

*Notes.*

1. Have the temperature of the milk uniform throughout, and as near to sixty degrees as possible when taking a lactometer reading.
2. Always mix the milk well before taking a lactometer reading.
3. Do not have milk on the upper part of the stem of the lactometer when reading, as this weighs the lactometer down and causes the reading to be too small.
4. A lactometer reading should not be taken when the milk contains air. Milk fresh from the cows is saturated with air and should be allowed to stand an hour at least before a lactometer reading of it is taken.
5. Have the lactometer free from the side of the vessel, and perfectly still, when taking a reading.
6. A high lactometer reading accompanied by a low per cent. of fat indicates skimming, e. g., L=34, F=2.4.
7. A low lactometer reading accompanied by a low per cent. of fat, is indicative of watering, e. g., L=22, F=2.4.
8. A normal lactometer reading with a very low per cent. of fat indicates both watering and skimming. Also, if the lactometer reading of a sample of milk be low, yet not so low accordingly as the per cent. of fat, this is indicative of both watering and skimming. Both of the following indicate watering and skimming: L=31, F=2; L=26, F=1.8.

## COMPOSITE SAMPLES.

In many of the more advanced creameries and cheese factories the patron receives payment, not in proportion to the amount of milk, but in proportion to the butter or cheese value of the milk supplied by him. Such a system, of course, necessitates the use of the Babcock test. A test of the milk cannot be made daily, but to overcome this difficulty a small sample of the milk supplied by each patron is taken at each time of delivery and put into a bottle, called a *composite sample bottle*, which contains a small amount of some kind of preservative—such as bichromate of potash or corrosive sublimate. It is not advisable to use the latter alone, as it is quite poisonous and imparts no color to the sample to indicate its presence in it. An excellent preservative is a mixture composed of about seven parts bichromate of potash to one part corrosive sublimate. We are using it with very satisfactory results. From what can be taken on a five-cent piece to what can be taken on a ten-cent piece will usually be found sufficient to preserve a sample for two weeks in summer, when an ounce of milk is taken daily. The amount of preservative required depends upon the weather, the size of the sample, and the length of time it is to be kept before testing. A Babcock test of the sample is made at the end of two weeks or a month, and if the daily sampling and the testing of the sample both be carefully done, this gives the average quality of the milk supplied by the patron during the time over which the test extends. It is not necessary to test oftener than twice a month; and we know factories in which, by keeping the samples in a fairly cool place, they are obtaining satisfactory results from testing but once a month.

*Notes on Composite Sampling and Testing.*

1. For holding composite samples use pint bottles with long corks.
2. The bottles should never be left uncorked, as the samples dry on the surface when left exposed to the atmosphere,