

Department

are invited to send contributions, to ask questions on anything to do with butter making and to suggest for discussion. Address your letters to the Creamery Department.

Re Transportation of Dairy Produce

The Dairy and Cold Storage branch of the Dept. of Agriculture, Ottawa, has been working for better transportation facilities for perishable produce, both on the railways in Canada and on the ocean-going steamships engaged in the Canadian trade. In pursuance of this policy, they have recently sent out a circular to owners and captains of river boats, instructing them as to the best methods of handling dairy produce. During the season of navigation, inspectors are employed at Montreal in order that the special local car services for butter, cheese and fruit, may be kept under constant supervision and that the loading of perishable produce on the ship may be watched and rough handling checked.

During warm weather, the inspectors at Montreal frequently report the arrival of heated butter and cheese that has been shipped on river boats. In almost every case, this has been caused by storage close to the boiler and engine room. The circular warns those engaged in the carrying trade against stowing butter, cheese or eggs in proximity to the boiler, engine or cooking range. It points out to the managers and companies concerned that they should make it their business to see that on every trip, dairy produce and eggs are carried in the coolest parts of the boats.

Progressive factorymen are convinced of the importance of a cool curing room for cheese and proper cold storage for butter, and as a consequence, the majority of factories in our best

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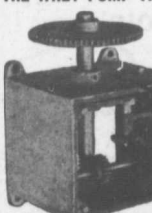
TWO CENTS A WORD, CASH WITH ORDER

EXPERIENCED BUTTER MAKER: wishes situation. Best references. E. Carlin, 125 Arthur St., Peterborough, Ont.

OWNERS OF CHEESE FACTORIES AND CREAMERIES desiring to make direct shipments to Great Britain, will have an opportunity of meeting a large British importer in July. Further particulars may be obtained by writing Box F, Canadian Dairyman and Farming World, D. if

CLEAN MILK.—By R. D. Belcher, M.D. In this book, the author sets forth practical methods for the exclusion of bacteria from milk and how to prevent contamination of milk from the stable to the consumer. Illustrated, 167 pages, 14 pages. Cloth \$1.50. The Canadian Dairyman and Farming World. Our complete catalog of dairy books sent free on request.

THE WHEY PUMP THAT DID IS THE WHEY PUMP THAT WILL



This cut shows the inside of Mechanism Box

DAULEY PATENT MEASURING WHEY PUMP

A Check may be seen ready to pass through the Guide Channel, which is so constructed that it is impossible to remove the Check when once it enters the Channel. The working parts are fully protected and have no contact whatever with the Whey, and therefore cannot clog but will work perfectly under all conditions.

It is an entirely new and distinct Check Pump, differing in construction from any other Measuring Pump for sale. Three years have been in constant use since 1905, giving perfect satisfaction and are guaranteed to give satisfactory results and save trouble with patrons of the cheese factory. Each patron is bound to obtain the exact quantity of whey or milk he is entitled to.

Write for Particulars.

AGENTS WANTED.

THE DAULEY CHECK PUMP CO.

MORRISBURG, ONTARIO

It is desirable to mention the name of this publication when writing to advertisers.

dairy districts are now well-equipped in these two respects. The factorymen are now asking the transportation companies to do their part. The circular points out that the Inland Navigation Company running boats to Montreal will make a serious mistake if they treat this matter lightly and continue to carry perishable freight in a haphazard way without any regard for cold storage or the condition of the goods on delivery at Montreal.

High Priced Butter in England

Prof. G. L. McKay writing in Board's Dairyman about the English butter market says: "The highest selling butter that I found in the English market was the famous B. F. blue print, what is commonly called the French roll. It is an unsalted butter made from raw cream. This butter is sold for four cents higher per pound than any butter in the London market. Following this in price I found what is called the Danish butter and the Irish. I believe it is the uniform quality of the Danish butter that has enabled the Danes to get the hold on the English market that they have at the present time."

"The English people are not, now I speak in regard to the dealers, unanimous in favor of pasteurizing. I have heard some dealers say the pasteurizing would cost the Danes the English market. However, among the large dealers, they seem to favor the Danish butter. I examined a lot of butter in the dairy markets of England. I examined some butter to find out if possible how much butterfat or how much water, butter should contain to be dried to that market. The driest butter found in that market was made in New York, 92 per cent. fat, while the high selling Danish and French butter showed 85. I spoke to a leading Danish authority on this subject. I asked him concerning the amount of water in their butter. He said butter was made to be spread on bread and this couldn't be done very well without water in the butter. The Danes have increased the per cent of water in their butter during the past five years. I am not an advocate of selling water. The Irish butter contained more water than any butter sold in the English market. It is like some of our American butter, it contains a lot of water and shows it. The Danish butter contained a lot of water and did not show it."

