

is not protected by muscles sets up inflammation of the bone and its fibrous covering. An exudate, the result of the inflammation, is thrown out, and becomes organized: the periosteum (the bone covering) becomes thickened, and in many cases there is an increase of size in the bone itself, due to organization of ossific matter. After the inflammation subsides, the enlargement thus formed becomes quite visible and hard, yet not painful. This lump is not reducible to any great extent, but may be reduced slightly by absorption, which can be hastened by friction or irritation, as the application of blisters. If there be a thickening in the skin, as you intimate, it can be reduced by repeated blistering. The preparation used and details for blistering have been given so often in these columns, a repetition is unnecessary.

J. H. REED.

STERILE BOAR.

SUBSCRIBER, Elgin Co., Ont.:—"I have a boar, six years old, that has been a great stock hog all his life till about two months ago, when he failed to get any more pigs. Last year he went to fifty sows, this year so far about thirty. I have kept him, ever since I got him, in an outside yard. I fed mostly on corn this winter, as I had no roots for him. He will serve sows, but he will mount several times before he serves them. He is in good condition. Will he become useful again, or can I do anything for him?"

[We have known boars to be useful as breeders till 10 or 11 years old. If anything will help your hog it will be a run on grass and moderate feeding with ground oats or barley and shorts or bran, mixed with a moderate quantity of milk or swill. Do not use him for a month, and give him a grass plot where he can have abundant exercise.]

ACTINOMYCOSIS.

G. G., Wellington Co., Ont.:—"I have a two-year-old heifer. Last winter a lump grew on her jaw size of a hen's egg. Gave iodine of potassium till she ran at the nose, also painted lump with iodine. Lump went away, but now lumps from the size of an egg to size of a bean have come on her hind leg on hock joint, hard but movable. Please advise."

[There is little doubt that your heifer was affected with actinomycosis (lump jaw). In such cases, where the bone is not involved, the administration of potassium iodide in sufficient doses to cause its physiological symptoms (one of which you mention) will often effect a cure. It is impossible to state (without a personal examination) whether the lumps now present have any connection with the former trouble. While it is possible such may be the case, it is rarely seen. If not in the immediate vicinity of the joint, it would be well to carefully dissect them out and treat the wounds until healed with a 3-per-cent. solution of carbolic acid in water. If the joint be involved, the operation must be very carefully performed. If you do not care to operate, they may be considerably reduced, or probably entirely removed, by the repeated application of iodine, or, better still, by the injection into their substance, with a hypodermic syringe, of a solution of iodine, say $\frac{1}{2}$ dr. to 1 oz. alcohol. I think it would be wise to have her examined by a veterinarian. You have a good practitioner in your village.

J. H. REED.

CHRONIC COUGH, WITH A TENDENCY TO HEAVES.

A SUBSCRIBER, Stormont Co., Ont.:—"Would you please give me a remedy for a horse that has a hacking cough. It coughs more frequently while travelling down hill or if it stands in the stable awhile. It is all right otherwise, is a good traveller while travelling on level road; is eight years old; is not short in the wind."

[A cough presenting such symptoms as you describe is often a forerunner of heaves, especially if the horse be a heavy feeder, as is usually the case. Be very careful about the quality of his food. Feed well-saved timothy hay; avoid clover hay unless well saved. Feed only moderate quantities of hay; do not allow him all he will eat, and dampen it with lime water, which is made by slacking a lump of lime in a pail or other vessel, then adding water and stirring well with a stick. After the undissolved lime settles at the bottom, the clear liquid left is lime water. Dampen his grain with this also, and give every night, in damp food or boiled oats, one of the following powders: Take of pulverized opium, 3 ounces; pulverized liquorice-root, 3 ounces; pulverized digitalis, 12 drams; arsenious acid, 8 drams. Mix, and divide into twenty-four powders. This treatment will probably arrest the disease.

J. H. REED.

THRUSH IN HORSE'S FOOT.

I. C. B., Middlesex Co., Ont.:—"Can you give me a cure for a long-standing case of thrush in a horse about ten years old?"

[Keep the horse's feet clean and dry, pare away dead particles of the frog, and apply calomel freely to the diseased parts twice a week.]

Miscellaneous.

MARE KICKS OVER THE TONGUE.

SUBSCRIBER, York Co., Ont.:—"Could you give me advice how to fix a mare to keep her from kicking over the wagon tongue when hitched double. She is a very quiet beast in the stable."

[We leave this question for our ingenious and generous horsemen to answer. We will be pleased to receive and publish various tried methods of dealing with this and other vices of horses.]

