How to Make Butter of Good Texture and Grain, with an Even Color.

It is very important that those making butter in the dairy should have a knowledge of the proper temperatures employed to ripen and churn cream without injuring the texture of the butter. A good thermometer should be provided. When purchasing one, put six or more in a dipper of water and select one from the greatest number registering the same. The cream should not be ripened at a temperature higher than 60° or 62° in summer, nor higher than 65° in winter. A small lot of cream is easily affected in temperature by the surrounding atmosphere and should be set in a cool room in warm weather, or in a tub of water cold enough to hold the temperature at 60° while ripening; change the water, or use a little ice if necessary, to keep the temperature uniform. A little heat may be necessary in cold weather if the room is not warm enough to hold the cream at 65°. It takes more trouble to make good butter than some can or are willing to give it; as a result our markets are overstocked with an inferior article. High ripening and churning temperatures injure the texture, giving it a soft, oily appearance, disliked by dealers and consumers.

A quart of sour cream or buttermilk fresh from the churn, having good flavor, should be put into the sweet cream, *stirring well* each time fresh cream is added, until enough is gathered for a churning, then let it stand until ripened properly. Cream is ready to churn about six hours after it turns thick. The churning temperatures are about 58° in summer and 62° to 70° in winter. Fill the barrel-churns only one-third full, and vary from these temperatures, as experience will teach, so as to churn in 40 minutes; quick churning and overworking of the butter injures the grain also.

If all butter-workers would take the trouble to get a lesson or two on how to salt their butter in the churn, specks, mottled or streaked butter would be a thing of the past. To do it successfully the butter should be washed with plenty of water at 46° to 48° in winter and lower in summer, using some salt in the water to harden the fine granules; sift on sufficient salt to suit the taste, and rock the churn back and forth to mix thoroughly; then press into one corner of the churn with the butter spade and let it remain from two to four hour before working. If the room is warm, remove the butter to a cool place. The salt dissolves in the butter and very little working is necessary. The granules should be find and hard to have good success. A few trials will give the new beginner very great pleasure with the improved quality of the butter.

Specks are chiefly caused by curd in the cream not being strained out, and mottled or streaked butter by the salt not being evenly distributed; the butter should have been worked more, or a second preparation of cream from the separator to the churn.

Success in the art of manufacturing butter that will command highest market prices must begin with a knowledge of the chief factors necessary to make butter having fine flavor and firm texture, so desirable in good butter, which is being inquired after by dealers and intelligent housekeepers. This knowledge is most important, as the foundation of good butter is layed by the treatment the cream receives from the separator to the churn, temperature and germs producing fermentation being the chief factors employed.

T. C. ROGERS.
O. A. C. Dairy School.

A Cheese and Butter Makers' Convention.

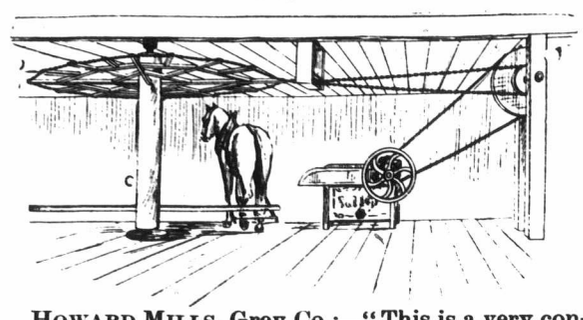
A cheese and butter makers' convention will be held at the Dairy School, Guelph, Ont., on March 6th, 1896, under the auspices of the Provincial Dairy School, the Ontario Creameries Association, and the Dairymen's Association of Western Ontario. It is important that every maker who can should attend this meeting. There is to be afternoon and evening sessions, at which addresses will be delivered by several of the foremost and most practical dairymen in Ontario, upon such subjects as "Handling over-ripe milk," "Separators and separating," "Preparation of cream for churning," "Cheese and butter starters," "Cheese and butter making," etc. President A. F. McLaren, of the Western Dairymen's Association, will occupy the chair. Addresses will be delivered by Hon. John Dryden, Dr. Mills, Hon. Thos. Ballantyne, and others. Full particulars may be obtained from J. W. Wheaton, London.

