

circumstance which distinguished it from the nebulous stars in Cancer, and from other nebulous clusters. All that could be recognized was a whitish glimmering appearance, brighter in the center, and fainter toward the margins. With a diameter of one fourth of a degree, the whole resembled a light seen from a great distance through half-transparent horn plates (*similis fere splendor apparet, si a longinquo candela ardens per cornu pellucidum de noctu cernatur*).” Simon Marius hazards a conjecture whether this singular star be not of recent formation, but will not give a decided opinion, although it strikes him as singular that Tycho Brahe, who had enumerated all the stars in the girdle of Andromeda, should have said nothing of this *nebulosa*. The *Mundus Jovialis*, which first appeared in 1614, indicates, therefore, as I have already observed elsewhere,* the difference between a nebulous spot unresolvable by the telescopic powers of that age, and a cluster of stars,† to which the mutual proximity of its numerous small stars, not visible to the naked eye, imparts a nebulous luster. Notwithstanding the great improvements made in optical instruments, the nebula in Andromeda was considered for nearly two centuries and a half—as at its discovery—to be wholly devoid of stars, until two years since, the transatlantic observer, George Bond, of Cambridge, in Massachusetts, discovered 1500 small stars within the limits of the nebula. I have not hesitated to class it among the stellar clusters, although the nucleus has not hitherto been resolved.‡

It is probably only to be ascribed to some singular accident that Galileo, who, when the *Sidereus Nuntius* appeared in 1610, had already made frequent observations of the constellation of Orion, should have subsequently mentioned, in his *Saggiatore*, no other nebulae in the firmament but those which his own weak optical instruments had resolved into stellar clusters, although he might long before have learned, through the *Mundus Jovialis*, of the discovery of the starless nebula in Andromeda. When he speaks of the *nebulose del Orione e del Prescepe*, he understands by the expression merely “aggregations (*coacervazioni*) of innumerable small stars.”§ He successively delineates, under the deceptive designations of *nebulosæ capitis, cinguli, et ensis Orionis*, clusters of stars,

* *Cosmos*, vol. ii., p. 320.

† *Germ.*, Sternhaufen; *French*, amas d'étoiles.

‡ *Cosmos*, vol. iii., p. 142.

§ *Galilei notò che le Nebulose di Orione null' altro erano che mucchi e coacervazioni d' innumerabili Stelle.*—Nelli, *Vita di Galilei*, i., p. 208.