LAMPAS.

I said in my first work, published on the external structure of the horse, that it was absurd to treat of lampas as a disease, since the palate or roof of the mouth does not in the least serve to chew the food. In support of this opinion, I shall give here the physiology of the parts that serve to mastication, and the means by which the aliments are conveyed from the mouth into the stomach.

The food is brought between the teeth, by the jaw, the tongue, and lips. The powers which move these parts are various muscles; by which the lower jaw is moved from the upper, and again brought to it; whilst the tongue perpetually puts the food between the teeth, and the lips prevent it, when masticated, from falling out of the mouth. By this process, and the powerful action of the maxillary muscles, the food is divided, lacerated, and, as it were, ground, and mixed with the saliva, mucus of the mouth, and the atmospheric air, and rendered fit to be swallowed and digested; and the conveying of the masticated food from the mouth into the fauces, and from the fauces through the oesophagus into the stomach, is performed by the jaws shutting, so as to pre-
prevent the food from falling out of the mouth: the tongue is then applied to the palate, by which the food lying upon the back of the tongue is pressed into the cavity of the fauces, where it is received by the dilated pharynx. The pharynx then is irritated to contract, by which the food is expelled into the æsophagus, and, by the contraction and dilation of different muscles, the aliments are conveyed into the stomach.

This explanation of the physiology of the mastication and deglution, will be sufficient to convince the reader, that the supposed enlargement of the palate (called lampas) cannot deprive the animal of a single grain of his oats, nor any other food. It is true that the front teeth and tongue serve to draw the hay out of the rack, and cut the grass; but this office is so easily done, that oxen, cows, sheep, &c. draw the forage out of the rack, and cut the grass, though they have no teeth in the front of their upper jaws; we may, therefore, reasonably conclude, that this error, as well as many others, in respect to horses, proceeds from the unaccountable obstinacy of grooms, farriers, and other stabularians, the generality of which are too ignorant to be convinced, that the spongy substance of the palate or roof of the
LETHARGY.

mouth is natural to every young horse.* To them, however, or others, that will positively have a remedy for the lampas, they may cure it by the application of the actual cautery on the roof of the mouth——this will answer to reduce the enlargement; but the operation must be performed carefully, or the remedy may prove worse than the disease.

I cannot help reminding my readers once more, that such an operation is continued more from the force of custom, than from any experience of its real good effects.

LETHARGY

Is a disorder that exists in the human subject, the symptoms of which are a heaviness, and perpetual inclination to sleep. On being awakened, the patient answers as if he was dreaming, and in a state of delirium; and immediately relapses into the same state. This disease is often attended with fever, and every symptom of an approaching apoplexy.

* I can assure my readers that I have now thirty six years practised the veterinary art, and during that long period I never allowed any thing to be done to the lampas. Although I have had thousands of young horses in my care, I sincerely declare that I never saw a single one suffering the least inconvenience from it: and when they get off their food, it is not in consequence of the lampas, but from other causes, such as cold, strangles, fever, or perhaps an inflammation of the lungs, &c.
The ancient, and some of the modern veterinary writers, speak of a similar disorder in horses: they say, that a horse, when affected with violent cold, is seized with a sleepiness, rests his head with his mouth in the manger, and his poll inclining to one side, which denotes a great stupor and insensibility. As there is seldom any pain, he will shew an inclination to eat, but is apt to fall asleep with the hay, oats, bran, or whatever else has been given him, in his mouth. This, indeed, he seldom chews, but swallows them down; except he is roused, and his head kept moving, he presently drops asleep again; and if he continues any time in this state, he falls into an atrophy or universal decay, especially if his lungs, liver, or any other of the principal viscera are diseased, or if he has received any hurt on his head.

Now I must ask any one who ever saw a sick horse, whether all these symptoms are not exactly those which belong to many other diseases: such as the beginning of the staggers, fevers, inflammation of the lungs, and other inflammatory complaints? and, indeed, with little attention to the symptoms, it will be found that they belong to one of these, and not properly a disorder of itself. With respect to horses, or any other quadrupeds (the dog excepted), it may be thought singular that I differ
so much in opinion with the ancient system of farriery. But the object of this publication being to give information on different subjects, which have been for many years enveloped in obscurity, I shall be extremely careful in admitting nothing but what is supported by true theory, and confirmed by experience.

