except when attacked with the gripes or cholic, to which they are extremely subject on the least violent exertions; when the disease often terminates fatally, by forcing down a part of some of the abdominal contents through the tendinous expansions of the abdominal muscles, into the scrotum in a stallion; but in geldings and mares the tumour is more confined in the groin, and never happens to them, without external injury be done to the part.

SAND-CRACK

Is a disease to which horses are extremely liable, owing to the preservation of their feet being generally entrusted to the care of an uninformed class of men, that rasp, and cut a horse’s hoof at every shoeing, as a carpenter does a piece of wood; therefore it is not to be wondered at, that we often see the fibres of the hoof separated from the coronet to the shoe, and forming sand-cracks; a disease extremely painful, and often difficult to cure.

This erroneous method of cutting, and raising the frog above the ground, will produce contracted feet, and contracted feet cause sand-cracks; a tread, or a cut on the coronet, a little below the coronary ring, will also produce this disease.
SHOEING.

The cure of a sand-crack is to be attempted by rasping the hoof, above the crack, as thin as possible, from the top to the bottom, and letting the foot be kept in a bath of warm water from morning till night; the crack dressed with the ointment of marshmallow, tar, and Venice turpentine, in equal quantities, the whole properly bandaged up, to be dressed every day with the same ointment, bathed, and a poultice of boiled turnips and bran applied at night. The horse must be shod so as to let the frog rest firmly on the ground, and the shoe hollowed in the part opposite to the seat of the disease, so that no pressure may be made on that part of the foot.

If the sand-crack runs deep, and pinches the lamina, so as to bleed, we may apply the actual cautery over the sore, dressing the foot with the ointment above mentioned, until the cure is completed.

SHOEING.

The skilful practice of shoeing horses and other animals depends entirely on our knowledge of the structure and functions of the parts that constitute the foot; and, if this operation be judiciously performed, the foot will not be more liable to disease than any other organ;

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but if the principles of shoeing, and economy and functions of the foot are not understood, instead of preventing, we frequently lay the foundation of the disease.

There are two circumstances indispensably necessary to be attended to in shoeing, viz. the cutting of the hoof and applying of the shoe. Before the hoof is protected by iron, some parts require to be removed, and others preserved; the judicious performance of this is of much more importance than the form of the shoe: but many attend to the shoe, and not to its application; or to the hoof, which error has produced incalculable mischiefs.

The first thing to be done when a horse is brought to be shod, is to take away a portion of the sole, between the whole length of the bars and crust, with a drawing knife; for the heel of the sole cannot receive pressure without corns. To avoid this, the sole should be grooved under the shoe and made concave, so as not to be in contact with the shoe; when this is done, the horse will be free from corns, whatever may be the form of the shoe. The heels of the shoe should also be made to rest on the junction of the bars with the crust; for if the bars are removed, the shoe is supported by the crust only, and not by the solid broad basis of crust and bars united as it ought to be.
SHOEING.

It is necessary to observe likewise, that the sole should be cut before any other part of the hoof be removed, for if the heel be first lowered by the butteris, possibly there may not be sufficient sole left to enable a drawing knife to be applied, without reaching the sensible sole; but by cutting the sole first, we can determine on the propriety of lowering the heel and shortening the toe, so that the sole can then descend, without the motion being obstructed by the shoe; and any bodies that may have got into this cavity be forced out by its descension, without producing any inflammation, or other mischief.

When the shoe is applied, the cavity between the sole and the shoe should be sufficiently large, at every part, to admit a large horse picker, but more particularly between the bars and the crust. If the sole is naturally concave a flat surface applied to the crust will not touch any part of the sole; and if the sole should be flat, or even convex in the middle, or towards the toe, the quarters and heels will generally admit of being made concave with a drawing knife, so as not to receive pressure from a flat shoe.

If a shoe with a flat upper surface should not leave sufficient space for a picker between the sole and it, then it is requisite to make either the sole or the shoe concave; when the sole
appears too flat, and of a thick substance, it will be better to make the sole concave by a drawing knife; but this operation should always be performed before the toe is shortened or the heels lowered. When we have made the sole hollow, then a shoe with a flat surface will rest only on the crust; but if the sole should be flat or convex, and thin towards the toe and middle of the hoof, so as to render it impossible to cut the sole at these parts so as to form a concavity, it will be absolutely necessary to employ a shoe sufficiently concave to avoid pressure, and to admit a picker between the sole and the shoe.

