VETERINARY TRANSACTIONS.

ABORTION.

Abortion may be defined the premature expulsion of the embryo or fetus; this accident is not so common in brutes, as it is with females of the human race; yet I have known many that have aborted five times out of six, and some others that never went their full time. The cause of abortion is generally some external violence: blows given on the belly, or kick on the same; and sometimes by the injudicious and unnecessary administration of violent medicines, such as physic, strong diuretics, hellebore, capsicum, &c. But if a premature birth of an animal takes place without any apparent cause, we may suspect it to be whatever interrupts the regular circulation between the uterus and placenta; diseases of the uterus itself; the imperviousness or spasmodic contraction of the extremities of the uterine blood-
vessels; partial or total separation of the placenta or chorion from the uterus, or the parts that can press upon it, or that occasion a rupture of the membranes, such as disease of this part; too large a quantity of liquor amnii; the cross position of its fœtus; its motion and kicking; too weak an adhesion of the placenta or chorion to the uterus: cholic will also produce abortion.

The treatment is extremely simple; it consists in keeping the animal on warm drink of bran and water, and mashes of scalding bran and ground oats, or barley, or boiled oats or barley mixed with a little bran or oatmeal; and a comfortable accommodation in her stall, or a loose stable. The expulsion of placenta should be done as soon as possible, because I know by experience, that this operation should never be entrusted to nature alone, particularly in mares on which the operation is so easy to perform.

To remove or prevent abortion when there is reason to apprehend it, is a task beyond our power; because it generally happens, that there is a cessation of growth in the ovum, or in other words, an extinction of life in the fœtus some time previous to an appearance of abortion. For instance, when by accident the fœtus dies about the ninth or tenth month,
ABSCESS

it will still be retained in the uterus until near the completion of the full time. As mares that have once aborted are so liable to the same from a like cause, such an accident in future should be guarded against with the utmost caution.

For any other difficulties that may happen at the time of abortion, we refer the reader to the article Delivery, or Parturition.

ABSCESS

Is a cavity formed in the cellular membrane and muscles of any fleshy parts; by a suppuration of parts which were healthy and sound before, resulting from inflammation; in this state it contains pus.

The action of the blood-vessels of the part being greatly increased, and the vessels loaded with fluids, by a new combination, a white opaque unctuous liquor, without any offensive taste or smell, is formed, called pus. This is a secretion of a peculiar nature.

Abscesses may be distinguished, first, into abscesses of the glands, which may take place in any of the lymphatic glands throughout the body, particularly those situated about the head; and, secondly, into critical abscesses, or such as happen after any acute disease, and
supply the place of re-solution, by which the disease should have been removed.

Abscesses sometimes are suddenly formed, at others they advance very slowly; in the first case the symptoms soon increase, and quickly proceed to a more formidable state; in the latter, though the suppuration makes but little progress, the pain and enlargement of the place suffice to determine the nature of the complaint. Whether the matter makes its way through the skin, or any other parts of the body, it is frequently so tedious in its passage, that the adjacent fat is more or less corroded of different shapes and sizes. Sometimes the maturation is extended on every side, rendering the cure both difficult and uncertain, so much so, that if abscesses of this kind are left to themselves, they generally degenerate into fistulas, and produce calllosities, and even enchylosis, &c. if it happen to be upon a joint, such as the knees, hocks, &c. When we are convinced that pus is collected in any part, and forms an abscess, it becomes necessary to give vent to the matter; but it is, however, a general rule not to make an opening till we are sure that matter is completely formed. Veterinary surgeons, accustomed to touch and treat deep-seated abscesses, will be able to judge of the proper time the tumours must be opened,
particularly if the practitioner bears in his mind, that the animal will shew signs of greater pain and fever while the matter is forming, than when it is formed.

Abscesses about the jaw are very frequent in young horses, and are often mistaken for some other disorders.

Having made ourselves masters of all the signs of existing suppuration, the next business is to consider the situation of abscesses, which may be divided into internal and external. We call them internal when they affect any cavity, such as the head, the chest, and the belly, or of any of the joints: external, when they have their situation on the outside of the body only. The external, again, may be divided into deep-seated, or such as are situated under very thick muscles, &c. and superficial, those that are situated in the cellular membrane, and under the skin only.

An abscess of the sub-maxillary and parotid glands is very frequent in horses; therefore it becomes necessary to treat of them first, as they often become so large as to inflame the larynx, and even threaten suffocation. In the beginning we must endeavour to obtain a cure by bleeding or purging, if the animal is free from fever or any internal inflammation, in which the veterinary surgeon must be parti-
cularly attentive not to give any purgative medicines.

The lump under the jaw must be blistered, in order to bring the tumour to suppurate as soon as possible; but if the swelling does not come to a quick suppuration, three or four incisions may be made with a fleam or lancet into the body of the tumour. Thus, by discharging some of the blood and humours before they are formed into pus, the dangerous degree of swelling is prevented. I found in this case, that it is not always prudent to leave the matter till it is formed into perfect pus, but at the latest, the puncture should be made as soon as the appearance of digested matter can be perceived, and by the assistance of warm fomentations on the part, and the sore dressed with an ointment composed of Venice turpentine, olive oil, and honey, equal quantity of each, a cure will be completed in a few days. The cure of the deep-seated abscesses require no difference in their treatment; it is only necessary to observe, that not only the case cannot be cured without an artificial opening, but it is likewise of the utmost consequence, that this opening should be made as soon, and even before the matter is formed, particularly when the abscess is seated under the fascia of the muscles, where there is, in general, no affection
of the skin, in which case the animal may die for want of knowing the cause.