It is unnecessary to say any thing further on this subject, as the reader will find the symptoms and treatment of this pretended disease satisfactorily described under the articles Fever, Staggers, and Apoplexy.

LOCKED JAW

Is a spasmodic disorder to which horses are very subject, but more so in hot than in cold climates, arising from an irritation of the nervous system, which produces a cramp of the whole body, and even spasms of the internal viscera, except the heart, to such a degree, as entirely to destroy their sensibility, so that no effect can be produced by the most powerful stimulants; in which case the animal becomes costive, the stomach and bowels having lost their sensibility.

The causes of this dreadful disorder are various, among which may be enumerated the following, viz. the operation of nicking and
docking; being pricked in shoeing, in consequence of the sympathy known to exist between the stomach and the brain, by the interference of a branch of nerve called Parvagum. Locked Jaw is frequently owing to the imprudent practice of exposing horses to cold, or washing them with cold pump water, when the animals are in a state of perspiration; or exposing them in a current of air in the same state, after having been indulged a long time with a hot stable and clothing. Botts and other worms have been supposed sometimes to produce this disease, by adhering to and wounding the nervous coat of the stomach; this cause is rather difficult to determine, although as likely to do the mischief as any other assigned.

The symptoms of locked jaw appear sometimes to a violent degree very suddenly—in other instances very gradually; but, in general, the disorder begins with a kind of stiffness in the muscles of the neck and four extremities, which render the legs so stiff, as to make the animal move as if he was composed of one piece only; the spine of the back is taken with the same stiffness; the ears and tail are erect, the nostrils expanded, and the eyes fixed, and covered by the cartilage nictitans, vulgarly called the haw; at the least motion displaying a considerable degree of suffering; much difficulty
LOKED JAW.

seems to be in the muscles of the pharinx and larynx; the abdominal muscles are also strongly affected, as may be seen by the body being extremely drawn up.*

The cure of Locked Jaw is extremely difficult; there are but very few practitioners who can boast of having been successful in curing this dreadful malady, although there are numerous remedies recommended in their different works on the veterinary art. The greatest extremes of heat and cold have been strongly recommended, and it is said that both methods have been attended with success in some cases. I shall now give an account of which of the two above remedies have been successfully attempted by myself, during a long practice of thirty-six years.

It is said that the cold bath invigorates the system, encreases the tone of the solids, and promotes the circulation of the fluids, and insensible perspiration; hence it becomes a corro-

* It will be necessary to remark here, that Locked Jaw is a disease that is often united with inflammation of the lungs, and therefore requires to be treated as such; and indeed I believe that the want of attention to this important circumstance may sufficiently account for the many failures in attempting to cure this disorder by cold bathing—being a remedy diametrically opposite, and well known to be a real poison in any inflammatory complaints in horses, and the warm bath one of the best local applications known, to conquer the most violent and obstinate diathesis. From hence arises its salutary effect in the cure of Locked Jaw.
borant deobstruant, general evacuant, &c. This is very true, when the remedy is made use of in cases of local diseases. But how far these qualities go, in curing the inflammatory disorders of the brute, I leave it to the judgment of veterinary surgeons of experience, who, I trust, will agree with me, that cold applied to the surface of the body, in any acute disease, becomes real poison; particularly when the case proceeds from a sudden check of perspiration, which I hesitate not to declare to be the most predominant cause of locked jaw in horses, in this country in particular: and the following cases, attempted to be cured by cold applications or bathing, will give an idea of its effects, as it always, and uniformly, terminates in the following manner, when it proceeds from a sudden transition of cold to heat.