Even in this case, however, the sole at the heels and quarters, even in convex feet, will generally allow of removal with a drawing knife, and then the quarters and heels of the shoe may be flat. It follows then that where the sole can be made concave, a shoe with a flat surface may with safety be applied; but where parts of the sole, from disease or bad shoeing, become flat, a shoe with a concave surface is required. As the hoof is always growing, and the shoe preserves it from friction, the toe of the crust requires to be cut once a month, or even every three weeks; for the more horn we can remove from this part, the sooner it will be proper to apply a shoe thin at the
heels, without mischief to the muscles and tendons, and the horse will be less liable to trip or stumble.

The bars should be cut with the greatest caution if they are to be touched at all; as to the frog it should never be removed, on any account whatever; if there appear any ragged parts, they may be cut off with a knife by the groom, but never let a farrier do it, for he will to a certainty remove some of the sound parts along with the diseased. Where the frog is not large and projecting, the heels may be lowered by a rasp or the butteris, for in every case we are to endeavour to bring the frog in contact with the ground; for it must have pressure or be deceased. Any farrier, or other person who has the least knowledge, will perceive that the practice of shoeing very much depends on the functions of the frog being understood; a judicious observer will clearly see that paring the frog and raising it from the ground, annihilates its functions, and ultimately, if not immediately, produces diseases; and that exposing it to pressure is the only proper method to keep it in health. Indeed it has from experience been ascertained, that unless the frog sustain an uniform pressure, when at rest, the heels as well as the frog contract; but if that organ be in close contact with the ground, then it spreads, and is
free from thrushes, and canker, and operates as a wedge to keep open the heels of the hoof.

The same degree of perpendicular pressure applied to the horny frog, that produces only pleasant sensation to the sensible frog when in health, creates exquisite pain when diseased. It is therefore of great importance to preserve the frog sound, for when contracted or cut, or inflamed, it becomes highly susceptible of every impression.

When a sharp stone comes in contact with a soft and thin frog, horses are liable to fall. If then this noble animal feels such exquisite pain from the pressure of one blow, what mischief must ensue from its continual repetitions, no doubt the disease must increase in proportion to its cause. But by standing on the frog on hard surfaces, in the stable, or elsewhere, its organs retain their natural insensibility and elasticity, and they are enabled to resist even the hardest bodies without the least irritation, just as the palms of the parts of smiths, and other labouring men whose skin in those parts of their hands has become thickened and callous, feel no inconvenience from substances that would blister the hands of one not in the habit of such labour.

We shall repeat once more, that no contraction takes place where the frog is made to receive constant pressure, as the standing perpe-
tually on that wedge encroaches its growth, presses upwards the sensible frog, and expands the two cartilages of the hoof. And as the first shoot of the crust at the coronet is very thin, the direction of its fibres will be altogether regulated by the width of the cartilages immediately below the hair at the quarters and heel, and there will be always more or less expanded, and the hoof more or less circular, in proportion as the frog has more or less pressure.

Our opinion therefore on this important subject is, that constant pressure is absolutely necessary to keep the foot in health; this opinion however, has been opposed by the prejudices of ignorance and weakness, and its salutary adoption prevented for several years; the cries of its self-conceited opponents has been, that the frogs of horses, from the pressure on the ground, was rendered inelastic, incapable of motion, and diseased; experience, however, is sufficient to prove how erroneous are their assertions: it is totally contrary to the invariable law of nature, that an organ should, in consequence of performing its natural functions, become diseased; for it is an invariable principle, that an organ deprived of its functions, cannot continue in health.

We shall leave, however, this part of our subject, and return to the principles of shoeing;
observing first, that when a horse is wanted for work, and the frog unaccustomed to pressure, we should lower the heels by degrees by which method every inconvenience will be avoided. If the animal be not wanted, we might with the greatest advantage let him stand without shoes on a hard pavement.

But as the feet of horses are so variously deformed by bad management, it will be requisite in shoeing, to attend to each particular kind of hoof. If any form of shoe be indiscriminately applied for all kinds of feet, it must frequently fail of success; but by a proper attention to the form of the different hoofs, we may improve the whole foot, so as to be able to employ almost any kind of shoe, without inconvenience.

After the hoof has been properly prepared, apply the shoe, and vary its length, breadth, and thickness at the heel, surface, &c., according to the hoof. If the heels be not too high, the frog sound and prominent, so as to press on the ground when the horse is without shoes; a shoe made concave below, as thick at the heels as at the toe, and as broad again in the web and toe as in the heels, (or a little thinner towards the heels,) may be used.

