

Creamery Department

Butter Makers are invited to send contributions to this department, to ask questions on matters relating to butter making and to suggest subjects for discussion. Address your letters to the Creamery Department.

Points in Judging Dairy Products

The arrangement and judgment of butter at shows was a question handled by Prof. W. J. Carson at the recent Manitoba Dairyman's Convention. He said that he had visited many shows, and was surprised at the lack of facilities available for handling dairy products. The defects lay in lack of means for protecting the products from heat, and from handling by spectators. He showed a plan of a refrigerator that would be suitable for the average show, and estimated the cost of one 12 feet long, at \$30. This refrigerator was constructed on the same principle as the one used at the Manitoba Agriculture College, and it was found quite practicable to keep the temperature down to 34 degrees. The ice box should be about a foot deep, and should run practically the whole length of the refrigerator.

More attention should be paid to dairy products than is now given, said Prof. Carson, and the prizes should be at least as good as those in other classes of exhibits. As a rule, where the prizes were poor, the exhibits were poor. In judging butter and cheese, a score card should be used. On this card 45 points are given for flavor, 25 for body, 15 for color, 10 for salting, and 5 for finish. Each agricultural society should print a copy of the score card in their prize list.

Prof. Carson also strongly urged the necessity of choosing competent judges—men who were familiar with the requirements of the market.

Should Sell Direct

The necessity for Canadian dealers or manufacturers of dairy products, getting in touch with foreign buyers direct, instead of through commission merchants in New York and San Francisco, was brought to my attention a few days ago, reports Commercial Agent W. T. K. Preston, from Japan. In making inquiries about a certain brand of well known Canadian cheese, I was informed that a Yokohama firm, which is one of the largest in the East, had ceased importing this manufacture, because a shipment that had been received through a San Francisco commission merchant had proved very unsatisfactory—in fact quite unsalable. The San Francisco house refused to discuss the subject, when complaints were made, and the result was that the commodity was dropped from the list of future purchases, and was replaced elsewhere.

There is an undoubted possibility of erecting a good market in the East for Canadian cheese. But this like that of other commodities, will necessitate active business enterprise.

CANADIAN BUTTER IN JAPAN

The cost of transportation of butter from other countries to Japan in comparison with the freight expenses attached to the import from the Dominion is quoted by Mr. Preston as follows:

Australia—Distance from Yokohama 6,700 miles, the journey occupying six weeks. Butter is carried in refrigerated storage all the way at one penny a lb., or at the rate of \$40 a ton.

Denmark—Distance from Yokohama 12,500 miles, occupying 50 days, \$10 a ton, or, if in cold storage an increase of 25 per cent., making the charge \$12.50 a ton.

Holland—Distance from Yokohama

12,500 miles, occupying about six weeks, \$10 a ton; or, if carried in cold storage, an increase of 25 per cent., making the charge \$12.50 a ton.

Calgary—Distance from Yokohama 640 miles by rail, and 4,300 miles by sea, totalling 4,960 miles, occupying about 14 days, at the rate of \$36 a ton without cold storage on the ocean.

The Preparation and Care of Culture

We, as cheese-makers, must bear in mind that when we have a culture or starter in a quantity of milk it not only hastens the ripening of that milk, but the flavor of the cheese or butter made from that milk will depend somewhat on the flavor of the culture or starter used.

Let us look back to the history of starters, and we find they were used in the dairy industry a great many years ago. The fact that starters helped in the manufacture of dairy products was recognized years ago by practical men, even before scientists recommended the use of pure cultures. The introduction of pure cultures only dates back to 1890. Prof. Storck recommended their use in creameries in Denmark. In speaking about the different kinds of starters, we might classify them under two names: first, a natural; second, a commercial.

PREPARING A NATURAL STARTER

I would suggest the selection of a number of different samples of the best milk coming into the factory into sterile glass jars, allow the samples to stand until cool, at a temperature of about 70 degrees F. The sample which coagulates into a smooth, uniform curd, and has a pleasant acid taste and smell, is the one I would use as a mother starter.

