

VETERINARY.

Domestic Veterinary Treatment of the Animals of the Farm.—6.

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DISEASES OF THE RESPIRATORY ORGANS.

We shall consider in this paper a number of diseases affecting the organs of respiration in horses, cattle, sheep and swine; give cause, symptoms, and treatment in each of the simple cases, but not in any way to supplant the regular veterinary attendant, for it is not to be expected that the farmer will be able to recognize all the symptoms in their many phases, as presented in disease.

CATARRH, COMMON COLD, BRONCHITIS, PLEURISY, PNEUMONIA AND BROKEN WIND.

These diseases bear such a close resemblance to each other that not unfrequently one terminates imperceptibly into another more severe in character; two or even more may be present at the same time. Thus we may have bronchi-pneumonia, or pleurisy or influenza with an attack of laryngitis, so that to an inexperienced observer the whole may present an assemblage of diseases of the most inextricable confusion.

Many of the above-named diseases are essentially similar in character, the difference in name arising merely from the difference in the locality in which they are manifested, as laryngitis and bronchitis, which are, as their terminations indicate, inflammation of the larynx and bronchæ, more particularly the lining mucous membrane.

CATARRH OR COMMON COLD.

Catarrh is inflammation of the mucous membrane of the air passages, more particularly of that portion which lines the nostrils, producing an increased discharge of mucus from the nose; it is one of the most frequent complaints met with in the horse, sometimes prevails over a large extent of country, and affects nearly every animal when it is denominated Influenza, Pink Eye, or Epizootic Catarrh.

The term Influenza is somewhat misleading, as it is generally understood to embrace one specific disease, instead of a number of manifestations. So much has been written, and so many observations taken in this disease that whole chapters might be written in describing this complaint. For the sake of description the various names by which it is known are here mentioned: Pink Eye, Typhoid Fever, Epizootic, Epheippus Fever, La Grippe, Typus Fever, Hepatic Fever and Bilious Fever are all one. We recognize several diseases under the denomination of Influenza, and are of opinion that it is more like Malarial Fever of the human subject, for it has been recorded that a single animal with a slight catarrh will communicate and become the centre of disease, and it is entirely a matter of chance as to whether a sporadic or common cold may not produce a very wide outbreak of Influenza; and that it disappears as suddenly as it commenced is incomprehensible, unless on the theory that it is a germ disease and has died out because the material on which it can live has died out also. Therefore sanitary measures are all important. Insist on the abundant admission of fresh air, a free use of disinfectants, with constant washing day by day of floors, walls, mangers and surroundings.

Symptoms.—Generally localizes its effects in the head and chest, the animal is feverish, the pulse altered in character—about fifty to sixty per minute—small in calibre, and a jarring or wiry touch; temperature elevated one or two degrees, about 102 to 103 Fahrenheit; corresponding to an elevation of temperature the respiration will vary from fifteen to thirty times a minute; the breath will be hot, and the breathing superficial from the closing of the bronchial tubes, as described in my last article. The eyes will be dull and watery. The membranes of the nasal duct being swollen, the tears cannot flow freely into the nostrils, therefore they escape from the eyes and flow over the cheeks. The visible mucous membranes of eyes and nostrils will be of a pinkish color, and from this appearance is sometimes described as Pink Eye. The animal yawns frequently, indicating derangement of the stomach and digestive organs, or gives forth a cough or sneeze at the same time. When the throat is sore, the appetite will be bad. Then a watery fluid is discharged from nostrils, which either disappears, in a favorable case, or becomes thick and tenacious; the urine is high colored, voided frequently, and dung ejected in small quantities, with a glazed, glistening surface.

Cause.—A very common cause is that of over-driving the animal, and then allowing him to stand in a draught of cold air; placing him in a cold, damp stable; turning him out to grass while in a state of perspiration; driving him into water, or wetting the legs when the system is exhausted after a long journey; placing him at once in a close, warm, or ill-ventilated stable with other horses suffering from the disease.

Treatment.—Owners of horses who are at all observant ought to be able to instantly detect the symptoms of Catarrh, and by prompt measures arrest its progress; and if any attention has been paid to my explanation of the theory of inflammation, there ought to be no difficulty in at once adopting domestic remedies for this complaint.

