

Attention is called through the local press to a discovery in connection with the preservation of milk, and the rendering of it perfectly innocuous, which is of the greatest importance to the public health, and is, I am inclined to believe, destined to render services which cannot be too highly estimated. It may not here be out of place to give you a brief extract of the new process.

We all know that, on the testimony of the highest medical authorities, milk has played a very serious part in the spread of infectious diseases, especially fevers, tuberculosis, diphtheria, and the like; and we are so utterly helpless in the matter of prevention that we have come to feel ourselves to be continually exposed to the attacks of a powerful and malignant foe, whom it is all but impossible to detect. A process was, however, patented by the late Mr. Kristian Gerhard Dahl, as the result of many years of patient study and experiment in the laboratory at Christiana, under the superintendence of Professor Waage, of the Royal Norwegian University, by which milk may be sterilised, that is to say, the small organisms known as bacteria, which are the active agents in bringing about fermentation and putrefactive changes, may be completely destroyed, so that it will keep in good condition for practically any length of time if protected from the air. Samples have been kept as long as three years in hermetically sealed tins, showing by most severe tests how successful is Mr. Dahl's method.

The process is briefly as follows:—The milk, when taken from the cow, is cooled down to ordinary temperature, and then placed into tins, which are hermetically sealed. In this state it is exposed to a higher temperature, and kept at this heat for a certain fixed period, after which it is allowed to cool down to a lower temperature, at which it remains for some time. It is then again quickly heated to a higher temperature, and alternate heating and cooling is repeated several times, when the milk is found to be completely sterile, not a trace of any organism or germ being left. In this state it may be kept for an indefinite length of time without undergoing any change, provided always the tin is kept hermetically sealed. The advantages of this process will be obvious. They may be thus stated:—1. Milk so preserved does not readily turn sour, as ordinary milk does; in fact, Dahl's milk has been known to keep perfectly sweet and good for as long as five days after opening, at a temperature of 90 degrees Fahrenheit. 2. For cooking purposes it is excellent and could not be surpassed, making remarkably good puddings and other dishes in which milk is used. 3. It makes the milk more digestible than raw milk, owing to the casein being deposited in smaller particles. 4. From a sanitary point of view, its advantages will be evident to everybody, for it is impossible that disease of any kind can be conveyed by milk which has been sterilised, whereas it is a well-known fact that raw milk is frequently productive of diseases of various kinds.

Such companies as the Peninsular and Oriental, and Orient Steam Navigation, use this milk regularly on board their steamers. It is also supplied to Her Majesty's troopships. No sugar, no chemicals, and no preservatives of any kind are used, and when the tin is opened and the milk turned out it has every appearance and taste as if it had been sent direct from the dairy. The weakest stomach can digest it, and it is strongly recommended by the medical profession for use by all delicate persons, invalids and young children; in fact it is affirmed to be the only safe milk in the nursery.

Large quantities of cheap Dutch and Italian condensed milk are imported into England for the purpose of mixing with new milk when the supplies of the latter run short, and it is obvious that if the overplus of milk on large dairy farms could be sterilised at seasons when the article is cheap, instead of being made into hard cheeses as at present, which have little or no profit to the manufacturer, the agricultural interests of this country would be greatly benefitted. Many feel sure that in course of time there will be a large demand in this country for sterilised milk and sterilised cream.

I must here express my indebtedness to the Government agents in Canada for their uniform kindness, and for their prompt replies to all my enquiries relating to trade and other matters falling within their district.