

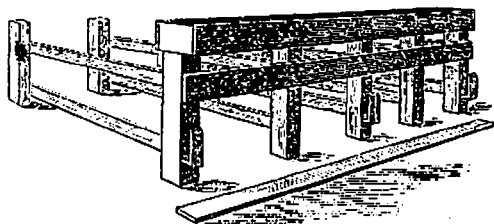
the bark will be found completely restored. Examine the roots and prune the mutilated ones with a smooth cut. Prune the tops into proper shape. Some nurseries give a large head, while others cut the young trees into shape while yet in the nursery rows. A covering of finely divided, light soil over the roots is a great benefit to newly-planted trees.

It is believed that the coming silo will be constructed of sheet iron lapped together and painted with non-corrosive paint and that the shape will be round, thereby preventing waste in the corners. Corn and clover make the finest ensilage; the former must always be cut, and the latter put in whole and well tramped down solidly. The old idea about heating up, waiting so many hours and weighing, has been so far modified that a farmer can fill his silo just about as he does his other work. The corn must be cut and put in, however, just at a stage where it has received all the nutriment it can get from the ground and before it begins to dry up. Corn should be planted so that the stalks will be about seven inches apart and the rows three feet, eight inches apart. Sweet corn can almost always be relied upon for a big crop. Concerning the feeding of silage, the opinion is rapidly gaining ground that the process of ensilage corn and other foods has been the greatest step forward in many years towards the solution of the problem of cheap feeding, and that it is a fine feed for dairy cows has also been thoroughly demonstrated. A well-balanced ration is thirty pounds of ensilage, six pounds of shorts and ten pounds of hay. Ensilage should always be supplemented by clover hay or some other feed.

## Care Stock.

### Hand-Feeding Calves.

HAND-FEEDING calves requires work, but it admits of boiled flax-seed being substituted for the cream. After the calf is four weeks old it need not be given any more milk. When the calf is hand-fed the flow of milk of the dam is somewhat greater; and it is believed that the calves are fully as good, as they take kindly to grass and meal. The most disagreeable part of hand-feeding comes when the calves are strong enough to fight hard for milk, fre-



quently upsetting the pail, and giving the feeder hard knocks as he attempts to get the right pail to each calf, or to protect the weaker or slower-drinking calves from the others. Our illustration shows how one of our readers has avoided this. A panel of the fence is removed and the gap is filled with the arrangement shown. The trough is for the dry feed or the calves, and when they have made some growth a board above it is required to keep the calves in their inclosure. The lower board fits in pockets made by nailing blocks to the posts. When it is removed, the pails containing the milk can be slipped under the second board into the stalls. In a week each calf will learn its stall and take its accustomed to this arrangement, one rarely leaves its stall to drive another out. An offender is easily stopped by the touch of a buggy whip on his nose, and he can make the attack from but one direction. If the calves learn to throw the lower board out of place, a pin above it at each end will hold it. The arrangement is a great improvement upon handing a pail over the fence, with half a dozen calves greedily striving for it. By making the posts a little higher and putting on a roof the calves have a well arranged shelter from sun and rain, and can eat or rest in comfort.—*American Agriculturist*.

PROVIDE a trough where the little pigs can be fed by themselves. They must be kept growing and eating. With the larger hogs many of them will fail to get anything like a full supply.

It is not thought to make much difference whether a hog's skin is clean or not, judging from general custom in feeding. But this is contrary to fact, for it has been amply demonstrated that an animal with a clean skin does not consume as much food as one not kept clean, and gives a better return for the food eaten.

A PROMINENT stock-breeder says: In raising colts, I teach them to eat and have them on full feed of bran and oats before they are weaned, and I can wean them at four months without any loss of flesh. I feed no corn until past two years old, but feed liberally with bran, carrots and oats, and all the corn fodder or clover hay that they will eat, and maintain a steady growth all winter.

The sheep is the most fastidious of all domestic animals; it will contend stoutly for the first place next to the pump spout or a certain clean corner in the grain trough. For this reason all troughs should be turned over or covered tight the moment they are emptied, to prevent any foulness from accumulating. Whatever grain is given the flock should be watched while they eat it; if a few are a little "off their feed," on account of muddy weather or other cause, the heavy eaters should not be allowed to linger and consume the residue of the feed. They should be promptly driven from the troughs and the remaining feed removed, else they too will be in danger of getting "off their feed."