The first and great healing power of nature is rest for the wearied tissues. Make the animal warm and comfortable by rugs, and bandages to the legs; and give a bucket of gruel, instead of the usual method of filling the manger with oats, etc. Should

the animal not recover his natural heat, do not waste any time waiting, but remove the rugs, obtain a blanket, wring out in hot water and apply to sides and chest. Apply and well rub in some of the stimulating liniment, and cover with rugs until the reaction sets in. Give two drachms of the tincture of aconite morning and evening; place about half an ounce of nitre or saltpetre in his drinking water, which should have the cold chill taken from it. As soon as the animal will take any feed, offer a bran and flax seed mash, with boiled oats and a few carrots, and in most cases a recovery will soon be manifest. Without warmth and comfort medicine will prove of little or no avail. It may be necessary to continue these remedies four or five days in succession.

The causes of Epidemic Catarrh or Influenza have a close relation to the state and peculiarities of the atmosphere, the season of the year, etc. In the fall the prevalence of the northeast winds, or a rapid change of the atmosphere—a hot, close condition quickly succeeded by a cold, damp, moist state, is pretty certain to be followed by the prevalence of Epizootic Catarrh. It has been recorded that whenever an epidemic of this complaint appears in animals, the human subject is sure to be affected later, and it is then familiarly known as La Grippe. In our young animals it usually terminates in an abscess in the submaxillary space or underneath the jaw. This condition is known as "Strangles." Hot fomentation, the application of bran and linseed meal poultices are indicated. Should the abscess seem tardy in forming, a slight blister of the biniodide of mercury will hasten the process by increasing the flow of blood to the part already inflamed and thus cause suppuration, which should be balanced as soon as the matter points for an opening.

Should, unfortunately, Pneumonia supervene, its appearance is greatly to be dreaded, especially where a number of animals are kept. As disease has always a tendency to communicate a more violent attack from a simple commencement, it frequently undermines the whole organism before an ordinary observer would suspect that anything particular was the matter; it is here that a skilled veterinarian should be called in, as it is only his experienced ear that can detect the various changes which have been and are taking place. There is also something in the very cough which tells of the great and destructive damage done to the internal structures. It is soft and feeble in its character—is constrained, as it were. The animal is afraid to cough, from the acute pain which it experiences during the act; the countenance is dejected, the eyes present a dull, inanimate look of pain; if the hand is placed on the limbs, a moderate degree of warmth is at first felt, but if retained for a short time a coldness becomes perceptible, which seems to come from the deep-seated structure of the limbs. The visible mucous membranes of the eyes and nostrils present a dull, leaden hue, the front of face and nose become cold, and death soon closes the scene. The post mortem changes were described in our last article, and need not be again referred to; but in advising for domestic treatment, the lines laid down for common catarrh must be strictly followed, and in addition give alternately a half pint of good whiskey and port wine. The action of all stimulants is to rouse the system and give natural heat; it has also the twofold object of preventing a too great oxidation of the blood, and thus lower the temperature, which will sometimes mount up to 104° to 106° Fahrenheit in fatal cases of this disease.

Certain remedies, like simple aromatic tea; vegetable acids, as vinegar, lemon juice; alkalines in the form of salts, sweet spirits of nitre, which are household remedies, are always useful because they act on the excretory organs and ameliorate the effects of fever. Some little judgment is required in administering the proper quantity. Half a gill of whiskey would be too large a dose for a small buggy horse, and too small for a Clydesdale cart horse. Port or native wine, on some occasions, not only acts better than whiskey, but it is also more palatable to the patient. Use in half-pint doses, mixed with an equal quantity of water, at least three times a day, in severe cases.

In convalescence, the diet should be nutritious; eggs and milk, bread and milk, or milk and water, with bran and linseed meal mash are all indicated. In preparing the eggs, follow out, as near as possible, the domestic method. Break a dozen eggs into a basin; add a teaspoonful of salt (about a quarter of an ounce); mix the whole thoroughly with a whisk to a froth; add about two quarts of milk, and give the same to the patient.

Hygienic conditions now come in as a most important factor, with good nursing. Boiled oats, hay tea, or fresh cut vegetables of any kind that the stomach will retain or can be coaxed to take—the great and important fact is to give nourishment to support the flagging spirits. A very important "don't":—Don't force the recovering patient to walk or take any exercise. Give a good, roomy, warm box or barn; allow the animal to wander around on his own account; he will be the best judge of how much exercise he is willing or desirous of taking.

