

to destroy the fully-developed germs of both kinds. This process is called pasteurisation, and can be easily carried out by standing the milk-can in a saucepan of water. If the water is cold, the milk should stand in it for five minutes after it begins to boil, but if the water is boiling twenty-five minutes should be allowed. Although pasteurisation is sufficient for the purpose of destroying the germs, it is powerless in the case of spores, which are a modified form of germ life, and which prove of great vitality. To affect these, a higher temperature than boiling-point is required, and the process is known as sterilisation. Milk can be sterilised at home by the use of a steriliser by Aymard, Cathcart, or Soxhlet, or it can be bought already sterilised in bottles, at a cost which is the same or very little more than the ordinary price of milk.

A milk diet is apt to pall after a time, so that it is well to prevent monotony by varying the flavour. A teaspoonful of Allenburys' Café Vierge added to half a pint of hot milk gives a nourishing cup of coffee. Plasmon cocoa varies the flavour and also increases the amount of nourishment. Caramel and malt extract could also be used to produce variety. Another pleasant change can be introduced by setting the milk with gelatine. Sweeten half a pint of milk to taste and bring it to the boiling-point. Add two sheets of the best gelatine which have been previously soaked in cold water, and when they are dissolved pour the milk into a wetted china mould, and when it is set turn it out and serve it.

With some patients a milk diet is not well borne, because the casein coagulates into a dense clot which offers great resistance to the digestive juices. There are several ways in which this difficulty can be overcome. The simplest is to dilute the milk with an equal quantity of water, but in practice that makes the nourishment in too dilute a form. The same result can be brought about by a mixture of two parts of milk and one part of lime-water. This brings about a chemical change which is compared by Dr. Hutchison to the softening of water by the addition of lime. A change which is partly chemical and partly mechanical is brought about by the substitution of soda-water for lime-water, and as a rule patients prefer the combination of milk with soda. Both are good, and one or the other should be adopted when a milk diet causes flatulence and acidity. Boiled milk treated by either method produces better results than raw milk, for boiling lightens the coagula of the curd, and renders it more easily digested.

The curd which is formed in the stomach by the digestive juices can be produced outside the body by the action of rennet. If this is done, the patient's stomach is spared the first part of the work of digestion. This light curd goes by the name of Devonshire junket. It is made by

sweetening a pint of milk and heating it to 98° Fahr., *i.e.*, to blood heat. A teaspoonful of essence of rennet is added, and the milk is put in a moderately warm place until it is set. The time required is from an hour and a-half to two hours, but it must be given as soon as it is set. The longer the milk stands, the denser does the clot become, so that eventually it becomes a tough mass floating in a straw-coloured liquid, and is then very difficult of digestion.

The work of digestion can be carried on outside the body to an even greater extent by the process of peptonisation. The simplest method of peptonising milk is by the use of Fairchild's Peptonising Powders. They are used by diluting a pint of milk with a quarter of a pint of water and adding one powder. The mixture is placed in a jar which is stood near the fire in a saucepan of water at 100° Fahr. (*i.e.*, one part of boiling water to two parts of cold). It should be shaken frequently, and at the end of twenty minutes it should be tasted. As soon as the slightest bitterness is perceptible, the process must be arrested. This can be done by standing the jar on ice, or by bringing the surrounding water quickly to the boiling-point.

The most digestible form of milk is known as koumiss. The genuine article is prepared in Tartary by the fermentation of mare's milk. As mare's milk is not very easily obtained in this country, the milk of the cow is similarly treated. It is diluted with water and fortified with sugar, so as to resemble mare's milk in composition, and is then fermented. The sugar is converted into alcohol and carbonic acid gas, and the casein is partly precipitated in fine particles, which are easily attacked by the gastric juice. Many large dairies prepare artificial koumiss or kephir, and as it is sold in bottles it can be sent easily to any part of the country. The average cost is a shilling for a champagne bottleful, and as weak persons can generally consume ten bottles of koumiss in a day, it is easy to see that it is a costly diet; but when one takes into account the resultant benefit it can claim to be worth its cost.

(To be continued.)

Presentation to Miss E. A. Wilkinson.

A very interesting presentation took place in the boardroom, Derbyshire Royal Infirmary, on the occasion of Miss Wilkinson leaving to take up her appointment as Matron to one of the military hospitals now being organised by the War Office. There was a large gathering of Sisters, nurses, resident staff, and other friends, under the chairmanship of Dr. Vaudrey, the senior physician, who said he was sure that this occasion was to all present a sad one. They were gathered there that evening

[previous page](#)

[next page](#)