

reaching from a point about one foot from the ground on No. 2 to 18 inches below the top of fence on No. 1. Cut off a sufficient length of galvanized wire to reach from the back of post No. 2, around post No. 1, and back to same point. Twist the two ends to take up the slack of wire. This wire requires to be at an opposite angle to the wooden brace, and requires to be repeated three times. Turn down the twisted ends and secure with staples. Now take two pieces of 2 round iron, 2 feet long, and place them between the wires, about half distance between the cedar brace and post, and twist the wire into a solid rope, take out the irons, and the anchor is all right for one end of fence.

York Co., Ont.

A. W. MILNE.

To Prevent Fence Posts Heaving.

Members of our staff have found that cedar posts of ordinary board fence set alongside a row of maple shade trees in front of farm have stood for 15 or 20 years without heaving, the trees taking up moisture from soil and to some extent protecting it from frost. A subscriber tells us of his success in preventing posts from heaving by filling in a couple of feet at top of hole in which the post is set with gravel. Drainage is also effective.

Correction re Cost of Fence.

To the Editor FARMER'S ADVOCATE:

SIR,—I see you have given my letter on fencing space in your paper, but was sorry to notice, in reading it over, that you had made a sad mistake in setting the type. If you look at my letter again you will find the total cost to be 40¢ per rod instead of 76¢, as you gave it in the paper. You will make this right, I trust, in the next number.

Elgin Co., Ont.

J. I. ROUTLEDGE.

DAIRY.

Which Pays Best—Butter or Cheese?

Mr. John Brodie, proprietor of the Mapleton (Ont.) cheese and butter factory, furnishes the FARMER'S ADVOCATE with the result of a comparison between the returns to patrons from cheese and butter made in November last. (This well-equipped and well-managed factory was described and illustrated in our issue of Sept. 1st, 1907.) The butter sold at 18½ cents per pound and the cheese at 8 cents. The charge for making butter was 3½ cents per pound and for cheese \$1.10 per 100 pounds of cheese (everything included), the patrons, however, delivering the milk at the factory. After deducting the cost of making in each case the return to the patron per 100 pounds of milk was found to be two or three cents more in the case of butter than cheese, besides the skim milk which was much more valuable than the whey. This factory during the past winter has been turning out from 1,500 to 2,000 pounds of butter per week, finding its market in Toronto.

Important Points for Canadian Dairymen.

To the Editor FARMER'S ADVOCATE:

DEAR SIR,—Canadian butter is coming more and more into favor in this country, and the outlook for the future is most promising. What dairymen especially require to note is that if the product is to sell on the English market at the highest price, and in competition with Australian and Danish products, it must be sent forward regularly and while perfectly fresh. Butter showing stale flavor is at once depreciated in value from 10 to 20 per cent. from top price of absolutely fresh made goods. If the butter is sent over here regularly when made, packed in square boxes 56 pounds net, lightly salted (just sufficient to preserve the butter), and of very pale color, it will not require much time before it is at the top of the market. Dealers here will take the Canadian products as readily as they take them from other countries, or even more readily, provided the quality is such as they desire. Up to now we find that dairymen in Canada, in their desire to wait for markets, hold the goods over, and then ship them when the rosy freshness is off the butter and when it must be sold as a second-class article. The British public will only have the best of goods, and is willing to pay for it.

The present value of really fresh made Canadian creamery butter is from 100 to 105, Australian selling at about the same figures; but there is a scarcity of supplies from Canada, and much larger shipments could be handled than at present are coming to this market. Care must be taken that the butter is very pale in color—of course not dead white—and packed with only a small percentage of salt, in parchment-lined square boxes, and farmers paying attention to these details would soon find the result of continued shipments satisfactory to them.

As to cheese, Canadian is held in higher esteem every day, but the taste of the British public for stiff, close cheese is altered, and what is now required is a softer-meated cheese, maturing more readily than the goods which have recently been coming to this market. Also there is a tendency now to make the cheese too large. There are very few districts where 85/95 pound cheese are saleable. The bulk of buyers prefer that cheese should not be over 75 pounds weight.

If you can induce the dairy farmers of Canada to pay attention to the points to which we have referred, we have no hesitation in saying that they would find the result more than pay them for the extra trouble in putting up a first-class article, both cheese and butter.

Yours faithfully,

HODGSON BROS.

Liverpool, Eng., March 28th, 1908.

Plan for Farm Dairy.

