

maker to test his work, and if losing more than a trace of fat in the buttermilk there is something wrong, which should be looked after at once.

Washing.—Washing butter is for the purpose of removing the buttermilk, and the least washing possible that will accomplish this is to be recommended, as too much washing does not give as high a flavored butter as once washing. This is another advantage of churning at a low temperature; it requires less washing to remove the buttermilk. The quantity of water used should be equal to the quantity of cream churned, and should be at a temperature of about 55 deg. The best way to heat the water to this temperature is to have a small steam pipe connected with the water pipe at the churn, and then steam can be turned on and the water heated to the desired temperature. After the water is added, revolve the churn for about two minutes, and draw the water off immediately, as it effects the flavor if left on the butter.

Salting.—When the butter has drained for twenty or thirty minutes, it may be salted either in the churn or on the worker. The former method I believe to be the better, as there is no better place to incorporate the salt with the granular butter than in the churn. An even color is more easily obtained, and the texture of the butter is preserved in consequence of less working being necessary. When salting in the churn, put about one half on; then tilt the churn one way and put on half of what is left; then tilt back the other way and put on the balance. When all the salt has been added the churn may be turned over slowly by hand a few times; or, the best way is to have a large wooden fork to mix the salt through the butter evenly. The butter may be either left in the churn or taken out into tubs and let stand for about two hours for the salt to dissolve before working. When salting in the churn, it is best to estimate from the number of pounds of milk required to make a pound of butter. The quantity of salt to use will have to be varied to suit the market for which it is intended. When salting in the churn 1½ oz. will be about right for our local markets, and when salting on the worker, 1 oz.; for export, ¾ of an oz. in the churn and ¼ of an oz. on the worker. Salt for butter should have a fine, even grain, and be kept in a clean, dry room, free from any impure surroundings, as it absorbs bad odors very quickly.

Working the Butter.—The object of working butter is to rid it of the surplus moisture, to distribute the salt, and to unite the granules and give the butter consistency; and it should not have any more than will accomplish this. One of the advantages of salting in the churn and allowing the butter to stand until the salt is wholly dissolved is that much working is not required, as the butter only requires to be worked until the color is uniform, or when the streaks caused by the salt disappear. About twelve to fifteen turns of the worker will be found sufficient. When the butter is salted on the worker, and is only going to be worked once, the worker should be given twenty-five revolutions to thoroughly mix the salt, and if there is an excess of moisture it will require a few more turns. The working should never be done when the butter is at too low a temperature (there is not much danger of having it too high during the winter season), as it injures the grain; 55 deg. will be found about right.

Have We Done Our Best?

John Gould, of Ohio, asks the dairymen readers of an American paper some pointed questions which many of our subscribers can well afford to ponder and apply to themselves. We should not be discouraged and consider that we are failures until we have exhausted the resources at our command. John Gould's questions and remarks are the following: "Has the dairyman made as good progress in his methods to reduce labor and reduce cost, and still supply a yet better article of produce? Did he cull out the poor cows last season, and get better ones? Did he build that silo and save the corn crop without loss, and the expense of husking, grinding, going to mill, and the like? Did he fix the cracks in the stable and shut out the cold air, and were there any better facilities made for watering the cows? Politicians either 'make hay while the sun shines' or 'saw wood between elections,' and it would be a great example if this fashion would break out among thousands of dairymen. Have you studied up the balancing of a ration and found out what you have in the way of feed, and how it can be best proportioned to get the best results? Cows would live on all corn fodder, but they would do a great deal better if oats, oil meal or bran were added to the ration—something to make blood and muscle instead of all heat. Prosperity can come nowadays only by persistent effort and bringing the resources at command into order and developing them, and getting all possible out of each, and now, after election, is the time to go at this matter as never before, and bring prosperity, by first, confidence in one's business, and then bringing 1896 business methods to bear. Put the dairy industry in the front, where it belongs, and should be ever kept."

According to the annual report of the U. S. Secretary of Agriculture, Hon. Mr. Morton, 72 per cent. of the farms in the United States are absolutely free from mortgages or other encumbrances. Out of each 1,000 farms but 282 are mortgaged, and three-fourths of the money borrowed was for purchase or improvements.

