

17.
Vitalistic
and psycho-
physical
aspects.

physical views of nature. Thus four distinct chapters, dealing severally with the morphological, the genetic, the vitalistic, and the psycho-physical aspects of nature, will together attempt to describe the manifold and changing methods of reasoning by which our century has approached the actual things and events which surround us.

“Nature does not employ all figures, but only certain ones of those which are possible: and of these, the determination is not to be fetched from the brain, or proved *a priori*, but obtained by experiments and observations.” These words, set down nearly two centuries ago by a now forgotten natural philosopher,¹ express clearly the object of a study which, towards the end of the eighteenth century had received definite expression in vari-

or not is not yet decided, makes it necessary to retain in a history of Thought a special term comprising all speculations which deal with the purely scientific solution of that problem. In fact, the question what is life is still unanswered. *A fortiori*, these remarks refer also to the question, What is mind or consciousness? But the two chapters referring to these problems will limit themselves to an historical exposition of what has been done to solve them by purely scientific, *i. e.*, exact, methods. The full name of the author of the ‘Biologie’ was Gottfried Reinhold Treviranus (1776-1837) of Bremen. Though introducing the larger conception of biology, his own original labours were mainly in the domain of zoology. His brother, Ludolf Christian Treviranus (1779-1864), devoted himself mainly to botanical

science, and was largely influenced by the doctrines of the “Naturphilosophie.” On the former, see Carus, ‘Geschichte der Zoologie’ (München, 1872), *passim*; on the latter, Sachs, ‘Geschichte der Botanik’ (ibid., 1875, p. 291).

¹ They are quoted by Whewell (‘Hist. Induc. Sciences,’ 3rd ed., vol. iii. p. 165), from a work entitled ‘Dissertatio de Salibus’ (1707), by the Italian Professor at Padua, Dominico Gulielmini (1655-1710). He was a practical physician as well as a natural philosopher. He was the forerunner of Romé de Lisle and Haüy, inasmuch as he established the principle, not then sufficiently appreciated, that the constancy of the angles is characteristic of all crystals. See Kopp’s ‘Geschichte der Chemie,’ vol. ii. pp. 83-404.