On the contrary, by opening these abscesses early, they have been cured, though extremely large, in a very short time; while other tumours of this nature, which, from their slow progress in the early stages, have been either neglected by the owner, or suffered to come without a proper help, have kept the animal several months under treatment, and in great danger of its life. This tedious prolongation of the complaint has been entirely owing to the matter being suffered to remain longer in the part than was necessary, by which sinuses have been formed, and which, having manifested themselves with painful symptoms in the course of the cure, have at length required a separate and particular treatment. But as the power of restoration in horses and other animals is particularly strong, superficial abscesses are generally of very little consequence, if they are open and dressed as recommended in the article *Anticor*.

**AGE OF THE HORSE.**

The age of horses may be judged by several particulars, such as the length or shortness of the tusks, the deepness of the eye-pit, the grey
horse turning white, and the black one grey, particularly at their head. But the chief characters whereby to judge of the age of horses, are taken from their teeth, except when they are very old.

Horses have forty teeth; but mares being in general without tusks, their number is but thirty-six; some mares, however, have the same number as a horse. But to give a just idea of the teeth which serve to ascertain the age, I shall divide them into three classes, viz. the first are called grinders, their use is to chew the food; the second are termed canini, or tusks in the common way; and the third are those which are placed at the anterior or fore part of the mouth; they are twelve in number, six to each jaw, and are called incisory; they are intended for the purpose of cutting grass, and drawing hay, &c. from the rack, preparatory to mastication: and the second use is, their forming a real sign of the age of the horse.

A colt is foaled without teeth, but a few days after he puts out four, which are placed just at the front of the mouth; they are called pincers; soon after four other teeth make their appearance next to the pincers, and take the name of separators, on account of their being situated between the pincers and the corners, and three or four months after, the four corners
AGE OF THE HORSE.

push forth; after which, the twelve colt teeth in front of the mouth, continue without alteration until the age of two years and a half, or three years. About two years and a half, or three years of age, a colt begins to shed or change his teeth; those called the pincers, as they first made their appearance, are the first that fall out; so that when the animal gets three years, or three years and a half, he has four horse's and eight colt's teeth, which are easily distinguished, as they have a cavity with a black spot in the middle of it; whereas, the colt's teeth are round and white. When the horse comes to four, or four years and a half old, he loses his four separators, and in the room of them puts out four others, which follow the same rule as the former ones, called the pincers. At five, or five years and a half old, he changes the four corners, which are the last of the colt's teeth, and during this time the four tusks make their appearance behind the others, a little above the bar.

The same rule which has been already observed in the growth of the teeth of young colts, takes place in their alterations and in their form; so that when a horse arrives at six years, or six years and a half, the cavity of the two lower pincers will fill up, and the black spots will entirely disappear; but when it does
not, the black spots are of no further use for the age of the horse. Betwixt seven and seven years and a half, the two middle ones, called separators, fill up in the same manner; and about eight, or eight and a half, the two corners on each side do the like; so the teeth of the under jaw terminate their process; after which, the upper one begins and follows the same order, but not so regularly as the under jaw, being often found defective in its progress. This properly understood, we shall now proceed to the examination of those horses which are defective in their marks relative to their age: but in order to render the descriptions easily understood, it will be necessary to divide them into three different classes.

The first class will be those where the cavities of the teeth will never fill up: the second are those which mark in the separators, or in the corner teeth only: the third are those where the black spots in the middle of the cavities of the teeth will never disappear. It is in all these differences that it is so very easy for a person to purchase a very old horse instead of a young one; in consequence of which, I shall endeavour to point out the method of proceeding in such troublesome cases.

It has been already said, that a horse has changed all his colt’s teeth at five or five years
and a half old, and that the cavity is to be observed in each of them until six, or six and a half: take notice also, that the corner teeth grow only a little by degrees. From this remark, if you should observe that those two corner teeth are equal inside and out, and their cavities sufficiently diminished for the horse to be in the sixth year of his age, the pincers ought to be filled up, if not, the animal is defective in his mark; add to this, that their cavities are not in a natural state, since they are equally hollow; for when the horse has arrived at five, or five years and a half old, the two pincers which are intended to fill up first, have certainly a less cavity than those which are to be filled up at twelve months or two years after; if the cavities are all alike in every tooth of the under jaw, you may be assured the horse is defective.

The same rule must be observed in regard to the two separaters; because it is in this case that a horse of fourteen years of age may be taken for one of seven. It is in this circumstance we must examine the tusk; for in an old horse they are always very round, blunt, and yellow, except when they have been made sharp and white with some instrument, which is often practised by dealers and others; but a good practitioner will soon detect this artifice by
every other sign that characterises an old horse, particularly if you see that the front teeth stand out in an oblique direction forwards, as if they were inclined to come out of his mouth, you may be assured the horse is very old.

The third class, or bishop, as it is called, is that when the black spots in the middle of the cavity of each tooth will never disappear; but this is of very little importance, because we must remember once more, that when the cavities are filled up, the black mark deserves no further attention.

