

unicellular organism which is taken as a type, a model of all the phenomena of life. The former consists of philosophical and abstract generalisations, gathered from many sources; it treats of life in general, of the vital force, of the difference between animal and plant life, &c.: the latter sums up the whole matter of the treatise under a few heads, taken from the life of the simplest living thing. The generalisation has become an actual observable example. This transition from the abstract to the concrete, from the idea to the thing itself, is owing mainly to those definite conceptions which in Müller's time were being slowly elaborated: these were the cellular theory, the larger conception of "Stoffwechsel" as contained in the term "metabolism," and the conception of "differentiation of tissue" connected with division of labour. The two former are already very clearly foreshadowed in Theodor Schwann's microscopical researches; the latter takes us back to K. E. von Baer's embryological researches, to which the Darwinian idea of a struggle for existence, and the consequent tendency to one-sided development of form and function, have given an additional importance. Of the first and third of these definite modern conceptions I have treated above. The cell is the morphological unit of living matter. The process of differentiation was recognised

terially influenced physiology, the basis of medicine, and hence also the latter; and it is incalculable what many of those here present have gained through such influence in days of sickness or may still gain. Whoever carefully studies the development of physiology, will be convinced that it is mainly Trem- bly's observations of the hydro-

polyp that have changed the former aspect of things, and that the transformation of the general views of life has altered the theory of sensation, circulation, &c., very materially, and is still active" ("Blicke auf die Entwicklung der Wissenschaft," an address, reprinted in 'Reden,' vol. i. p. 109).