

Practical Points.

The Making of Whey. Not very many years ago there was a common idea that whey was of little value as a food. Now, however, it is recognised as a valuable and useful food, and many medical men direct that their patients be almost, if not entirely, fed with it at times.

Dyspeptic, rheumatic, and enteric patients are often ordered a diet of whey, and do remarkably well on it.

It is, therefore, important that the whey be properly prepared, and the casein completely removed, for though casein is the most nutritious constituent of milk, it is very indigestible, and even when it is treated in various ways to render it more easily digestible, it sometimes happens that a patient cannot digest the curd. One often sees whey in different stages of opacity, and occasionally with a curdy sediment in the bottom of the vessel, and sometimes it may have fermented, and taste very nasty indeed. In the first instance, it shows that the casein, or curd, has not been properly separated from the whey; in the second, that though the casein has been separated, the whey has not been carefully strained.

Whey may be prepared in various ways. If milk is allowed to stand for a length of time in warm weather, the sugar, which is contained in it, is converted into an acid ferment—lactic acid—which, acting on the milk, precipitates the casein, and leaves a pale greenish tinged fluid, known as whey. Therefore, you will understand that the addition of an acid to milk will separate the casein from the other substances. Rennet is most commonly used in the preparation of whey in cool climates, and for the use of children, but in hot countries the rennet does not always keep well, and a large quantity is required to separate the casein, and it is very expensive to buy in many places.

Sherry is sometimes used, but, besides being an expensive item, it is not always desired that a stimulant be used.

In India, limes are used as a substitute for rennet in the making of whey for adults, and I propose to explain how it should be prepared to get a transparent and good whey.

Take of new milk four pints and put it in a clean, smooth, enamel pan; bring the milk to boiling point; stir into it the juice of limes sufficient to give the milk a pleasant acid flavour.

It will take about three ounces of juice, but that will depend on the acidity of the limes, as they vary considerably. The milk will at once curdle. Put the lid on the pan, and lay aside in a warm place for fifteen minutes, when the curd will lie in the bottom of the pan, and the transparent whey on the top. Have ready a basin covered with a double damask or flannel napkin. Pour the whole contents of the pan into the napkin. Gather up the corners into your hand, and

let the whey drip. It ought to be quite transparent. Do not squeeze or you may force the casein through the napkin. The casein acts as a filter to the whey.

Put the whey back into a clean pan, and boil it for ten minutes and strain again if necessary.

Store in an earthenware vessel, as there is a danger of the acid in the whey acting on the enamel of inferior enamel vessels, and dissolving the white lead, of which they are partly composed.

Whey made thus, keeps well and improves in the first twenty-four hours.

There ought to be about two and a half pints of whey from four pints of milk.

An enteric patient is usually ordered six ounces of the whey two hourly, and it prevents the foul mouths a nurse has so often to contend with.

A.G.F.

The *Lancet* gives an interesting account of the mode of preparation of silk sutures impregnated

Silvered Silk Sutures. with silver, described by Herr Witzel and Herr Wederhake in the *Centralblatt für Chirurgie*. Silver wire is smooth, unabsorbable, non-absorbent, and easily sterilised, but its stiffness is disadvantageous. Silk impregnated with silver and afterwards treated with an antiseptic and made waterproof with caoutchouc is cheaply and easily prepared; it is one-third stronger than ordinary silk, it is flexible, antiseptic, easily sterilised, and non-absorbent. It is said, in a word, to combine the advantages of silk and silver wire, without possessing their disadvantages. The silk is silvered in the following way. The silk is wound on glass plates and soaked successively for 12 hours in ether, to remove fat, for 12 hours in absolute alcohol, and then for 20 minutes in a 10 per cent. solution of hydrogen peroxide. The silk is then transferred to the silver solution, which is prepared by precipitating a 1 per cent. solution of silver nitrate by the addition of sodium hydroxide, and dissolving the washed precipitate with a minimum of ammonia solution. Next the suture is dried in an oven at 100 degs. C., soaked in chloroform for two hours, and then in a 16 per cent. solution of caoutchouc for 12 hours. It is washed quickly in chloroform and dried, and finally the silvered silk is boiled for ten minutes in a one per cent. solution of mercuric chloride, and kept permanently in this solution. The suture requires to remain about one hour in the silver solution in order to become perfectly black, showing no white spots.

The reply of the Superintendent of a Hospital for the Insane, now dead, to an attendant who asked permission to restrain a particularly

troublesome patient, is worth noting. He said, "Not until you have tried every other means. Put your brains above the level of canvas and leather, and you'll find canvas and leather unnecessary."

[previous page](#)

[next page](#)