Stock and Dairy.

Diseases of Farm Horses.

INTESTINAL SPASM (GRIPES.)

Every carter is acquainted with the disease common among working horses, and known locally as the "fret," or more generally under the term "gripes" or "colic." The disease is really spasmodic contraction of the muscular structure of the intestines, and is always attended with intense pain, which continues while the spasm lasts, and then suddenly ceases, to recur after a short interval. This peculiarity is deserving of more attention than it usually meets with among practical men, because it at once separates colic from other diseases of the abdominal organs which are painful, and therefore to some extent give rise to the same kind of symptoms. The distinction between the different forms of disease is most essential, as the remedies which are effective in one case may be injurious in another; especially is this true when inflammation of the intestines is mistaken for colic, the latter disease being often treated with success by means of such powerful domestic remedies as gin and sugar, or full doses of turpentine, medicines which would operate injuriously in inflammation.

Causes of spasm of the intestines are, like those which produce acute indigestion, incidental to the ordinary daily management of the animal. Large draughts of cold water are of all things likely to cause an attack, particularly when the animal is heated after exertion. Coarse provender is similarly, but less frequently, injurious, and the disease, in many instances, can be traced to exposure to inclement weather.

An attack of colic is always indicated by the sudden manifestations of signs of severe pain.—There is no preliminary dullness, or other sign of derangement; the horse is well one moment and the next he is rolling about in a state of violent suffering. At this period the symptoms are indicative of abdominal pain, without being sufficiently defined to make the nature of the disease evident; but in the course of a few moments there will occur one of those intermissions which are so characteristic of colic; the horse will get up, shift about in the stall uneasily, whisk his tail, and perhaps attempt to strike the belly with one of the hind feet, and then suddenly he becomes quiet, probably looks about for food, and will eat if supplied with provender. A return of the pain soon occurs, and all the previous symptoms again appear, the paroxysms continue for a longer time as they recur, and the intervals of rest are shorter, until the pain at last becomes continuous, and the disease becomes complicated with inflammation, or strangulation of a portion of the intestine.

The veterinary surgeon will distinguish between colic and the more serious disease—inflammation of the intestines, by the difference in the character of the pulse, the state of the visible mucous membranes, and the internal temperature; the non-professional attendant, who is often compelled to act in the absence of the veterinary surgeon, must be content to judge by the general symptoms which of the two diseases is present, and he will be guided chiefly by the violent expression of pain, alternating with periods of freedom from suffering, which distinguish spasm or colic.

Treatment will usually be commenced by the administration of some anti-spasmodic drench, of which there are many forms, most of them containing pungent agents, which act as powerful local and general stimulants, and in most cases quickly cure the spasms, but do considerable mischief if inflammation happens to have set in.

To avoid any risk of doing harm by medicines, the best plan is to have at hand a few small bottles containing two ounces of nitric ether and half the quantity of laudanum. This mixture, added to half a pint of water, forms a very effective colic drench, and no harm will be done if inflammation exists.

After the draught has been given, the horse should be walked about for half an hour, and if at the end of that time another attack of pain occurs, the dose should be repeated. In many cases, in fact in the majority of instances of colic, the attack yields to one or two doses of medicine, and the horse is fit for work in a few hours, but now and then the spasm continues and becomes more severe, and fatal exhaustion from the violent pain is to be apprehended. These severe forms of the disease require all the knowledge and skill of an experienced veterinary surgeon for their successful treatment.—*Agricultural Gazette.*

Some Hints to Farmers.

A correspondent of the *Ohio Farmer*, who is a farmer himself, writes as follows:—

"A farmer in good circumstances, residing in a neighboring township, purchased a thoroughbred Shorthorn bull, well built, of good pedigree, and, what rendered him still more valuable in this dairy region, he descended from a family of superior milkers. One would suppose that the money was invested to excellent advantage, but aside from the improvement of the owner's stock, he never half paid for the food he ate. The owner charged the enormous sum of three dollars to insure, and though I have known many of his grades to sell for more at one year of age than three-year-old natives would bring, yet the neighboring farmers would not pay three dollars for a calf. The trifling amount to be invested would have doubled the value of their cattle at one year of age, and yet they growl about 'hard times,' 'low price of stock,' etc. Their stock ought to be low. I can find an abundance of native yearling steers throughout the country that would hardly make a back-load for a good strong man. The large, mellow, meaty grades which drovers so delight to handle, are not to be found here, but in their place (or in the place that should be occupied by such), are to be seen little skinny scrubs, which at three years old average eight or nine hundred weight. Every native steer that is brought to maturity on our farms is raised at a dead loss of the amount which it costs to keep him for one year, which at a low estimate may be set at twenty-five dollars. Talk about hard times being caused by middlemen, when in the case under consideration, an outlay of three dollars would have yielded more than seven hundred per cent. interest. And I can point to examples where a similar outlay in the improvement of different flocks of sheep would have returned a proportionate profit upon the investment.

