

ical substances are formed. Of these elements some are in small quantities, and their uses are unknown; several are found more abundantly, but are not indispensable to life, while carbon, hydrogen, oxygen and nitrogen are necessary ingredients, and constitute the greater portion of the body. Modern science has placed the study of foods on a scientific basis by its extensive chemical analyses of the human body and its secretions, as well as an exact analysis of all foods, however prepared. With this foundation, it but remains for the student to investigate the ease of digestion and assimilation of whatever class of food is indicated.

This is certainly a very broad subject, and it is here that the old saying, "What is food for one is poison for another," appears in its true light.

The varying conditions of the human body in health and disease exert such a powerful influence on digestion and assimilation, that a systematic classification, so useful to the busy practitioner, must necessarily be incomplete and imperfect; or, on the contrary, so elaborate as to be impracticable. The classification of foods, according to their physical properties, source, or chemical formation, is very good in studying the foods by themselves, but in studying foods with regard to disease, a classification, designed to group foods according to the role they take in the formation of the human system, is to be desired. As the great objects of food are tissue formation and force production, a classification of foods as acting in one of these ways may prove practical. Chemistry shows that the nitrates are occupied largely in the formation of muscle, the phosphates contribute to the formation of the brain, nerves, and to some extent of the bones, while the carbonates are the main source of force. Let us place the foods as acting in one of these three ways, according to their chemical formation, viz.:

1. Muscle formers, i.e., nitrates.
2. Nerve and brain formers, i.e., phosphates.
3. Force producers, i.e., carbonates.

The material for muscle formation is found largely in the cereals and animal foods, the percentage varying from 6.5 per cent. to as high as 34.6 per cent. Among the grains, wheat has 14.6 p. c.; barley, 12.8 p. c.; and oats, 17.0 p. c., while peas and beans have about 25 p. c. Butchers' meats vary from 17.5 p. c. in pork to as high as 35 p. c. for ham, most of them showing about 20 p. c. Fish show a smaller