

A Cheap Farm Creamery.

We have often pointed out in our columns the respective merits of co-operative and farm creameries. We expressed the fact that better butter can be made on the farm than at the co-operative creamery establishments, although the uniform quality of the latter placed the butter far ahead of the average product of the farm. No farmer can make good butter, which always commands a high price, unless he makes a specialty of butter-making; he must study the subject and have the requisite facilities. It is not necessary to have a large number of cows, although the more the better, for then the cost of production will be less. Any farmer who commences on a small scale will soon see the advantage of enlarging his operations.

The farm creamery represented in the accompanying cut has been erected by Messrs. Cornish, Curtis & Green, Fort Atkinson, Wis., and is admirably suited to a dairy of 20 to 30 cows. The size is 12 x 22 feet and 10 feet high. The following are the complete bills of cost:

LUMBER BILL.

Two pieces 6 x 8, 22 feet long, for sills; 3 pieces 6 x 8, 12 feet long, for sills; 16 pieces, 2 x 8, 12 feet long, for lower joist; 17 pieces, 2 x 6, 12 feet long, for upper joists; 40 pieces, 2 x 4, 10 feet long, for side studding; 9 pieces, 2 x 4, 12 feet long, end studding; 9 pieces, 2 x 4, 14 feet long, end studding; 6 pieces 2 x 4, 16 feet long, for plates; 12 pieces, 2 x 4, 18 feet long, for rafters, to be cut in two; 10 pieces, 2 x 4, 14 feet long, for girts; 950 feet dressed stock boards for sides and cornice; 180 feet O. G. battings; 425 feet roof boards; 1,600 feet flooring and inside ceiling; 165 lbs. building paper for sheeting outside and inside; 7 window and door stools, 3 ft. 6 in.; 400 shingles; 48 feet in length, or 6 inch ridge boards; 4 windows glazed, 9 x 14, 12 lights; 1 window glazed, 8 x 10, 12 lights, for gable; 1 door, 3 x 7, 1 1/2 feet thick; 2 doors, 2 ft. 8 in. x 6 ft. 8 in., 1 1/2 thick; 2 locks and knobs; 2 knob latches; 3 pair butts, 3 x 3; 12 window springs; 25 lbs. 20 penny nails; 100 lbs. 10 penny nails; 50 lbs. 8 penny nails; 25 lbs. 3 penny nails; 20 lbs. 10 penny nails. Drop siding may be used in place of dimension boards and battings, if preferred.

The above bill, counting lumber at \$14 per thousand, the price in London of the quality required, would amount to about \$120, and the building could be put up for \$25 or \$30.

BILL FOR DAIRY OUTFIT.

One horse power, with tumbling rod and pulley, \$31; 1 Curtis improved factory churn, 100-gallon, \$24; 1 No. 3 lever butter worker, \$12; 1 dairy scale, with butter salting attachment, 1/2 oz. to 240 lbs., \$10; 1 Lakin's butter-milk strainer, \$2.25; 1 Lee's perfect thermometer, 60c.; 1 8-oz. graduating glass, for butter

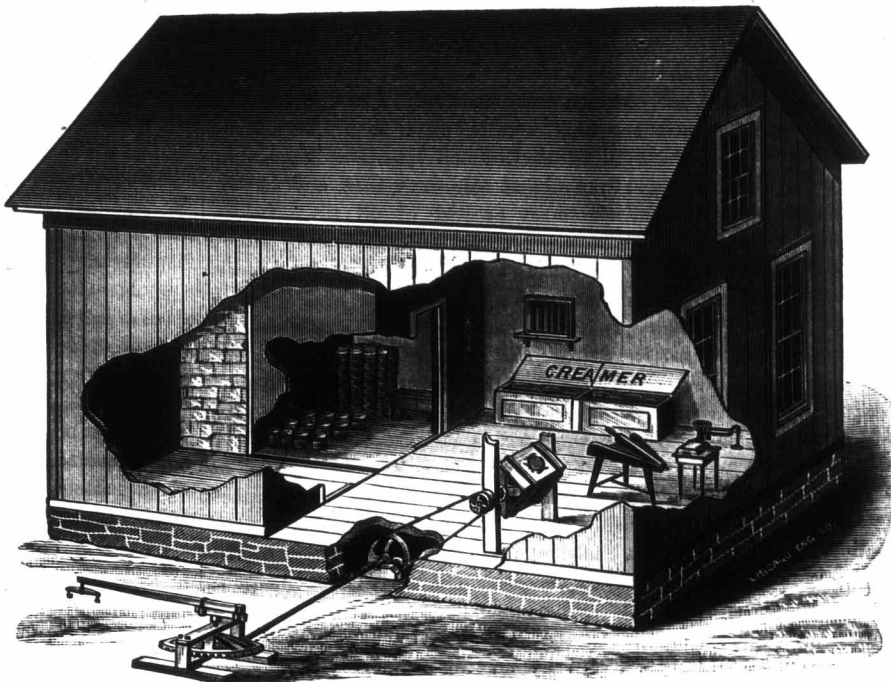
color, 60c.; 1 cream tester, with six glasses, \$1; 1 ladle, 25c.; 1 butter packer, 75c.; 1 stencil brush and box, 50c.; 1 stencil, with name of creamery, 75c.; 15 Cooley cans, \$2 each, \$30.

