as in bleeding in the neck. This is practised for strains and sprains either in the knee or shoulder, and other similar accidents.

**BLEEDING IN THE THIGH.**

In this case we do not wet the vein, because it is sufficiently apparent, and the skin is more tender. Cut the vein transversely or crosswise. To prevent being kicked in performing this and other operations on and about the hind legs, you should make some person hold up one of his fore feet.

This kind of bleeding is used for strains in the hips, hams and reins.

**BLEEDING IN THE FLANKS.**

Though this sort of bleeding is not so difficult as the preceding, nevertheless, it sometimes requires more time to execute it.
The vessel runs from the anterior to the posterior of the horse's belly, and appears at times very large, at others very diminutive.

When the vein is sunk, or small, you must wet the hair with warm water, using the fleam as in the bleeding of the arm.

There are, however, some persons who cut the vein crosswise without striking the fleam, by drawing or pushing it—but this manner of bleeding is more in use in bleeding the inside of the thigh.

Bleeding in the flanks is used for gripings.

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**BLEEDING IN THE TAIL.**

We bleed in the tail for a jar, or over-strain in the reins.

It is executed different ways—either by cutting a joint off, splitting the tail by a cross incision, or in the shape of the letter T, or pricking the tail from the sixth joint to the tip.

When a horse has a very long tail, you ought not to be afraid of cutting a joint or two, especially when it has a tendency to prevent the hair from coming out.
If it should bleed too much, the blood may be stopped by tying a twine tight around the bone as near as possible to the end of the tail, applying flour or tar to the end, or by searing; if the tail is kept strained up, it will prevent it from bleeding. If tied, the twine must be cut off as soon as it can be done with safety.

This kind of bleeding is also made use of for strains in the hips and reins.

BLEEDING IN THE CORONET.

This kind of bleeding is thought by farriers to be necessary in founders, strains in the hoof joint, &c.

In performing this operation, proceed as directed in the case of founders, page 100, observing at all times to bleed as near the middle of the crown or fore part of the hoof as possible, to avoid the tendon that spreads from the heel to the toe. Be careful not to cut too deep, on account of the danger of creating ulcers that might be troublesome. Should it continue to bleed more than necessary, it may be stopped by pulverizing a little salt and pepper and applying it to the wound, taking care to grease the hoof with an
equal portion of tar and lard to prevent an inflammation. The hoof should be kept clean.

BLEEDING IN THE LACHRYMAL VEIN.

This sort of bleeding, nowadays, is seldom performed, only when you wish to bar the vein.

All these operations are performed without tying: but the following, which is more painful and tedious than the preceding, generally requires that the horse be confined, as well for the security of the operator, as that of the horse and assistants.

MANNER OF GLANDING.

Horses whose glands are overcharged and hardened at the junction of the upper and lower jaws, ought to be glanded.

After having confined, tied, and suspended him as he must be, or thrown him, you must raise his head high by means of a rope; split the skin, making a longitudinal incision: then with your fingers, or a buck's horn made smooth and sharp, secure the gland and raise it, that you may know
where to cut the diseased flesh, carefully avoiding the veins, nerves, and arteries.

If, however, you have unknowingly made an incision in any of the vessels, you should tie it by means of a curved needle, threaded with waxed thread, running it under the vessel and embracing a little flesh (except the nerves,) in the ligament.

In lieu of a ligament, apply a little pulverized vitriol on a rag, but if the vessel can be secured, tying is preferable.

Dress the wound by washing it first with good old soap, then with vinegar and water; and if the flesh project out of the skin, you should put on it a liniment imbibed with vitriolic oil, and fill the wound with lint dipped in vitriolic water.

UNHOOFING.

Founders and many other accidents make it necessary sometimes, that a horse should lose his hoofs; but I cannot say that I am an advocate for the practice of loosening and taking them off in the manner practised by farriers, As a horse can be of no service without a hoof, I think it much the best way in this case to trust to nature to do the greatest part of the work.
The old hoof should be constantly kept cut as close as possible, not to make it sore; the outside well rasped, and often anointed with equal parts of the spirits of turpentine and sweet oil. A leather boot should be made just large enough to slip his foot in, and sufficiently long to fasten around the ankle. This boot should occasionally be filled with warm tallow for the purpose of keeping his hoof soft and clean; and as the upper part of the hoof is smaller than the lower, over which it has to come, the old hoof ought to be split in three or four places, from the crown downwards, to give room for a new one. This, in my estimation, is all that is necessary to do.