Butter Back from Europe.

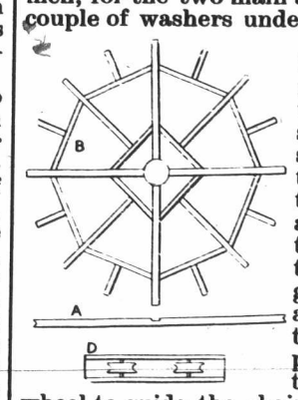
On the steamer Teutonic, which came in from Liverpool last Friday, were 1,336 tubs and 63 firkins of American butter. These goods were shipped from here nearly two months ago and met a very dull market in England; so dull, in fact, that at no time was it possible to get the original cost of the stock. When our market was on the "boom" two weeks ago, it occurred to the owners that the butter might be returned to this side of the water and sold for more than it was worth abroad, and the goods were reshipped at once. An ocean voyage, with several handlings, has not improved the appearance of the stock, and it reached here just when our market broke, so that there is no present sale for it. We are advised that several thousand tubs more of creamery would be returned if there was a place for it here.—[*New York Produce Review.*

THE HELPING HAND.

A Home-Made Horse-Power.



HOWARD MILLS, Grey Co.:—"This is a very convenient and cheap horse-power. It is very easily made and occupies but little space in the barn; if you have a mow raised seven or eight feet above the floor it may be put under, so long as there is room for your horse to go under the wheel. The wheel is made of ash or elm scantling from ten to sixteen feet long (according to the size of the wheel you intend making). The two main arms and the one for the horse are three by four inches, the rest are two by four, to make it lighter. Each arm has a V-shaped notch in the outer end for the drive-chain to run in. A post about fifteen inches in diameter and seven or eight feet long is used. Drive two gudgeons, one in each end of the post, and cut two holes through the post at right angles, one three by four inch, and the other three by six inch, for the two main arms, and then set it up. A couple of washers under it will make it run easier.



"The illustration A shows how the main arms are made, B shows how the wheel is made, there being sixteen arms in all. C is a side view of wheel in position. Put one arm in the three by four-inch hole first, and then slide the other in the three by six-inch hole till the notches come together and it drops down, and wedge them down tight. D shows how the pulleys are made. Place them on a level with the wheel to guide the chain to a small grooved wheel fastened to a large one running on the same shaft. A belt is run from the larger wheel to a block on a cutting box, grain crusher, or other machine."

Hog and Sheep Loader.

D. C. BLACK, Middlesex Co.:—"In looking over your issue of January 15th I noticed a cut of a sheep and pig loader by W. C. Huff, and I have no doubt but it is very handy, but too expensive for loading hogs. I now enclose you a cut of one I made two years ago, and all my neighbors have taken a pattern from it. It can be made in twenty minutes with saw, hammer, and nails. Take a plank ten or twelve feet long, ten or twelve inches wide, cut three gains on each edge of plank six inches from each end, and one in the middle; cut them an inch deep, and five or six inches wide; get six boards three feet long, nail three on each edge of plank in the gains. Now nail your first side board lower edge even with the bottom of the plank to keep their feet from sliding off (our artist has not obeyed this). Nail one or two more above, according to width, to keep them from going over sides. Now spread the top as wide as you like for their body to pass along, say two feet and a half. Nail a cross piece at each upright to keep them spread out, also nail cleats across the top of plank every foot to keep from slipping back, and the loader is ready to use. Put one end on the wagon, and the other in the pen door. Now you can drive them up, and they cannot avoid going to their right place."

Portable Hurdle Fence.

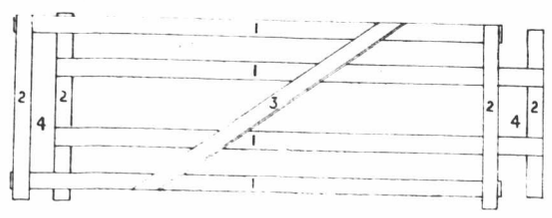


FIG. I.

