sunshine to the waste heat of the animal body.[1]

B

ORGANIC CHEMISTRY

Independent alike of general biology and of the science of metabolism there has grown up still another department of natural science, organic chemistry, which contributes very materially to the description and comprehension of living things. During a large part of the nineteenth century the efforts of chemists were mainly directed to the cultivation of this subject, which seeks to describe the molecular constitution of all the compounds of carbon, including nearly all the individual substances which make up animals and plants. Gradually, as organic chemistry has progressed, very complete descriptions of the atomic groupings within the molecules of fats,[2] carbohydrates,[3] and pro-

[1] Here, as in so many other cases, it is not the conservation of matter and energy, but the conservation of matter and the degradation of energy which are important. For an extensive development of this important difference see B. Brunhes, "La Dégradation de l'Énergie." Paris, 1909.

[2] Chevreul, "Recherches Chimiques sur les Corps Gras." Paris, 1823.

[3] E. Fischer, "Untersuchungen über Kohlenhydrate und Fermente." Berlin, 1909.