BLACK NOSES IN SHORTHORNS.

G. E. L., Newdale:—"Kindly inform me through your columns what is your opinion of a black nose on a pedigree Shorthorn bull. Some say that a black nose is a sign that the animal is not pure bred. Do cases of black nose occur among pure-bred Shorthorns? If not, from what herd is it likely to originate?"

[There is a very strong prejudice against black or smudged noses in Shorthorns, and yet they occur occasionally even among high-bred cattle. Would not care to use a bull with a black nose on pure-bred females, as the objection might re-occur too frequently in his get, detracting somewhat from their value as breeding cattle. There could be no reasonable objection to the use of such a bull on grade or common stock. This black nose which so persistently crops out from time to time has been attributed by some as a result of the "alloy" or outcross of Galloway blood introduced during the Colling's time (over 100 years ago) into one or two of the families of their herd; but this seems extremely improbable. The following clipping is from Lewis F. Allen's History of American Cattle, published in 1887:

"It is supposed by many persons that a dark or black nose indicates impurity of blood. This is not always so. A black or even a dark nose is not desirable in a breeding Shorthorn, because they are decidedly unfashionable, and to a breeder of choice animals they are unsalable at almost any price. Yet many of the purely-bred Shorthorns (so admitted) of a century ago, and even less, had some black noses among them. With all modern breeders the dark noses have been sedulously bred out of their herds, their repugnance to them often going so far as to slaughtering them in calfhood. Custom has obtained so far as to rule a black-nosed Shorthorn out of competition with the drab, cream-colored or yellow noses as prize animals. A skin-colored or white nose is also objectionable, though not to the same extent, as indicative of a want of stamina in the animal, while a black or dark nose indicates hardihood and good constitution." Sanders, in his new book on Shorthorn cattle, says "black or clouded noses, although not evidence of impure breeding, are avoided as much as possible by careful breeders. Such a minor point, however, as a clouded nose will not deter a man of good judgment from using an animal that is exceptionally desirable in vital particulars."

BOYS AND THEIR PONIES.

BOYS, Tripler Farm, C. B.:—"We three boys have two Sable Island ponies. We got these last summer. They were not very fat then, and they were troubled with insects a good deal. So we got them clipped last fall. We have been trying to fatten them all this winter. We gave them oats pretty freely; do you think that would hurt them? They had a touch of lamperis a little while ago, but that was looked after, and they are all right now. We do not know their exact age, but think them about 4 or 5 years old. What would you advise in such a case?"

[We presume the boys know what they want, but we would not advise being in a great hurry to get the ponies fat. So long as they are thrifty and feeling well, there need be no anxiety about them. A fat horse is more liable to be sick than one in moderate flesh, and, as a rule, is more easily wearied, especially in warm weather. There is no better feed for either a pony or a large horse than oats with a little wheat bran, and good sweet hay, with an occasional boiled feed, and roots for the winter season. Now that the pasture season is here, grass can take the place of hay and roots, while the grain could well be reduced to one feed per day when the ponies are idle, to two or three feeds if they are given much driving. Two quarts of oats and one quart of bran should be considered a good meal for a pony. If the ponies again become lousy, they should be well washed with one or other of the sheep dips advertised in our columns. They should not be housed near poultry, unless special precautions are taken to keep the fowls free from vermin.]

CEMENT FLOOR.

F. W. S., Grey Co., Ont.:—"I have just got a stone wall built under a building for a horse stable. It is on a dry site, with a good fall and a drain of small stones under the wall. Will you please inform me through the FARMER'S ADVOCATE if a cement floor will stand by just putting in some gravel on the clay to level it up without small stones under the gravel? How thick should the cement be? Should the sand used be very coarse or not? Do you know anything about the merits of the Owen Sound cement?"

[When preparing a foundation for a cement floor the clay should be moistened and well rammed and then covered with two inches or more of either coarse sand or gravel, or broken stones mixed with either of the above; any of these will make equally satisfactory foundations if well rammed. The coarse concrete should be about three inches thick, well rammed down. This should be covered with a smooth, stronger concrete from a quarter to one inch thick, according to the strength of floor required. See FARMER'S ADVOCATE, June 1st issue, page 323. Gravel or coarse, sharp sand are to be preferred to fine sand. When fine sand is used a greater proportion of cement is necessary in order to secure the same strength of cement. While we have not had personal experience with Owen Sound cement, we believe it to possess all the qualities of a satisfactory cement.]

WHAT CROP FOR PASTURE? COW PROBABLY SUCKING HERSELF.

