

matta, with a nine-inch Newtonian reflector, of which Sir John Herschel included only 206 in his catalogue.* Similar results have recently been published by Bond and Mädler. The number of nebulæ, compared with that of double stars, appears, therefore, according to the present condition of science, to be in the ratio of 2 : 3 ; although it must not be forgotten that under the designation of double stars are included those which are merely *optically* double, and that hitherto alterations of position have only been observed in a ninth, or perhaps but an eighth portion of the whole number.†

The above numbers—2299 nebulæ, with 152 clusters of stars, in the Northern, and only 1239 nebulæ, with 236 clusters of stars, in the Southern Catalogue—show that the southern hemisphere, with a smaller number of nebulæ, possesses a preponderance of *clusters of stars*. If we assume that all nebulæ are, from their probable constitution, resolvable, as merely more remote clusters of stars or stellar groups, composed of smaller and less thronged, self-luminous celestial bodies, this apparent contrast (whose importance has been the more noticed by Sir John Herschel‡ in consequence of his having employed reflectors of equal powers in both hemispheres) indicates, at least, a striking difference in the nature and cosmical position of nebulæ, that is to say, in reference to the directions in which they present themselves to the observation of the inhabitants of the earth in the northern or southern firmament.

We owe to the same great observer our first accurate knowledge of, and cosmical survey of, the distribution of nebulæ and groups of stars throughout the entire heavens. With a view of investigating their position, relative local accumulation, and the probability or improbability of their being arranged in accordance with certain characteristic features, he classified between three and four thousand objects graphically, in divisions, each embracing a space measuring 3° Declination and 15m. Right Ascension. The greatest accumulation of nebulous spots occurs in the northern hemisphere, where they are distributed through Leo Major and Leo Minor ; the body, tail, and hind feet of the Great Bear ; the nose of Camelopardalus ; the tail of the Dragon ; Canes Venatici ; Coma Berenices (where the north pole of the galaxy is situated) ; §

* *Op. cit.*, § 7. Compare Dunlop's *Cat. of Nebulæ and Clusters of the Southern Hemisphere*, in the *Philos. Transact.* for 1828, p. 114-146

† *Cosmos*, vol. iii., p. 200. ‡ *Observations at the Cape*, § 105-107.

§ In the *Cosmos*, vol. iii., p. 144, lines 5 and 6 from the top, by an