

is that none of the fats are stored up in the body without previous decomposition. After the fatty material is introduced into the alimentary canal, the first liquid it meets on its way is the acid gastric juice which, as far as we know, has no effect whatever upon it. This juice has the carbohydrates and the proteids to contend with and enough has it to do. The fat, therefore, passes unheeded, but a little further it meets its most bitter enemy, namely, the alkaline pancreatic juice which wrestles with it until its entire decomposition is effected. By its action the fat is resolved into glycerine and a salt of the fatty acids, which salt is known as a soap.

Now as you well know soaps are usually soluble. This one is very similar to that so often called into domestic use and like it is soluble. It dissolves and is readily absorbed by the numerous villi, capillary filaments lining the small intestine, whose functions consist in absorbing the thus dissolved foods. In this way the soap is introduced into the circulating system and carried to the epithelium cells where it in turn suffers decomposition into its organic acid and an alkali. The organic acid again unites with the glycerine which has been absorbed at the same time as the soap and the fat is reformed.

The fact that the fat of an animal fed entirely on a certain kind of fat is not identical in composition with the fat fed, seems to indicate this double decomposition and a certain power of selection on the part of the little villi foraging for their proper food. Undoubtedly if an exclusive diet of a certain fat is given some of the reformed fat will inevitably be of the same composition as the one fed.

The great objection to the absorption of fat in the form of soaps has been that the reaction of the fluid in the small intestine where the absorption takes place is not alkaline but acid, and that a soap cannot persist in the presence of an acid liquid. Carb investigated the reaction of the intestine in three experiments on dogs, and found the intestinal contents to be acid all the way from pylorus to caecum. The indicators used were litmus and phenolphthalein. Moore and Rockwood have recently studied the reaction of the intestine making use, besides the indicators mentioned, of methyl orange, which is not affected by carbonic and weak organic