

tissues. The forms of sugar are Glycogen of the liver, Lactose or sugar of milk, Glucose (grape sugar) and Inositol or sugar of muscle.

Fats and Oils—Palmitin, Olein and Stearin. These are really salts of the alcohol Glycerins with the fatty acids Palmitic, Oleic and Stearic. The fat of the body is made up chiefly of Palmitin and Stearin (solids) with small quantities of Olein (liquid).

The *fatty acids* require no special discussion here. Mention of the three principal ones has already been made. These with Butyric acid in milk and Propionic acid in sweat, exist in combination with certain bases, e.g., Potassium, Calcium and Sodium in various parts of the body.

Alcohols.—Glycerine, a true alcohol has already been spoken of under "fats;" it is also produced during digestion; Cholesterine, a crystallized uncombined alcohol, is present chiefly in bile. Ordinary alcohol has been detected in the body—probably the result of a fermentation in the digestive tract. Under normal conditions, however, it is doubtful if it is produced.

INORGANIC OR MINERAL COMPOUNDS.—The chief of these is WATER (Oxygen and Hydrogen), present to a very large extent in every fluid and tissue. Its great importance and function will be spoken of later on. Calcium phosphate (phosphate of lime), another essential compound, is the basis of bones and teeth, but also found in other parts. Chloride of Sodium (common salt) is to be met with in all tissues and fluids. Iron in minute quantities enters into the composition of hæmoglobin, the colouring matter of the blood. It is also to be detected in many of the body tissues.

The foregoing outline may serve as an enumeration of the more important body substances. Their origin and physiological function will be discussed when speaking of the nutritive ingredients of foods and the processes of digestion and assimilation. A knowledge of the relative amounts of the chemical elements and of the compounds already alluded to, as they exist in the body, will be found to be of interest and value. I, therefore, subjoin the following admirable tables compiled for the United States National Museum, Washington, by Messrs. Welch and Pomeroy.