

as they should be. In bottle-fed infants, also, very defective care is given to the bottles, and crusts of decomposing milk accumulate round the neck of the bottle and in the tube and nipple, and lead to the rapid decomposition of the entire contents. One of the most important advantages secured to breast-fed children arises, Dr. Vaughan thinks, from the lessened dangers of their milk being infected with germs which may produce these poisonous ptomaines. He does not claim that decomposed milk is the sole cause of the summer diarrhoeas of children, nor that tyrotoxin is the only poison that may be developed in milk. It is only one of a large class of bodies which are produced by putrefaction, and many of these are cathartic in action.

Dr. Christopher of Cincinnati (*Med. News*, March 3, '88) also writes: "From clinical studies I am inclined to believe that tyrotoxin is not the sole cause of summer complaint, though a frequent one, but that there are other ptomaines and other chemical products concerned." But it is not alone with such poisonous ptomaines as may be formed outside of the body that we have to do. We are all aware of the fact that the butyric acid ferment frequently does develop in the stomach, probably through the ingestion of food already tainted or adherent to food otherwise perfectly pure. Given such a fermentation once started in the intestine, the constant ingestion of albuminous, and especially of milk, food by the infant, supplies the means of keeping it up, while the surrounding conditions of heat and moisture and the paralyzed state of the secretion of gastric juice accompanying these conditions, make the intestine a culture ground in which such ptomaines are rapidly developed. "The ptomaines most frequently produced under these circumstances act like hydragogue cathartics, others act more particularly on the large intestine, and possibly some are concerned in the production of fevers."

Another fact that has been brought forward lately, of the exact importance of which we are not yet able to judge, is the part played by some species of bacteria in assisting digestion. M. Pasteur has made experiments on seventeen species found in the mouth. Of these many were found to act on starch,