We shall now proceed to examine the operation, which is done in order to impress a false mark in a horse’s teeth, by hollowing those they think proper, according to the age they wish to make the animal appear. If they wish to make a horse appear six years old, they hollow the two pincers with a little instrument for that purpose, and then fill this artificial cavity with some kind of indissoluble black metal, or a red hot iron; and if they wish to shew seven years old, they perform the operation on the two separators, and so on with respect to the two corners; but a person acquainted with the true mark will easily detect the cheat, by considering every other circumstance that characterises an old horse.

Another very unfair, and not unfrequent,
ANCHYLOSIS.

trick employed, is to pull out the last colt's teeth of a young animal, to make him appear five, when he is in reality only four. But take particular care to observe, that if all the colt's teeth are shed, and there is no appearance of the tusk's coming out, you may be pretty sure that these tricks have been done. From this infamous practice result very bad consequences; since it is true that they may sell a strong three years old colt, for one of four years of age, consequently the young animal soon falls a victim to hard labour, through this inhuman and unpardonable deception; consequently I recommend a minute examination before we pass our judgment, and not to reject indifferently all speculative theory concerning the structure and functions of the parts intended to shew the age of horses; but admitting for truth, those only which have been faithfully deduced from our observation.

ANCHYLOSIS

Is a disorder that closes the bones together, and renders the joints immovable, as if they were composed of one piece only. Anatomists divide this case into two classes, viz. the true and false: the true is such wherein the bones are united, so as to become, as it were, one:
ANCHYLOSIS.

the false is when, from the tendons being contracted, or other parts about the joint are diseased, the same is rendered immovable.

As the bones of horses are frequently diseased, in consequence of the violent exertions to which this animal is too often exposed, it becomes necessary to describe here the different diseases of the bones in the human subject, with some remarks on those of horses. Mr. Hooper says, that bones, like other parts of the body, are subject to diseases in which no alteration of structure is perceived. Those which the anatomist occasionally observes, are inflammation, suppuration, necrosis, morbid thickness, mollities, hyperostosis, rachitis, exostosis, absorption, preternatural joints, diastisis, ankylosis, fracture, fissure, tophus sarcostosis, caries, spina ventosa, fragility, bone converted into chalk.

INFLAMMATION.—Bones are supplied with arteries, veins, absorbents, and nerves; and when inflammation takes place, there is a greater number of vessels perceived carrying red blood than in a healthy state: this diseased appearance is common in the bone lying immediately under old ulcers, such as farcy. When inflammation attacks the internal structure of bones, it forms the spina ventosa.

SUPPURATION.—Abscesses in bones are not very frequent. They are often attacked with
ANCHYLOSIS.

...caries, and form the spina ventosa: but it sometimes happens that the absorbents remove a considerable portion of bone while pus is deposited, and in those cases the abscess is lined by a thick coat of coagulable lymph: this occurs most frequently in farcy also.

**Necrosis.**—This disease consists in a considerable portion of bone losing its vitality, and the neighbouring vessels taking on the ossific action, and depositing a considerable quantity of new bone to supply its place: in most of these cases the dead bone is not protruded until a new one is formed. Necrosis happens most frequently in the cylindrical bones, as the humerus, tibia, femur, &c. This disease takes place in consequence of a blow, a kick, or any other external injuries to the bone.

**Morbid Thickness.**—Bones are often observed to be remarkably thick in horses, as well as in the human subject, in consequence of the many external injuries to which these animals are exposed. The body of a bone is occasionally found considerably thickened, from a deposition of boney lamina over the original bone; this morbid appearance is very common to horses that have been long troubled with, and improperly treated for, that disorder called the grease and farcy, &c.

**Mollities.**—In mollities ossium there is a
want of due proportion of bony particles, and the bone which is formed is of a morbid nature: it is observed in the human subject, that the whole may be bent in any direction. This disease often exists to so great a degree, that the bone may be cut with a knife; this is sometimes the case in horses also, that die with the farcy, glanders, &c.

Hyperostosis.—When the whole of a bone, or the extremity of a bone is swelled, the disease is called hyperostosis. Anatomists frequently have occasion to examine the disease in the extremity of a bone; in white swellings in the human subject. Horses are subject to several diseases of the bones nearly of the same nature; such as splints, spavins, and others. Enlargements which are produced by a considerable deposition of a morbid fluid in the cells of the bones, which are often observed remarkably spongy.

Exostosis.—This disease is one of the most common in horses; it consists in a bony excrescence arising from a bone. When a bone has been fractured, and there is a luxuriance of callus, it forms an exostosis. The structure of these unnatural formations of bone is similar to that of the compact healthy bone.

Absorption of bone.—In the honeycomb caries, which is the effect of the venereal dis-
ANHYLOSIS.

ease in the human subject, and of some infectious disorder in horses, such as poll-evil, farcy, the glanders, &c. During life, small ulcers, or a spongy flesh, occupy these cavities. Bone is likewise absorbed from pressure, as some of the ribs and dorsal vertebrae from aneurism; but this is a very rare disease in horses.

Fracture.—The ends of fractured bones have been examined by anatomists at various periods after the accident, from almost the moment after, to the time of the complete formation of callus. A coagulum of blood is first deposited; in a short time after, vessels are seen shooting into this coagulum, from whose extremities bone is secreted, and the coagulum is then absorbed. Callus becomes bone of a more or less compact structure. When a cylindrical bone is fractured, the callus between the broken ends of the bone is a solid mass, and has no medullary canal. A fractured tooth will never unite again.

Fissure.—The bones of the skull are often found cracked, or not completely divided. This accident is common in horses.