A horse four years and a half old, the property of Captain George Lawrance, 13th light dragoons, was taken with locked jaw in January, 1805: the owner and servants perceived the animal unwell, and very stiff in every part of his body, particularly in his neck and back, but did not know any thing about his jaw being locked, as it is termed. I began to treat him in the following manner, viz. I first ordered him to be brought near the pump of the barrack-yard at Sandwich, and desired twelve dragoons
to dash cold water on the animal as hard as they could, without interruption; which process was continued ten minutes, after which the animal was led into the stable, and kept covered with twenty-four regimental horse cloths; at the same time four men were employed in rubbing the legs and belly until quite warm and dried; the whole body was dressed in the same manner, taking care to remove his clothing by degrees only. During this time he took a nourishing caly, composed of very strong gruel and salt, with two ounces of aloes; this was repeated every two hours, in consequence of the jaw being so closed, that no food or internal medicines could be administered by the mouth. The next morning the same treatment was repeated, but with no kind of apparent relief. In consequence of which I ordered the horse to be swam in the river Haven at Sandwich during five minutes, and after getting out of the water he was well clothed, and rubbed quite dry, and attended as above described. The next morning the bathing in the river at full tide was repeated with some appearance of relief to the animal, as he could move his jaw sufficiently to sip a little hot gruel, and was fed with plenty of the same every hour, given with a syringe; the day after the cold bath was repeated with the same care and attendance as above, and with
the same appearance of success, until the next morning, at which time the symptoms returned as violent as ever. I then discontinued the cold bathing, as the river was almost inaccessible, both to throw the horse in, or to take him out of the water: in consequence of this difficulty, and likewise the return of more violent symptoms, with a cough, at the time of the animal's coming out of the water, which made me no longer doubt that his disorder was accompanied with an inflammation of the lungs, owing to a suppression of perspiration; and that cold bathing in such a case must have been a real poison to the animal, in locked jaw, and in every other spasmodic and inflammatory complaint. I therefore caused the horse to lose three quarts of blood, and to have a blister applied to each side of the jaw, and on each side of the chest.

The nutritive clysters were continued as above, with the addition of half an ounce of opium; the gruel given with the horn was still continued, but with such torture to the animal that none could be swallowed. The blister on the jaw and chest was repeated a second time; but the return of the fits became more frequent and violent, until death put an end to his sufferings.
Case Second.

A mare, the property of Sir Isaac Corry, in Dublin, was treated as above: the animal was not swam, but she was dashed with cold water, and with no better success. Indeed, I have had many opportunities of trying, and I have seen a great many other people try to cure locked jaw by cold bathing; but I uniformly found it to aggravate rather than diminish the symptoms. I shall not, therefore, trouble the reader with a number of unsuccessful cases attempted by cold bathing; yet I cannot terminate this subject without mentioning a case or two of locked jaw completely cured by warm bathing, the effect of which is to relax the solids, solicit the fluids externally, and by these means greatly promote sensible and insensible perspiration: in short, it may be considered as a relaxant and evacuant.

It may be necessary, however, to observe, that the bath should always be in a temperature proportionate to the state of the constitution of the animal, as some horses will bear it, and indeed require it, infinitely hotter than some others. It is on this principle, that any benefit is expected to be derived from the application of warm baths in the diseases of horses, particularly when the lungs are greatly inflamed, and the disorder arises from a suppression of perspiration.
Case Third

In the year 1797, a horse, the property of a starch manufacturer in Thomas-street, Dublin, took lock-jaw, attended with terrible convulsive pains at the least attempt to move the animal; and by the information I could get, I perceived that the disorder was occasioned by a suppression of perspiration: I therefore began the treatment by taking away five quarts of blood at once; and as no medicine, or food of any kind, could possibly be introduced by the mouth, I then applied a strong blister on each side of the chest opposite the lungs, and one on each side of the jaw; and as there was a very convenient large tub in the house, capable of swimming a horse, I took this opportunity to give a fair trial to warm bathing, for which the owner gave me every assistance in his power, in hopes to succeed in this troublesome undertaking. First, the horse was raised in a tub, in the same manner as horses are put on board ship; then the water, being ready warmed, was conveyed from the boiler to the tub, by means of a machine adapted to that purpose, such as breweries are supplied with, in order to convey the water from one tub to another, the animal being nearly covered in water 95 degrees of heat. I caused him to remain twenty minutes;
The water was then let out by the cock fixed to the tub for that purpose: the bath was repeated twice a day, taking the greatest care to keep the animal well covered with ten or twelve blankets, his legs perfectly wrapped with the same; and a nourishing oyster, composed of strong water gruel, salt, and aloes two ounces, was repeated six times in twenty-four hours; after which he was able to take a little gruel with the horn, two drachms of opium and camphor being dissolved in it.

In consequence of this appearance of amendment, the animal was allowed to remain in the tub, in order to repeat the bathing in the usual way; after which he was recovered so far as to be able to eat a little food; and after the eighth bathing he was roused out of the bathing-tub, in which he was confined four days and four nights, and sent to his own stable with perfect liberty of his jaw, but extremely weak and debilitated, which I conceived to arise from the long and profuse sweating during the time he had been kept in hot water.