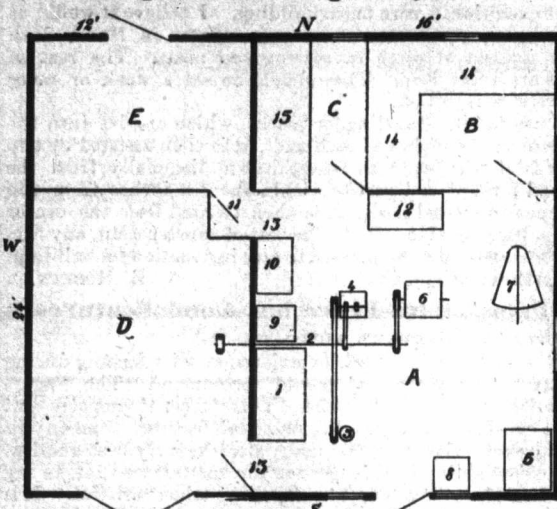
QUEBEC READER:—"Would you kindly give me a plan and description of farm dairy for twenty-five cows, and state if tread power will answer to drive separator?"

The main building is 16 x 24 feet, with a lean-to 12 x 24 feet. The height of the ceiling in main building should be 10 to 12 feet. The attic may be floored and used for storing various articles not needed every day. The walls may be brick, wood or stone. The inside should be finished with two thicknesses of paper and matched lumber. Have at least one dead air space in the walls. The floor may be cement or matched pine, and should have a good slope to the gutter. The floor may be above ground or 2 to 2½ feet below the level of ground outside. Good drainage is necessary. Have a trap just outside the drain from dairy. If no separator is used B may be made larger, but I would certainly advise the use of a separator with 25 or more cows. The power may be boiler and engine, tread power or gasoline engine. A boiler or some other convenient method of heating water, milk, etc., will be needed. If a heater with water attachment were placed in the workroom a one-horse tread power would furnish ample power. If at all possible, have ice house, refrigerator and room for setting milk on north side of building.

A room for separator and tread power at the barn works well, in which case a very much smaller dairy is needed.

H. H. DEAN.

Ontario Agricultural College Dairy School.



FARM DAIRY PLAN.

Ground floor plan of dairy for 25 to 100 cows. Scale 1/4 in. to 1 ft.
 A Work-room, 16 x 16 feet.
 B Refrigerator, 6 x 8 feet.
 C Boiler and engine room, 12 x 16 feet.
 D Wash sink.
 E Place for washing ice.
 F Table for printing butter.
 G Gutter (floor should slope 1/4 in. to 6 inches to gutter).
 H Square churn (6 x 2 ft. inside).
 I Butter worker.
 J Table for Babcock tester.
 K Hot water tank.
 L Milk vat.
 M Line shaft overhead.
 N Separator.
 O Intermediate or jack.
 P Cream vat.
 Q Square churn (6 x 2 ft. inside).
 R Butter worker.
 S Table for Babcock tester.
 T Hot water tank.

How the St. Mary's Creamery Patrons are Kept Informed.

The St. Mary's (Ont.) creamery, of which Mr. J. Stonehouse is manager, the plan and operations of which were described in the FARMER'S ADVOCATE for January 15th, adopts the wise plan of keeping its patrons well posted by issuing monthly reports as to returns and instructions re the care of milk. The February report shows that the average price realized for butter was 21.10 cents, less making charges, 3.50 cents; net price of butter per pound to patrons 17.60 cents, or 20 cents per pound for butter-fat—equal to 79 cents per 100 pounds of milk, and the skim milk returned. Following are the instructions issued:

AIR AND COOL THE MILK.

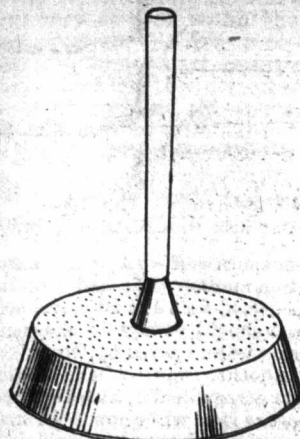
Please do not neglect to aerate and cool your milk and keep it where the atmosphere is pure. If milk is neglected and the cream allowed to rise, the "test" will not be as good as from milk which has been well cared for. The best cared for milk will always give the most satisfactory test and will be better in every respect for buttermaking and will make more butter, for it gives a cleaner skimming. Cool the evening's milk by the use of ice if you have it, but if you have no ice you can have a cold water tank in which to place the cans. Every patron must have this before he can send first-class milk in warm weather. If the patrons send first-class milk to the creamery they will receive their skim milk back in good keeping condition, and if the skim milk is not good the fault lies with the patrons and not with the creamery management. Take a little care of the skim milk you want for the calves by putting it back into the cold water tank; don't dump the skim milk into a sour, stinking can or barrel, and then expect it to keep sweet. Don't be too anxious to have skim milk pasteurized at the creamery until you have tried your best to keep it as suggested, for cooked milk is not as good for calves and young pigs as uncooked milk, according to recent experiments. In conclusion, let me ask you if you fully realize that we must have first-class milk in order to give you the highest price that can be obtained

in the British markets. The patrons are the gainers or the losers, according to the quality of the milk, other things being right; therefore do the very best you can for us. Keep everything clean, aerate and cool the milk, and yours will be all the gain.

