

Veterinary.

Parasitic Diseases—Round Worms.

The last number of the CANADA FARMER contained an article by Dr. A. Smith, upon worms in horses, to which we add the following from the London *Agricultural Gazette*.

The typical form of worm, according to the popular idea, is the round worm (*Nematode*), which, in some of its varieties, is found in all our domesticated animals. Horses, in common with other stock, harbor large numbers of these parasites in their digestive organs, and the tendency on the part of the carter or stable manager is to attribute all ordinary ailments to their presence. Chronic cough, rough coats, bad condition, hide bound, are all looked upon as so many consequences of the presence of worms in the stomach or intestines. Bots, which are so well known as temporary inhabitants of the horse's stomach, are often charged with the production of fatal results by eating through the walls of the organ, or weakening the structure so much that rupture occurs. It will be worth while to examine the evidence on these points before we suggest any means of dealing with these forms of parasitism to which horses are liable.

First, it may be stated with confidence that immense numbers of large, round worms (*Ascaris megalocephala*) are often found in post mortem examinations of horses which during life gave no indications of being the subjects of parasitic invasion. At the same time it must be allowed that when these parasites are known to exist—and they are easily discovered in the dung, as they attain a length varying from four to eight inches—and the horse continues in poor condition, in spite of a ravenous appetite, which a good supply of food fails to satisfy, the temptation to ascribe the illness to the action of the parasites is well nigh irresistible; accordingly, energetic remedies are used to expel the obnoxious guests.

An old-fashioned mode of treatment which was generally successful in expelling a great number of worms was the administration of drachm doses of calomel or tartarized antimony on three successive mornings, before the animal received any food, and on the fourth morning a dose of physic—that is, about four drachms of aloes. Active purgation followed this treatment, and hundreds of long round worms were thus got rid of. Sometimes, it must be confessed, the remedies were worse than the disease, and the horse died from excessive purging; but with proper care this mishap need not occur.

The modern method of treatment is more simple, and in good hands more safe and certain; a single dose of santonine, twenty grains, combined with three or four drachms of aloes, will effect all that the three doses of calomel, followed by a dose of physic, is likely to do, with less risk in the animal.

Another variety of round worm, which is known as the pin worm or whip worm (*Oxyuris curvula*), occasions much annoyance by the irritation which it excites in the large intestines. The symptoms which indicate the presence of this worm are generally well marked—the horse rubs the tail and hind quarters persistently, and there is usually a quantity of yellow matter consisting of the eggs of the parasites, adhering to the anus. The worm when voided is easily recognized; the females, which far outnumber the males, are from two to three inches in length, the anterior part of the body is about the thickness of a crow quill, and suddenly tapers off to a fine, needle-like tail. Purgatives, if sufficiently active, will cause the expulsion of the parasites, and the mixture of santonine and aloes previously referred to is very valuable as a remedy for this form of parasite, but in some cases they can only be dislodged by an enema of salt and water, or an infusion of quassia, which is very deadly to them.

A powerful antiparasitic injection may be made by infusion of four ounces of quassia chips in a quart of water for some hours, then adding two ounces of common salt. This mixture is to be injected into the rectum by means of the ordinary syringe. In obstinate cases the use of the injection in combination with the internal administration of aloes and santonine will seldom fail in effecting a cure.

Heat as a Disinfectant.

EDITOR CANADA FARMER:—Referring to the article in your last issue, under the above head, it would perhaps be well to recall the attention of the public to the recent most conclusive experiments made upon his own person, by a member of the medical staff of one of the public hospitals in Paris, France. He tried the sweating bath as a remedy for hydrophobia, by allowing himself repeatedly to be bitten by small dogs which had been certified by competent persons to be afflicted with hydrophobic, and which subsequently died with the usual symptoms of that terrible disease. It would seem that here also the maxim is verified that "the more terrible the disease, the simpler the remedy."

The doctor alluded to, whose name I am unable to recall to memory, after having allowed himself to be bitten, each time and immediately underwent a process of forced perspiration, with the simplest appliances. He would place a pail containing hot water on a cane-seated chair, and put a red hot brick into the water. Then, after having completely stripped himself of his clothes, he would take his seat on the chair and have a couple of blankets pinned around him so as to completely inclose himself, and the chair and pail. This simple remedy has in every case proved a sure and complete preventive of hydrophobia, for he lives yet.

As this is the time when hydrophobia is most dangerous, it might be useful to mention another effective and popular preventive, practised by the country people of Russia. Whenever they are bitten by a dog, they immerse the wound for several hours in salt brine, and if the poison is there, the parts swell but lightly, but the veins and arteries passing through and in the neighborhood of the affected part assume a dark purple color, and by this means can be traced in all their ramifications. The appearance of this discoloration is regarded as the sign that all danger is past.

To make assurance doubly sure it would perhaps be well to combine the two protective remedies, by taking the sweating bath and at the same time, soaking the wound in hot, salt brine.

These suggestions might be valuable where a physician is not to be had immediately, and perhaps even where there is no lack of them, for, as is well known, hydrophobia has stood its own against all the drugs that medical skill has hitherto employed against it.

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Horses' Summer Colds.

