

GRAFTING.

A. G. FOSTER:—"Will you please publish in your valuable paper a full account of how to graft, what time to cut the scions, when to commence to graft, how to mix the grafting wax, etc., etc.? In fact, give a full account of it, and you will oblige."

[It does not matter much whether the scions are cut in the fall, in the winter, or just before they are wanted in the spring. In very cold latitudes it might possibly be better to cut in the fall or early winter and place in a dry, cool cellar under a light covering of sand. If cut in the spring they must be cut before the buds have begun to swell, as it is better if the stock is a little further advanced than the scion. Let the scions be cut to about four buds each, and always take them from good, healthy, vigorous shoots of last year's growth. We take it that top grafting is intended, as root grafting is chiefly done in the nursery. The work of top grafting may commence in spring as soon as the sap is in motion, which is indicated by the buds on the tree beginning to swell, and it may continue till the leaves are half out. A fine, sharp saw, a chisel or strong knife and small mallet are all the necessary tools. The branch should be carefully sawn off and a clean, smooth surface left. If the stub is small, it may be split with a heavy-bladed knife; for bigger branches a chisel answers the purpose. The chisel itself or a small wedge can be used to hold the cleft open till the scions are inserted. Two scions, one on either side, are usually inserted where the stub is larger than an inch through. The lower ends of the scions are cut wedge shape, the wedge being about an inch and a half long, and the outer edge of the wedge a little thicker than the inner. Fit the inner or growing bark of the scion carefully to the inner bark of the stock, withdraw the chisel and carefully cover all the exposed surfaces with grafting wax. The two especially important points are: first, to see that the scion fits tightly down its whole length; and second, to be sure that every cut or exposed surface is completely covered with the wax. A good wax is prepared from resin, 6 pounds; beeswax, 1 pound; linseed oil, 1 pint. Apply hot with a brush, about a quarter of an inch thick, or a little less, over all the joints.]

As a scion should fit the stock.

In top grafting large trees, the shaping of the future tree must be carefully considered. The old top must be removed gradually, three or four years elapsing before the new graft entirely takes its place. It is better to graft on the smaller branches from one to two inches in diameter. Put the scions in at even distances throughout the tree and graft some of the lower and smaller side branches. In this way a well-balanced, shapely top can be secured.]

TANNING SKINS WITH THE HAIR ON.

PAUL DIESBOURY, Essex Co., Ont.:—"I have been a subscriber to your very valuable paper for a number of years, and I saw a recipe for tanning a hide with the hair on, but I cannot find the copy which had it in. Will you kindly insert in your next or subsequent issue, and greatly oblige?"

[An approved method is to spread the skin, flesh side up, as soon as it is taken from the animal, and rub or sprinkle pulverized alum over it, followed by a small quantity of saltpeter, and plenty of common salt. Roll up and put it away where it will not freeze. Two ounces each of alum and salt will tan a skin the size of a fox skin. Cat, and other thin skins, have their hair fixed in about three days; heavier hides need considerable longer time. Skunk and other greasy skins need considerable saltpeter. When the skin is tanned the flesh remaining on it will rub off easily. Then nail the skin to boards in the sun, stretching it tight, and apply a little neat-foot oil with a brush. The oil should afterwards be worked out with a wedge-shaped piece of wood. The skin can then be wet until it is softened, and then it should be worked until dry. If it is not worked and rubbed it will dry harsh and stiff. For sheep and lamb skins a strong suds is usually first made with hot water, in which the skins are washed carefully, squeezing them between the hands to get the dirt out of the wool. The skin is then washed in clear water, and alum and salt, half a pound each, are dissolved in a little hot water, which is put into enough cold water in a tub to cover, say, two skins. Here they soak over night, and are then hung upon a pole to drain. When they are well drained, spread and stretch and tack them to a board, flesh side up. While yet a little damp put on the pulverized saltpeter and alum, rub it in well, then lay the flesh sides of two skins together and hang them in the shade for two or three days, turning the under skin uppermost every day until perfectly dry. Then scrape the flesh side with a dull knife, to remove the remaining scraps of flesh, and rub the flesh side with pumice stone, and afterwards with the hands, until soft and pliable.]

RE GOVERNMENT LANDS IN NORTHWEST TERRITORIES.

ANXIOUS RUSTIC, Lampton Co., Ont.:—"Can you inform me through your valuable paper regarding the free Government grants of lands in Assiniboia and Alberta Territories? If not, who shall I write to?"

[Full information can be obtained by applying to Hon. Clifford Sifton, Minister of the Interior, Ottawa, or to Osler, Hammond & Nanton, Winnipeg, Man.]