J. STONEHOUSE, Manager.

A sample of a cheap and effective aerator may be seen at the creamery or skimming stations.

Mr. Stonehouse writes us: "I enclose a rough sketch of our aerator, which shows it to be simply an inverted milk pan with a handle three feet long soldered on to the bottom. The bottom is perforated with about fifty small holes, about the size of an ordinary sewing needle, which allow the air to escape when the pan is shoved down into the milk, and as the air bubbles up through the milk it brings the animal odors off with it. When it ceases to bubble the pan is pulled up and a fresh lot of air is forced down, which is an easy and effective way of cooling and aerating at the same time. Any tinsmith can make them at a cost of thirty to thirty-five cents. The holes must be small or the air will escape too quickly. The long handle is for the purpose of shoving the aerator down and holding it there, but it does not need to be held down long, as the air escapes in a few moments."



The Relation of Butter-fat Percentage to Butter.

To the Editor FARMER'S ADVOCATE:

SIR,—I notice a letter in your issue of April 1st from Geo. Philip asking what amount of butter he should get from milk testing 2.8 and upwards. I am rather surprised that you should state that there should be 20 per cent. more butter than butter-fat, without making further explanations as to its not being possible practically to get all the fat out of the milk, or all the butter out of the buttermilk. Mr. Philip no doubt patronizes a creamery, and is asking this information in order to know whether he is getting credit for the right amount of butter from his milk. I don't believe there is a creamery in Canada making accurate tests that can make good butter, rightly salted for Toronto or English markets, that will make an average of 14 per cent. more butter than butter-fat, and have the butter hold out weight when it arrives on the market, taking a year's or a six months' run. Had you said that whilst butter contained 20 per cent. of other substances, that was the chemical analysis, and in practice there was always a little fat left in the skim milk, also a little left in the buttermilk, also that a little extra weight had to be added to each pound, print or package in order to have the weight hold out when it arrived on the market, that would have been a more correct statement, and would have very materially reduced the increase stated in the butter over butter-fat. I am sorry that the reply was not more carefully considered, as we are trying to get the farmers to go into dairying more, and our Government has given us cold storage for taking our butter across, and a statement such as made certainly causes many patrons to be suspicious that they are not getting correct returns from the creameries, and consequently become dissatisfied and stop their patronage. I know that no creamery in Canada does or can make the amount stated, consequently the reply, while it may be chemically correct, is not practically correct.

Ontario Co., Ont.

F. L. GREEN.

NOTE.—In view of the increasing importance of the above subject to creamery and factory men, and their patrons, we have asked two well-known authorities to discuss it, as the FARMER'S ADVOCATE has but one aim, and that is to get at the facts for the benefit of dairymen generally. Mr. F. J. Sleightholm, Superintendent of the Western Dairy School at Strathroy, writes as follows:

"Actual creamery practice would not warrant taking the position in the answer. 1st. Whole milk containing 2.8 per cent. fat will not yield 2.8 pounds butter-fat per 100 of milk. 2nd. Good average creamery butter does not contain '20 per cent. of other substances than fat,' and if it did milk would not yield '20 per cent. more butter than butter-fat,' even though 'the processes of skimming, churning, etc., are thoroughly done.' The enclosed table is based on actual work, and will bear inspection.

Pounds of Milk.	Test.	Pounds of Fat Actually Contained.	Actual Yield of Butter Under Good Creamery Work, allowing 15 per cent. of an Overrun.
100	2.8	2.8 lbs.	3.22 lbs.
100	3.0	3.0 "	3.45 "
100	3.2	3.2 "	3.68 "
100	3.4	3.4 "	3.91 "
100	3.6	3.6 "	4.14 "
100	3.8	3.8 "	4.37 "
100	4.0	4.0 "	4.60 "
100	4.2	4.2 "	4.83 "
100	4.4	4.4 "	5.06 "
100	4.6	4.6 "	5.29 "
100	4.8	4.8 "	5.52 "
100	5.0	5.0 "	5.75 "
100	6.0	6.0 "	6.90 "

Table listed upon 100 pound table on t so with t reached i American Agriculture equal to a ence in th to make usually th of incorp curd or l creamery erties, w making t per cent. 1

Mr. J. Mary's, O enterprises follows:

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