

possessed. There is, indeed, no philosopher who is so uniformly spoken of in terms of admiration. Ptolemy, to whom we owe our principal knowledge of him, perpetually couples with his name epithets of praise: he is not only an excellent and careful observer, but “a⁶ most truth-loving and labor-loving person,” one who had shown extraordinary sagacity and remarkable desire of truth in every part of science. Pliny, after mentioning him and Thales, breaks out into one of his passages of declamatory vehemence: “Great men! elevated above the common standard of human nature, by discovering the laws which celestial occurrences obey, and by freeing the wretched mind of man from the fears which eclipses inspired—Hail to you and to your genius, interpreters of heaven, worthy recipients of the laws of the universe, authors of principles which connect gods and men!” Modern writers have spoken of Hipparchus with the same admiration; and even the exact but severe historian of astronomy, Delambre, who bestows his praise so sparingly, and his sarcasm so generally;—who says⁷ that it is unfortunate for the memory of Aristarchus that his work has come to us entire, and who cannot refer⁸ to the statement of an eclipse rightly predicted by Halicon of Cyzicus without adding, that if the story be true, Halicon was more lucky than prudent;—loses all his bitterness when he comes to Hipparchus.⁹ “In Hipparchus,” says he, “we find one of the most extraordinary men of antiquity; the *very greatest*, in the sciences which require a combination of observation with geometry.” Delambre adds, apparently in the wish to reconcile this eulogium with the depreciating manner in which he habitually speaks of all astronomers whose observations are inexact, “a long period and the continued efforts of many industrious men are requisite to produce good instruments, but energy and assiduity depend on the man himself.”

Hipparchus was the author of other great discoveries and improvements in astronomy, besides the establishment of the Doctrine of Eccentrics and Epicycles; but this, being the greatest advance in the *theory* of the celestial motions which was made by the ancients, must be the leading subject of our attention in the present work; our object being to discover in what the progress of real theoretical knowledge consists, and under what circumstances it has gone on.

⁶ *Syn.* ix. 2.

⁸ *Ib.* i. 17.

⁷ *Astronomie Ancienne*, i. 75.

⁹ *Ib.* i. 186.