W. J. C., Simcoe Co., Ont.:—"1. I have a field of clover that I intend plowing under in June and sowing part in rape. Could you tell me what would be best to sow for cows and horses, and how much seed per acre? The ground is sandy loam, and in rather poor condition. What time should I sow, and how long till it would be fit for pasture?"

"2. I have a cow that is going dry in one quarter of bag. The teat is all right, but the milk comes down very slowly. When udder is full, the one quarter looks as if it had been milked. There is no lump nor any appearance of anything ailing it."

[The best crop we know of, and the one we are using for August pasture, is Hungarian grass and millet, half of each, sown half a bushel of seed per acre. If sown when the ground is moist, so that it germinates quickly, and the following weeks are at all favorable for growth, the crop should be fit to pasture in from six to seven weeks.

2. The probabilities are the cow is sucking the quarter that comes in slack. It would be well to tie her for a couple of days, so that she cannot reach her udder with her mouth, and note the result. If she is taking her own milk, she should have a contrivance attached to her that will prevent a continuation of her act. A recently-recommended plan is to place a surcingle around her body and a strap on her neck, attaching the two by means of a stout piece of wood 3 feet long along her side.]

GRAIN TO COWS ON GRASS.

R. H. L., Middlesex Co., Ont.:—"Would you kindly give me your opinion, through the columns of your paper, what is the best way to feed meal to milk cows on the grass, whether in form of mash or dry, or is it profitable at all when cows are on good pasture?"

[Repeated tests of the utility of feeding grain to cows on pasture have led experimenters to the conclusion that there is no profit in feeding grain in any form while the pastures are good. In the first of a series of trials at Cornell Experiment Station, the meal-fed cows gave less milk, but an equal amount of fat with those getting no grain, on the same pasture. The next season the lot receiving grain and that without grain did equally well. The third trial was made with a herd of cows owned by a New York farmer. The cows had been rather poorly fed previous to the test. The cows were fed grass, millet, fodder corn, etc., in season, and half the herd received four quarts of mixed chop each per day, in addition. The chop-fed cows gave enough milk extra to pay for the grain they ate. Between feeding chop dry and in slop, there seems to be practically no difference in results obtained. The above information is taken from Prof. Henry's valuable work, "Feeds and Feeding."

FORAGE CROP FOR CATTLE IN BRITISH COLUMBIA.

B. GREENE, Yale Dist., B. C.:—"Would you answer through your columns the following questions? 1. Is there any plant suitable for cattle that can be sown with red clover on irrigated sandy loam to give it stability? Clover grows so rank that half of it is left on ground. I have used timothy, but do not like it for cattle."

[In the place of red clover, alsike may be sown, which would be less liable to waste by lodging. Along with it Western rye grass (*Agropyrum tenax*) or Bromo grass (*Bromus inermis*) should answer the desired purpose well. The sowing of these grasses should to a certain extent be considered an experiment, as they do not answer equally well under all conditions. It might be well to consult the Superintendent of the Experimental Farm at Agassiz, B. C., as to which are the best grasses for that Province.]

QUANTITY OF SKIM MILK FOR PIGS.

SUBSCRIBER, Peel Co., Ont.:—"Can you inform me what is considered the proper quantity of separated milk per day to feed to pigs at from six months of age in order to produce the best results in pork production. Is excessive consumption of milk in proportion to other foods undesirable, and what should the proportion of milk and mixed grains be in a balanced ration?"

[For young pigs just weaned, from four to five pints of skim milk to one pound of wheat middlings will be found very satisfactory.

As the pigs grow larger, the quantity of skim milk may be reduced; and we have had excellent results from feeding about two pints of skim milk to every pound of meal. Of course a somewhat larger quantity of skim milk could be used if available, but I do not think it wise to exceed five pints of skim milk to a pound of meal.

O. A. C., Guelph. G. E. DAY.]

APPLICATIONS FOR FLIES ON STOCK.

A. P., Durham Co., Ont.:—"Would you please send me a recipe to kill flies on cattle and horses?"

[At the bottom of the "Stock" department of this issue appears a note from Prof. G. E. Day, dealing with treatment for flies on cows. For horses, that application is not practicable. We have found it well to have a bottle of sheep dip mixed up in the stable, and just before going out in the mornings and after dinner moisten the coats of the horses with the dip. A very light application of coal oil is also good.]

SCOTCH AGRICULTURAL PAPERS.

SUBSCRIBER, Barnston, Que.:—"You would probably find what you desire in the *Scottish Farmer*, published at 93 Hope St., Glasgow (10 shillings a year), or the *Aberdeen Free Press*, Aberdeen, Scotland. Write to those addresses for sample copies.