This shoe may be thinned at every shoeing, and employed with the greatest advantage, particularly in summer, as in dry weather the heels
will grow faster than they wear, consequently if the frog touches the ground, no part of the heel should be cut.

During the winter season, it is a good plan to protect the whole crust by a long shoe; and if the heels of the hoof be low we must employ the same shoe in summer. The thickness of the last shoe at the heel will always furnish a proper criterion for that to be next applied. If only a small portion of the hoof can be taken from the toe, the heel of the new shoe should be about one tenth of an inch thinner than the shoe removed; and the growth of the crust will generally be equal to this diminution of iron. By thus reducing the heels of the shoes in the same proportion as the hoof grows, a thin heeled shoe may in a few months be employed. The crust that descends at the heels we allow to remain; but take an equal quantity of iron from the heels of the shoe, and as much horn as possible from the toe of the hoof. This system should be continued till the heels of the shoe are about one third the thickness of the toe. In proportion as the crust from the coronet to the toe increases, and the heels decrease in depth, the back sinews and muscles will be put on the stretch, and the reverse of this must be equally true, that as the heels are high, and the toe short, the muscles and sinews
are relieved. It therefore follows, that every atom of horn or iron taken from the toe of the crust, or shoe, tends to relax the parts behind, and that the removal of horn or iron from the heel produces the opposite effect.*

Should the foot be flat, or convex, the frog large and too thick, in either case it is necessary to preserve the sole as much as possible; but the binders may be reduced on a level with the hoof, particularly in the summer season, and dry weather, as a too hard pressure of the horny, will often produce an inflammation of the sensible bars; the foot so prepared, we must apply a shoe more or less broad in the web, and more or less thick at the heels, so as to protect the sole and frog from a too violent pressure.

It now remains for us to conclude the present article with a few remarks concerning the method of shoeing horses that cut. A defect which proceeds from the toes being turned outwards or inwards; in the first, the pressure of the foot on the ground lies chiefly on the inward quarter: the farrier in this case, must preserve the inward quarter, and apply a shoe as thick and short as possible on that side.

When the toes are turned inward, the horse

* This principle is fully described in the article Over-reaching.
may also cut himself with the toes, as experience evinces every day. The method of shoeing, in this case, is to cut the inward quarter as much as possible; the outward quarter, on the contrary, being very carefully preserved, and apply a shoe made very thick on that side, in order to bring the foot very upright and on the ground. At the same time the greatest attention must be paid to rasping the quarter that cuts the other leg, as much as possible; applying a shoe perfectly exact, and with very few stamped holes on that side.

Horses the most subject to cut are those narrow chested, having their legs placed near together, with their toes turned outwards or inwards. Bad shoeing is one of the principal causes of cutting. Weakness and debility of a young horse may also produce the same defect; but this cannot be considered as a fault, as it generally wears off, as they get strength.

Whether a horse cuts from natural or accidental causes, it ought to be remedied as soon as possible, if it is in our power to do it; as it is a defect that often produces bruises and wounds of a considerable magnitude, and not only blemishes and disfigures the leg, but also endangers the safety of the rider.
SIT-FAST

Is a disease very incident to saddle horses. It is often very painful, and extremely troublesome to cure, especially when the bones of the spine are diseased, by the continuance of its cause and the inflammation which previously existed. If the bruise does not come into a proper suppuration, but forms a tumour, which oozes out a kind of thin lymph about the edges of the sore, instead of pus, this fluid being confined by the thickness of the horse's hide, becomes absorbed again, and the part of the skin which has been injured by the saddle, or other hard substances, turns black and indurated, and forms what is called sit-fast.

We must first begin the cure, by endeavouring to remove the indurated, or dead black skin, by constant fomentation of hot water, and applications of hog's lard; until some parts of the sit-fast can be raised with a pair of forceps, at which time the veterinary surgeon may dissect the dead skin very easy and without any great pain to the animal; taking care not to cut any of the ligaments of the spine of the back.

If the back-bone or ligaments opposite the wound is found to be diseased, the sore must be dressed with pledgets of common ointment,
and spirits of turpentine, in equal quantities, until the cure is completed.

The treatment of sit-fast must be the same in every stage of the disease.

SPAVIN.

This disease was formerly divided into three classes, viz. the blood, the bog, and the bone spavin.