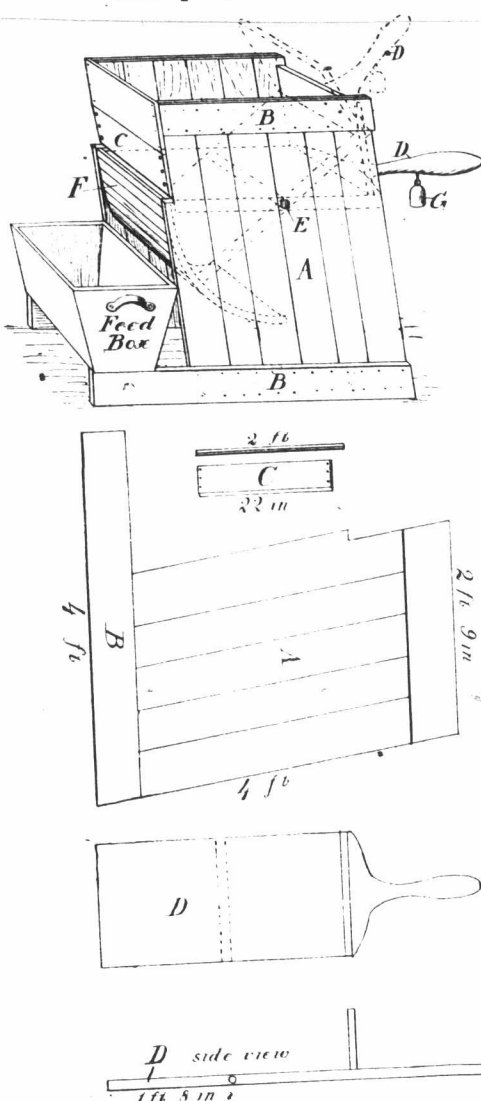
THE HELPING HAND.

Handy Farm Contrivances and Methods.

Upon almost every farm there are some handy original devices, or improved methods and practices not generally known, which, if given to the public, could be utilized by others in rendering farm management more economical and remunerative. This department is intended to bring out such information for the benefit of our readers, and is to be maintained by them in holding out a helping hand to their fellow-workers by the interchange of descriptions of labor saving tools and contrivances, particular ways of management, original and successful experiments tried, or any other feature in connection with farming not generally known.

To encourage subscribers to contribute to this department of the FARMER'S ADVOCATE, we offer a cash prize of \$2 for the best, and a second prize of \$1 for the next best, contribution received prior to the 15th of each month. These and other contributions deemed of sufficient merit will be published as rapidly as our space will permit, but will not necessarily appear in order of merit. Compensation according to our standing offer for accepted matter will be allowed for suggestions published but not awarded a prize. The decision in every instance will be final. Descriptions must be written upon one side of paper with pen and ink, and must bear the contributor's full signature and address. They must be as short and concise as possible, 100 words being just as good or better than 500 if they tell the same story. Where an illustration will assist in making a description clearer, a rough pen sketch should accompany it on a separate sheet from the written matter. Every contributor must be a subscriber to the FARMER'S ADVOCATE. These contributions must not be mere reproductions of what have been published elsewhere. What we want is original matter. Plan sufficiently ahead so that the contributions will be as seasonable as practicable.

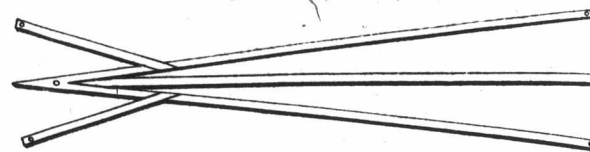
Cheap Root Slicer.



WM. MOUNTAIN, Perth Co., Ont.:—"This homemade root slicer is easy to work, rapid, strong, durable, and cheap, put together with hammer and nails. Make two sides (A) out of 2-inch plank, cut off the square about 1 in. to 1 ft., nail on battens (B) to hold planks together, making bottom batten 1 ft. 3 in. longer than top. Set sides up and put on knife (C) and stay to keep in position. The 22 in. knife to be put on with wood screws or bolts; cutting edge (the bottom) to be about 1 ft. or 1½ ft. from top. Nail a board above the knife and below, where the lever will be when down on back side, and also on top of projection on bottom battens. Keep it perfectly square. Make lever of 3 in. hardwood plank, 4½ ft. long, 18 in. wide, or just wide enough to work freely; bore hole through side plank and through lever, 1 ft. 8 in. from knife, and put through iron rod (E), ¾ in. iron, 2 ft. long, with key holes at each end. Make drum segment (F) with strips 1 by 2 in., nailed in evenly, so that they may be almost touching lever end. Knife: An old saw-blade, sharpened on lower side, with holes for bolts, should be 4 to 6 in. wide, adjusted to cut different thicknesses of slice by packing with leather; weight on lever behind knife (G) any iron to keep down the lever solid when hopper is full of roots. The lever, which is the hopper bottom, must strike the cutting edge of knife, and the distance projecting past knife will be the thickness of slice. Any blacksmith can make machine blade out of an old saw. The whole can be made in a day. Cost of material from \$1 to \$1.50.