DIRECTIONS FOR GELDING.

On a slight view of this subject, it may be thought by some to be utterly impossible to make any extraordinary or useful improvement in a branch of surgery that has for many centuries been the necessary performance of thousands of persons.

Strange as it may appear, it is nevertheless true, that the danger in throwing horses and performing the necessary operation of gelding them,
as well as all other animals, has from a new discovery become plain, easy, and safe, as will appear from the following directions, to wit:

1st. Provide yourself with two sticks turned in a lathe out of strong, hard wood, six inches long and three quarters of an inch in diameter.

2d. Split these with a fine saw exactly in the centre, and make out of them a pair of clamps by hollowing the inside of each piece one inch and a half from the centre, with a gouge.

3d. Fill the hollows with soft wheat dough, and sprinkle that thick over with a powder made of two parts of corrosive sublimate and one of red precipitate; your clamps are now ready to fasten together, which do in the usual way at one end, leaving the other open for use.

4th. Provide a leather strap three inches wide and fifteen feet long, of good harness leather, doubled and made strong.

5th. Get three buckles with rollers sufficiently large to receive the strap.

6th. Get four sliders of the same size, or four other buckles with the tongues broken out will answer the same purpose, but they must also have rollers.

7th. Make a running noose at one end of the long strap: three inches from the end of the
noose fasten one of your slides, so that you will be enabled to fasten this end or noose around the right ankle of the fore foot, the slide in.

8th. Have three other straps eight inches long, and to each of these fix a buckle at one end, and a slide three inches from the buckle, as before: buckle these tight around the ankles, with the buckles out and the slides inside, and fasten your long strap to the right fore ankle.

9th. Run your strap through the slide on the right hind ankle, then the left, the left fore, and from thence to the right fore ankle, and you are ready to throw him on the bed of straw or soft ground, which you should have previously provided for that purpose.

10th. Step off in front of him, inclining somewhat to his left or near side, draw your strap with strength and dexterity, and in half a minute you will land him safely on his right side.

11th. Turn him on his back and draw your strap under and around the small of his back twice, and between his fore legs, and fasten it well. You are now ready to perform the operation, which is done in the usual way, with only this difference:—when you come to the string, do not scrape and draw it as is customary, (this practice is proven to injure and weaken the ani-
mal, and is more difficult to cure,) but seize it with one of your clamps, which fasten on well by tying fast the open end.

12th. At one cut take off the stone. Proceed in like manner with the other, and let the clamps remain on twelve hours, by which time he will not only be rendered safe from bleeding, but the parts will have mattered, and from the effect of the medicine, be in a good way to heal.

Nothing is more common than to use horses thus operated on, from the hour it is performed: but a few hours or days rest would be of service. The cost of the machine and medicine made use of on this occasion, ought not to be an object, as one strap, &c. will serve half a county many years.

BARRING THE VEINS.

This operation is only necessary to be performed when there is too great a profusion of blood at any one part, which has a tendency to keep up an inflammation and prevent a cure from being effected.

It may be performed two ways:—by fire and ligament. The veins may be barred in almost
every part of the body, viz: the lachrymal, the arm above the knee, the hock, the pasterns, &c.

When you wish to bar the lachrymal vein, put a rope around the horse’s neck to swell it, as it is a ramification of the external neck vein. Put your hand in his mouth to force him to use his tongue and jaws, which will facilitate the swelling of the vessel: then cut the skin longitudinally, and deep enough to discover the vein; loosen it as easily as you can by means of a buck horn introduced under it, and sliding it up and down about the space of an inch; thread the horn with a silk twine about the size of a shoemaker’s end, and waxed; make the first knot towards the neck vein, after which make an incision in the vein about a quarter of an inch from the ligament, then make a second knot next to the eye to stop the blood, anoint it once a day (until well) with rose oil, cream, or any thing else that will have a tendency to stop the inflammation.

The horse should be bled to diminish the quantity of blood, which might otherwise cause a considerable swelling.
PRICKING IN SHOEING.

