

cleanliness, etc.—that the modification of milk (with reference to percentages) may be employed with the same accuracy and much more practically at the home of the patient by devoting attention to certain important points. It is well known, for instance, that the fat in milk, which has stood a short time, rises gradually toward the surface and eventually forms cream; so that there is a period during which the percentage of fat exists in regularly increasing ratio, advancing from the bottom toward the top. Advantage has been taken of this fact, and the following plan adopted for obtaining certain percentages:

The milk (rapidly cooled and strained after milking) is put in sterilized quart bottles, such as dairymen use, and kept so until used—standing in the ice-chest from 12 to 24 hours. The upper portion of the milk is now richest in fat, which has disseminated itself from below upwards, and any percentage desired may be calculated from the following table:

9 ounces top milk, 12 per cent. fat, 4 per cent. proteid.								
11	"	"	"	10	"	"	4	"
15	"	"	"	8	"	"	4	"
20	"	"	"	6	"	"	4	"

The top 9 ounces (or more, as the case requires) of cream and milk are removed by using Chapin's one-ounce dipper; and, after proper dilution with water or otherwise and the addition of sugar, it is ready for feeding. If we wish to make a mixture containing proteid, fat and sugar, in the proportion of 2, 4, 7 (the proportion found in breast milk), we require a top milk containing twice the amount of fat desired—*i. e.*, 15 ounces top milk. The method, then, is exceedingly simple. The top fifteen ounces are dipped out, diluted one-half, and the required amount of sugar added (usually a tablespoonful to the pint or one ounce to twenty ounces of the mixture). The mixture then contains proteid, fat and sugar in the proportion of 2, 4, 7.

The importance of procuring clean milk cannot be overestimated, and if the same care be taken that only the best shall be used, as is observed in the Walker-Gordon laboratories, there is no reason why the proportions should not be made as accurate in home-feeding as in laboratory feeding. The fitness of milk for infants' food depends largely on the percentage of lactic acid present and on the number of bacteria to the cubic centimetre. In the words of a prominent chemist: "Lactic acid is due to the 20 varieties of bacteria out of 200 that may be present in milk.