The blood spavin is described in almost every farriery book to be a dilation of the vein that runs along the inside of the hock, forming a little swelling in the hollow part.

The bog spavin, we are told, is an encysted tumour on the inside of the hock, containing a collection of brownish gelatinous matter, which is supposed by those writers to be the lubricating matter of the joint altered, the membrane that incloses it forming the cyst.

I cannot suppose that any person who possesses the smallest idea of the anatomical knowledge of the structure and economy of joints, could give such a ridiculous description; I shall therefore beg leave to say, that the blood and the bog spavin are both nothing more than an enlargement of the mucous capsula of the hock-joint, containing a quantity of mucus, and considerably enlarged in consequence of excessive labour.
These mucus capsula are situated between the tendons of the joints for the purpose of lubricating the parts, and preventing friction during exercise; when these little bags, or capsula, are enlarged, they push out the lymphatic veins, which are situated immediately under the vein that passes in front of the hock, and make it appear swelled; and this symptom has induced the writers of the old school (most part of whom have written without a single atom of anatomical knowledge) to suppose that the swelling of the hock was a blood spavin, produced by a dilation of the vein.

But having investigated the case with acuteness, we no longer hesitate to say, that the enlargement in question is a disease of the mucus capsula of the hock: and by the same principle we may advance, with the same authority, that the blood, the bog spavin, windgall, and thorough-pin, &c. are only one and the same complaint; which may with propriety be referred to one head only, being all produced by the same cause, and yielding evidently to the same mode of treatment.

The bone spavin is a preternatural excrescence or an enlargement of the superior lateral part of the shank-bone, just under the joint of the hock; caused by the charge of a superfluous quantity of ossific matter upon the part...
where it is seated, by excessive labour, blows, or bruises, or any other external injuries to the part, which will cause an irritation and inflammation of the periostium, the bone, and perhaps some of the ligaments of the hock. This disease is more or less dangerous, according to the situation, and the number of parts injured.

The treatment of all sorts of spavins is extremely simple. The first thing to be done is, to observe the situation of the tumour, whether the enlargement is near the joint or not; this is essential to be known, for bone spavin and splenets, which are of the same nature, happening in the middle of hard bones, are generally hard in all their parts; but those near the end of them, or about the joints, are more of a spungy substance.

As soon as the nature and cause of the disease is understood, we may hope for success in its cure. Accordingly make an incision through the skin, and lay the bone bare, then saw the enlarged part off; or, if it is not too big, it may be removed by the trephine, an instrument used to trepan; after the excrescence is removed, the wound must be dressed with pledgets dipped in spirits of turpentine, until the sore is completely healed.

If the bone spavin interfere with the ligaments and bones of the joint, this operation
becomes impracticable, as it would produce an inflammation, that might render the remedy worse than the disease. But its success is certain, where there is no interference of the kind.

When it is otherwise, and the spavin lies very deep, and has connection with the joint, the treatment of this disease, (as well as the blood and bog spavin), is entirely confined to blistering, and firing, one after another; or perhaps both at the same time.

This treatment will generally succeed in those enlargements produced by the mucus capsula, termed blood and bog spavins, wind-gall, thorough-pin, &c.

STAGGERS,

OR INFLAMMATION OF THE BRAIN.

This disease is divided into two classes; viz. the sleepy and mad stagers. The first is, when the animal becomes heavy, inactive, and shews an inclination to sleep, with his head resting in the manger, accompanied with a slow fever.*

The mad stagers seize the horse nearly in the same manner; but the animal soon becomes furious, falls down, deprived of all volun-

* These symptoms are called Epilepsy, and Lethary, by the old writers on farriery.
tary motion, his eyes fixed and insensible to light, his breathing quick and laborious, with great motion of the flanks; he often rises, and after plunging violently against any thing that appears before him, falls down in the same insensible state. The pulse is very quick and full, with a foam at the mouth, which gradually abates as he recovers.

The Cause.—The sleepy staggerers is nothing more than a stagnation of blood in the vessels of the brain; but the mad staggerers is a complete inflammation of the dura and pia mater or immediate covering of the brain, arising from plethora, or rupture of a blood vessel, in consequence of some external injury received on the head.

The diagnostic of this disease will be in proportion to the violence of the symptoms, the degree in which the powers of sense and motion are affected. The disease is generally more fatal to old than young horses.