Tophus.—A portion of bone is occasionally observed elevated above the natural surface; when examined, it is found to arise from a diseased fluid deposited between the external lamellæ of the bone, rising these lamellæ so as to
form a knot or tumour. Such diseased appearances are common to the tibia, in human subjects, and in horses it is what the farriers call splints, spavins, ringbone, &c.

ANEURISM

Is a tumour arising from the dilatation of an artery. Arteries only are the seat of this disease, so formidable in the human subject, as well as cattle of every description. This disorder is divided by anatomists into four kinds, viz. the true, the false, the mixed, and the varicose; but it will be sufficient to treat here of the true aneurism only, as the cause and the cure of all the other kinds of aneurisms is the same.

This disease may happen in any part of the body, but most frequently is found in the curvature of the aorta, which is subject to this disorder from the extraordinary impulse of the blood. From the curvature it runs upwards along the carotids, or the subclavians, generally increasing, till by its great distention it is ruptured; in this case the patient dies. In consequence of the artery no longer resisting the extension, the circulation grows languid, the sac becomes thinner at its inferior part, and soon after bursts. Where the aneurism presses
against any part, it is soonest eroded through; a proof that pressure must be avoided in a case of this sort. Aneurisms that are superficial enough to be assisted by the help of a veterinary surgeon, the cure may be attempted by making an incision, exposing the artery, and making two ligatures, one above and the other below.

ANTICOR,

FROM THE FRENCH ANTICEUR.

A disease so called, on account of being situated near the thorax, or about the breast, but in reality it is nothing more than an inflammation of the larynx and wind-pipe, which terminate in suppuration: in the inflammatory state it very much threatens suffocation. This disorder proceeds from the strangles, cold, exposing the animal to cold, and giving him cold water to drink when he is hot, or whatever else may cause a sudden inflammation.

The cure should be attempted by early, large, and repeated bleeding, to abate inflammation and feverish symptoms. If it is possible to administer any internal medicines, we may venture a purging physic. In the interval of purging, we may give, with the greatest success, a ball composed of sulphur, half an ounce; tartar c 2
emetic, one drachm and a half; calomel, one scruple; anisated balsam of sulphur, sufficient quantity to mix the whole into a proper consistence. Immediately after the administration of the ball, we must give an ounce of nitre in water-gruel once a day, and the ball twice a day if required. The larynx and wind-pipe must be blistered, in order to fix the abscess on the external part of the body, and when the tumour grows soft, and the matter seems ready for a discharge, it may be opened with a lancet, or a proper knife, which must go to the bottom of the gathering, or abscess: after the operation, the sore may be dressed with an ointment recommended in the article *Grease*.

But if the swelling was not lanced sufficiently deep to reach the seat of the abscess, the swelling will increase in spite of all, which is often the case, and all the symptoms increase, with danger of suffocation. Therefore, besides repeated bleeding, if the animal is not too much exhausted, we must make the opening with the knife infinitely deeper than before; which operation, then, requires a perfect anatomist to be able to dissect the muscles and introduce the knife close to the jugular vein and carotid artery. This operation requires a great deal of dexterity, but if well performed, it seldom fails of making a cure; after which, the wound must
be dressed with the same ointment as above recommended, with an addition of a little spirits of turpentine mixed with it.

APOPLEXY

Is a disease with which horses and other animals are sometimes affected, though but seldom: it has been accurately treated of by some modern veterinary surgeons, who all concur in opinion with me, in respect to the seat of the complaint and most of its symptoms, &c. They justly observe, that the commencement of this disease is obscure. An inattention to the discriminating circumstances of several cases of apoplexy, staggers, and palsy, have occasioned much confusion in different writers on farriery: the two former are reckoned one and the same disease, and in many instances we must allow that no difference is observable in their symptoms, prognosis, and cure. When the disease appears under its most common form, the horse drops down suddenly without sense or motion, except a working at his flanks; they are deprived of all sense and voluntary motion, but without convulsions. There seems to be a peculiar insensibility of the eyes; the pupil is remarkably dilated, and cannot be made to contract by the action even of strong light; the
animals are unwilling to be disturbed; great heat, accompanied with sweat, overspreads the whole body; respiration is nearly suspended; the pulse increases in its trembling undulations beyond the possibility of counting, till the vital motions entirely cease, and in this miserable state sometimes convulsions conclude the scene. Previous to the above symptoms, the eyes may be observed watery and moist, somewhat in the same state as they are in the inflammation of the eye, called moon blindness; a disposition to reel; feebleness; a bad appetite; and continually resting his head in the manger; very seldom any alteration in the dung and urine, except a tendency to costiveness.

Causes.—When the apoplexy proceeds from water collected in the sinuses and ventricles of the brain, the animal will not suffer itself to be handled; if any one attempts to raise his head, he falls down with all the symptoms above described. But from whatever cause an accumulation of water in the ventricles of the brain may be produced, there can be no doubt that from this the principal symptoms of the disease arise. Apoplexy may also be brought on by whatever violently urges on the circulation of the blood, as a long and immoderate exercise, pushed beyond the limits of the vital power; a plethoric habit of body, with a determination to
the head; blows on the head, or from any cause affecting the brain or its membranes: but in this case the animal has frequent and violent fits; he runs at every thing as if he was mad: this case very seldom admits a perfect recovery.