"And these very prejudiced, one-sided, envious men, who would not pay three dollars for a calf from a thoroughbred bull or half a dollar for a lamb from a Cotswold buck, are the men who are continually snivelling about high taxes, exorbitant tariffs and like nonsense. Hard times, indeed! You deserve to be made to squeal when you pinch yourselves, pinch each other and try to pinch those who would delight in seeing a better class of stock upon every farm in the country. You ought not to complain, for if you don't get more than forty-five cents for your wool when your neighbors all about you are selling for fifty-five cents, or two dollars per head, while others can sell readily at twice that amount. You may have the consolation of knowing that the middleman makes the most on that he has paid the most for. Let it be hard times for such men. They are a damage in any community where those who would like to see progress and improvement are in the minority. Of course they do not see it in the light that others see it, and they never will—and why? For the simple reason that they stand just where their fathers left them. They never read agricultural journals or books because it costs a few cents to pay the subscription price, and if anybody is so silly as to advise them to try some other plan, they believe nothing in it, and are ready to tell you so. Let them alone."

Bots in Horses

In the last issue we gave an article on this subject from the London *Agricultural Gazette*. The following item has been published by the American Department of Agriculture, and the remedy prescribed is said to have proved quite successful:—

"About thirty years ago a friend lost by bots a very fine horse. He took from the stomach of the dead horse about a gill of bots, and brought them to my office to experiment upon. He made preparations of every remedy he had heard of, and put some of them into each. Most had no effect, a few effected them slightly, but sage tea more than anything else; that killed them in fifteen hours.

"He concluded he would kill them by putting them in nitric acid, but it had no more effect on them than water; the third day they were as lively as when put in. A bunch of tanzy was growing by my office. He took a handful of that, bruised it, added a little water, squeezed out the juice, and put some bots in; they were dead in one minute. Since then I have had it given to every horse. I have never known it to fail of giving entire relief. My friend had another horse effected with the bots several years later. He gave him the tanzy in the morning and a dose of salts in the evening, the next morning he took up from the excretions three half pints of bots."

Shall the Vat be Covered?

The claim that an advantage accrues from covering the vat during the cooking process is not new. That there should better results ensue from a better equalization of temperature which is thus secured, seems reasonable. If we are not mistaken, Professor Arnold has made some experiments in this direction which yielded very satisfactory results. From his experiments he has been led to advocate a uniform temperature, that is, the holding of the vat at the same temperature from the setting to the finish. In such a process the covering is, of course, indispensable. A Vermont dairyman, A. B. Armstrong, now publishes some very interesting results, which he claims were reached by covering. Whether his cue was taken from Mr. Arnold's effort or not we do not know. At any rate, Mr. Armstrong has patented a vat cover, which he has exhibited in the presence of witnesses, and a report of the results has been made public. But we speak rather of the principle involved in covering than of any patent apparatus, and for this purpose we describe Mr. Armstrong's experiments. The trial was made at the Steven's factory, in Granville, Washington Co. The result was as follows:—

"Vat No. 1 was worked by Mr. Robinson in the usual way of working the curd fine in the vat without cover. Two thousand, three hundred and seven pounds of milk were put into the vat, and 236½ pounds of cheese produced from this, and weighed when taken from the press, or 9.75 pounds of milk for a pound of cheese.

"Vat No. 2 was worked by A. B. Armstrong with his patent vat cover, and 'cheddared,' and curd ground out by one of Moseley and Stottard's Slicer curd mills. Two thousand two hundred and seventy-four pounds of milk were put into the vat, and produced 294¾ pounds of cheese, weighed when taken from the press, or 9.31 pounds of milk for a pound of cheese.

"Vat No. 3 was worked by Mrs. Robinson, without cover and cheddared, 3,096 pounds of milk were put into the vat, and produced 313¾ pounds of cheese, weighed when taken from the press, or 9.86 pounds of milk for a pound of cheese."

It is stated that the vats were all set at 80 degrees. Nos. 2 and 3 were worked exactly alike, except that No. 2 was covered. The inference is that No. 3 would have produced 17.25 pounds more cheese if it had been covered. This is a result worthy of attention, and should be subjected to a much fuller experiment. There should be a series of experiments, day after day, with milk under different conditions. Vats should be worked side by side for some time, and then the aggregate would be trustworthy evidence. There are some times errors in single experiments which a series would eliminate. There should be also strict examination of the product, for there are some conditions of milk which would not yield satisfactory results under cover. We should be pleased to hear from our cheese-making readers any considerations which this matter may suggest, or of any experiments which they may make to test the claim here advanced.—*Utica Herald.*

Horse Breeding.

Probably there is no subject under the sun on which so much nonsense has been written and spoken of as horse breeding. Everybody professes to know something about it, and it is generally regarded as the one subject amenable to no law, human or divine. "Like produces like," is a very true maxim so long as you do not apply it to the horse. The law of reversion is found correct with regard to other animals, but of course has nothing to do with the breeding of horses. The female parent with Shorthorn breeders is considered of so much importance that at the great sales as much money is given for the cow as for the bull. With horses we are told it is of no consequence. One authority says the veriest hack is as likely to produce a Derby winner as the mare that has scored her thousands. Another tells us that it is stud horses that are wanted, not mares; in proof of which there are plenty of blood hunters at the Islington show, and half of them are mares! What is a blood hunter? If it means anything, it means neither more nor less than a thoroughbred animal used for hunting. And so, to breed a weight-carrying hunter or trooper, we must take a mare of this class and put her to a thoroughbred sire, and then, in process of time, we may, as hundreds have done before, express our astonishment at the result, when we find that we have only a weed for our pains. Thousands have played at this game