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Handy Farm Wagon.

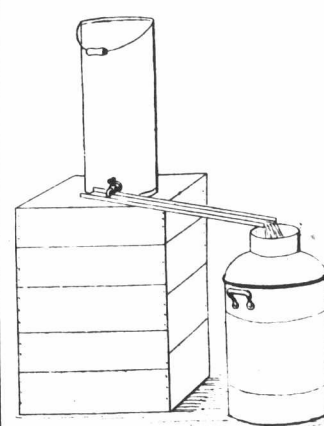


JOSEPH H. WOOLEY, Norfolk Co., Ont.:—"The accompanying illustration represents the frame of a wagon platform which I have used two years and find it the most convenient wagon on my farm for hauling fodder corn, manure, plows, harrows; in fact, everything that has to be drawn from place to place.

"The frame should be of 3x4 inch oak or 4x4 inch pine, bolted together. The frame is 6 feet wide, 14 feet long, and covered with matched lumber fastened to frame with wire nails. I prefer matched lumber for the platform in order to keep the wheels, etc., perfectly dry and shaded when not under cover. At each corner of the platform is a square hole (round in cut) to receive stakes to hold bulky loads. At the sides beneath is nailed a 1x3 inch piece to stiffen the platform, which is movable so as to be easily lifted off. The wheels are just 23 inches high and the platform 30 inches. It is necessary to have side boards with stakes nailed at ends to enter the corner holes, and end boards rodded in position as with an ordinary wagon box. The truck wheels should have rims and tires not less than four inches wide. Mine are six. It will be seen that by having the above described platform and an extra set of truck wheels one may have the handiest possible farm wagon."

[Mr. Wooley does not mention how or where he procured his low wheels, but no doubt he, like a number of farmers of our acquaintance, had old wagon wheels cut down by a wagonmaker and rerimmed, or, as we have seen, wheels sawed from buttonwood logs or some other tough material. The logs were cut the length of ordinary wheel hubs and fitted with boxings of old wheels. These need not be more than 15 or 18 inches high, which will run much easier than one would expect because they will not cut into the ground.—EDITOR.]

A Cheap Aerator.



F. W. C., Middlesex Co., Ont.:—"Bend up the edges of a piece of tin 30 inches long. Place a creamer can upon it on a box, strain the milk into the can and let it run slowly through a small hole at the bottom in a thin sheet over the tin and into large can. It may be gauged to run all the time after the first cow is milked until all the milk is treated."

Attachment to Grab Hook.

R. E. BIRDSALL, Peterborough Co., Ont.:—"This sketch represents a grab hook to be attached to whiffletree for use with chain for skidding logs. The improvement on the ordinary hook is the ring A, which is placed through the hook a little nearer the back than the point. It should be made large enough to insert your hand conveniently and yet not large enough to allow it to fall over the point or back of the hook. Its purpose is to lift the whiffletrees about by and to hold the hook in position while the chain is being attached. It will save the hands."

A Handy Device for Holding Bags.

JAS. A. VANCE, Durham Co., Ont.:—"Take an inch board, 3 feet long by 14 inches wide, and slant it as shown in picture. Then take two slats, 3 inches wide and 3 feet long, and nail them upright to the board about 5 inches from the top to serve as feet. Drive a wire nail through each corner of board and turn them up a little to hook the bags on. Nail the board down at the bottom, and one man can fill and tie the bags as fast as two men can clean the grain."

"Fresh Eggs from China" is a sign in the windows of the Chinese stores in Chicago. Most of these eggs are duck eggs, and about 30,000 of them have arrived in Chicago during the last three weeks. Each egg is wrapped in a mass of black mud that retains its puttylike consistency for months, even when exposed to the air. They come in boxes holding twenty-five of a Chinaman's dozen, which is ten. Everything that comes from China is purchased by tens. The eggs are said to be as fresh as if laid yesterday. Peeling the coating from them, the faint blue tint of the shell is disclosed.—E.C.