Vienna. The Sun, therefore, rises an hour and a half earlier at Vienna than at London, whence it follows that the Earth curves from east to west.

Finally, let us add that, in a lunar eclipse, the shadow of the Earth projected on Diana's darkened disc presents a circular form, is the shadow of a spherical body. Therefore, the Earth resembles all the other "orbs of heaven" which all reveal themselves to our eyes as spheres.

Several Greek philosophers, who had attained to a just notion of the Earth's figure, attempted to calculate its magnitude. ARISTOTLE* asserts that its circumference measures 400,000 stadia. This round number indicates sufficiently that he had made no exact geometrical determination, but simply an approximative estimate. Moreover, we do not know of what kind of stadia Aristotle speaks. Some stadia numbered 400, some 600, some 1100, to a degree. Other Greek writers compute the terrestrial circumference at 300,000, 400,000, and 250,000 stadia; and, spite of the profoundest researches of our geographers, we have not ascertained as yet the precise value of these ancient calculations. All we can say is, that the Greeks had a tolerably accurate idea of the Earth's rotundity and dimensions.

FIG. 28.—ARISTOTLE.

Thus, for example, POSIDONIUS† having remarked that the star Canobus appeared at Rhodes on the horizon, while at Alexandria it was elevated to a point equivalent to the forty-eighth part of a circle, he concluded that the distance between Rhodes and Alexandria was exactly this forty-eighth part; and he made use of this observation to determine the length

* [Aristoteles, the greatest of the ancient philosophers, whose influence upon science has extended even to our own days, was born at Stageira, in the district of Chalcidice, B.C. 384. He visited Athens in his seventeenth year, and resided there until B.C. 347. In B.C. 342 he was summoned to the Court of Philip of Macedon, to superintend the education of the youthful Alexander, whose genius he developed with brilliant success. He returned to Athens, B.C. 335, and remained until B.C. 322. He died at Chalcis, in Eubœa, in August of the latter year.]

† [Posidonius, a distinguished Stoic philosopher, was a native of Apameia (now Kŭlat-el-Mudik) in Syria. He was a contemporary of Pompeius and Cicero, and died at Rome soon after B.C. 51.]