

lishing the vertebral theory of the skull, came forward as a rival to Goethe, and did not entertain a very kindly feeling towards him. Although they lived for some time in the same neighbourhood, yet the natures of these two men were so very different, that they could not well be drawn towards each other. Oken's "Manual of the Philosophy of Nature," which may be designated as the most important production of the nature-philosophy school then existing in Germany, appeared in 1809, the same year in which Lamarck's fundamental work, the "Philosophie Zoologique," was published. As early as 1802, Oken had published an "Outline of the Philosophy of Nature." As we have already intimated, in Oken's as in Goethe's works, a number of valuable and profound thoughts are hidden among a mass of erroneous, very eccentric, and fantastic conceptions. Some of these ideas have only quite recently and gradually become recognized in science, many years after they were first expressed. I shall here quote only two thoughts, which are almost prophetic, and which at the same time stand in the closest relation to the theory of development.

One of the most important of Oken's theories, which was formerly very much decried, and was most strongly combatted, especially by the so-called "exact experimentalists," is the idea that the phenomena of life in all organisms proceed from a common chemical substance, so to say, from a general simple *vital-substance*, which he designated by the name *Urschleim*, that is, *original slime*. By it he meant, as the name indicates, a mucilaginous substance, an albuminous combination, which exists in a semi-fluid condition of aggregation, and possesses the power, by adaptation to different conditions of existence in the outer world and by inter-