This weakness was recovered by keeping the horse upon a nutritive diet, and several gentle cordials, composed of water gruel, three quarters, cinnamon, an ounce, infused in it, and a few beans in every feed of mash; but in order to second the effect of this diet, I prescribed
the following tonic and alterative balls, to be taken once or twice a day, according to their effect: viz. tartar emetic and camphor two ounces, calomel half an ounce, powdered ginger an ounce, opium four drachms, honey sufficient quantity to mix the mass, and to be divided into eight balls.

The treatment being so managed, has greatly contributed to restore this horse to his former state of health.

**Case Fourth.**

I shall now relate another case of lock-jaw, to prove the success that may be expected in attempting to cure this dreadful disorder, by warm bathing, if properly and judiciously managed, particularly when it proceeds from a sudden check of perspiration, which is often the case in this country. The following will serve to elucidate still more the practice, which I recommend to every young practitioner to endeavour to try, by establishing warm baths for horses as one of the most celebrated remedies, not only in this case, but in almost every spasmodic and inflammatory complaint, to which the horse is subject, and which so often proves fatal.

In the year 1797, I was doing duty by desire of the Right Hon. Colonel Stewart and the
Lord Lieutenant of Ireland, in the late Fifth Royal Irish. A troop-horse of that regiment took lock-jaw, in consequence of a sudden check of perspiration. Being at camp, and not having a proper tub to cover the animal in warm water, I tried it in this manner: first, I ordered the horse to lose four quarts of blood, and a strong blister applied on each side of the jaw and chest; then I ordered the head to be constantly fomented day and night, almost without intermission, with water nearly boiling, the body and legs being covered with a great many barrack blankets and horse-cloths; and as the jaw was not yet completely closed, I quickly took this favourable opportunity to give him a ball composed of one ounce of aloes, with a drachm of calomel mixed into two small balls, which was given to him by means of a machine made for that purpose; this machine is infinitely quicker and easier than with a man's hand, in which case the administration of balls are impracticable when the jaw is locked, or nearly so.

This strong purging physic prevents costiveness, which aggravates greatly the disorder, and by means of good boiled gruel every two hours, given with a small horn, and a drachm of opium twice a day, the farther progress of the disorder has been prevented, and completely recovered of this dreadful disorder, after being eight days
under this treatment, the weakness and debility excepted, which was soon brought about again, by the use of plenty of nourishing and nutritive food.

**IOUSINESS.**

It is a very common case to see horses, oxen, cows, and other animals, affected with lice, or other animalculæ, particularly those who have been fed upon barren pastures, or kept in a state of starvation, &c.; because, such keep diminishes the vital heat, and reduces the strength of the body. As a proof of this, it will be observed that lice are never seen amongst horses, or any other animals, which are duly fed, and judiciously taken care of. Poverty produces many diseases of the skin in horses and other animals, such as lice, the mange, farcy, &c. However, this disorder is extremely easy to cure in brute animals, since it requires nothing more than to pay attention to good and judicious feeding, and cleanliness. And when this is thought, or found, ineffectual, corrosive sublimate, (hydrargyrus muriatus) dissolved in a strong infusion of tobacco, in the proportion of a drachm, to two quarts of the infusion. Or, cantharides, half an ounce; hellobore, two ounces; infuse the whole in two
quarts of tobacco water. Or friction, made with spirits of turpentine, will answer every purpose to kill lice in horses, and other animals.

MALLENDERS

Is a name given to a cutaneous inflammation which takes place just below the hock of horses: draught horses, in particular, being more subject to this inflammation and cracks than any others. It generally proceeds from want of cleanliness, or other causes that produce the grease, and may be, with propriety, styled the same disease.

The cure must be attempted by clipping off the hair close to the skin, and then wash the part first with soap and water, then with a weak solution of alum; and as the cracks are always transversal, they frequently heal with difficulty. On this account, therefore, it will be necessary to keep the animal at rest as much as possible, in order to promote the union of the sores; and at the same time keeping the skin soft with an emollient ointment, such as the common marshmallows, or mercurial ointment, mixed with a little camphor. Should the case appear to be obstinate, and resist this treatment, the reader will find that recommended in