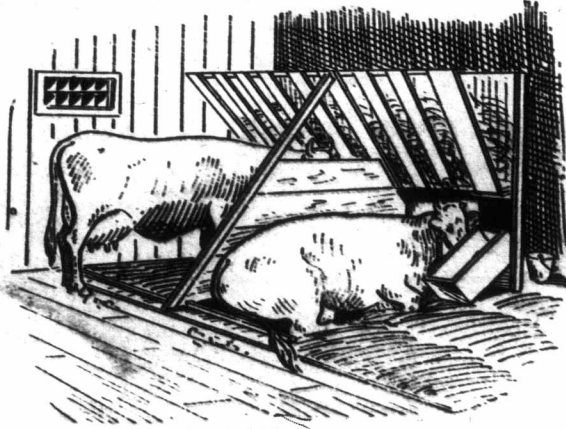
CONDENSED-MILK FACTORIES.

A. H. Haldimand Co., Ont.:—"We are having a large condensed-milk factory erected and equipped in our district, and some of us are at a loss to decide whether or not the undertaking will prove a success. Farmers are being told that they will receive \$1.25 per cwt. for their milk, which will be more profitable than supplying a cheese factory. I hope to see your views on the matter published in the FARMER'S ADVOCATE."

[Condensed-milk factories have not been very successful in Canada, so far as I have been able to gather. There is no reason, however, why our dairymen should not be able to furnish the raw material in as good condition as can be supplied anywhere. I have understood that one of the difficulties in the past has been to secure a profitable market for the condensed milk. A large factory is at present being erected in Ingersoll, Ont., and the farmers in that section will be given an opportunity to test the value of a condensed-milk factory. Some report that the conditions for supplying milk to these factories are so strict that ordinary dairymen cannot meet them. If condensed-milk factories will make patrons more careful they will do a good work. For this extra care the companies usually pay a high price for the milk, viz., from \$1.00 to \$1.25 per 100 pounds. There is no reason why they should not succeed in Ontario if properly managed.]

H. H. DEAN, O.A.C., Guelph, Ont. Prof. Dairy Husbandry.]

MEASUREMENTS OF HOARD'S STALL.
SUBSCRIBER, Bothwell Co., Ont.:—"Please give the measure of the Hoard cow stall in your next issue of the ADVOCATE?"



HOARD'S COW STALL.

[In order to make this description and measurement as helpful as possible to our readers, we republish the illustration of Hoard's stall which was given in our issue of March 15, 1898. The floor for common cows should be 8 feet long, including the manger, with a slant of 1 inch towards the drop. On the high end of this floor erect 4-inch scantlings, to which is nailed the solid board partition, 4 feet high. In constructing the feed rack, first fasten in a horizontal position, 30 inches from the floor, a 2-inch plank 10 inches wide, for the bottom of the rack. The outer edge is supported by scantlings placed 34 feet apart, with ends cut slanting so as to fit underneath the plank and on the floor, just back of the trough. The boards for the feed rack are cut 6 inches wide and 3 feet long, and are nailed through one end to the outer edge of the plank, leaving a space of 34 inches between them. The rack is slanted so as to be 18 inches wide on top. The upper ends of the rack boards are nailed to a scantling running horizontally, and this is supported by more scantlings, cut 74 feet long, which rest on the floor at the edge of the gutter. On this support, and the one sustaining the plank at bottom of rack, are nailed the boards which form the partitions between the stalls. The feed box is 12 inches deep and about 18 inches square, or it may be longer and narrower.]

The feeding rack is for two purposes; First, to contain hay or roughage, and, second, to force the cow, when standing, to place her hind feet in the rear of the cross-bar seen just forward of the standing cow. In placing the bar across the stall, bring the cow's head squarely up against the feeding rack, then just forward of her hind feet fasten down a 2 or 3 inch scantling. This will hold the bedding dry and clean. The feed box is placed on the side opposite where she usually lies. If placed sufficiently slanting the feed will easily work down to the end next the cow, so that she will not need to bring her hind feet unto the bedding while feeding. The cow should be fastened with a halter or rope around the neck, to a ring in the center of the stall. The cut should show a gutter, just back of the standing cow, 4 inches deep and 14 inches wide.]

DWARF APPLE TREES FOR HEDGE.

READER:—"I intended planting dwarf apple trees next spring, one row on each side of my road from the house to the road proper, but have been persuaded by an apple tree agent not to do so, as they are a poor stock to plant. He says they grow crooked and are short living, and would not make a hedge; that he has known them to be a failure several times. As they are a thing I know nothing about, would you give me your opinion on them, and what is the price of them, and oblige?"

[Dwarfed apple trees have too slow growth to make a satisfactory hedge in a reasonable time in Canadian climate. They would also require too much pruning to get them into proper form.]