This accident so frequently occurs, and the injury occasioned thereby to travellers and others is so great, as to make it necessary to use every precaution to guard against its effects, for which purpose every blacksmith should keep a phial of the spirits of turpentine at his shop, and when an accident of that kind happens, draw out the nail immediately with the nippers and fill the hole with the spirits of turpentine; by pursuing such a course, a very serious injury that might otherwise ensue, may be avoided, and the cost to each smith not amount to more than six cents a year.

I would observe that almost all diseases in the feet are more or less the result of bad shoeing; by wounding the muscles, veins, nerves, or arteries, in the way. Every clod-headed fellow who has acquired the name of a blacksmith, pretends to be well skilled in this art—but there are few indeed sufficiently skilled in that knowledge to make it even safe to trust a horse of value to their care for the purpose of being shod. How is it possible that an unskilful man can perform this operation without running a great risk of present or future injury? A smith must not only be careful and well skilled in his profession, but he should also be acquainted with the anatomy of
-a horse's foot, which is a thing that few of our smiths have any knowledge of: this, and this alone, has rendered many a fine horse useless. A nail which is rightly made should fit well the hole in the shoe after being driven, and only be of a length sufficient to come through the hoof from a half inch to three quarters, of a gradual taper from the head (which should be small,) to the point, and sufficiently small where it comes through the hoof to enable a man, before it is driven, to bend it between his finger and thumb.

FIRING.

There was a time when no remedy was so universally used as this in the diseases of horses; it was even in great repute in those of men: and it would be a question, perhaps not ill-founded, to know if the apparent cruelty of this remedy ought to have been a sufficient reason to bring it into disrepute. If modern surgery has perfected the dexterity of the hand for the boldest operations, it has perhaps lost by applying itself to the hand an infinite resource for treating a number of diseases which antiquity cured by the means of fire, and which modern surgery abandons as
incurable, or undertakes without success, notwithstanding the high degree of perfection to which it has arrived.

We must now proceed to the manner of applying the fire:

The fire is in use for the same reasons, and perhaps in the same cases for which we apply a seton—that is, when there is an extraordinary tumour caused by the extravasation of the juices which, by its continuance, may become corrupt, alter and even destroy a part, or by its removal embarrass its movement. Abundant suppurations, which are often accompanied or preceded by great inflammations, being much to be apprehended in the tendinous parts, which are about the joints, because those parts yield but little, and would become gangrenous rather than lengthen or dilate beyond a certain measure proportionably to their spring; for these reasons, I say, they have banished from those parts the use of the seton, which is only applied to the fat and fleshy parts in which all those accidents, whenever they happen, are less dangerous. Besides this advantage of the fire over the seton, there is another one to be considered, that is, that the fire has a dissolving tendency in itself.
It is not sufficient to give vent to juices that are foreign to a particular part; we must besides give to that juice, which is often thickened, fluidity, and the necessary facility to discharge itself through the aperture that has been made: this is what is called digesting or resolving a humour. Moreover, there are in all animal bodies matters of a peculiar nature, or which acquire that nature by their absence from their proper place: some of which become glutinous, others resemble tallow, wax, gum, or rosin, mixed with earthy matters. These matters can but seldom, especially when they have acquired some sort of consistency, be dissolved by the common remedies extracted from plants, and of which ordinary blisters are composed; the actual heat of fire (infinitely more lively than that of all those topical applications,) is much better calculated to dissolve those matters which embarrass the movements of the joints. This activity peculiar to fire, renders it one of the most efficacious of all remedies in the diseases of those parts. It contracts the fibres, (an experiment easily made by exposing a piece of leather to the heat of fire,) and consequently restores their spring, which, though in an imperceptible manner, are nevertheless in a perpetual act of contraction and relaxa-
tion. This action would be useless on juices thickened to a certain point: for that reason nature alone seldom cures those evils; but those juices being melted by the heat of fire, and the action being increased, the humour is dispersed, and returns insensibly into its means of circulation. The cicatrice which is left having hardened the neighbourhood of the tumour, serves as a barrier to prevent a new deposit. It is for this reason that fire, if it does not diminish the tumour, at least prevents its increase.

