

In both processes, immediately after skimming the cream must be rapidly cooled. Starting from this point, common to both, it is necessary, in the "spontaneous" process to : 1st.—Settle, by smell or taste, or by the acidimeter, the degree of acetification reached by the cream; 2nd.—to judge and decide on the proper degree for acetification; 3rd.—To stir the cream so thoroughly that the temperature may be equalised throughout the whole mass; 4th.—to maintain that uniformity until the acidity reach about 50° (acidimeter), i. e., until the evening. And during this time, what care must be taken to protect the cream from all the vile and dangerous odours from the factory and its surroundings? 5th.—In the evening, the work of the morning must be repeated (a work that is not so trifling as it may be thought to be) to lower *uniformly* the temperature of the cream and to prepare it for the churn; 6th.—and after all this trouble, well or badly managed according to the skill and industry of the maker, we have only reached the churning which will yield neither more nor less butter than the churning of sweet cream.

And besides all this, have not all the chances offered to bad ferments to develop themselves and hinder the action of the good ones to be reckoned with? Now, I say that, in ordinary practice, the dangerous smells from the factory are very numerous; that the development of noxious ferments in cream is often very considerable, and that frequently the negligence and ignorance of the maker, together with the misleadings due to sudden changes of temperature, are the reasons why butters even of the same factory, are rarely uniform in quality. Now, uniformity is the characteristic the most essential in export butter; wanting this, the export-trade will be always unsteady, and this I may add is the great defect of the export-butter of the present day.

On the other hand, in the churning of sweet cream, what remains to be done of the cooling of the cream? —if the temperature has been lowered to 50° F., to keep it there in a vat for three hours, and then put it into the churn. If it has been lowered to 40°, churn at once; in both cases, let the churn steep in cold water lest the cream get too warm; 2nd.—add the proper percentage of ferment and then go to work: it would be as well