**Prognosis and Cure.**—Till of late years this disorder was reckoned totally incurable, as the disease has hitherto been involved in considerable obscurity, and consequently the practice must have been guided by vague and uncertain principles. For the cure, all that can be done is to begin with the antiphlogistic regimen, which must be carried to its fullest extent. As in almost all cases costiveness takes place, and aggravates the symptoms, it will be right to keep the bowels open by means of purgatives and stimulant clysters, if the physic is too weak in its operation. Accordingly, we must bleed very largely, to the quantity of five quarts at once, which may be repeated six hours after, if necessity require. We must cause a determination of blood to the skin, by rubbing the head with spirits of turpentine or boiling water. But a very strong blister on the top of the head will operate with more certainty. It will also be necessary to open several setons or rowels, on the top of the head, exactly behind and in front of the ears, and keep the horse some time to an opening diet of scalded oats and bran.
Purging must be repeated three or four times, according to its operation, and the strength of the animal; and in the interval of which we may give the following tonic and sudorific balls, continued for five or six weeks. Take antimonial powder, half a drachm; ethiops mineral and camphor, one drachm of each; gum guaiacum, half an ounce; the whole is to be mixed with a sufficient quantity of treacle to form one ball, to be given every evening, two hours before or two hours after feeding.

As to a horse that drops down suddenly with hard riding or violent driving, I cannot with propriety describe this as a disease, because it never, or very seldom, requires the attendance of a veterinary surgeon. Therefore, as it proceeds from excessive work, pushed beyond the limits of the vital power, a more humane usage in his future labour, as well as in his diet, will be sufficient to recover the exhausted animal.

A horse belonging to the 13th regiment of Light Dragoons was seized with apoplectic fits when the regiment was at Coventry, in consequence of having knocked his head against the ceiling of a public-house stable, which was extremely low. The accident was so violent as to produce all the symptoms above described, attended with dreadful flying or starting at every thing that came near him; which termi-
nated by falling down suddenly, working violently at the flanks, without any ability to rise again for several hours after the fits, without the help of several men. I began the cure by taking away eight quarts of blood in the first twelve hours of the attack, and immediately gave him a strong dose of physic, composed of two ounces of aloes, and frictions, with spirits of turpentine; an hour after, a strong blister was applied all over the head, just opposite the brain; and two setons were also opened, one on each side of the neck, as near the head as possible: a clyster was administered every four hours until the physic began to operate. By these means, and a due attention to keep him upon an antiphlogistic diet, the animal completely recovered in the course of a week or ten days.

Several horses have been recovered of apoplexy by the same treatment, which seldom fails if the case admits of a cure; but if it proceed from a large collection of water in the ventricles of the brain, in such a case death is inevitable soon after the attack. A horse of Captain Dickin's troop, 12th Light Dragoons, died in February 1807, after ten hours of this dreadful illness; so furious that it was impossible for any man to approach him from the time he was taken ill until he died. On opening the brain, the ventricles of that viscus were found to con-
tain about two ounces of water. In short, the animal killed himself by knocking his head against the walls and other places of the stable.

APPETITE.

The advantages arising from a good appetite in horses make an article of such importance, that it is necessary to take a survey of the subject, in order to endeavour to trace the consequences arising from a horse that is a bad foul feeder, and of those that have an unnatural craving for food. To effect this, it is first necessary to observe, that horses are liable to affections of the stomach as well as the human subject, and are often attended with the same ill effects. In every inflammatory disease, and extreme pain, for example, the animal loathes all kinds of food, in consequence of the stomach sympathizing with all the other parts of the body. But by the want of appetite I do not mean a diseased horse; one only which is apparently in good health and spirit in every respect, but feeds poorly, and is apt to mangle its hay, or leave it in the rack. When this is the case, the cause will generally be found to exist in a relaxed constitution, wherein the weakness of the stomach and bowels produce a weak digestion, and consequently the loss of appetite. This
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habitual weakness may be natural and hereditary, or may be caused by some ill management in the treatment of some inflammatory complaints, or the imprudent and intolerable administration of violent purgatives, or other medicines that contain acrid and corrosive qualities, given in too large doses; such as euphorbium, hellebore, all the poisonous and narcotic plants, all the preparations of mercury, &c. &c. all of which are found very beneficial and salutary in the cure of many violent and obstinate disorders, when properly administered; but those good properties soon become a real poison when improperly managed. If, however, a horse feeds so bad as to require the help of medicines, we may give him a laxative purge, composed of two drachms of aloes, and half a drachm of calomel, mixed up with a sufficient quantity of turpentine: let the same be repeated until it operates.

This purge may be repeated three or four times, according to its effect. It will purge very gently, and likely to bring the horse to a better appetite. In the mean time the following nutritious, restorative drink will be found very efficacious.

Take a quart of good water-gruel well boiled; when nearly cold, add a table spoonful of salt, and two eggs, whites and yolks; let this treat-
APPETITE.

has perfectly recovered his strength and condition, which will be in a month or six weeks; after which it will be easy to keep him so, by feeding him with a good handful of split beans in his oats, which must be of the best quality, as well as his hay. His common drink must always be cold water, whitened with a sufficient quantity of oatmeal, or bran, three times a day. I recommend to any one that is fond of his horse to pay the greatest attention to this article, as I am entirely convinced that depriving the animal of a sufficient quantity of water for his drink, is one of the principal causes of many disorders in horses, as well as in the human subject. I can assert, that unless plenty of diluting drink be given, the best diuretics can have no effect. A little reflection on the subject will convince, that a quantity of hard and indigestible aliments will oppress the stomach and bowels, even of the most strong constitution; and how much more must they do so to those who are already inclined to debility, or labouring under a tedious disorder. By what means, also, are these aliments to be dissolved in the stomach when drink is withheld? May we not reasonably conjecture that when all the fluids are in too small a quantity, the gastric juices likewise are depraved? Thus the aliments lie too long in the stomach; and if the
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ment be continued every day, until the horse viscera were formerly free of obstructions, these are now generated; the strength becomes less and less every day; perspiration and other excretions are obstructed; and a multitude of disorders increase.