So far as we can observe, there is no reason to believe that any contagious disease can arise spontaneously. Influenza behaves, as do all other contagious diseases, in a uniform manner. It has its period of latency, development, height and decline. How it spreads it is sometimes difficult to trace; but surely the fact that in one case out of ten thousand the difficulty of tracing it seems entirely out of sight is no argument in supporting the assertion that it arises spontaneously. Fortunately, pleuro-

pneumonia contagiosa is unknown in the Dominion of Canada, and the government of this Dominion, with Professor McEachern, of the Montreal Veterinary College, as their veterinary adviser, deserve great credit; and we accord to Professor McEachern the sole credit of organizing the measures of sanitary police prevention against this scourge of the bovine tribe. We of Canada enjoy the valuable privilege of exporting our cattle alive on the hoof to Great Britain, whereas our neighbors across the border are obliged to convey them in carcass or slaughter at the port of landing. There is no doubt that during the coming winter and next spring a very great effort will be made by the American government to gain a foothold of this market, and it is for that reason we advocate the greatest precautions in guarding a great privilege that we of the Dominion of Canada enjoy. The English and Scotch farmers have been so sadly served with unfavorable condition of season as to render farming unprofitable, and we are quite of opinion that if they only knew of the favorable conditions that farming can be carried on in this country we should see more and more of them trying their fortune in Canada; and they will exclude the whole of our animals, should, unfortunately, such a dire calamity overtake our herds. Therefore it will be quite unnecessary for us to describe the symptoms of pleuro-pneumonia contagiosa, but we may state how pneumonia affects cattle, always remembering our original description of inflammation of the lungs. The ox is fortunately very rarely affected with pneumonia, except the working oxen. All diseases of the respiratory organs in cattle ought to be treated with very great suspicion, but they do occasionally suffer from catarrh and bronchitis, and the train of symptoms may be classed as follows:—

Usually a rigor or shivering fit, lasting about an hour, running of a glairy or white-of-egg colored mucus from nostrils, stiffness of gait, arching of back, dryness of nose, are unerring symptoms in the ox of the animal being ailing. Constipation, too, will be occasionally present, known by the stiffened and glazed appearance of the dung.

Cough, or wasting, as it is more often called, if very severe and more acute. As in bronchitis, the respiration becomes quickened with a wheezing sound, increasing to a grunt; this disease cannot be distinguished, unless by an expert, from pneumonia, and it is not important to separate the two diseases. In either case the affection must be treated promptly and decisively; apply hot fomentation to the sides and chest by means of the blanket; apply some strong liniment of ammonia; should this not be at hand, a pound of mustard applied hot, with some oil of turpentine, will be found beneficial. Some amount of discretion must be used, for if applied too strong it will blanch the skin. The bowels in oxen always want relieving, therefore give one pound of Epsom salts in two quarts of gruel, and a teaspoonful of the aconite mixture every four hours until relieved.

At times the disease takes a chronic form, from the acute symptoms not receiving any attention. The farmer will describe the animal as to have a "waste" on her, or that she is a pinner. The beast has been coughing, and she has fed tolerably well, given her usual quantity of milk, so that little notice is taken of the complaint; after a short time she begins to waste, the cough increases, and is more persistent; the appetite becomes capricious, the milk gradually diminishes, until an attack of diarrhoea usually closes the scene. "Old Brin. dies." The verdict is, "Inattention and neglect of a common cold."

As long as any of these disorders attack the upper part of the throat, and the animal coughs hearty, the farmer may be content with nursing and attending to the general comfort of the animal. Domestic veterinary treatment should be carried no further when skilled assistance can be had; for if the animal is valuable, or he refuses to lie down, take food, water, etc., then, under these conditions, the farmer may depend he has more than a common cold to deal with.

Tuberculosis is a contagious disease, and deserves a whole chapter to itself, and the consideration of this most important matter will be taken up in our next communication.

CATARRH IN SHEEP.

With regard to the diseases of sheep, although prevention is, generally speaking, easier than cure, still, at the same time, a knowledge of the general lines of treatment of the more common diseases to which sheep are liable is invaluable to the shepherd and farmer. The cases which we generally hear of and most frequently see are congestion of the lungs, in highly-bred, good-conditioned animals which are forced to exert themselves. In these cases, fatal effects are so rapid as to give great surprise to the owner. The art of detecting the ailments of sheep comes only to those who are observant of their natural ways and habits. Watch the eyes and ears, and learn to detect the first symptoms of ill health. In mild cases of catarrh, a slight discharge at the nostrils, weeping eyes and short cough are all that present themselves; the restlessness and absence of the cuddling will indicate that it has progressed beyond this stage to pneumonia. Of all diseases that affect the lungs of sheep, none cause so much loss to the Canadian breeders. It is due in most cases to direct exposure to cold and damp, and is principally met with in the fall and spring months. Almost the same symptoms that were described in the first part of inflammation of the lungs—elevation of the temperature to 102° to 104° Fahrenheit, oppressed breathing, hurried respiration, slight cough,