Uses.—1. To replenish the adipose tissue. This membrane is distinct from the areolar with which for a long time it was confounded. Hunter denied its individuality, because all the fat may be dissolved out of its areolar meshes by ether, leaving them unaltered. The fact of its distinctness from the areolar membrane has been abundantly substantiated in more recent times by the microscope. Adipose tissue is so universal as to be present in every part of the body except the teeth. As was before mentioned, it consists of cells;—when fat is taken as food it is secerned in part into these cells, and thus fulfils its office of replenishing the tissue. It is abstracted from the blood capillaries by the cellwalls, and discharged into their cavities; in passing to these receptacles it is undoubtedly modified, since animals secrete fats quite different from those which enter into the composition of their aliment; thus human fat contains little or no stearine, although this is largely consumed by us as food. This circumstance of difference in composition between fat eaten and fat secreted, countenances the opinion of Liebig, that the adipose tissue is replenished not by fat, but by the transformation into fat of various non-fatty substances, starch, gum, sugar, &c. This Liebig believes to be the rule, but admits as an exception that when surplus quantities of fat are eaten, the excess may be simply appropriated to replenish the adipose tissue. The tissue thus produced performs a number of important uses of a physical kind as giving rotundity to the frame, serving as an elastic cushion to lessen the effects of shocks, and to diffuse uniformly external pressure; filling up interstices that otherwise would exist between muscles, bones, vessels and nerves; facilitating the mobility of organs; protecting the body from the pernicious effects of excessive heat or cold, and of rapid changes of temperature; affording buoyancy to parts of greater specific gravity; rendering other textures supple and lessening the brittleness of parts naturally fragile. Under certain favorable conditions the development of fat proceeds to an extraordinary degree at the period of manhood. Liebig has said its production is a consequence of a deficient supply of oxygen, for oxygen is absolutely indispensable according to him for its consumption, or rather the consumption of the carbon and hydrogen it contains, this scarcity may result from deficient respiration entailed by confinement, want of exercise, indolence, &c., or it may ensue from a natural supply of oxygen, and an excessive amount of fat, i. e., too much fat for the oxygen,—the relative balance being equally disturbed in either case. These rules do not however always apply, and occasionally without being able to assign any satisfactory reason for the occurrence we observe persons fall into extraordinary corpulence, or obesity, or polysarcia, as the state of gross fatness is variously styled. An Italian Priest