I would advise makers not to bother with natural starters. I do not condemn a natural starter, for I believe that the best starters have been made from a natural mother culture. I think the best results are obtained from commercial cultures by following the directions sent out. With the pure culture should be able to make a good, clean-flavored starter, but here is where we start our mistakes. We assume that all commercial cultures are pure, and contain organisms suitable for practical work in the dairy, and should produce a pleasant flavor and no gas, but we should remember that commercial cultures are liable to become contaminated if not used as soon as opened.

It is essential to have a perfect system in preparing cultures. We should exercise care in the selection of cans, see that they are well made and seams well soldered, and provided with snug-fitting lids. For general use, the best is the ordinary can, or a shot-gun can, about eight inches wide and 24 inches deep, holding about 50 pounds, answer the purpose very well, and I would recommend their use in preference to a larger can, as the milk is easier heated and cooled when in small quantities.

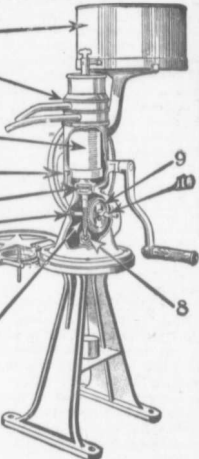
More care should be given to the cleaning and scalding of cans in which the starter is kept from day to day. The use of a stick or paddle, or a common dipper for stirring the milk should be discarded and replaced with a small wire-handled dipper, and used for nothing else. My reason for condemning the stick or paddle is, that the wood becomes more or less saturated, and the cream gathers upon the upper end, and perhaps it is not thoroughly scalded before using next day. The common dipper often gets broken about the handle, and, if the water from the source of contamination. Too much care cannot be exercised in the selection of the milk at the weigh porch.

FRictionless EMPIRE CREAM SEPARATOR

Here are 10 Points Wherein It Excels

and, of course, there are a great many more which you will find in our Big Free Dairy Book which we will mail to you and as many of your friends as you suggest. It is considered the most interesting Dairy Book of the day. It cost us a lot to prepare, but it is free to you. Send for it to-day.

- 1 Heavy three-ply tin supply can. Holds good supply of milk and is low enough for a woman to easily pour milk into it.
- 2 Feed cup, skim milk cover and cream cover made of pressed steel, tinned. Absolutely true, and doubly as strong as the tin kind used in others.
- 3 Light weight bowl—chief cause of easy running.
- 4 Very simple brake, applied at the base of the bowl, the only place where a brake may be used without injury to the bowl. No wear on bowl—all on a little leather washer.
- 5 Ball Neck Bearing, which eliminates all wear on the spindle. Takes but ten drops of oil a day.
- 6 Case hardened pinion gear cut out of worm wheel shaft. No chance of working loose. Practically indestructible.
- 7 Spindle threaded to bowl. If ever wear should occur it can be unscrewed and replaced at less cost than on any other separator.
- 8 Three ball bottom bearing on which the point of the spindle revolves when bowl is in motion. The point costs little to renew. No wear on the spindle proper. Bowl will always adjust itself to proper centre.



- 9 Worm wheel clutch stops all mechanism when crank is stopped, with exception of bowl and worm wheel. No lost motion in again starting crank as clutch grips instantly and without jar to the mechanism.
- 10 Points on worm wheel shaft are case hardened until they will cut glass. Fit into case hardened sockets. Wear is reduced to a minimum. Worm wheel and its shaft may be taken out and replaced by just removing a plug on one side. Cannot be put back wrong. In fact, there is not a single part of the Frictionless Empire that can be placed anywhere but in its correct position.

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also a curd test made frequently of the milk you select. Last season I made a number of curd tests of the milk that was selected by different makers for their cultures; some of the samples were quite off in flavor, another very gassy, and another floated in one hour. By selecting the morning's milk, it will generally give best results.

In heating the milk for cultures, some of the makers use a large milk can, and turn a live steam-pipe into the milk direct from their boiler and claim good results. This cannot be discarded too soon, except where

there is no other means of pasteurizing, and not using boiler compounds, for where boiler compounds are used and the water not any too pure, it looks as though it was a step in the wrong direction.—E. N. Hart.

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