Figures 1 and 2 represent the movable hurdle fence used on the farm of Theodore Louis, Wisconsin, the noted American authority on swine husbandry. It is used for hurdling swine, but would be equally valuable for sheep and cattle. The width between the bars and height of the hurdles may be made to suit the sort of animals to be kept by it: (1) Fence board twelve feet long; (2) one by three or four-inch slats; (3) two-inch slats. Observe that slat (2) is reversed at every other panel.

FIG. II.

(4) This open space must be one inch wider than slat (No. 2). The fence stands worm or zigzag fashion; the right-hand end of Fig. 1 protruding through the left-hand end of Fig. 2, and so on throughout the whole fence. A A represent stakes driven, as shown in Fig. 2, to hold the fence firm.

POULTRY.

Poultry Diseases and Causes.

BY M. MAW, WINNIPEG.

Many diseases that affect the poultry in America and England are unknown in Manitoba. I attribute this to the bright sunshine and dry, clear weather we have during the winter months, not to any extra knowledge or care we give our poultry; on the contrary, it is a surprise to me that so many manage to pull through the winter in the over-crowded, badly ventilated chicken houses. I frequently receive letters stating symptoms of disease, etc., but neglecting to state how the birds are housed or what the condition of general flock, and very few think of enclosing a stamp for reply. I always answer every inquiry to the best of my ability, but not having up to the present time "made my pile," it seems hard to have to devote time, knowledge, and postage stamps to enlighten other people's darkness. I will now proceed to answer some of the inquiries that I think will be generally useful. One reads: "My birds are dying off; they seem to grow lighter every day. They have good appetites. I have tried several kinds of medicine advocated in the poultry journals, but they are no good,—my fowls all die." My answer is: This is tuberculosis, or consumption. There is no cure. The best plan is to kill and bury all affected birds. It is caused by filthy, over-crowded, badly ventilated houses; sour food; stagnant water. Never try breeding from such stock. The disease is hereditary, and once implanted in your flock they will be useless.

[NOTE.—According to modern science, consumption is not hereditary, neither is it "*caused* by filthy, over-crowded, badly ventilated houses"; although a predisposition to the disease is hereditary, and the conditions named would tend to make the subject susceptible to the contagion. The treatment recommended, however, is all right.—ED.]

Another inquirer says: "I have lost several of my best fowls. They did not show any signs of sickness and were nice and fat. We found them usually under the roost in the morning, dead." This is enlarged liver, caused by over-feeding and want of exercise. The best cure or preventive is less fattening food and more work. It usually affects the older birds of the heavy breeds.

Roup.—I have a number of inquiries concerning roup, and would say that roup is an advanced stage of cold, caused by draughts and bad ventilation. The best preventive is to stop the draught and let out the foul air. A good ventilator is made of stovepipes penetrating the roof through a close-fitting hole, and coming down to within six inches of the floor. This will keep all the fresh warm air in the house, and carry off all the damp and dangerous gasses. In an advanced stage roup is almost incurable, and, unless a very valuable specimen, it is best to kill and burn the bird. In the earlier stages, known by running at the nostrils and swollen eyes, it is easy to handle. The best cure I ever used is coal oil. Take a small tin (a salmon tin is just the thing), fill it three parts full of coal oil, and plunge the head of the bird in, taking care to cover the ears with the oil; draw it out at once. One dip is generally sufficient to effect a cure, but if necessary repeat the dose in three days. There are hundreds of cures advertised for roup. They are, most of them, expensive and useless; and if you succeed in saving a bird in the advanced stage its constitution will generally be affected, and it will be useless for breeding purposes.

Scaly Leg is a very common disease. It affects the legs, forming large masses of scale on the joints and toes; if neglected, will eventually cause lameness and even death. It is caused by a small insect, and usually affects old birds. It is easily cured. Soak the legs in warm water, dry, and apply with a feather a mixture of half fresh lard and half coal oil. Two or three applications will remove all scale and effect a cure.

Gape and Tape Worms have not done much damage in this country yet, probably owing to the newness of the soil. Still, as a preventive, it is a good plan to scatter air-slacked lime wherever the fowls have been located any length of time. A dose of turpentine, given in the early morning feed, will eject any worms, and do no damage to the birds in any case.