BOOK II.

THE PHYSICAL SCIENCES IN ANCIENT GREECE.

Plato's Timæus and Republic.

ALTHOUGH a great portion of the physical speculations of the Greek philosophers was fanciful, and consisted of doctrines which were rejected in the subsequent progress of the Inductive Sciences; still many of these speculations must be considered as forming a Prelude to more exact knowledge afterwards attained; and thus, as really belonging to the Progress of knowledge. These speculations express, as we have already said, the conviction that the phenomena of nature are governed by laws of space and number; and commonly, the mathematical laws which are thus asserted have some foundation in the facts of nature. This is more especially the case in the speculations of Plato. It has been justly stated by Professor Thompson (A. Butler's *Lectures*, Third Series, Lect. i. Note 11), that it is Plato's merit to have discovered that the laws of the physical universe are resolvable into numerical relations, and therefore capable of being represented by mathematical formulæ. Of this truth, it is there said, Aristotle does not betray the slightest consciousness.

The *Timæus* of Plato contains a scheme of mathematical and physical doctrines concerning the universe, which make it far more analogous than any work of Aristotle to Treatises which, in modern times, have borne the titles of *Principia, System of the World*, and the like. And fortunately the work has recently been well and carefully studied, with attention, not only to the language, but to the doctrines and their bearing upon our real knowledge. Stallbaum has published an edition of the Dialogue, and has compared the opinions of Plato with those of Aristotle on the like subjects. Professor Archer Butler of Dublin has devoted to it several of his striking and eloquent Lectures; and these have been furnished with valuable annotations by Professor Thompson of Cambridge; and M. The. Henri Martin, then Professor at Rennes, published in 1841 two volumes of *Etudes sur le Timée de Platon*, in