It seems natural for some men to be always thumping and abusing the horses which they handle. They seem to have the idea that without this rough treatment they could not manage their horses. This is one of the greatest errors that men who handle horses can fall into. If a horse has any habits that make him unpleasant to handle they should be thoroughly broken up at once, after which there will be no cause for further trouble. An hour's work well directed will remedy the worst fault in the training of almost any horse, and it is better to take the time, should it require a whole day, to break up habits that are annoying, than to let them run along during the whole life of the animal. Whenever you see a man who is continually fighting his team you can set him down as a fool or a tyrant. If he is the first he hasn't sense enough to know how to treat his horses. If he is the second he is abusive because he has the power to show his evil disposition and the poor brutes cannot resist him.

THERE are plenty of farmers whose land is well adapted to the growing of grain who raise a larger amount of feed than the number of stock they keep will consume and who purchase more or less young stock, and feed on to maturity. When this is done a good class of stock must be purchased if the best profit is realized. It is more profitable to pay a good price for good young stock than to purchase scrubs at a very low price. If well-fed and cared for it is the amount of feed that the animal will convert into growth and flesh that determines the profit, and in this a good breed is the most important item. The farmer who breeds young stock to sell to those who will purchase to feed, must keep good stock and then care for them so as to keep in a good growing condition. Horses, cattle and hogs are the three classes that this applies to principally. Good colts and calves at weaning time can often be sold at a price that leaves a good profit to the farmer. In a comparison of breeds at a recent Fat Stock Show in the States the calves under one year old made remarkable daily gains. The daily gain of the grades and crosses was 2.78 pounds, the Shorthorns 2.64 pounds, and the Herefords 2.48 pounds, or an average of 2.62 pounds. As the calf weighs something at birth, this, added to its daily gain for 365 days, brings the young animal to a weight quite respectable before it becomes a yearling. The average gain of the yearlings was 2.07 pounds; of the two-year-olds 1.77 pounds, and of the three-year-olds 1.52 pounds. There is, therefore, a great difference in the gain of an animal during its first year compared with its gain the two years following. As this showing is the result of a com-

parison of more than 100 animals it becomes a plain fact that farmers should consider. If they can, by the use of pure breeds and grades, combined with liberal feeding, secure gains approaching those of the young steers experimented with, the breeding of cattle can be made profitable. While the grades and crosses made the greater gain the first year the pure breeds gradually asserted their superiority, and after the second year made larger daily gains than the grades. This is a very creditable showing in favor of the pure breeds, and destroys the claim that grades and crosses are superior to the pure-bred animals; but it shows that the grade is nearly equal to the pure-bred until the marketable age is reached, and encourages the claim that farmers may improve their stock at a small cost with advantage. The scrub could not compare with the grades in any respect favorably.

## The Poultry Yard.

To cure a cat or dog of catching chickens cut off his tail just back of his ears, then top-dress with two or more feet of dirt. Sure cure.

A good plan for a small number of hens is to make a small house, say eight by ten, with roosts and boxes, and let the roosts reach through so that you can use them at each end as handles and thus move the house about. This gives the fowls a chance at fresh grass, and clean soil.

HENS, like horses and men, do not need such things as condition powders, and only seldom are tonics required. The true tonics for poultry, and the only conditioning, are strict cleanliness, good, clean, nutritious food, and pure water, with sunlight and sufficient room to exercise in.

As the spring opens and the weather grows warmer, the rations for poultry should be altered so as to decrease the fat-producing foods, and increase those foods containing a preponderance of egg-elements, in order to obtain an abundant supply of eggs for hatching purposes, in addition to keeping up the regular market engagement.

Those who make an object of marketing eggs will find by careful comparison, that young stock can be kept to better advantage than those that have passed to their third year; early hatched cockerels can be sold for broilers and the pullets retained for layers in the winter, when eggs command high prices. Pullets will lay more than old hens; they are always in a fair condition for the table when needed, are less liable to attacks of diseases, and can bear the changes of weather much better.

WHEN the chicks are hatched, allow them to be well brooded before you give them food. There is no danger of their suffering from hunger for at least twelve hours after being hatched, unless there is a long interval between those coming first and last. Nature provides every chick with sufficient food to last until they are all well brooded, rested and their digestive organs in good working condition. Before leaving the shell, the yolk is absorbed into the stomach and this lasts them a whole day, because their digestive organs are not active until the channels are cleaned.

SCATTER newly-slaked lime in the hen-houses as often as you wish, as it will absorb moisture and dry the apartment. Do not scatter it on the droppings that have accumulated, however, as it will cause loss of ammonia, but dust it on the floor, on the walls, and over the nests, as well as over the yards. It will greatly prevent disease, and also destroy all lice that it touches. No hen-house that is frequently dusted with lime will be affected with lice if they have not secured a foothold. Lime purifies the quarters and dries them, and as it is cheap and plentiful it should be used often and plentifully.