

ed recklessly, as it too often is, the food lies undigested in the bowels, ferments, and sets up a state of acid indigestion, which in so young and feeble a being, may lead to the most disastrous consequences. In fact, the deaths of many children under two or three months old, can often be attributed to no other cause than a purely functional abdominal derangement, excited and maintained by too liberal feeding with farinaceous foods. There is, however, one form of food, which, although farinaceous, is yet well digested even by young infants if given in moderate quantities. This is barley-water. The starch it contains is small in amount, and is held in a state of very fine division. When barley-water is mixed with milk in equal proportions, it insures a fine separation of the curd, and is at the same time a harmless addition to the diet. Isinglass or gelatine, in the proportion of a teaspoonful to the bottleful of milk and water, may also be made use of, and will be found to answer the purpose well.

Farinaceous foods, in general, are, as has been said, injurious to young babies, on account of the deficiency during the first months of life of the secretions necessary for the conversion of the starch into dextrine and grape-sugar—a preliminary process which is indispensable to absorption. If, however, we can make such an addition to the food as will insure the necessary chemical change, farinaceous matter ceases to be injurious. It has been found that by adding to it malt in certain proportions the same change is excited in the starch artificially as is produced naturally by the salivary and pancreatic secretions during the process of digestion. The employment of malt for this purpose was first suggested by Mialhe in a paper read before the French Academy in 1845, and the suggestion was put into practice by Liebig fifteen years later.

"Liebig's Food for Infants" contains wheat flour, malt, and a little carbonate of potash, and has gained a well-deserved celebrity as a food for babies during the first few months of life. The best form with which I am acquainted is that made by Mr. Mellin, under the name of "Mellin's Extract for preparing Liebig's Food for Infants." In this preparation, owing to the careful way in which it is manufactured, the whole of the starch is converted into dextrine and grape-sugar, so that the greater part of the work of digestion is performed before the food reaches the stomach of the child. Mixed with equal parts of milk and water, this food is as perfect a substitute for mother's milk as can be procured, and is readily digested by the youngest infants. It very rarely indeed, happens that it is found to disagree.

In all cases, then, where a child is brought up by hand, milk should enter largely into his diet, and during the first few months of life he should be fed upon it almost entirely. If he can digest plain milk and water, there is no reason for making any other addition than that of a little milk-sugar and cream; but in cases where, as often happens, the heavy curd taxes the gastric powers too severely, the milk may be thickened by an equal proportion of thin barley-water, or by adding to each bottleful of

milk and water a teaspoonful of isinglass or of "Mellin's Extract."

Having fixed upon the kind of food which is suitable to the child, we must next be careful that it is not given in too large quantities, or that the meals are not repeated too frequently. If the stomach be kept constantly overloaded, even with a digestible diet, the effect is almost as injurious as if the child were fed upon a less digestible food in more reasonable quantities. A healthy infant passes the greater part of his time asleep, waking at intervals to take nourishment. These intervals must not be allowed to be too short, and it is a great mistake to accustom the child to take food whenever he cries. From three to four ounces of liquid will be a sufficient quantity during the first six weeks of life; and of this only a half or even a third part should consist of milk, according to the child's powers of digestion. After such a meal the infant should sleep quietly for at least two hours. Restlessness and irritability in a very young baby almost always indicate indigestion and flatulence; and if a child cries and whines uneasily, twisting about his body and jerking his limbs, a fresh meal given instantly, although it may quiet him for the moment, will, after a short time, only increase his discomfort. During the first six weeks or two months, two hours will be a sufficient interval between the meals; afterwards this interval can be lengthened, and at the same time a larger quantity may be given at each time of feeding. No more food should be prepared at once than is required for the particular meal. The position of the child as he takes food should be half reclining, as when he is applied to his mother's breast, and the food should be given from a feeding-bottle. When the contents of the bottle are exhausted, the child should not be allowed to continue sucking at an empty vessel, as by this means air is swallowed, which might afterwards be a source of great discomfort. The feeding apparatus must be kept perfectly clean. The bottle should be washed out after each meal in water containing a little soda in solution, and must then lie in cold water until again wanted. It is desirable to have two bottles which can be used alternately.

At the age of six months farinaceous food may be given in small quantities with safety, if it be desired to do so; and in some cases the addition of a moderate proportion of wheaten flour to the diet is found to be attended with advantage. The best form in which this can be given is the preparation of wheat known as "Chapman's entire wheaten flour." This is superior for the purpose to the ordinary flour, as it contains the inner husk of the wheat finely ground, and is therefore rich in phosphates and in a peculiar body called cerealine, which has the diastatic property of changing starchy matters into dextrine. This flour should be slowly baked in an oven until it crumbles into a light grayish powder. At first no more than one teaspoonful should be given once or twice a day, rubbed up (not boiled) with milk. If there be much constipation, fine oatmeal may be used instead of the baked flour.