with others such things would cause great distress, relieved perhaps only by vomiting or diarrhœa. Yet the digestion in both may be perfectly healthy, only in the latter the function is easily overtaxed. This may be a wise provision of nature to prevent more serious lesions of the kidneys or liver.

First in the digestive process, is mastication. With the mass of people, food is eaten too hurriedly and only partially masticated, and, therefore, is more difficult of digestion. The objects of mastication are manifold. The primary object is, of course, the minute division of the food, so that the digestive fluids may easily gain access to all parts of it. Almost of equal importance, is the admixture of the food with saliva, the flow of which is stimulated by mastication. The importance of the saliva in digestion is widely under-estimated. That it aids greatly in the digestion of the starchy foods we can readily convince ourselves by chewing a crust, and observing the sweetness developed as it becomes converted into a pulp. The saliva, also, owing to its alkalinity, is an efficient stimulant to the secretion of the acid gastric juice, which is also stimulated, reflexly, by the act of chewing. Mastication also stimulates the circulation so that the heart beats more forcibly and frequently, sending an increased supply of blood to the nerve centres, which, as part of the general result, leads to increased secretion of the digestive fluids which are probably improved also in quality. The mere act of masticating a small piece of crust, raised my own pulse, while writing this, from 60 to 72 beats per minute. There is still another object to be attained by full and complete mastication; that is, to enable us to judge when we have eaten enough, and so prevent us from eating too much. No one will dispute that the mass of people eat too much; they do so chiefly because they eat too fast. To understand how slow eating prevents over eating, we must know the causes of hunger and the means by which it is satisfied. I think Lauder Brunton's theory as to hunger is the correct one. He thinks the cause is two-fold: "First, a certain condition of the stomach, probably consisting in distension either of the lymphatics or capillaries of the mucous membrane, which is relieved when food is ingested and secretion begins. Second, a condition of the system which is not removed by the mere presence of food in the stomach, but requires for its alleviation the absorption of nutritive material into the blood."* This second condition is well illustrated by many dyspeptics who have voracious appetites, and "can eat every hour of the day"; also in cases of tubercular disease of the mesenteric glands when patients eat enormous quantities of food. In neither of these does sufficient nutriment reach the tissues. Hence, it is evident that if the meal is eaten too hurriedly there will not be time for the first part of it to be digested and absorbed to supply the nerve centres and tissues generally with the nourishment they demand before sufficient is eaten, and until this demand is supplied the feeling of hunger is not fully appeased, and before we are aware of having had enough of food, the stomach may be overloaded. Looking at the subject in this light, we see not only the necessity for complete mastication slowly performed, but also the desirability of the partaking of our meals in a quiet, deliberate manner, with a due amount of light conversation; we also see the great advantage of the intervals of rest between the courses of a dinner. Many business men and others rush through their mid-day meal so hurriedly that good digestion is impossible. A few days ago one of them said to me that often he would not know that he had eaten did he not see his empty plate before him; yet he is surprised that his stomach does not digest his food properly. The good effect of mental quiet on digestion is well seen in the two extremes of life. The healthy child or youth scarcely knows he has a stomach, and "in the sere and yellow leaf," when men have left the work and worry of life behind, it is the rule to find them eat, if not with the gusto of youth, at least with great satisfaction and digest without discomfort, even though they may have suffered from indigestion during the busy portion of their lives.

In the matter of gastric digestion, recent investigations have added much to our knowledge of the process, as well as of its derangements and the best means of correcting them. From the now classic descriptions of the late Dr. Beaumont, we have obtained invaluable information as to the appearances of the stomach in both health and disease. At rest, the gastric mucosa is of a pale pink color and covered by a thin coating of clear

* Brunton, "Disorders of Digestion," page 117.