The Cost of the Creamery

In a press bulletin recently sent out by the U. S. Department of Agriculture some valuable information is

given as to the cost of building a creamery. The cost varies somewhat for different localities, but a fair idea of the average cost may be obtained.

The failure of many creameries is due to a lack of sufficient cows to make the business profitable. No creamery should be erected unless the number of cows guaranteed was at least 400. Other creameries fail because of improper organization, particularly in the case of cooperative creameries, and the high cost of building and equipment. Many creameries, the bulletin states, have cost twice their actual worth, and were not of the type suited to the locality in which they were built. As to the actual cost the bulletin says:

"The cost of a building 28 by 48 feet will vary from \$800 to \$1,400, depending upon the locality, the construction, and the cost of material and labor. Such a building, usually consists of main work-room, engine and boiler room (including space for a refrigerator machine), coal room, refrigerator, store-room, and offices.

"Machinery for a hand separator plant, consisting of 15 horse-power boiler, 10 horse-power engine, combination churn with a capacity of 600 pounds of butter and other necessary apparatus will cost approximately \$1,200. Machinery for a whole milk plant will cost about \$18.50. This equipment will handle from 1,000 to 1,200 pounds of butter per day. If a refrigerator machine is included the cost will be from \$600 to \$1,000 more.

"The total cost of a creamery would therefore vary from \$2,000 for a simple hand-separator plant without artificial refrigeration, where material and labor are cheap, to \$4,250 for a whole milk plant, including artificial refrigeration and a higher cost of labor and material."

Official Referee Withdrawn

There will be no official referee of cheese and butter at Montreal this season, Mr. George H. Barr, who acted in that capacity, having been removed from the work by Hon. Sydney Fisher, Dominion Minister of Agriculture. Last year, Mr. Barr examined only 200 lots of cheese. The Department feels, therefore, that the demand for the services of an official referee is too small to warrant one being continued. Many will regret this action, especially the Dairy instructors throughout Ontario, who by keeping in touch with Mr. Barr at Montreal, have been able to gain much valuable information about the defects of cheese passing through that port. Mr. Barr will undertake new work for the Department, including some experiments in cheese making.

As farmers, we are apt to neglect our cows. We are apt to think, "Well, they are only cows and we have got to get this harvesting done, and these roots off, and this plowing done, and we will look after the cows the best way we can." That is a relic of the old times. If the cows come at night to be milked, they would be milked and if they didn't, they would be culled in the morning. In many parts of the province, there are remnants of that old doctrine of taking the cows when you can get them; work away till nine o'clock and then run in and milk the cows. If we would succeed as a dairy country, we must get rid of these old relics.—J. H. Grisdale, Ottawa, Ont.

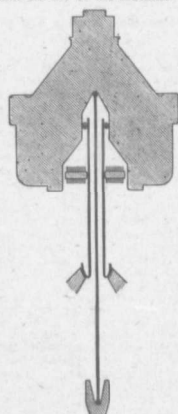
The Nebraska Railway Commission has established new rates for the carriage of cream on railways that puts this business on a straight distance tariff basis. Starting at 15 cents for transporting a ten-gallon can of cream up to twenty miles, the new card advances one cent for every five miles

up to fifty miles, then one cent for every ten miles up to 300 miles, two cents for every twenty miles up to 600 miles, and two cents for every fifty miles up to 600 miles. The charge for hauling a ten-gallon can 600 miles is sixty-eight cents.

The cooler milk is kept the longer it will keep sweet. It does not matter whether the cooling is done with ice or cold water. It will not sour any quicker in consequence. Cleanliness and cold are the two necessities for keeping milk sweet.

The New Danish Invention in Separators

The illustrated article published in the issue of The Canadian Dairyman and Farming World for June 1908, describing a new Danish invention in Separators that has been introduced in Canada recently, and that has done excellent work under test as some of the leading Canadian Agricultural Colleges, has created a great deal of interest. One of the illustrations published in the article referred to, was inserted incorrectly and we, therefore, reproduce it here with a description of that feature of the machine.



The Principle of the Machine.

The chief principle and novelty of Messrs. Burmeister and Wain's Separator is that the suspension of the cylinder (which is without a fixed shaft) is placed a considerable distance above the centre of gravity, while a small supporting bearing replaces the neck-bearing usually employed is placed in the centre of the cylinder (See Fig. 2 which roughly illustrates the principle of the machine). The cylinder is loosely suspended on the end of an upright standing axle, which is likewise loosely connected with the worm, and thus the cylinder rests upon its bottom step. At the centre of gravity the cylinder is, as already mentioned, supported by a little ball train (with 6 balls), which transfers the oscillation to a tube supported by a friction plate, sandwiched between two other plates. This friction plate works so that even when the cylinder gives the tube an oscillation, this gives no reaction on the tube and does not move without impulse from the cylinder.

It will be understood from the foregoing that the bowl can thus freely occupy any position and, therefore, remain perfectly unaffected by even a very considerable side-heaviness.