is not the only organ said to possess antitoxic function. McNum (*British Med. Jour.*, January, 1888) works up a claim for the suprarenal capsules. German physiologists have been advancing a similar claim for the thyroid gland. Lauder Brunton (Disorders of Digestion) has a peculiar explanation for the bitterness of bile (which he asserts is not always bitter), *i.e.*, it is bitter by virtue of the ptomaines it contains (all cadaveric alkaloids being bitter). He goes further and asserts that all symptoms of jaundice are due to the ptomaine in the absorbed bile. This, if true, and there is good reason to think so, would throw light on many a clinical feature in liver disorders. Another matter of clinical interest is Langendorff's studies on sugar formations in the liver (*Archiv für Physiologie*, 1886). It is well-known that strychnine and curare produce, when administered to animals, artificial diabetes. Langendorff found this due to the action of these therapeutic reagents on a nervous centre; for when the spinal cord was destroyed about the fourth dorsal vertebra in frogs these drugs fail to produce diabetes. If this region were intact, but the other parts of the nervous system destroyed, strychnine operated in producing diabetes. This points to a nerve centre which calls the liver cells into activity or produces vaso-dilatation of the liver capillaries. This is not all. For the production of diabetes by strychnine the presence of the liver is necessary, while curare will act without its presence and the amount of sugar excreted is as great when the liver is removed as when it is present. Before leaving the subject of digestion I would like to draw attention to Bunge's views on the assimilation of iron (*Zeittcheift für Phys. Chemie*, 1885) found in albuminate of iron, in the yolk of eggs, milk, etc., which was very stable, only strong chemical agents setting the iron free. Sulphuretted hydrogen and sulphide of ammonia separate the iron as an oxide in a couple of hours at body heat. He named this albumin "hæmatogin," believing that it gives rise to the hæmoglobin of the blood. Working on this line Bunge assumes that in anæmia this albumin is decomposed, the iron being converted into an inorganic compound which cannot as such be assimilated by the system. Putrescent changes in the food stuffs in catarrhal conditions effect this decomposition by generating sulphuretted hydrogen, etc. Bunge considers that iron administered in anæmia is not absorbed and assimilated, but combines with sulphur, hydrogen, etc., etc., and so protects hæmatogen of the food from decomposition. He finds a proof in the good effect of intestinal antiseptics in anæmia. In regard to the occurrence of iron in the body, Zalewskii's experiments are of importance. He isolated the combinations of iron occurring in the liver cells and found that the combinations could be put under two classes. One, the inorganic which occurred in very small quantities in the cells and easily detectable; the other in which the iron is held in very strong combination and needs powerful reagents to separate it. The latter compounds were obtained from the nucleus, and presented all the characters of the nuclein class. These experiments of Zalewskii raise the question whether iron is not present in the nucleus of every living cell. Its presence in the nucleus and in combination with nuclein, which has been so well termed the "ground substance of life," points strongly to the view that iron is absolutely essential to the life process of the cells. The old view was that iron entered into combination with hæmoglobin only in the economy. At the present time researches show that hæmoglobin is a degradation product of the constituents of the nucleus holding iron in combination. The tendency of research has been to show that iron does not enter the body in the form of ordinary salts, but in combination with such complex proteids as nuclein and that only vegetable protoplasm is capable of affecting a combination between iron and albumen.

4. *Blood.*—Gaglio (*Arch. für Anat. & Phys.*, 1886), established the occurrence of lactic acid in blood of normal rabbits to the extent of 5%, in dogs, 8%. Berlinerblan (*Arch. für Experim. Pathologié*, 1887), also finds that lactic acid is normally present in human blood. We have yet to discover its relation to rheumatism and rachitis. In this field of physiology there has been no better worker than Prof. Osler. His views that the white blood corpusles do not develop into red, and that the function of the blood plaques of Osler is the generation of the fibrin ferment are now generally accepted by physiologists.

5. *Urine.*—Posner (*Arch. für Anat. & Physiologie*) maintains that albumins, more espetially peptones, are present in the urine of every individual, but the amount is so small that their presence can only be demonstrated after concentrating the urine by evaporation.