

in where they advise big open ditches. To give you proof that I am right, I have a main drain of ninety rods which is running from several farms behind me, an engineer wanted to lay that out 9 feet wide on top and 3 feet in the bottom; I have laid a 7-inch tile through my farm in that same drain, and have grown an excellent crop of grain over it each year for the last five years, while the men behind me have the big open drain the size I speak of, and no crop, and my land is dry a week before theirs. It overflows during the spring floods, but that never seems to do it any harm. In all my draining I have never had an engineer to lay out a drain for me, and they every one work successfully. Every man can be his own engineer if the law would compel a man to give an outlet to his neighbor where the drain was in a natural course; that is what I have done, and I never considered that it did me any harm. I did to my neighbor as I would wish to have done to myself.

A. H. FOSTER.

Carleton Co., Ont.

[Note.—Mr. Foster has been good enough to send us for inspection something that every tile drainer should have, namely, a neatly-drawn map of his farm and fields, showing the location and direction of every line of tile.—Editor.]

## THE DAIRY.

### A Late Word on the Separator Question.

Editor "The Farmer's Advocate":

As far as British Columbia is concerned, the introduction of hand separators has had little or no effect upon the price of butter made in the Province. In fact, the average price of creamery butter is higher since hand separators have been introduced, than when the butter was made from the cream separated at the factory. But this is due to an enlarged market, and a better understanding among the different creameries regarding the sale of their product.

I believe, however, that the quality of the butter made at cream-gathering creameries is not so good as when the whole milk is sent to the factory, and the cream separated there.

The average farmer knows that the cream cannot be separated from his milk unless it is sweet, or nearly so, and he will naturally cool it in warm weather, and make some effort, at least, to send it in fair condition; but where the cream is gathered, the farmer knows (especially if competition is keen) that it will be accepted, even though it is sour, and, as a consequence, a large percentage of it is far too advanced to make first-class butter. If the buttermaker has control of the cream from the time it is separated, he will churn it when the cream has only the right amount of acidity, and then the butter will improve in quality for several days after it is churned. But if the cream has advanced too far before being churned, deterioration begins almost immediately, and probably before it is sold it has long passed its best. Therefore, where butter is sold on a market regulated by the export trade, I would suppose that the price of butter from cream-gathering creameries would be at least one cent per pound less than where the whole milk was gathered.

You ask, "What effect has the making of butter in the home dairy had?" I would say that the introduction of hand separators on the farm has resulted in a decided improvement in dairy butter, which in local markets is, of course, a keener competitor of creamery-made butter than it previously was, but I would not suppose it has affected the price of export butter nearly so much as has the gathering of cream, instead of milk, for buttermaking.

The defects in butter made at cream-gathering creameries are all, I think, possible of eradication, but the first step is in educating the farmer upon the importance of taking greater care of his cream. I know of one factory in this Province where the buttermaker has made especial efforts in this regard, with the result that the cream received at this factory is considerably above the average, and the butter made from this cream sells for at least five cents per pound above the average price, which means about \$10,000 a year to the patrons of this factory—a good price for a little extra care. The care of the separator, also, plays an important part. I have visited farms where the separator is only cleaned every second or third day, and never properly cleaned at all. It is, of course, impossible to make first-class butter from cream produced under these conditions. How to induce every farmer to properly care for his cream, is quite a problem to solve. Experience has taught that the most effective way to influence a farmer is through his pocket. So, if the neighboring factories will agree not to take in cream which has been rejected by another, and the cream is returned when in bad condition, I believe a marked improvement would rapidly follow.

Vancouver, B. C.

F. M. LOGAN.

### Dairy Stock in British Columbia.

At a recent meeting of the directors of the British Columbia Live-stock Association, the matter of improving the dairy stock of the Province was discussed. It was pointed out that dairying had made such rapid strides, and the possibilities were so great, that every effort should be made to promote the industry. The association endorsed the proposition of the Dominion Department sending a shipment of dairy cattle to British Columbia, and it asked that at least three cars of stock be sent. It was decided that the cup given by the Provincial Government be held for a commercial dairy competition. This compe-

### Bonus for Creamery Cold-storages

For several years past, the Dairy and Cold-storage Commissioner's Branch of the Dominion Department of Agriculture has arranged with the different railway companies for a special weekly iced-car service for the carriage of butter to Montreal during the period of warm weather. Inspectors have been employed by the Department to travel with these cars, so as to insure a proper service, and to take notes of the temperatures of the butter as shipped at the various railway stations.

In looking over the average temperatures for each creamery for five years past, it is found in

quite a number of cases that the temperature of the butter at the shipping point has been lower each succeeding year. This gratifying state of affairs is the result of the construction of new cold-storage rooms, the improvement of old ones, and of more care in the management of cold-storages generally.