The action of fire has another advantage over the seton: it is more limited, penetrates no farther than you desire, and destroys nothing except on the exterior, only when it is used in opening abscesses, such as the pole evil, fistula, &c., in which case the destruction does not proceed from the fire, the depredation having been done before by the matter that we wish to take away. We do not always make an opening by the application of fire, the ordinary mode of doing it being generally superficial, pressing more or less, and moving the fire over a space more or less extensive, according to the extent of the disease and the shape of the part. It is for this reason that we sometimes apply only slight rays of fire, points, buttons, stars, &c. Sometimes, when the
disease is great, we make circles of fire: that is, the circle is first made with a knife, then rays, and with a sharp pointed piece of iron, also heated, we apply buttons between the rays. To apply the fire in all the different manners, we use divers instruments, to wit: pieces of money, knives, round and flat buttons, points, S's, according to the necessities of the parts. Some persons are scrupulous about the materials of which the instruments ought to be made; some pretend that they ought to be made of gold, others insist upon silver, some on brass, and the greatest number on iron or steel.

The fire of gold and silver is almost universally acknowledged to be too violent: brass would be milder, but smiths are more accustomed to know the just degree of the heat of iron, than of any other metal.

As to the divers modes of applying it, the situation and the shape of the part will determine its figure—for example, the veins are barred with the fire; and this custom is less painful and dangerous than the preceding; for fire does not cause so great an inflammation, particularly in the legs, which have sometimes been seen swollen to the size of a man's body, which never happens by the fire.
It is performed with the firing knife, making a cross or star on the vein, or drawing over it two or three little rays; by that means we may avoid the danger of the farcy, of which I have already spoken.

In this manner we bar the vein in the lachrymal, the hock, the arm, the thigh, &c.

Abscesses are pierced with points of fire, especially on the withers, the poll, for the poil evil, the loins, and those places in which I have said sit fists come, when there is a gristle. At the shoulder, for a strain or swinney, and strained hip, in which case it is made in the shape of a wheel, with any other marks inside the circle that the operator may think best.

When the hoofs are split, draw the letter S on the split part, so as to create a little sore, which will tend to re-unite the parts, and give time to a softer hoof to grow in the place of the decayed one. Where there is inflammation in the split, draw instead of an S, two little rays of fire on each side of it. The application of fire is beneficial in the salenders, malenders, and spavins, particularly the latter, in which it is indispensable.
There are many things to be observed in order to apply the fire with utility, which is generally a very efficacious remedy.

In the first place, the time is that of necessity, discarding those ridiculous notions of the course of the moon, or the position of other planets.

2d. It is proper, if there be inflammation in the diseased part, to remove it by means of emollient remedies, for fear of augmenting it by fire.

3d. You must never heat the irons in stone coal, because it heats too violently, and by its ardour eats up the knives, and indents them, whereas they must be kept even and smooth: use charcoal only. You must have several heated at the same time, that you may not be in want of them during the operation, and that you may finish it at once.

4th. They must be red, but not sparkle.

5th. Your hand must be light. Let it be understood, however, that you must press sufficiently to give the flesh a cherry colour, and not be contented with burning the hair only: but be careful not to sink the iron so heavily as to pierce the skin.

6th. You must not be impatient after firing, either on account of the dressing of wounds, or the success of the cure. I say on account of the
treatment, because you must not give him exercise if he has been fired in the legs, for several days after the falling of the scab, which seldom happens in less than two weeks, and is as long in curing. Also, you must not be uneasy about the success of the cure, for it often happens that the horse that has been fired for lameness, may go lame for six months, and perhaps a year after; but though the effect of this remedy be slow, it nevertheless operates with sufficient certainty: and if it remove not the disease, it will at least arrest its progress. After having applied the fire, rub the burn with oil and honey, or oil and turpentine, for ten or twelve days; after which, apply a plaster of fresh horse dung stewed in lard, and strained for use.

7th. The horse must be kept from rubbing or biting himself.

8th. If the fire act but little, or the wound closes too fast, you should bathe the rays of fire with a feather dipped in the oil of vitriol—this would make the effect of the fire more resolute and active.

9th. If the fire has made too great an impression, apply a poultice of slippery elm, or bathe the parts with a decoction of the bark of the same. Although I have said that there was no
precise time for the application of fire, and that necessity alone pointed it out, nevertheless, when you are at liberty to choose, especially in cases which are not very pressing, there is a considerable advantage obtained in preferring autumn, because the heat and flies being past, the horse is less incommoded by them. It would be well to keep the animal the whole winter in the stable, and at the commencement of the spring, bring him out in the dew, either in a pasture or meadow. Mares that have been fired, may be pastured in the spring, instead of stabling, as we are obliged to do with stallions. When this operation is performed on a horse of great value, we ought not to regret the length of time he has been in idleness; in the sequel he makes up for this loss by his labour, and we hardly ever see any accidents happening to the parts to which fire has been applied.

