

groups; the former mentions the constellation of the Bear ("otherwise known as the Celestial Wain, and which alone never sinks into the bath of Oceanos"), Bootes, and the Dog of Orion; the latter speaks of Sirius and Arcturus, and both refer to the Pleiades, the Hyades, and Orion.* Homer's twice repeated assertion that the constellation of the Bear *alone* never sinks into the ocean, merely allows us to infer that in his age the Greek sphere did not yet comprise the constellations of Draco, Cepheus, and Ursa Minor, which likewise do not set. The statement does not prove a want of acquaintance with the existence of the separate stars forming these three catasterisms, but simply an ignorance of their arrangement into constellations. A long and frequently misunderstood passage of Strabo (lib. i., p. 3, Casaub.) on Homer, *Il.*, xviii., 485-489, specially proves a fact—important to the question—that in the Greek sphere the stars were only *gradually* arranged in constellations. Homer has been unjustly accused of ignorance, says Strabo, as if he had known of only one instead of two Bears. It is probable that the lesser one had not yet been arranged in a separate group, and that the name did not reach the Hellenes until after the Phœnicians had specially designated this constellation, and made use of it for the purposes of navigation. All the scholia on Homer, Hyginus, and Diogenes Laertius ascribe its introduction to Thales. In the Pseudo-Eratosthenian work to which we have already referred, the lesser Bear is called Φοινίκη (or, as it were, the Phœnician guiding star). A century later (Ol. 71), Cleostratus of Tenedos enriched the sphere with the constellations of Sagittarius, Τοξότης, and Aries, Κριός.

The introduction of the Zodiac into the ancient Greek sphere coincides, according to Letronne, with this period of the domination of the Pisistratidæ. Eudemus of Rhodes, one of the most distinguished pupils of Aristotle, and author of a "History of Astronomy," ascribes the introduction of this zodiacal belt (ἡ τοῦ ζωδιακοῦ διάζωσις, also ζωίδιος κύκλος) to Cænopides of Chios, a cotemporary of Anaxagoras.† The

* Ideler, *Unters. über die Sternnamen*, s. xi., 47, 139, 144, 243. Letronne, *Sur l'Origine du Zodiaque Grec*, 1840, p. 25.

† Letronne, *op. cit.*, p. 25; and Carteron, *Analyse des Recherches de M. Letronne sur les Représentations Zodiacales*, 1843, p. 119. "It is very doubtful whether Eudoxus (Ol. 103) ever made use of the word ζωδιακός. We first meet with it in Euclid, and in the Commentary of Hipparchus on Aratus (Ol. 160). The name ecliptic, εκλειπτικός, is also very recent." Compare Martin in the Commentary to *Theonis Smyrnæi Platonici Liber de Astronomia*, 1849, p. 50, 60.