We shall now treat of the opposite disease in horses; namely, of that unnatural craving for food, and of those that are foul feeders. These two cases cannot be reckoned as diseases, unless there are sufficient symptoms to ascertain that they proceed from worms, as is frequently the case, by disordering the stomach and bowels, they cannot bear the irritations of those insects in their intestines; from whence horses are continually craving for food. Foul feeders differ greatly from those that have voracious appetites: they first fall on eating their litter, and seem to prefer it to any other food; and it is observable that many horses that become broken-winded have this propensity. The other are those foul feeders, or depraved appetites, which leave their hay to eat their litter, and very often chew their hay, but throw it out of their mouths*. In either case of vitiated or

* These alarming symptoms frequently happen to horses recovering from an inflammation of the lungs, in consequence of the violence of the disorder having greatly affected the stomach, bowels, and other abdominal viscera.
foul feeders, the best method of cure is to begin with gentle purging frequently repeated. Should we have any reason to think that the case proceeds from worms, it will be necessary to give two drachms of calomel twenty-four hours before his purging-ball. If this course of mercurial physic does not destroy the insects, it will be necessary then to give the following: take vitriolated quicksilver a drachm; linseed-flour half an ounce, mixed with a sufficient quantity of turpentine, leaving a day of interval between each dose; still going on with the above mercurial physic once every ten days. If this treatment has been successful in destroying worms, we must give the following tonic and stomachic ball, viz. Take Peruvian bark, in powder, two ounces; calomel, two drachms; myrrh, one ounce; tartar emetic, four drachms; syrup of ginger, a sufficient quantity to make four balls; one to be given every evening. If this course has any effect, it will be known by his gathering more flesh under this management. In some cases it will be necessary to dissolve chalk in their water, and give a great deal of gentle and continual exercise, or turn them out in a field, when the weather will permit, which will greatly contribute to a perfect recovery.

It may be observed, that, in some diseases,
APPETITE.

even of the inflammatory kind, some horses retain their appetite for food in a degree, whilst others, when sick, refuse every kind of sustenance. In the former case, it is too common to force it upon him, down his throat, under the apprehension that the horse will die for want of nourishment. This, however, is not the case: if the animal loathes his food, it is a certain sign that he is disordered, and therefore cannot digest it; and the throwing or forcing it into the stomach will serve only to aggravate the disorder, by increasing that oppression which already prevails.

It is farther to be observed, that the stomach of a horse has not the faculty of vomiting, or even of belching up wind by the mouth, which in such cases might give relief. The only nourishment in such a state must be confined to water-gruel, and sometimes the yolk of an egg, dissolved in a quart of the same; this will make it sufficiently nutritive, and will dilute the contents of the stomach, and that affords an easier passage for them into the intestines, if the same quantity is given every two or three hours; but no hard food of any kind, such as oats, &c. should be forced on sick horses, although they should seem disposed to take it, which they frequently will do, by way of change.

If, however, the existence of the animal seems
to be endangered by a continued rejection of food, in this case we must increase the quantity of the nutritive water-gruel above recommended, taking care to empty the intestines by clysters: after the intestines have been thoroughly emptied of the hardened excrements by clysters, the contents of the stomach will find an easier passage into the smaller ones; the animal then naturally craves fresh aliment; but when this takes place there will be danger in giving him too much at once; and this circumstance cannot be too carefully attended to in a state of convalescence.

ASCITES

Is a dropsy, or accumulation of water in the belly, in a manner that the bowels swim in water. This disease assumes three different forms: 1st. When the water immediately washes the intestines. 2d. When it is interposed between the abdominal muscles and peritoneum*; or, 3dly, when it is contained in sacks and hollow vesicles; in which it is called the Encysted Dropsy. This disease, though frequent in the

* It is necessary to observe here, in opinion with some anatomists, that no water can be accumulated within the duplicature of the peritoneum; as that membrane is looked upon by the best anatomists to be single.
human subject, is very rare in horses or other animals.

Snape, Lafosse, and several other ancient writers, have treated of dropsy, describing its causes and symptoms exactly after the same manner as it happens in the human subject. The first author gives also a few elaborate prescriptions for the disease; but the other, after giving a long, tedious discourse on the causes and diagnostic, declares it to be incurable: therefore I am inclined to think that those writers have treated of this disease, more for the purpose of making up an additional chapter to their book, than to instruct the public on the diseases to which animals are subject. In farcy, or after the recovery of a considerable inflammatory disease, horses are subject to anasarcaous affections; even for want of proper and regular exercise, they will swell in the legs, sheats, and, more or less, under the belly, sometimes to a considerable size. It is these different swellings, I apprehend, that are described by the ancient writers to be dropsy. But, however, as these kind of swellings are common in horses, it becomes necessary to describe here the most predominant causes of it.