The Cure must begin, by large bleeding, to the quantity of four or five quarts at a time, and repeating the operation if it is found requisite; or according to the continuance of the symptoms, and the strength of the animal. The next thing to be done is, to give a considerable dose of purging physic; as the horse is extremely costive in this disease, we may give
the following ball without any danger; viz. aloes, ten drachms; calomel, one drachm; mixed up with treacle. It will be necessary to inject large clysters of warm water and soap; or marshmallows and linseeds, and half a pint of oil; or warm water, with three ounces of common salt. Should the disease continue, we must apply a strong blister in front and behind the ears, and likewise two setons over the first vertebra of the neck. If the animal refuse mashes, and good water gruel, he must be fed with the horn, every two or three hours, with the same. But should the disease continue, and its violence resist this treatment, we may tie up or open the two carotid arteries, which operations I have performed myself with success, after every other means have failed.

When the symptoms are abated, we must pay the greatest attention to his appetite, and the food, which must be of warm mashes of bran and a little oatmeal, and not given too plentifully at a time; good grooming and gentle exercise will greatly contribute to the recovery of the animal.

Independent of an inflammation of the brain, horses are subject to another kind of staggers, which arises from a considerable distension of the stomach by food, inasmuch as to have lost
all power of contracting, in consequence of an accumulation of indigestible food taken into the stomach; the coats of this viscus, in such a case, becoming so stretched, as to be easily torn; and when they give way to the distension, a sudden death is the consequence.

This sort of staggers generally attack horses of debilitated constitutions, old, and exposed to hard work, and afterwards feeding too voraciously, and not allowing them a sufficient quantity of water to moisten their food and render it digestible.

Symptoms.—The dilirium, or pain produced in this disease, is proportionate to the distension of the stomach, and always attended with a convulsive twitching of the muscles of the chest, and tottering of the fore legs, which frequently give way suddenly, as if the horse was incapable of standing on them.

In this kind of staggers, there is always a yellowness of the eyes and mouth, occasioned by the pressure of the stomach upon the gall ducts, by which the bile is carried into the circulation; but it is worthy of remark, that, in this case, the animal is not so furious as in staggers, produced by an inflammation of the brain; but they are quite insensible: and, indeed, if a horse affected with this disease is set at liberty, he is always attempting to go forward, and will fall
in any pit or other precipice, rather than endeavour to avoid it.

The treatment of the staggers, produced by distension of the stomach, is nearly the same as for an inflammation of the brain, (except the bleeding, which must be more moderate), particularly in debilitated subjects. Nevertheless, as the distension of the stomach causes an accumulation of blood in the vessels of the brain, gentle blood-letting will be necessary; and this evacuation is attended with better effect when taken from the temporal artery. Oily clysters are also indispensably necessary; or those composed with water and soap, or water and salt. At the same time we must give some powerful stimulus, in order to give the stomach sufficient energy to get rid of its contents; the best of which is about half an ounce of vitriolic æther, diluted in a pint of salt water; the same dose may be repeated every six hours, and oftener if necessity requires it. Half a pint of gin, in a quart of salt water, will perhaps answer the same purpose. At the same time we may give a dose of physic, composed of six drachms of aloes, and a drachm of calomel, which may be repeated as often as it is found necessary.
STRANGLES

Is a disease incident to all young horses, very few escaping the disorder. It has some analogy to the small-pox in the human subject, that disease being more incident to children than to grown persons. The strangles chiefly affect colts and young horses, from the age of two and a half to five or six years old; although we have examples of horses having taken the strangles when they were eight or nine years old, particularly if a horse of this age be exposed in the same stable with young horses labouring under the disorder. The strangles resemble the small pox in this, that it never seizes horses oftener than once; whereas many other disorders, proceeding from common causes and accident, will return as often as there is a cause to produce them. The strangles begin with a swelling under the jaw-bone, attended with great heat, pain, and inflammation. Sometimes the horse is scarcely able to swallow, and in danger of suffocation, until the tumour suppurates; the disorder is always attended with a symptomatic fever and a painful cough. The swelling is not always confined under the jaw, but the animal frequently breaks out in several places of the body, and at different times, before it
sinks, which renders the case more tedious and troublesome; and is still more dangerous, when at the same time the horse swells under the jaw, and different parts of the body, and runs also at the nose; because these symptoms never happen without some constitutional malignity.

