

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.

Refrigerator Dairy Service

The refrigerator car service for the C. P. R. began this season on May 14th. It is intended for the carriage of butter to Montreal and shipments for export via Quebec. It is intended that the car shall arrive at Montreal Sunday so that the contents may be delivered first thing Monday morning. The service will be weekly from Windsor and intermediate main line stations (except stations east of Toronto) and from the Teeswater and Owen Sound section. Current less than car-load tariff rates will apply without any charge for icing. The car may be used for local shipments of butter.

The car will leave Windsor every Thursday; London, Friday a. m. and Toronto, Friday midnight. Shipments from Port Burwell, Ingersoll, Guelph and Goderich branches can be way freighted to Woodstock and Guelph Junction for transportation. Cars leave Owen Sound and Teeswater on Friday. Shipments from Muskoka Branch may be way freighted to Bolton to connect with Owen Sound car. Cheese will not be accepted on these cars.

Valuable Experimental Work

J. W. Mitchell, Supt., Eastern Ontario Dairy School.

Although the main object of the Eastern Dairy School as its name implies, is to afford cheese and butter makers an opportunity to obtain a thorough training in the various branches of dairying and allied subjects, such as bacteriology and chemistry, yet we have found time in addition to do more or less experimental and investigation work. As most of the problems bear upon dairying in a practical way, we would briefly summarize some of the work done and the results obtained.

NEW CREAM BOTTLE FOR BARBOCK TEST

During the past year we brought out a modified form of cream test bottle. The trouble with the old style of cream bottle, which is graduated for reading for 18 grams, is that by the time 18 grams of cream are taken and a little water and the necessary amount of sulphuric acid added, the bowl of the bottle is so full that there is no room for shaking the bottle and properly mixing the contents, and furthermore, a sufficient quantity of water cannot be added to insure against charring readings. The new style of bottle devised by us, while it has the same size of bowl as the old, has a smaller neck, graduated to read per cent. of fat for 9 instead of 18 grams. Its advantages are obvious. One can take 9 grams of cream and add 9 c. c. of water and the usual amount of acid and still leave plenty of room for ready mixing the contents, while the large amount of water added prevents the sample from charring—two decided advantages.

CHAMPION MILK COOLER-SEPARATOR

Costs little more than \$4 to \$5. Does longer than most cooling machines. Only type of cooler that cools, separates, and filters in one operation. Absolutely removing "ropy" taste, milk-burnt and acid. Removes whey. It is your own machine. Every one should have one. Write for literature. 1000 Street, Portland, B. C.

MOISTURE TEST

For a long time practical dairymen have felt the necessity for a practical moisture test. Mr. W. C. Walker, of the School of Mining and Metallurgy, and lecturer on Dairy Chemistry in our school, and the writer made a thorough and exhaustive investigation of this subject and examined the different tests in use and decided that each lacked, in one respect or another, the essentials of a practical moisture test for curd, cheese and butter.

A test, to be practical, must be reasonably accurate, rapid, simple and inexpensive to operate, easy to clean, durable, easily and cheaply kept in repair and moderate in price. They undertook to devise such a test and feel that they have succeeded in doing so. As a full description will appear in bulletin form, it will suffice, at present, to say that it is reliable and speedy, easy to conduct, can be conducted at a small cost and is equally satisfactory for determining the moisture in curd, cheese and butter, while the apparatus is practically all metal and hence very durable.

THE MAKING OF BUTTER FROM WHEY

During the session just closed we made a study of the making of butter from whey, and although we are not prepared to speak finally upon the subject, we feel that we gleaned some information which will prove of interest.

On different occasions we ran separators with a view to determining the fuel cost of elevating and separating the whey. Water was used for this purpose as it has practically the same consistency as whey. Each test extended over a period of three hours. We ran the engine to pump the water for the separators and used steam turbine separators. The amount of water in the boiler, the steam pressure and the fire were left practically the same at the close as at the beginning of the test. Soft coal slack at \$4.00 per ton was used for fuel. The cost of elevating the water and running the separators was about 2½ cents per 1,000 lbs. Taking 3 lbs. of butter as an average yield per 1,000 lbs. of whey the cost per pound of butter for this portion of the work would be ¾ cent. We are strongly of the opinion that were an ejector used instead of a pump, for elevating the whey the cost would exceed this somewhat.

During the session we conducted a number of experiments in the making of butter from whey. While it was usually of good quality when first made, it did not seem to be possessed of good keeping qualities.

(Continued next week.)

One of the most important improvements in Cream Separator construction made recently was the introduction of the self balancing device in the Simplex Link Slide Separators. The device is working so successfully that constant inquiries are being made by dairymen in all parts of Canada for further information regarding this little device that is working wonders. To answer each letter would be impossible and to meet the demand D. Derbyshire & Co. of Brockville have published a neat, well illustrated booklet which gives the desired information. The Canadian Dairyman and Farming World readers will be supplied with copies of this booklet free upon request from either D. Derbyshire & Co. or G. A. Gillespie their Peterboro representative.

The butter-maker who figures well for the creamery company will most always have something of his own.

FRictionless

THE 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 costs 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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