The most predominant causes proceed from too great an effusion of serum by the exhalent arteries than the absorbents can take up. This
may be occasioned either by too great a quantity of liquid thrown out by the former, or by an inability of the latter to perform their office. Sometimes, however, it may be occasioned by a too great evacuation of blood, or by acute diseases protracted beyond their usual periods; and although this disease seems very different from a laxity of fibres, yet those different swellings seem to be produced in a similar manner by both. For the vital powers being debilitated by either of these causes, naturally bring on a certain debility and laxity of the solids; and on the other hand, a debility of the solids always brings on a debility of the vital powers; and from this debility of vital powers, in both cases, it happens that the fluid which ought to be expelled from the body is not, but accumulates by degrees in its cavities; there is, however, this difference between the two causes: that in the one which arises from laxity, the solid parts are more injured than in that which arises from a debility of the vital powers. In the former, therefore, the water seems to flow out from every quarter, and the body swells all over. But when the disease is occasioned by a debility of the vital powers, though the solids be less damaged, yet, the powers of the heart being much diminished, and the humours scarce propelled through the extreme vessels,
the thin liquids, by which, in a healthy state, the body is daily recruited, are carried by their own weight either into the cavities, or into the cellular texture. Hence those aqueous effusions which follow great evacuations of blood gradually ascending, till they arise in the sheaths and cellular membrane under the belly. A careful and diligent investigation into all the phenomena attending those kind of dropsies in horses, will convince every impartial observer, that it is always a disease of diminished, and seldom of increased excitement, unless when excitement is pushed beyond its due bounds into indirect debility.

The cure of these different swellings chiefly depends on two indications: 1st. To expel the superfluous quantity of water. 2nd. To prevent its returning again. The first will be accomplished by diuretics, which must be assiduously kept up, till the abundant humour is totally removed. A ball composed of Venice turpentine, rosin, and Castile soap, three drachms of each make an admirable diuretic, which seldom fails to produce the desired effect, when properly administered every three, four, or five days, according to its effect. When the sheat and belly is so immensely

* By increased excitement I mean high feeding, without a sufficient and regular exercise.
swelled, it is then absolutely necessary to scarify very deeply with a large scarificator, or a common fleam will answer the same purpose; afterwards blisters and warm fomentations will be of great service. After the water is totally evacuated by diuretics and scarifications, its future return will be prevented by a constant and moderate exercise. If the disease proceed from atony and relaxation, more especially of the vascular system, the animal must be supported and invigorated by the most powerful and permanent stimuli; such as barley and split-beans, and, in case of extreme debility and emaciation, a good handful of wheat, three times a day, mixed with oats, and at the same time, good water-gruel for his drink, will soon contribute to strengthen the system, and perform a permanent cure.

Convinced by experience of the inefficacy and pernicious consequences of employing physic of any kind for the cure of this disease, particularly when produced by profuse evacuations of blood, suddenly inducing a considerable diminution of the strength, or by long-protracted acute diseases, I recommend they should never be made use of, having rather a tendency to increase the disease, by still further exhausting the sensorial power, than removing it.
ASTHMA.

This disease is evidently spasmodic and very common to horses and other animals, (asses excepted) it is attended with a sense of straitness in the chest, and tightness, impeding respiration and cough, preventing a free circulation of the blood through the lungs, and threatening suffocation. These symptoms have induced many to think that horses of this description were broken winded; Asthma may continue to give very great distress, for years, varying from the weather, the manner of feeding, and other circumstances. This disease has been divided into two classes, the moist and dry; the former is accompanied with an expectoration of mucus, or purulent matter, after coughing or drinking, but the latter is not. The moist asthma occasions difficulty, and sometimes great oppression, in breathing; the flanks have a sudden and quick motion; the breathing short, but without the nostrils being open, as is observed in horses that are feverish, or broken-winded; which symptoms make an evident difference between the two diseases.

The dry or spasmodic asthma proceeds from an irritation of the nerves, in the membranous
part of the lungs and trachea; but there is no matter discharged by it, except a little water from the nose. But the cough is extremely distressing, and sometimes almost incessant; particularly after drinking, and suddenly stopped after hard riding; excessive heat or cold will make it sometimes very teasing; the insupportable heat of hot stables more so than any other thing; and yet, notwithstanding all this apparent interruption to the free passage of the blood through the lungs, an inflammation here seldom supervenes; and though the cough is so troublesome, the horse eats heartily; and I have known several good hunters, affected with this complaint, performing their business pretty well; and if they are well kept, they will look well in their coats, and maintain most of the usual signs of health.

Prognosis. There is a greater chance of curing the disease in a young horse than in an advanced age one. The cough begins generally at five or six years old, at which period it is called by farriers, &c. a cold, and if the cold is allowed to go on, or improperly treated, a greater difficulty of breathing and coughing increases; and when the animal arrives at eight or nine years of age, asthma usually terminates in broken wind or death.
TREATMENT. In order to obtain relief, we must bleed according to the strength of the horse, and difficulty of breathing, and repeating it according to the strength and fulness of the pulse; after which we must give a ball, composed of two drachms of calomel, made up with a little Venice turpentine; the same dose may be repeated twenty four hours after the first dose, which must be given at night, to work off the next morning, with five or six drachms of aloes, made up, with treacle.

