

To make Butter.

The butter of the milk, called butter fat, floats about in small globules in the milk itself, and these are called cream globules. So tiny are these small globules, that it takes 2000 of the largest of them and 20,000 of the smallest of them, placed side by side, to cover an inch.

Cream is really highly condensed milk, rich in fat, and when you make butter your great object is to isolate or separate these fat particles or globules from everything else in the milk.

You must first of all obtain as many cream globules from the milk in as short a time as possible.

There are two methods of doing this the old and the new. The old method is as follows. You take the warm milk from the cow, its temperature being then about 96 degrees, and you take it to a cold dairy, and place it, or "set" it in shallow vessels. To cause the cream to rise as quickly as possible, these shallow vessels are sometimes placed in cold water.

As the cream globules are lighter than the milk, they naturally rise and collect together in a condensed mass on the surface of the milk. When the cream has fully risen to the top of the milk it is skimmed off and placed in earthenware vessels to allow it to "ripen," as it is termed; that is, till it is in the most suitable condition for making butter. The moment of ripening must be learnt from your own experience.

The new method. In large dairies there is used a machine called a cream separator; the new milk is run into a part of the separator which revolves at a great speed, this rotary motion causes the watery particles, which are the heavier particles of the milk, to fly into an outer compartment of the separator, and from there it runs out by a tap as separated milk. The cream globules of the milk, being lighter than the watery particles of the milk, are at the same time forced into an inner compartment of the separator, and from here it is run out by a tube as cream. So the separated milk runs out of one tap, while the cream runs out of another.

The separator extracts 92 to 98 per cent. of cream, whereas the setting in shallow vessels extracts only 80 per cent. of cream. The skim milk, however, left after skimming the cream from the milk set in shallow vessels, is more valuable, because there is more cream left behind than in the separated milk obtained from the separator. This fact the farmer has to take in to to consideration before he decides on which method to adopt.

