

and (2) those discoverable by examination while the animal is at rest. In some cases the latter alone are sufficient to indicate the seat and nature of the disease, but the lameness must be of a severe character, manifested by "pointing," standing with the lame leg flexed or elevated from the ground, with the healthy feet placed as much under the body as possible to bear the weight.

In the majority of cases, however, it is necessary to cause the patient to perform some movement, and experience teaches us that a slow trot on hard ground, with a loose rein, is the best pace. A horse may walk lame, but in most cases the peculiar characteristics of the lameness is best shown at the gait mentioned. There are cases of lameness, however, as in slight splint lameness, where it is necessary to urge the patient to a sharp trot before any deviation from the normal gait can be noticed.

"WHIP."

HORSES IN HOT WEATHER.

Just now, writes A. S. Alexander, V. S., in the Live-stock Report, we are hearing from a good many owners of horses who are having trouble with their work animals, and most of them have the same complaint to make. They tell us that the horse that was all right in cold weather has begun to rub and gnaw at places which have broken out on his legs or other parts of his body; while some of them add the practice of tail and mane rubbing. In most of these cases it transpires that the horse does not work well; does not sweat at work, but breaks out in a sweat on standing for a while in the stable; pants and tires easily while at work; has a capricious appetite and his manure is mushy and offensive, or his urine thick and opaque.

These horses are afflicted with "summer itch" or with indigestion, and in many instances the owner is to blame for the trouble. Of course if he has bought a horse without knowing his previous history he likely has had an "overhet" animal put onto him and may be sure that the trouble is chronic and incurable; but if the horse affected was born on the farm or has worked on the same place for several years, then the cause is in the feeding and management and better methods might have prevented the ailment. It should readily be understood that in summer time the skin is apt to become clogged with excretions from the sweat glands, with exfoliated scarf skin and the dust and other matters lodging on the skin and adhering to the sweat unless grooming be attended to properly and frequently. Yet many owners of farm work-horses are "too busy" to do such work or forget to "get around to it," and about all the chance the horse has to relieve the discomfort of his filthy skin is to enjoy an occasional roll on the grass when turned out at night. But many and many a horse even is deprived of the luxury of a roll on grass, sand, or earth, and many farmers fail to understand that the rolling act is nature's way of enabling the horse to cleanse his skin and free it of some of its discomfort. It would be strange did not the filthy skinned horse commence to itch and gnaw, nor is it strange that as the habit commences, so it increases, until it becomes a nervous disorder (pruritis) characterized by uncontrollable itchiness indicated by rubbing on every available place and biting at the sides of legs and perhaps tearing and destroying harness and dust sheets or blankets.

In some cases trouble is caused by the proximity of hen roosts, which should never at any season be near the horse stalls. Next to the chicken lice comes lack of grooming as a cause of skin irritation in summer, and then we must include dirty, sweaty harness, often not removed at noon; dirty, hot, fly-infested, badly-ventilated stables, where manure is allowed to fester and give off noxious gases, and where manure piles around doors and windows breed flies and so provide another fertile source of irritation.

The hard working horse pays daily for decent treatment, but too often does not get value received. The least we can do for him, if we be humanely inclined and appreciative, is to insure him a clean skin, by daily grooming; a clean stable, by daily cleansing and ventilation; clean harness, by frequent drying and brushing; clean air, by removing all causes of pollution; clean water, by attention to the condition of the troughs; clean food, by providing it fresh at each meal and removing all that is not consumed; clean beds, by providing an abundance of fresh litter and by removing all soiled litter instead of packing it up in front of the horse during the day and then spreading it under him at night; and clean lungs, by allowing the horse to pasture at night, when possible, so that he may fill up on God's fresh air.

Then, too, feed has a deal to do with comfort in summer time. Corn is too heating for summer use. We get better results from feeding oats, or a mixture of oats, bran and corn, the oats being the major part of the ration, and it is best not to burden the work horse with a lot of hay at

noon, but to give him his chief supply at night after he has eaten his grain ration. And water is of great importance, also. It should be given often during hot weather, and should be cool and pure, but not in oversupplies when he is hot.

