

Canadian butter in England, which our buttermen should encourage by sending over regular shipments every week of the best quality of butter, put up in the most attractive form. If this is done during the summer, and the cold storage facilities made use of *en transit*, there should not be any grave apprehension regarding the future of our export butter trade.

Separated Milk.

It is said that one of the principal reasons why Danish bacon has taken such a hold on the English market, and has been so profitable to the farmers in Denmark, is the fact that they have fed their pigs largely on separated milk. Nor is milk feeding a new idea. For generations the cottagers in Cumberland and Yorkshire have made a point of buying skimmed milk for their pigs for at least a month before they were killed for family use. Although seemingly an expensive food, the use of milk has been found to add to the flavor of the meat and also to prevent waste in cooking. When creamery separated milk is available it may be used fresh from the separators, but if it has to be carried, or kept over, it ought to be heated to a temperature of 180 degrees at the creamery immediately after it is separated.

Butter in a Minute.

A wonderful dairy machine is on exhibition in England. The machine, the invention of Herr Salenius, a Swedish engineer, makes butter in about a minute from sterilized milk direct.

Milk is heated in the sterilizer (or Pasteurine, as it is called), to 160° Fahrenheit, and runs thence into the cream skimming chamber of the machine. As the cream is skimmed it rises into the churning chamber, being cooled down to 60° in its progress by means of very small cooling frames, through which iced water continually passes, and which revolve with the skimmer at the rate of 6,000 revolutions per minute.

The cream is forced into a tube perforated with tiny holes, through which it emerges with great force on to each fresh layer of cream that rises, converting it into butter by concussion. The butter thus formed in granules emerges from a spout into a tub, mixed with buttermilk.

When all the churning is done, a wooden stirrer is passed up and down gently for two or three minutes, to make the butter separate from the greater part of the buttermilk.

The butter is then taken out and passed through a butter-worker, which squeezes out most of the buttermilk remaining in, after which it is placed

on ice for two hours, and then worked a little more and made up.

Several advantages are claimed for this remarkable machine, which bids fair to create a revolution in buttermaking upon a large scale. In the first place, by pasteurizing the milk, disease germs, if any are in it, are destroyed, as well as the microbes, which cause putrefaction of the butter. The process of buttermaking is so rapid that there is very little chance of any germs that may exist in the atmosphere of the dairy getting into the butter, especially as all, or nearly all, air must be forced out of the machine by the extreme rapidity of the movement going on inside.

When the butter is once pressed, the possibility of germ impregnation is almost eliminated. Thus a wholesome and long-keeping butter is produced. Another advantage is that milk can be converted into butter directly after being obtained from the cow; and yet another is that there is a considerable saving of labor, when the use of the "radiator" is compared with that of the ordinary separator and churn.

It is asserted that this machine has been in use for several months in Sweden and Finland. The demonstration of its merits in London created quite a sensation among the dairy farmers.

Milk Scalding Experiment.

Recently a milk scalding apparatus, known as the Steam Turbine Scalding, was tested in England in the presence of a large number of influential dairymen. The machine is a model of simplicity, the only requisite for successful working being a steady pressure of steam. The milk is kept from burning or caking upon the heated surface by a revolving stirrer, which is kept in slow motion by a jet of steam. The steam enters through the turbine, causing it to revolve, and then ascends and fills the steam jacket, thus heating the milk. No power is required beyond that available for ordinary dairy purposes, no dirt or oil can enter the milk, and burning is impossible. The dairymen present were unanimous in praise of the arrangement. The whole milk was being scalded in the turbine scalding, heated up to 175°; it was then passed over the refrigerator, and in this state was tasted by the visitors. Under ordinary conditions, and according to the old method, scalded milk has always a singed flavor. This is avoided in the new churn by the revolving motion inside, which prevents the milk from adhering to the sides. Passing over the refrigerator, the milk is rapidly cooled down to 60° or 50°, and no scalded taste could be discerned when the temperature in the scalding was as high as 175°.