DOCKING.

The docking of a horse is an operation so simple, and so often practised, (and seen by every one,) as to require but little skill or judgment in its performance; it is best, however, to have the
tail well strained up and turned over his back, and not to take it entirely off at one blow, but cut through the skin and tendons to the bone, which will draw from an half inch to an inch on being cut: then cut through the joint as far from the end as you can, and even with the flesh when drawn: tie this fast whilst strained up, with a twine, or waxed end, then sear it with a hot smooth iron, and it is two to one if he does not carry a high tail afterwards; on the second day cut off the twine.

Before you commence this operation, and all others of the same nature, it will be well to fasten what is commonly called a twitch around the upper lip of the horse, but not so high as to prevent his breathing, and let some strong person hold up one of his fore legs to prevent his kicking, or doing other injury.

The place should be kept greased until well, which will be in a few days afterwards. When a horse is docked, the same tendons, arteries and nerves, are separated as in nicking; but it is very rare that a horse’s life is endangered by performing this operation.
This barbarous practice, as far as my acquaintance extends, is entirely out of fashion. I shall therefore omit giving any directions on that subject in this treatise; if, however, it should again become fashionable, I will not omit, in some future edition, to give the most plain, safe, and complete methods of performing the operation.
CONCLUSION.

As it is always easier to prevent than cure a disease, I shall conclude this treatise by recommending the following plan: See your horse as often as may be convenient—twice or thrice in twenty-four hours is not too often, and will only be amusement for an industrious man, a man of taste, or one who delights in the most noble and useful animal belonging to the brute creation. By such attention you will soon become acquainted with the constitution, and always know the situation of your horse, which will undoubtedly be of infinite service in preventing diseases; the strictest attention should therefore be paid to the rules laid down in the preceding part of this treatise. I repeat it, by pursuing such a course, I never lost a horse in my life, though owner of from one to eight at a time for the last thirty years.

To render this book more useful, however, as well as more acceptable to the intelligent part of mankind, I have in most diseases recommended the most simple and approved forms of medicine, and added such cautions and directions only as
seemed necessary for their safe administration. It would no doubt have been more acceptable to many, had the book abounded with pompous prescriptions, and promised great cures in consequence of their use; but this was not my plan. I think the administration of medicines always doubtful, and often dangerous, and would much rather teach men how to avoid the necessity of using them, (with man or beast,) than how they should be used.

Before I conclude, I beg leave to call the attention of all landholders to the necessity of rearing their own horses and cattle, &c. To any one who has reflected upon the subject, it must always have been a matter of surprize that so many fine horses used in this State, should be purchased from others. Such want of enterprize and common apprehension of what is practicable and profitable in the very line of their business, is absolutely disreputable to the landholders of this and all other States where it is the case. The thing would be different if there were not a great number of horses reared within the State, because then it might be inferred that omission to rear our own horses was the result of sound calculation; that it was dictated by a conviction, that being convenient for the transportation of tobac-
co, and better acquainted with the cultivation of that plant than the breeding of horses, it was better to rely altogether upon selling produce and buying horses, than to rear them. But the fact is known to be otherwise: there are immense sums of money annually drawn from, instead of coming into the pockets of our citizens, for pork and horses. Now I hold that every farmer ought to raise his own horses, and that he ought to be ashamed to use a horse of another’s breeding, an indifferent one, or eat meat of another’s raising. I believe it must be far more economical to rear them, because I am satisfied that whatever may appear to be the expense of it on paper, and in the abstract, in point of fact and practice, very little money is realized for that on which a fine horse and a plenty of pork might be reared on almost every farmer’s estate. Let every one then set about rearing horses, hogs and cattle, for his own use at least, and if each will begin and continue to breed from the very best stocks within his reach and means, it is easy to imagine that prodigious improvements would soon result from the general effort, and our State, instead of being more scarce of cash than others, would soon become as independent as those that we have, on account of such conduct, thrown the balance of trade in favour of, against our own.