The above bill gives the United States prices, but most of the outfit can be had from our Canadian dealers for about the same price. The factory churn, however, would have to be imported, or made here to order, at a higher price than \$24. It could be made for about \$30, or imported for about \$35, including a duty of 25 percent. This item would be balanced, however, by the lower prices of horse-powers in this country. Altogether the concern should not cost over \$230. The sales of butter from 20 cows for one season would bring more than double the cost of the building.

A small engine could be used instead of a horse-power; a centrifugal separator could be advantageously used at any time, and could be run by the same horse-power or engine.

Milking Competitions.

At a milking competition of the British Dairy Farmers' Association, prizes were given to



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different breeds and crosses with the following average result:—

	Milk per day lbs.	Fat.	Total Solids.	Total Points.
SHORTHORNS (pure-bred).....	40	3.3	12.38	80.15
SHORTHORNS not eligible for registration	54	3.54	13.14	98.2
JERSEY.....	48	4.0	13.68	122.31
GUERNSEY.....	24	5.94	15.78	88.3
AYRSHIRE.....	53	4.92	14.58	97.72
SHORTHORN & AYRSHIRE CROSS.....	48	3.52	13.16	85.38

The average ages of the different cows were about the same—between six and seven years. The "total points" were computed on the following basis: One point was allowed for each pound of milk, two points for a percentage unit of solids, three points for each unit of fat, and one point for each ten after the first twenty days since calving.

The following table gives a summary of averages, extending over seven years, 1879 to 1885 inclusive:—

	LBS. MILK.	ANALYSIS.
Of 55 Shorthorns.....	42.89	12.69 solids 3.62 fat
Of 42 Jerseys.....	27.34	13.70 " 4.17 "
Of 23 Guernseys.....	27.43	13.87 " 4.52 "
Of 9 Cross-bred.....	43.53	12.71 " 3.57 "

Abnormal Conditions of Milk.

[From the German; Translated by W. A. MacDonald, for the FARMER'S ADVOCATE.]

I. DEFECTIVE MILK SECRETION.

Under this head is included the falling off in the yield of milk before the proper time, there being no disease of the udder or feverish state of the system, and the animal appears quite lively and healthy. This condition often arises from an injurious change of food during the period of lactation, in which case the malady continues until the cow becomes accustomed to her new diet, and even longer if the food contains insufficient quantities of nutriment, in which case a remedy can only be effected by feeding proper rations. The same malady may be brought about by a slight disturbance in the digestive process, and may be removed by feeding more easily digested food, or the following dose may, with good results, be given three times a day and continued several days: Powdered antimony, 15 grammes; powdered calamus root, 10 grammes; caraway, 10 grammes, given in a litre of fennel tea.

II. WATERY, FAT-POOR MILK.

This milk has a bluish-white color. When set, it yields only a thin layer of yellowish cream, the under-lying milk being bluish. Nothing particularly abnormal is observable in the condition of the cow, and she consumes her food with full appetite. This state of the milk often arises when the cow is coming into heat, and then vanishes as soon as she regains her normal condition. In many instances, however, it is attributable to derangement of the digestive organs, caused by eating ill-conditioned fodder, diseased potatoes, decaying roots, bad hay, etc. There is no remedy except doing away with the bad food and feeding proper rations.

III. PREMATURE CURDLING OF THE MILK.

The milk curdles prematurely by heating and when it is set for creaming. The cream is but partially separated, and does not churn readily. Very often the fault lies in the warm, sultry weather, which acts upon the cows, impairing the production of normal milk. Frequent access to fresh, cool water during the day, is recommended, and sometimes it may be desirable to add a small quantity of hydro-chloric acid. In other instances the curdling is caused by warm, damp stables or milk rooms. In this case the remedy consists in keeping these places cool and airy, but often these objects can hardly be attained. It is also recommended to set the vessels containing milk in cold water. Where the named causes do not exist, it may be taken for granted that some of the cows are suffering from a disturbed digestion, which may be remedied by administering, twice a day, 20 grammes (30.86 grains) of bi-carbonate of soda in a litre (1 1/2 pints) of wormwood tea to