

teenth century. The symbolizing habit of consecrating certain metals to the planets belongs, undoubtedly, to the new Platonic doctrines of the Alexandrian school in the fifth century, as is ascertained from passages in Proclus (*ad Tim.*, ed. Basil, p. 14), from Olympiodorus, as well as by a late scholium to Pindar (*Isthm.*, vol. ii.). (Compare Olympiod., *Comment. in Aristot., Meteorol.*, cap. 7, 3 in Ideler's edition of the *Meteorol.*, tom. ii., p. 163 ; also tom. i., p. 199 and 251.)

Although the number of the visible planets amounted, according to the earliest limitation, to five, and subsequently, by the addition of the large disks of the Sun and Moon, increased to seven, conjectures were prevalent, even in antiquity, that beyond these visible planets there were yet other less luminous, unseen planets. This opinion is stated by Simplicius to be Aristotelean. "It is probable that such dark cosmical bodies which revolve round the common center sometimes give rise to eclipses of the moon as well as the earth." Artemidorus of Ephesus, whom Strabo often mentions as a geographer, believed in the existence of an unlimited number of such dark, revolving cosmical bodies. The old ideal body, the anti-earth (*ἀντίχθων*) of the Pythagoreans, does not belong to this class of conjectures. The earth and the anti-earth have a parallel concentric motion ; and the anti-earth, conceived in order to avoid the assumption of the rotatory motion of the earth, moving in a planetary manner round the central fire in twenty-four hours, can scarcely be any thing else than the opposite hemisphere—the antipodean portion of our planet.*

When from the 43 principal and secondary planets now known (a number six times greater than that of the planetary bodies known to the ancients), the 36 objects which have been discovered since the invention of the telescope are chronologically separated according to the succession of their discovery, there is obtained for the seventeenth century *nine*, for the eighteenth century also *nine*, and for the half of the nineteenth century *eighteen* newly-discovered planets.

* Böckh, *Ueber Philolaus*, p. 102 and 117.