

milk was subjected to the same unsanitary influences before its administration to the infant that cow's milk is, it would produce injurious effects just as often as cow's milk does.

As micro-organisms enter the alimentary canal of the child almost exclusively with the food, the most important feature of prophylaxis must consist in rendering the food pure or free from germs.

In the case of adults almost all articles of diet are rendered sterile by the process of cooking. In infants artificially fed no such precautions are taken. The milk is variously prepared by dilution, sweetening, warming, but not sufficiently heated to destroy the germs, and as ordinarily administered is loaded with these, and sometimes even partially decomposed.

The most appropriate food for infants under nine or ten months is undoubtedly the mother's milk, and I think the reason why it is the best is because it is free from germs, but unfortunately, for various reasons, we are often deprived of this, and compelled to resort to artificial feeding, and when this is necessary cow's milk properly sterilized is no doubt the best substitute. There are many processes recommended for its preparation. Jeffries, of Boston, in the May number of *Am. Jour. Med. Sciences*, gives the details of upwards of forty experiments tried by him to test the advantages to be obtained from steaming the milk. He concludes that steaming for fifteen minutes renders it practically sterile. I shall only mention the result of one of his experiments which will show how impure ordinary milk is, as well as what he claims the process of steaming will accomplish. From the milk just as he received it from the dairy he prepared two cultures each containing one drop of milk. On the seventh day he examined and found that one of them contained 1,644, and the other 1,391 colonies of bacteria. Some of the same milk received by him at the same time was put into flasks and steamed for fifteen minutes. The flasks were then corked and set aside for twenty-four hours, when four cultures were prepared from this steamed milk, each, as in the former instance, containing one drop of milk. Upon examination on the third day he found that no bacteria were present. Upon the eleventh day they contained respectively 0, 1, 3 and 10 colonies, all of the same variety of bacteria. He says this process of steaming can be carried out in any

ordinary steamer with a perforated bottom and tight-fitting cover, the bottles containing the milk being placed inside and the steamer placed over a pot of boiling water. After the steaming is completed the bottles of milk should be placed on ice until required for use.

He says "The secret of the success of this method lies in the well-known fact that the vegetative forms of bacteria succumb to a moist temperature of 212° F."

Other authorities, however, among whom may be mentioned Schroeder and Pasteur, claim that steaming is insufficient, and that boiling at a temperature of 266° F. for thirty minutes is required to render milk sterile.

The process of Soxhett, for which he has devised a special apparatus, consists in placing the milk in bottles, being filled to within an inch of the top, then placed in a tray and set into a vessel containing cold water, this is placed over the fire, and when boiling has continued for ten minutes the bottles are to be tightly corked, after ten minutes further boiling the bottles are removed and placed upon ice till required.

The same indications can, however, be fulfilled without any special apparatus by taking an ordinary self-sealer and putting the milk into it, placing it into water and heating, after the milk has begun to boil the cover can be placed on the sealer and the boiling continued for ten or twenty minutes, the sealer is then removed and placed upon ice till required. I have found this process very satisfactory. I am also in the habit of having the milk peptonized, before using, with Fairchild Bros. & Foster's extractum pancreatis.

Rubber tubing should never be used on feeding bottles owing to the impossibility of cleaning it properly. Nipples to fit directly to the bottles answer fully as well and can be kept clean.

The infant should also receive its meals at regular intervals, about every two to four hours during the day, according to age, and once or twice during the night. The amount at each meal to be from two to four ounces. When an attack of indigestion or colic occurs a dose of castor oil and withdrawal of all foods for a few hours will generally be all that is required. The nursery should be properly ventilated and the child kept thoroughly clean.

With regard to the treatment of infantile sum-