

be ascribed to irresolvable nebulosity. A more careful application of reflecting telescopes of great dimensions and power of light has since proved, with more certainty, the correctness of the conjectures advanced by Democritus and Manilius, in reference to the ancient path of Phaëton, that this *milky* glimmering light was solely owing to the accumulated strata of small stars, and not to the scantily interspersed nebulae. This effusion of light is the same at points where the whole can be perfectly resolved into stars, and even in stars which are projected on a black ground, wholly free from nebulous vapor.\* It is a remarkable feature of the Milky Way that it should so rarely exhibit any globular clusters and nebulous spots of a regular or oval form;† while both are met with in great numbers at a remote distance from it; as, for instance, in the Magellanic clouds, where isolated stars, globular clusters in all conditions of condensation, and nebulous spots of a definite oval or a wholly irregular form, are intermingled. A remarkable exception to the rarity of globular clusters in the Milky Way occurs in a region between R. A. 16h. 45m. and 18h. 44m., between the Altar, the Southern Crown, the head and body of Sagittarius, and the tail of the Scorpion.‡ We even find between  $\epsilon$  and  $\theta$  of the latter one of those annular nebulae, which are of such extremely rare occurrence in the southern hemisphere.

In the field of view of powerful telescopes (and we must remember that, according to the calculations of Sir William

\* "Stars standing on a clear black ground." (*Observations at the Cape*, p. 391.) "This remarkable belt (the Milky Way, when examined through powerful telescopes) is found (wonderful to relate!) to consist entirely of stars scattered by millions, like glittering dust on the black ground of the general heavens."—*Outlines*, p. 182, 537, and 539.

† "Globular clusters, excepting in one region of small extent (between 16h. 45m. and 19h. in R. A.), and nebulae of regular elliptic forms, are comparatively rare in the Milky Way, and are found congregated in the greatest abundance in a part of the heavens the most remote possible from that circle." (*Outlines*, p. 614.) Huygens himself, as early as 1656, had remarked the absence of nebulosity and of all nebulous spots in the Milky Way. In the same place where he mentions the first discovery and delineation of the great nebulous spots in the belt of Orion, by a twenty-eight feet refractor (1656), he says (as I have already remarked in vol. ii., p. 330, and note), *viam lacteam perspicillis inspectam nullas habere nebulas*, and that the Milky Way, like all that has been regarded as nebulous stars, is a great cluster of stars. The passage is to be found in *Hugenii Opera varia*, 1724, p. 540.

‡ *Observations at the Cape*, § 105, 107, and 328. On the annular nebulae, No. 3686, see p. 114.