After having repeated two or three times, the same process of calomel and physic after the method above described, we must give one of the following balls, every morning: take Ethiop's mineral, ten drachms; gum ammoniacum, two ounces; gum guaiacum four ounces; flor. benzoïni, six drachms; Venice soap, three ounces; anisated balsam of sulphur, sufficient quantity to form the whole into six balls; or take of cuprum vitriolatum, six drachms; tartarized antimony, three drachms; Venice turpentine, sufficient quantity to form six balls; one of these to be given every evening, and continued for some time after recovery; but every other day will be sufficient.

The veterinary attention has been fixed with a considerable degree of anxiety, for these last seven or eight years, respecting the effects of
the digitalis as a successful remedy in the cure of asthma and other diseases of the lungs in horses, as well as in the pulmonary consumption in the human subject. It being the duty of every medical man to exert his utmost abilities in endeavours to oppose and combat the fatal effects of incurable disorders in horses, I have taken every opportunity of trying the effects of digitalis in a great number of horses under my care. On every trial I made I found that it sometimes gave a temporary relief, and in some instances suspended the progress of the disease for a little time, except, however, in the suppurative stage; in which case it never fails to increase the cough, and of course to do great, and, very often, irreparable mischief.

ATTAIN

Signifies a sore on the fetlock, or leg, produced by a blow or bruise, or from an overreach, or a tread, by one horse treading upon another's heel, as it frequently happens in the cavalry regiments, in passaging to the right or left. The rational method of treating such a case, is to bring the cut or contused parts to a suppuration as soon as possible, as there is no such thing as curing wounds in horses by the first intention (as it is called) in the human
subject. A wound in horses must absolutely suppurate: therefore let the part be well soaked in warm water three times a day, for an hour each time; after which let the sore be dressed with an ointment composed of an equal quantity of Venice turpentine, fresh butter and honey, and the part well covered with a warm poultice of bran, or other emollient substance. If the case is so managed the cure will be shortly completed, without having recourse to those pretended balsams, or spirituous applications, so much and strongly recommended in almost every farriery book.

**ATROPHY, OR UNIVERSAL DECAY.**

Notwithstanding all the care we take to prevent this termination, a violent cold, stranggles, inflammation of the lungs, farcy, &c. will sometimes degenerate into this disease; the symptoms of which are a decrease of strength, and loss of appetite, without apparent fever; but the animal has a very sharp cough, and some difficulty in breathing, a running at the nose, which increases and diminishes at certain times, and frequently attended with slight cold, shivering, the pulse is commonly less frequent, and softer, but sometimes quicker than before, and
by degrees a hectic fever in all its circumstances is formed.

In this state of symptoms we may conclude that an abscess, or, as it is called, a vomica, is formed in the pleura and lungs; in which purulent matter frequently remains, for some time, as enclosed in a cyst; but when it breaks it pours matter into the cavity of the chest and bronchiae, that it properly constitutes Atrophy. The corruption of the matter may be owing to several causes; as matter effused during the inflammation of the lungs, not being a pure serum fit to be converted into a laudable pus, but had been joined with other matters which prevented that, and gave a considerable acrimony to the whole; or matter effused and converted into pus, merely by a long stagnation in a vomica, or by its connection with an empyema*, had been so corrupted as to become unfit for the purpose of pus in healing of the ulcer.

Another cause which may produce an atrophy is a cold, which in many cases seems, in length of time, to have the expectoration of mucus through the nose, proper to it, gradually changed to a discharge of pus; and at the same time, by the addition of a hectic fever, the disease, which was at first nothing but a cold, is

* Emphyema signifies a collection of water in the chest.
now changed into an atrophy. But innumerable examples convince us that this disease, eight times out of ten, originates from an inflammation of the lungs and other viscera; and when this is the case, no time is to be lost in removing it.

Cure. In the different periods of the disease, the curative indications are, to prevent the formation of fresh tubercles, to obviate the inflammation of those already formed, to promote their resolution, to allay morbid irritability, the cough, and other troublesome symptoms; and, above all, to check the tendency to the hectic state. But, unfortunately, we know of no medicines that can exert their specific effects upon the lungs by dissolving tuberculous concretions; nor is it probable that such a thing will be found, we do not know. Yet medicines that operate in a general manner upon the system, may, by promoting absorption, and diminishing the determination to the lungs, tend to disperse tubercles, or to prevent their formation. I have seen several instances of wonderful recovery in cases supposed to be beyond the power of art, by pursuing the following method. In this case bleeding must be omitted, as the complaint proceeds from a weakness in the organs of digestion, and an undue supply of chyle to the blood, with all the symptoms above described.
In atrophy complaints, make a prudent use of the following balls; viz. Take of cuprum vitriolatum and tartarised antimony, an ounce of each; calomel, two drachms; opium, four drachms; anisated balsam of sulphur, a sufficient quantity to make eight balls; one of which is to be given every evening.*

BACK-GALLED.

This is an accident to which saddle-horses are very liable, particularly young ones, on account of the tenderness and delicacy of their skin; therefore, if a horse has a bad saddle, or been rode by a bad rider, or had a heavy load to carry, he is sure to get a sore back, which is often attended with more or less of inflammation, according to the cause that has produced it.

When the inflammation has advanced so far as to cause obstruction, there will be several little abscesses formed; but if the pressure is removed before the inflammation is too far advanced, the obstruction will be less, and will not require any other treatment than to wash the parts with salt water, and a little vinegar, or spirits of wine, after the back has been properly

* This is a case in which 13 grains of arsenic, mixed with six drachms of cordial ball will be found an admirable remedy.