Try to treat the work horse rationally, and if that be the aim of the owner, he will not let the harness remain in place at the noon hour, but will remove it for drying and cleansing; then, he will remember to sponge the horse's mouth and eyes; to wash his galled shoulders with a soothing and cooling lotion, such as a mixture of alum and water or a decoction of white-oak bark. (Note.—Members of "The Farmer's Advocate" staff have found nothing better for the shoulders than bathing with salt and pure water.) Then, too, he will understand that the horse worked between two others in the mower or binder is getting the hot end of the deal, in that he is exposed to the radiated heat of his mates, in addition to the direct rays of the sun, and so is most apt to succumb, and therefore should be worked but part of the day. He will endeavor to give his horses as much rest as possible; to shade their heads when they are at work; to work early and late, and, unless in times of emergency, avoid working during the heated middle hours of the day.

THE CLYDESDALE RULES AGAIN.

Editor "The Farmer's Advocate":

The reply of Mr. William Smith, published in your issue of July 18th, to my letter in the number for July 4th, utterly fails to answer my question, "How can a Clydesdale mare imported after July 1st, 1907, be registered in the Canadian Studbook under the amended rule, which requires that, in order to being accepted for registration here she must first bear a registration number in the Scottish Book, the rule of which is that no female shall be numbered until she has produced a foal?" Mr. Smith's answer evades the question, and he quibbles over the difference in the meaning of the words "will" and "shall," which, in this case, he must know, is simply equal to the difference between "tweedledum" and "tweedledee," as it surely follows that if mares SHALL be accepted on the conditions named in the amended rule, they WILL be accepted under those conditions. The words, "shall be accepted," if they mean anything in this case, surely imply that, if mares imported after July 1st bear numbers in the Scottish Studbook, they will, on application, be given numbers in the Canadian Book, and not otherwise, thus giving an unfair advantage to the short-pedigreed mares imported before July 1st, inasmuch as these have already been given or will be given numbers, while those imported since that date must wait for numbers until they have produced a foal, unless the rule of the Scottish Book be changed. A Toronto paper announced last week that the mover and seconder of the amended rule had sailed for Scotland, presumably armed with the imperative rule, with the object of forcing the Scotsmen to change their rule, at the peril of the loss of Canadian custom. Meantime, the Clydesdale breeders of Canada await with breathless interest the outcome of the mission of their brilliant leaders, which, if successful, will entitle them to as grand an ovation on their return to our shores as that accorded the Premier on his recent arrival home from the Colonial Conference. But, remembering that it was a Scotsman who wrote, "The best laid schemes of mice and men gang aft aglee," and knowing that Scotsmen like "facts," as the same writer says, are "Chiefs that winna' ding and canna' be disputed," I, for one, shall, or will, not be surprised to read before many moons a call for a meeting to consider a proposal to amend the amended rule.

Huron Co., Ont.

HORSEMAN.

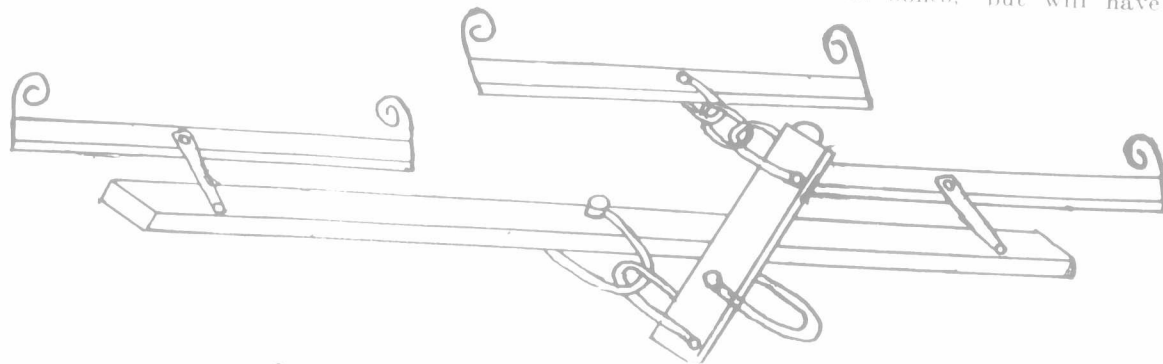
THREE-HORSE EVENER.