Summer colds occur amongst horses as well as amongst men, and have been tolerably general during the last two months. Old-seasoned horses have suffered with the young, raw, recent purchases. As usual, the colds have been more frequent and serious in towns than in the country. Indeed, in London and many other English towns there has been since April more sickness amongst horses than for eighteen months previously. There has been no widely spread contagious epizootic influenza, but the changeable weather, hot midday sun, dry, cold winds, chilling rains, and low night temperature irritate the respiratory mucous membranes, and produce cough, sore throat, and sometimes congested lungs. Noticed early, and rationally treated by warm clothing, mash diet, saline mixture, perfect rest, and mustard to the throat or sides, these cases are seldom troublesome; but, where carelessly and cruelly the horse, dull, coughing, and feverish, is still kept at work, much mischief frequently follows. The lungs become congested, the patient labours, is much distressed, and often dies; or the sluggish liver causes much prostration and yellow mucous membranes; or the blood, imperfectly freed of its waste products, gets into a depraved state, and there succeed the nodulous swellings of scarlatina, the extravasations of purpura, or the outpourings of exudate in the lymphatic glands and vessels, indicating farcy.

Another class of cases at present frequently come under the observation of the veterinarian. Horses are found stiff, scarcely able to move or to lift a limb, dull, with head depressed and mouth hot, more thirsty than hungry, the pulse soft and a little quickened, the temperature increased, the limbs generally round and puffed, tenderness on pressure along the back and loins. Over-exertion and exposure to wet or cold are the chief causes of such symptoms. A willing steed with a heavy load has perhaps

been toiling for hours, has got greatly overheated, and is senselessly allowed to stand in a draught, or in cold, beating sleet, or rain, of which there has generally been ample abundance of late. The horses at the present season that drag the ponderous vans and omnibuses overlaid with pleasure-seekers, bent on a day's enjoyment ten or fifteen miles from the smoke and bustle of the town, often afford unfortunate illustration of these cases. Similar ailments also occur amongst railway and carriers' horses, often pushed along at six or seven miles an hour, with loads of several tons behind them, which an ordinary pair of horses could scarcely move at a snail's pace. It is hard to say whether it is the over-heating, exhausting work, or the subsequent standing still and becoming too rapidly cooled, which proves most injurious. But certain it is that the two conditions conjoined seriously impair the health of many good horses. If the animal is hot, exhausted, and perhaps hungry, the weakened powers of life cannot safely withstand the rapid chilling; perspiration is checked with dangerous rapidity; waste materials, which ought to be got rid of through the skin, are retained; the fibrous textures, especially of the skin and coverings of muscles are congested and highly sensitive; from the severe exertion the muscles of the back, loins, and limbs are stiff and sore, and are rendered still more so by exposure to cold and wet. These cases of "bucketing" sometimes give rise to congested lungs; disease of the kidneys occasionally supervenes; more frequently the irritation of the skin and other mucous surface extends to the sensitive laminae of the fat, and the horse in a few days is pained, fevered, and suffering from acute founder.

When an animal is found, probably the day after his severe work and exposure, stiff and with "cold all over him," he should be comfortably clothed; if the limbs are chilly, flannel bandages will be desirable; warm mashes and gruel will perhaps tempt him to eat and drink; the glass of warm whisky and water which his master in like circumstances would prescribe in his own case is eminently suitable for the faithful servant, or a different stimulant may be tried in the form of an ounce each of sulphuric ether and powdered gentian given in a pint of beer. In the mashes or in draught also give an ounce of nitre and about two or three ounces of Epsom salt—a saline mixture which must be repeated for about three mornings and will help to restore to sound working order, both skin, kidneys, and bowels. So long as the patient remains dull and does not eat well, the ether and gentian, or some other such cordial, should be continued twice or thrice daily. An airy, comfortable loose box will greatly hasten his recovery. Until the horse feels well and is entirely free from soreness, stiffness, and pain, work is likely to make him as bad or worse than ever.—*North British Agriculturist*.

BURNING WARTS.—Some years ago, I had a three-year-old colt, with a large bleeding wart on the left leg near the stifle joint. It was painful to the colt and annoying to me. I secured the colt so that I could properly treat the case. I cleansed the parts well with soft soap and water. Then I applied a strong silk cord around the wart, as tight as possible, and applied muriatic acid three times for one week with a soft feather, when the wart dropped off. I then washed and continued to keep clean, with soft soap and water, and applied lard oil twice a day. In six weeks, the part was healed and haired over and smooth with the surface.—*Cor. Country Gentleman*.

INFLAMMATION OF THE BLADDER.—The symptoms of inflammation of the kidneys and that of the neck of the bladder differ mainly in the appearances of the urine. When the seat of disease is the kidneys, the urine is clear but high colored and often nearly black; when the bladder is affected, the urine is thick and turbid, but of its natural color. The cause of the trouble may still be found in the kidneys, the secretion from which may be very concentrated and irritating to the bladder. It would, therefore, be well to remove this by giving no more copaiba (which is itself productive of just this effect), but in place of it copious emollient drinks of linseed tea and no other drink. Give a pint of linseed oil for a purge and afterwards bran mashes with scalded linseed as food, with clean, good, sound hay. Musty hay is a prolific cause of trouble in this way. Trust rather to these gentle methods than to nitre, copaiba, or other drugs which irritate instead of curing.—*N. Y. Tribune*.

TO DRIVE VERMIN FROM DOGS.—Mercurial ointment I found the most convenient and certain destroyer of vermin of the many other preparations I have tried. For a small dog—say under sixteen pounds—about the size of a pea rubbed at the root of each ear on the outside, and allowed to remain a night, will destroy every parasite on the skin. Next day wash the dog with soap made in the following manner:—Take half a pound of white soap, pare it down into thin slices, put it in a pot with a tumbler of water, and boil and stir till the soap is dissolved, adding more water if necessary. Put into it as much mercurial ointment as will give it a slight tinge, stir well so as to mix thoroughly, and pour into moulds, such as cups, saucers, &c. When cool it can be cut to any size, and will be found deadly to vermin, and cleansing to the skin and coat. Mercurial preparations have a very powerful effect on dogs, and when the ointment is applied externally, they must be kept dry and warm.—*Fanciers' Gazette*.