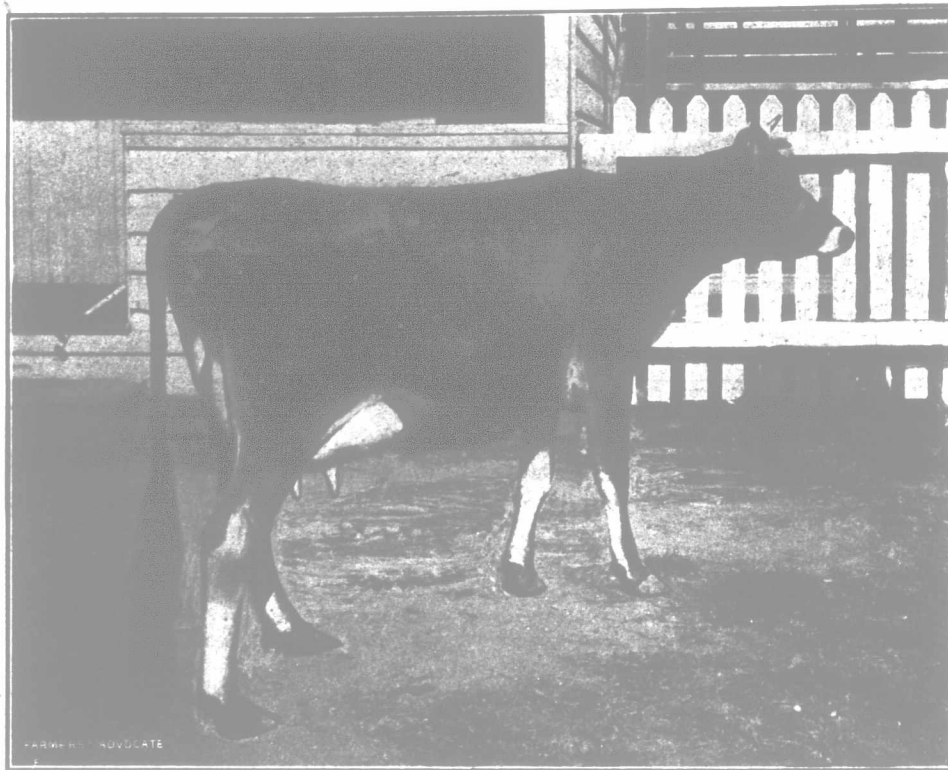
It is regrettable to find, however, that many of the creameries have made no progress, and some have even retrograded in this important matter of the storage of their butter. In this connection a letter has been recently addressed to a number of creameries in Ontario and Quebec by W. W. Moore, Chief of the Markets Division, and J. A. Ruddick, Dairy and Cold-storage Commissioner, impressing the fact that the refrigerator cars are not for the purpose of cooling

warm butter, but are intended to carry to its destination, in good condition, butter that is at a proper temperature when loaded in the cars.

At the close of this season, every creamery manager should carefully overhaul his cold-storage and see that everything is put in good shape. The walls should be carefully washed, then dried and whitewashed. The washing will be more effective if it is done with a solution consisting of one part of bichloride of mercury to 1,000 parts of water, because such treatment will effectually destroy all mould or spores of mould, and thus lessen the danger of having mouldy butter, and at the same time prevent decay in the structure of the cold-storage.

Then, it is important to see that a good supply of ice is stored this winter. By keeping and shipping their butter at a low temperature, creamerymen will derive both satisfaction and profit, besides enhancing the general reputation of Canadian butter.

For full details of refrigerator-car services, temperatures of butter at different points, etc., see the report of the Dairy and Cold-storage Commissioner, just issued, which will be sent to any person on application.



Matinella of Don (581).

Jersey heifer; born August, 1907. Winner of first prize in class, and junior championship, at Canadian National Exhibition, 1909. Also, first at Canada Central Exhibition, Ottawa. Bred and exhibited by David Duncan, Don, Ont. Sire Fontaine's Boyle, dam Reginita's Daisy.

tion is to be held during the coming year, and they hope by it to encourage the keeping of better dairy stock and the practice of better dairy methods in the Province. A gold medal will also be given with the cup, and a silver and bronze medal is to be given for second and third placing. More particulars regarding the competition will be given out later. The Association asked that the Government appoint a creamery inspector at the earliest possible date.

Among the cheese-factory patrons who have been feeding pasteurized whey to calves, is Alex. Simpson, of Perth Co., a patron of the Elma factory, and formerly secretary of the company. Mr. Simpson is greatly pleased with pasteurized whey as calf feed, informing us that his calves did better this year than previously, when fed on skim milk, supplemented by linseed. Mrs. Simpson, it is interesting to note, though not that the fact has any direct relation to calf-feeding, has had a successful season's competition in the buttermaking competitions at the leading exhibitions, West, as well as East, concluding at London, where she was first in the amateur and fifth in the professional class.



Prizewinners in Girls' Milking Contest, London, England, Dairy Show.