

Cambridge (U. S.) refractor.* Many positions of the smaller stars have been determined by accurate observers of the present day; as, for instance, Lamont at Munich, and Cooper and Lassell in England. The first named of these employed a 1200-fold magnifying power. Sir William Herschel was of opinion, from a comparison of his own observations made with the same instruments, from 1783 to 1811, that alterations had taken place in the relative brilliancy and in the outlines of the great nebula of Orion.† Bouilland and Le Gentil had maintained the same opinion in reference to the nebula in Andromeda; but the thorough investigations of Sir John Herschel have rendered the occurrence of any such cosmical changes, although formerly considered to be well established, exceedingly doubtful, to say the least.

The large nebula round η Argûs is situated in that portion of the Milky Way which extends from the feet of the Centaur, through the Southern Cross, toward the middle part of Argo, and is so distinguished by the intensity of its magnificent effulgence. The light emanating from this region is so extraordinary, that Captain Jacob, an accurate observer, and a resident in the tropical parts of India, remarks, entirely in harmony with my prolonged experience, "Such is the general blaze from that part of the sky, that a person is immediately made aware of its having risen above the horizon, though he should not be at the time looking at the heavens, by the increase of general illumination of the atmosphere, resembling the effect of the young Moon."‡

* "It is remarkable, however, that within the area of the trapezium no *nebula* exists. The general aspect of the less luminous and cirrous portion is simply nebulous and irresolvable, but the brighter portion, immediately adjacent to the trapezium, forming the square front of the head, is shown with the eighteen-inch reflector broken up into masses (very imperfectly represented in the figure), whose mottled and curdling light evidently indicates, by a sort of granular texture, its consisting of stars, and when examined under the great light of Lord Rosse's reflector, or the exquisite defining power of the great achromatic at Cambridge, U. S., is evidently perceived to consist of clustering stars. There can, therefore, be little doubt as to the whole consisting of stars, too minute to be discerned individually even with these powerful aids, but which become visible as points of light when closely adjacent in the more crowded parts."—*Outlines*, p. 609. William C. Bond, who made use of a twenty-five feet refractor, having a fourteen-inch object-glass, says, "There is a great diminution of light in the interior of the trapezium, but no suspicion of a star." (*Memoirs of the American Academy*, New Series, vol. iii., p. 93.)

† *Philos. Transact.* for the year 1811, vol. ci., p. 324.

‡ *Trans. of the Roy. Soc. of Edinb.*, vol. xvi., 1849, part iv., p. 445.