

present the willingness to accept almost anything that will take the place of animal traction is welcomed by farmers and this makes it the more easy for manufacturers to sell their engines and postpone the day when they will build motors for the special purpose of doing the heavy farm work. For the engines that are used now it must be said that in breaking they are pretty generally satisfactory, having the necessary power and being sufficiently adjustable, that they are easily handled. But for other work, such as stubble plowing, seeding, harvesting and hauling wagons, they are much too heavy, cumbersome and inconvenient. Even lands as friable as are most of our prairies cannot long stand the packing which an engine of twenty to forty tons gives them in cultivating. For the manufacturer who can devise a motor that answers well the demands of the farm there is a vast market in which to dispose of his goods. The manufacturer on the other hand wants to know just what the farmer wants and how badly he wants it. In trying to determine what is required of agricultural motors, and in advocating their manufacture and use, the blame cannot be laid that the usefulness and place of the horse upon the farm is being questioned and usurped. On the contrary, it is simply a case of having more horse power of work than there are horses to perform it and the problem is to secure a machine to handle the rougher, heavier tasks to save the horses for lighter, faster operations. No motor can ever supplant the horse.

HORSE

Cob or Drafter: Which?

During the past year Canada has been fortunate enough to have a large number of Clydesdale fillies brought out from Scotland and sold at auction in many parts of the country. Some of these have been right up to the mark in both breeding and individuality, and, if properly handled, will prove a valuable acquisition to the registered breeding stock of the country. Much, however, will depend upon how they are fed, exercised, cared for and developed. Unfortunately, it is a foregone conclusion that some of them will never amount to anything better than ordinary general-purpose or light-draft stock.

The first thing to do with these fillies is to give them a chance to grow. The great trouble with most Canadian-bred draft stock is deficiency of scale. Size is a fundamental requisite in a drafter. Without size, the draft-bred horse is less desirable than a horse of the lighter breeds. As we have stated before, draft-horse conformation without draft-horse scale, is a poor proposition. To be sure, quality is important, but quality alone does not make a cart horse. Moreover, while quality is mainly a result of breeding, scale is largely—not entirely, of course, but largely—a matter of feed and development. A horse or filly has a given degree of quality to begin with. Whether it attains sufficient size or not, is largely left to the groom. Of course, every animal has its natural limitations. One can't get Clydesdale weight in a Hackney, but it is possible to keep the weight of the Clydesdale down to little more than that of the Hackney, just simply by denying him sufficient feed of the proper kind during the period of growth, particularly during the first and second years.

Stunt a young animal and you permanently curtail its weight. To understand why this is so, consider the bones of the young animal. These are composed of elastic cartilage. Towards each end of the long bones is a center, from which ossification or "bonyfication" extends. The rate at which ossification proceeds depends normally upon the age of the animal and its hereditary tendency, some animals, such as man, requiring a good many years to reach maturity. Once the ossification from one center reaches that which started from the other center, the bone becomes set, and growth in length ceases. The length of the bone, and, therefore, the size of the skeleton, depends upon how well the animal was nourished with bone-making material during the years prior to the complete ossification of the bones. It is plain, therefore, that we must—to use a field metaphor—"make hay while the sun shines." In other words, we must put the growth on the animal while it is yet young—the younger, the faster. And yet there are me-

who begrudge a few hundredweight of skim-milk—the best of all bone-and-muscle making feeds—to a growing colt.

Of course, there are extremes. It is not wise to overdo the kindness, and rush the animal too fast. Such a practice seems to make it soft and flabby. There is reason in all things, and here, as elsewhere, there is a happy medium, but we have only too much evidence that the average Canadian farmer errs on the side of scanty feeding, especially in the case of draft-bred colts and fillies. Feed generously to insure liberal growth in the years while it is still possible to promote growth.

But there is another reason for good feeding. Stunted colts and fillies not only lack size, but their proportions are marred. As an illustration of this principle, we are reminded of the remark of a cattle herdsman, who asserts from considerable experience that good care and feeding will straighten the back of almost any droop-rumped cow. A similar principle applies in horse-breeding. To secure full and symmetrical development of all the parts, with good lines, feed well from birth. Many a promising filly, with gilt-edge blood lines, sinks into oblivion in the barnyard of a man who doesn't know how to feed. Undersize, defective proportions, scrawny appearance, unsoundness due to overwork and neglect of the underpinning—these are some of the misfortunes that disqualify what were the makings of first-class horses and mares. Few realize how much good breeding comes to naught through just such causes. If they did, they wouldn't be so sparing of the feed.

If, therefore, you have been fortunate enough to secure a well-bred filly or indeed, if you have any other filly or colt, but especially if it be of one of the draft breeds, keep it growing right along. At the same time, see that it has moderate exercise, so as to insure the conversion of the feed into bone and muscle, rather than mere adipose tissue. In the winter, provide exercise, either in harness or in open paddock. This, with proper attention to general health, teeth, legs and feet, should result in realizing out of each young animal something like its inherent possibilities, and making the investment a source of constant pleasure, as well as substantial profit. Breed well with the feed and care, but not very often without.

