

globules, which float in a colorless fluid; they are transparent and very small.

These globules are the fat contained in the milk and they have a thin coating, similar to the white of an egg, that is called casein. When the milk stands, the larger globules rise to the top and make the cream, which is the fat, and richest part of the milk, and when the cream is shaken, as in churning, these globules break and the fat runs together, forming lumps, which is called butter.

Milk becomes sour, either naturally by exposure to the air, or by the addition of an acid of any kind. When milk is exposed to the air, minute forms of animal life, called microbes, get into it, or they may be imported into the milk by the use of unclean utensils or articles used in handling the milk, thus showing the absolute necessity for cleaning utensils and receptacles used in handling milk, by thoroughly sterilizing them. There are few if any of the numerous places, such as hotels and restaurants, that receive large quantities of milk and cream daily, who are so careful as to take the precaution of cleansing their milk receptacles by sterilization. For this reason, as well as other very important reasons, milk and cream should be delivered to such places in sealed bottles, which would also prevent the greater part of the milk from being robbed of its natural amount of butter fat, by skimming the cream off at the first dippings leaving the balance contained in the vessel only skimmed milk.

Bacteria gain access to milk in many ways, and multiply and grow very rapidly, thus if not properly handled, this food which is the most beneficial if pure, very often becomes a source of great danger as a disseminator of disease.

There are innumerable cases of dangerous diseases, having become epidemic through a supply of contaminated milk. A striking case of this kind recently occurred where an entire family of six having become afflicted with typhoid fever, which naturally caused an investigation to determine the source of the epidemic; the premises and the water supply used by the family were found to be free from typhoid germs, but finally it was discovered that the cows from which the family milk supply was taken, watered at a pond, and this pond water was found to be infected

with typhoid germs and it was imparted to the victims by the cows drinking the impure water, and the family using their milk.

This shows the necessity for producing and handling milk in the most sanitary manner possible. The cows should have absolutely pure water and wholesome food. The milk should be taken from them in the most sanitary way; the receptacles should be properly cleansed and sterilized; the milk should not be exposed to the air more than is necessary, and it should be transported to the central pasteurizing plant as quickly as possible, pasteurized and placed in sealed bottles and held under a low temperature.

To produce and distribute a supply of pure milk in every house in a city, necessarily requires a large and systematic organization and to handle and distribute this important food product according to the most approved methods, necessitates the outlay of a large expense; but in this age and day, people are demanding foods that measure up to the proper standard as regards both quality and purity. They will not jeopardize the health of themselves or their families for the sake of getting an article cheaper, for that, in reality, would mean the worst form of extravagance. It is this desire on the part of the public to make sure that the food which they purchase, is pure and wholesome, which has brought into existence, the public Boards of Health and Public Food Inspectors, and their achievement toward the improvement of food products and in safeguarding consumers against the sale of adulterated or impure goods has been marvellous.

Science has been able to trace most of the dangerous diseases to their sources, and although it has not been able, thus far, to effect cures for all, it has found means of prevention, which is far more important; but not all has been done that should and can be done; this fact has been emphasized by the most eminent and authoritative members of the medical profession. Certified milk is milk which is refrigerated immediately upon being taken from the cow and put up in sealed bottles to prevent exposure to the air, but in supplying the trade of a large city, this method is not practicable as the expense and trouble of it would discourage many