This disease seldom proves dangerous, unless the efforts of nature are interrupted by improper treatment, as is too often the case. We frequently see farriers giving stimulating remedies, composed of beer and aromatic spices, &c. which treatment is a real poison to the disorder. But let us proceed with a more rational system, by first considering attentively the state of the animal; let us observe if the disorder be complicated or not: if the disorder begins with great pain and inflammation, and the horse's eyes be fixed and convulsed, his neck much swollen, and his jaw stiff, with his nose turned outwards, and his nostrils open for want of breath; in this case, it is necessary to begin the cure by taking away a sufficient quantity of blood, and to foment and apply bran and boiled turnip poultices to the tumour: this must be continued till it comes to maturity, and fit to be opened or lanced. But care must be taken not to perform this operation too soon, because by so doing, you will defeat entirely the intention of
nature; for there are found, in that case, callous swellings under the throat, with a gleeting ulcer, which often brings on a running at the nose; symptoms which must be avoided, if possible, as the strangles may then degenerate into the glanders. When the tumour is opened, it must be fomented and dressed twice a day with a common digestive ointment. The diet must be warm gruel for drink, and warm mashes of bran and scalding oats, equal quantities of each. If the animal be very weak and debilitated, with a foetid discharge from the nose, accompanied with a cough and difficult respiration, the following mixture should be given every four or five hours, until an alteration takes place: take a strong gelatinous decoction of linseed, two quarts; cinnamon, two ounces; anniseed and coriander seeds, bruised, an ounce; boil the whole for five minutes; let it infuse about twenty minutes, then strain, and add of tincture of opium, two drachms; honey, two ounces, or as much as you please.

When the danger is removed, we may discontinue, and give the following balls, viz.

Flour of sulphur, six ounces; tartar emetic, three ounces; calomel, an ounce and a half; oil of anniseeds, an ounce; anisated balsam of sulphur, sufficient quantity to form the mass; divide it into twenty-four balls, give one in the
morning and another at night; or perhaps one every day may be sufficient,
The horse must have gentle exercise, and good grooming; and after his strength is returned, a dose or two of mild purging physic will be of great service, in order to clear the system from any critical swellings or discharges, that might hereafter injure the constitution. This circumstance must be always kept in view, in order to render the horse infinitely more healthful and serviceable than he would be, were this to be omitted.
Sometimes the strangles will break inwardly and the matter be discharged chiefly by the mouth, as well as by the nostrils. When this happens, let the horse’s mouth be washed two or three times a day, with equal quantities of vinegar and salt water, made warm, with a spoonful of honey to each pint.

STRANGURY.

The strangury is a most urgent desire to make water, with excessive pain in the attempt, forming a partial suppression of urine.
This disorder is generally produced by the use of spirits of turpentine, administered in friction, or inwardly. Cantharides are well known to possess the power of producing in-
flammation of the kidneys and bladder, beyond all other substances, even applied externally; and it is one instance among many, of our imperfect knowledge of the animal economy, that we can by no means understand how the cantharides should pass through the circulation and various passages before they are carried to the bladder, and yet irritate this part in the extraordinary manner which is often experienced from the application of blisters.

The difficulty of accounting for this, is encreased by our finding, that a blister applied on each side of the chest has occasioned an irritation, though afterwards on the same horse, and in the same illness, has been repeated on both sides of the chest, and also the four legs, at once, without any appearance of strangury.

The cure. If there be much irritation, so as to occasion a spasmodic contraction, and pain in the attempt to void the urine, it will be necessary to take away five pints or three quarts of blood, and give the following mixture: viz. a strong gelatinous decoction of linseed and marshmallows; or of gum arabic and oatmeal gruel, of each a gallon; tincture of opium, four drachms, or more; dissolve the gum in the above decoction, and then add the tincture of opium; giving the half at once, with the horn, and the rest four hours after.
This must be continued until the irritation and violence of the symptoms subside, taking particular care to inject glisters of some of the above glutinous decoctions, in order to clear the bowels from the hardened faeces; and at the same time, such remedy will act as an extremely good fomentation upon the bladder. The horse must be kept upon mashes of bran and scalded oats, equal quantities of each, and warm water, made white with bran or gruel; rest, and warm clothing, will greatly help to eradicate the disorder.

