

Pasteurising, or the application of heat, and the subsequent cooling are to be done in a "bain-marie", i. e., by the use of hot or cold water. For pasteurising cream, the bain-marie water should not be allowed to go above 160° F. if possible.

If pasteurisation arrests the development of the germs or microbes of the milk, during the rapid cooling there may be perceived a considerable amount of evaporation and the dispersal of a great deal of the bad smells that were previously confined in it; the milk is thus brought to a condition better fitted for the making of butter as well as for ordinary family use.

FERMENTS

The natural ferments are peculiar germs absorbed by the milk after it is drawn from the cow, or perhaps, even pre-existent in their udder; in their development lactic acid is produced. The want of uniformity in the aroma and quality of butter is indisputably due to the variety of the kinds of lactic bacteria, which are developed under analogous conditions, and it must not be forgotten that they do not all give the flavour sought after.

What we shall call cultivated ferments are the germs that are suited to the production of the required aroma, and are propagated expressly for that purpose.

In ordinary practice there are three sorts of these ferments according to this method employed in their preparation:

1st. The *pure culture* or *trade* ferments, so called because, in addition to the care taken in the selection of the first seed, they are cultivated and propagated in *sterilised* media. Sterilisation being conducted only in closed vessels, under pressure, requires special care and apparatus; and this preparation has been carried on by chemists who put these products on the markets under their personal guarantee. The greater the care, the better the culture.

2nd. Ferments prepared from new-milk: It is a matter of importance that a judicious selection be made, and, as far as possible, the following conditions should be combined. A cow that gives very well flavoured milk should be taken; one that has recently calved and whose health is perfect. Before and after milking great cleanliness must be observed; the milk