DESTROYING LICE ON STOCK—CURING PORK—WIDE OR NARROW PLOW.

J. F. H., Simcoe Co., Ont.:—"Will you please tell me, through the columns of your valuable paper, how to kill lice on cattle and colts, how to prepare the preparation, and how to apply it? 2. Please tell me the best method for curing pork, without smoking, from the time it is cut up until it is put away for the summer? 3. Which do you consider the better, a wide or a narrow plow, for general use in nice loamy land?"

[When stock becomes infested with lice very thorough measures are usually necessary in order to rid them completely of the vermin. In very cold weather repeated applications of insect powder (pyrethrum) will destroy a large proportion, if not all the lice, but a more thorough job is usually made with repeated washings with a liquid insecticide such as the various cattle and sheep dips advertised in our columns, or of kerosene emulsion. Whatever is used should be repeated in from 8 to 10 days, so as to destroy the young that hatch after the first application. Kerosene emulsion is prepared by dissolving half a pound of hard soap in a gallon of rain water by boiling. Now remove from the fire, and while hot pour in two gallons of coal oil and churn briskly for five minutes. To prepare for use dilute with nine parts of soft water; when applying it have the stable warm, and rub it thoroughly into the hair from nose to heels and to end of tail.]

2. We have found the following a satisfactory method of curing pork: We cut the sides into shoulders, sides, and hams. If the pork is heavy it is well to cut out the shoulder at the joint so that the salt will penetrate evenly. When cut up the red spots should be sprinkled with saltpeter, and the entire surface well rubbed with salt, and laid on a table in a cool room or cellar. Turn the pieces and rub the surfaces every two days for two weeks. Then enclose them in cotton bags and hang up in a dry place, where it may remain till warm weather. We then find it well to pack the pork in a box of dry oat hulls in a cool, dry place.]

3. Since cultivators of various sorts have reached such perfection for tilling the land, we do not consider it wise to occupy unnecessary time plowing with a narrow plow. We would recommend a moderately wide plow that turns the surface fairly well under.]

SORGHUM AS A STOCK FOOD.

READER:—"Would you kindly advise me if any experimental work has been done in Canada as to growing sorghum as a stock food, and with what success?"

[We have grown three varieties of sorghum or sugar cane as a stock food for five years in succession at the Ontario Agricultural College. We are growing these with the object of securing definite data of the comparative yield of these three varieties for stock food, and to ascertain whether the yield of any of them would compare favorably with that of corn. The average results of the five years' experiments are as follows: Orange sugar cane, 16.4 tons per acre; Fodder sugar cane, 16.0 tons per acre; and Early Amber sugar cane, 15.3 tons per acre. We have as yet done nothing in conducting feeding experiments with sugar cane. I take the following quotations from a bulletin issued from the United States Department of Agriculture on the subject of sorghum as a forage crop: "Sorghum may be used for soiling, pasturage, hay and ensilage. It is especially valuable as a pasture for lambs and hogs, and as a summer and autumn feed for dairy stock. Feed sparingly with it until the stock becomes accustomed to it. The best quality of hay is obtained by cutting the sorghum shortly after it begins to bloom. When used for soiling, cutting may be profitably begun as soon as the heads are formed. The common practice is to cut for ensilage when the seed is in the 'dough.' The forage contains an excess of fat-forming substances, and should be fed in connection with food rich in muscle-making material. The seed is usually fed with the stem and leaves. The threshed seed should be crushed or ground, and mixed with wheat, bran, oats, or other nitrogenous foods."]

C. A. ZAVITZ.]

ARTICHOKES FOR HOGS.

T. D. MCG., Glengarry Co., Ont.:—"How are artichokes as feed for hogs? How should they be fed? How should they be cared for?"

[Artichokes are much relished by pigs and give probably better results than any other sort of tubers or roots. The hogs will eat them greedily just as they are taken from the ground, but we would expect better results from feeding them pulped or mixed with chopped grain, which would moisten the whole mass and give an appetizing flavor. They may be wintered the same as potatoes, in a cellar or pit, or if they are not needed till spring feeding, they can be left in the ground through the winter, as frost does not injure them. If fed in the early fall or spring, the pigs will root for them where they grew, and do well upon them with the addition of a little grain.]

WILL A FREE-MARTIN BREED?

A. G. S., Lambton Co., Ont.:—"I have twin calves—a bull and a heifer—pure-bred Shorthorns. I have heard it said that the heifer will never breed in a case of this kind. Have you ever known one to breed?"

[Yes. We have known more than one to breed; but only a small percentage of free-martins breed—perhaps not more than one out of ten. As a rule, they never come in heat; but those which do are liable to prove fertile.]