

reagent is used the cost of a test is small. It is already used in nearly all of our creameries for the purpose of estimating the value of milk and cream for butter-making purposes and dividing the proceeds amongst the several patrons accordingly; and, as has already been intimated, it should, with the requisite modifications, be generally adopted for a like purpose in our cheese factories.

The extra time and labor it entails is undoubtedly one of the chief factors that have militated against the general introduction of the test into cheese factories, although this reason is not usually brought very prominently to the fore by advocates of the "pooling" system. We venture to say, however, that few if any dairymen of prominence will say that the "pooling" system is a just one.

It is but fair, then, to conclude that any improvement that can be made in the test, in the way of lessening the time and labor involved in conducting it, will be much appreciated by all factorymen now using it and will greatly help to popularize the test and hasten its more general introduction.

There were some features of the test, as heretofore applied, which we looked upon as demanding more time and care than was desirable, and these objectionable features we felt might be eliminated by some modification in the apparatus and conducting of the test.

During the present year we have done considerable experimental work with a view of shortening the length of time required for conducting the test. Our main point of attack has been upon that part of the test which involves the stopping of the centrifugal machine during the test, adding hot water to the individual bottles and again whirling the bottles before the readings are taken.

We started our work on the principle of the use of a small centrifuge to be placed on the spindle of the ordinary centrifuge for the purpose of receiving and conveying the water to the bottles while the machine was in motion. This necessitated a modification of the test bottle for the purpose of receiving the water from the small centrifuge. After much experimental work we have succeeded in devising a centrifuge and bottle that give every satisfaction.

THE WATER CENTRIFUGE.

The small centrifuge that is placed on the spindle of the machine, for the purpose of adding water to the bottles while in motion, is what we mean by the term *water centrifuge*, there being, in addition, the large centrifuge for whirling the bottles. The first forms of centrifuge designed by us were made on the principle of a hollow cylinder perforated for the exit of the water. It had a horizontal plate with wings on its upper side, the purpose of these being to set the water in motion and prevent its falling to the bottom of the centrifuge to too great an extent, as it was necessary to direct it in two main streams, upper and