A colt wants to be kept eating and growing and exercising, and anything except fattening, as long as he has a time assigned him by nature to grow. Well-bred and well-kept horses stand hard usage better at an early age than horses that have had a struggle for existence and have an inferior quality of blood in their veins.

Should have Fresh Blood in the Breed.

EDITOR FARMER'S ADVOCATE:

I think that your suggestion to the Clydesdale Association, that they should prepare blanks and issue rules for the guidance of breeders who are improving their horse stock with the hope of ultimately registering their colts, is a good idea.

I think nothing would so much improve our horses as for men who raise even a few colts to get the idea firmly into their heads that each successive cross from a registered horse added value to their fillies.

I think a great mistake was made by the Short-horn men when it was made impossible to get an animal registered no matter how many top crosses it carried. Young breeders especially are discouraged and new blood made impossible to get. Don't let us make the same mistake.

With these blank forms kept properly, and handed over with the filly when sold (if she were sold before the fourth top cross) registration would be an easy matter.

In fact the plan has many good points to recommend it. It would encourage farmers to breed in line; also it would help the owners of good registered horses; and lastly, as you say, it

would be the means of introducing new blood into the stud book, which is, I think, a very important matter.

I may say that although I own a couple of registered Clydesdale mares, in this matter I am only a probationer, and your readers (who happen to know me) will do well to remember the advice of the eminent ecclesiastic when preaching to his flock, said "Don't do, my friends, as your parsons do, but do as your parsons say!"

I have often in the past bred horses for our local market which I well knew were not up to my idea, and you know, Mr. Editor, we must live. But now "times have changed, and we have changed with them!"

For our local market, a good strong Clyde sells best, and brings the most money with the least outlay; and in the future every cross from a registered horse will increase the value of a mare.

The easiest way to give these crosses their full commercial value is to have these blank forms issued, as you have outlined in your issue of June 19th.

By all means send along the blanks! "Long may they wear and never may they tear."

G. H. BRADSHAW

Horn Creek Ranch, Man.

Treating Weak Joints in Colts.

EDITOR FARMER'S ADVOCATE:

In your June 26th issue, "A. L.," Alberta, asks how to treat a colt that has gone over on the fetlocks, and has been recommended to try plaster of Paris bandages. Having had some experience along this line, we have found that nothing gives more satisfaction than a boot made of a piece of stiff leather. Heavy harness leather is best—about a foot long, and wide enough to go around the leg, leaving a space to lace it up in front. The holes may be made with a leather belt punch; a leather lace does best. Before putting the boot on, the leg should be well wrapped with cotton-wool and bandaged from the knee down to a level with the sole of the foot, but not over the bottom of the hoof. The boot should be put on low enough to be on a level with the bottom of the foot and then laced up fairly tight, down the front. This makes it impossible for the colt not to stand on the sole of his foot. Every day or so the leg should be bathed with warm water, and the dressing replaced. See that the bandages and wool are kept clean, otherwise chances of recovery are greatly lessened. If your colt is worth saving this will save it. L. L.

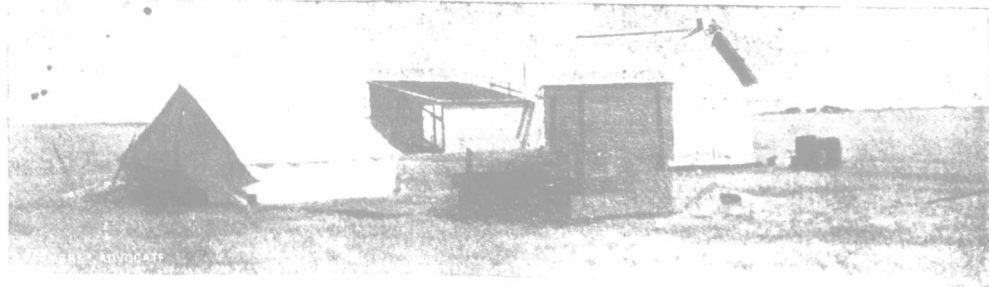
Another Remedy for Weak Joints.

EDITOR FARMER'S ADVOCATE:

In your issue of June 26th, page 977, re colt over on fetlocks, the Veterinary editor recommends to bandage from top of hoof to half way between fetlock and knee; then apply a plaster of Paris coat. I would say I have treated four colts so afflicted, the first two of which died and the other two are at work to-day as strong as any horse need be. The first colt to live was over three months old before it could stand on its feet to suck. On one of the colts that died we tried the bandage and cast, but lost the colt through blood poison caused by the ankle rotting. With the next colt we tried splints, but as matters were only going from bad to worse we took them off and on advice of a quack veterinarian we made a strong solution of white oak bark tea and bathed the foot and legs to the knee with it two or three times a day, giving the colt liberty to move about at will. Result—colt lived and has taken his place in harness for over six years.

Number four was born weak and we tried white oak bark tea, with the result that in less than two weeks it was on its feet as strong as could be.

White Oak Bark may be obtained from any drug store. Take one pound of bark and one-half gallon of water; steep for one hour (not boil) and bathe the cords of the legs, thoroughly, rub-



THE AMERICAN SETTLER'S HOME AND BIN OF CORN.