Editor "The Farmer's Advocate":

I herewith send you a rough sketch of a three-horse evener which I am using for plowing this year. I find it an excellent plan, as all three animals are as close as they can be got, and it gets rid entirely of that annoying side-pull that cants the plow over on one side. I hope it will be of use to some of your readers.

Sask.

R. J. R. M.



LIVE STOCK.

GRUBS IN THE HEADS OF SHEEP.

By A. S. Alexander, V. S.

Complaint having recently been made to us of trouble from the presence of grubs in the heads of sheep, and with the request for information on the subject, we shall here give the matter the attention it deserves in an article for the benefit of all readers who keep sheep.

The grubs of the larvæ of the gad-fly of the sheep (*Estrus ovis*) are deposited in the nostrils of the sheep about this time of year, or during what generally is termed "fly time" in summer. The fly deposits young grubs or larvæ, and not eggs, in the nostrils. These grubs then proceed to crawl up the nostrils by means of hooks and bristles projecting from their bodies, and at length attain the upper parts of the nostrils, and there lodge among the turbinated bones. They may go higher still, and lodge in the frontal or maxillary sinuses, and there or in the nostrils they rapidly increase in size and become brownish in color. Each grub has two large hooks by which it clings to the mucous-lining membrane of the sinuses, nostrils or turbinated bones, and the grub takes its nourishment from the mucopurulent matter which its presence occasions in the parts invaded. This discharge, issuing from the nostrils of sheep in late winter and early spring and summer, is a prominent symptom of the trouble, and is accompanied by sneezing, coughing, reddened lining membrane of the nostrils, and inflamed appearance of the eyelids. The badly-affected sheep may fail to thrive, and if the grubs have invaded the sinuses of the head, the brain may become affected by irritation, and in that case the sheep steps high when walking, or may stagger about as if dizzy. Where there is this aggravated degree of irritation, the sheep may succumb if not well nourished, or if affected with some other insidious disease, such as that of the liver, which is common in pregnant ewes, or the presence of intestinal worms, such as stomach worms or tapeworms, or "nodular disease of the intestines," due to the worm known as "*œsophagatoma columbianum*." Rarely, in our experiences, has the simple presence of grubs in the head occasioned the death of a sheep, but quite often the irritation due to the grubs, acting in association with some other cause of debility, proves too much for the sheep, and it succumbs in a few days, after showing the plain evidences of brain affection.

The sheep gad-fly is a little insect of grayish color, and about the size of the common house-fly. It works in the sunlight, and is inactive in cold weather. When it attacks, it darts at a high rate of speed, making a humming noise, which terrifies the sheep so that it stampedes in seeking to escape its enemy, or stands with its nose snuggled under the body of another sheep, or in the dust or grass. The sheep congregates in bands, and, while huddling together, paw and snort to raise the dust, in which the flies do not care to work, or which hides the parts usually attacked. Often the sheep congregates in water or get behind a rock or among trees, with the hope of standing off the pest; but daily the attacks continue, and at length every exposed sheep harbors one or more grubs in its nostrils, and gradually the evidences of these irritating parasites become apparent.

To ward off the attack of the flies, the noses of sheep should, during fly time, be kept daubed with some substance repellant to the insects. Common pine tar often is used, but is more effective if mixed with an equal quantity of lard and oil of tar, crude carbolic acid, or coal-tar dip; or, is made more abnoxious still by mixing in a little iodoform or asafetida. The best way to use the mixture is to smear it upon the margins of holes made six inches deep with a two-and-one-half-inch auger in a squared log, and kept filled with salt and primed with the "smear" daily throughout the season of fly attack. The sheep then daub their noses with the tar mixture each time they lick at the salt.

Treatment of the trouble is comparatively useless, but some good may be accomplished early in the season by sprinkling snuff upon the floor of a pen into which the sheep are turned daily. The snuff causes sneezing, and this may lead to the expulsion of grubs present in the nostrils or even among the turbinated bones, but will have no