STRING-HALT

Is an involuntary convulsive motion of the muscles, which extend or bend the hock, and obliges the animal to raise his hind feet from the ground with violence and precipitation: this involuntary action, though it may be considered as an inconvenience, cannot be termed a disease. Indeed, in Spain, France, and Germany, it is considered extremely graceful in their riding-schools or manage, particularly when there is a string-halt in each hind leg. And I must confess, that it is very pleasant, in the piaffer and in the passage, either at a trot or gallop, &c. Their cadences on the ground is remarked with a great deal more of execu-
tion than is to be found in any other horses; and they are generally chosen above others for the pillers, or any other air of manage admired in a riding-academy.

I have mentioned these things to prove the error of some writers, who have advanced that this is a disease which might proceed from strains, blows, or other accidents, and that it is very difficult to cure; for which purpose they recommend to apply fomentations, and afterwards the actual cautery.

I am convinced, however, by long experience and observation, that string-halt, as it is called, is no disease, therefore can require no remedy.

SURFEIT.

So far as my observation entitles me to offer an opinion, I can assert, that surfeit is not a genus of disease of itself, but arises out of some others, which have either been neglected, or improperly treated.

As most of the old writers on farriery, however, were totally unacquainted with the structure and functions of the different parts of the animal machine, we cannot be surprised to find such a number of disorders erroneously described in their various parts of their writings;
but which errors modern investigation, supported by numerous experiments, must endeavour to rectify. *

When a horse forsakes his food, and is infected with hard swellings, which, if they happen to fall upon the joints, will in process of time occasion lameness and many other disorders: and the story going on, by saying, that a horse is said to be surfeited, when his coat stales and looks rusty and dirty, though proper means have not been wanting to keep him clean; the skin is full of scales and danders that lie thick and mealy among the hairs, and is constantly supplied with a fresh succession of the same, for want of a due transpiration. † Some horses

* A surfeit, as described by Bracken, is understood to be all such maladies or distempers as proceed from excessive and immoderate feeding, but especially upon unwholesome food; from cold, hard riding, &c.

† The author must certainly allude to those horses that are constantly kept in dirty stables; because it is very well known that the filth, which is supposed to be a symptom of surfeit, is secreted by the exhaling vessels of the skin and by the aid of perspiration; therefore this extraneous matter far from being a disorder, is proved to be excited by that constant moisture on the skin—a moisture which is indispensably necessary to keep the animal in health; but requires some labour from the groom to remove it: if not, the coat of the horse, as it is called, will never be fine and free from dirt: and, indeed, this circumstance will sufficiently account for the ancients having taken for granted, that this rusty and dirty look in a horse's coat was a disorder, which they have been pleased to call surfeit.
have hurdles of various sizes, like peas or tares: some no eruptions at all; but have an unwholesome look, and are dull, sluggish, and lazy: some appear only lean and hide-bound: others have flying pains and lameness, resembling a rheumatism: so that in the surfeits of horses, we have almost all the different species of scurvy and other chronic distempers in the human subject.

There is another kind of surfeit, (says Gibson) which appears on different parts of the body of a horse, attended sometimes with great heat and inflammation; the neck sometimes swells so in one night's time, that great quantities of hot briny humour issue forth, which, if not allayed, will be apt to collect on the poll or withers, and produce the poll-evil or fistula: this disease also frequently attacks the limbs, where it proves obstinate and hard to cure. To terminate these long and tedious stories, we may justly compare them to a man lost in a forest, wandering about until the sun rises to direct him his way out. A little reflection will soon convince the reader of this truth: for instance; can a man, without prejudice, differ from me in opinion, in saying, that all the symptoms above described are not exactly those which belong to farcy: and, indeed, this is allowed even by those writers themselves, who
all agree in saying, that surfeit resembles the scurvy and other chronic distempers in the human subject: and they still make a greater confession, by saying, that surfeit often degenerates into great inflammatory swellings on the poll; or withers and limbs, which frequently degenerates into a fistula, very hard, and obstinate to cure.

Now could we suppose that any person who possesses the smallest degree of knowledge of the diseases of horses could form the ridiculous idea of this being a primary disorder; for all the symptoms of surfeit here described are nothing more than those of a local and cutaneous disease, which in its progress may perhaps puzzle those unacquainted with the diseases of horses, but can never impose upon a veterinary surgeon that is acquainted with the anatomy and physiology of different animals, and has any experience in practice.

Therefore we may reasonably conclude, that surfeit, as it is termed, is only the symptom of some other disease; and cannot be considered as forming a complaint of itself.

For the symptoms and treatment of this imaginary disorder, the reader will refer to the articles mange and hide-bound, in which it will be found fully described.