

Herschel, a twenty-foot instrument penetrates 900, and a forty-foot one 2800 distances of Sirius), the Milky Way appears as diversified in its sidereal contents as it is irregular and indefinite in its outlines and limits when seen by the unaided eye. While in some parts the Milky Way exhibits, throughout a large space, the greatest uniformity in the light and apparent magnitudes of the stars, in others the most brilliant patches of closely-crowded luminous points are interrupted by granular or reticular darker\* intervals containing but few stars; and in some of these intervals in the interior of the Galaxy not the smallest star (of the 18m. or 20m.) is to be discovered. It almost seems as though, in these regions, we actually saw through the whole starry stratum of the Milky Way. In gauging with a field of view of 15' diameter, fields presenting on an average forty or fifty stars are almost immediately succeeded by others exhibiting from 400 to 500. Stars of the higher magnitudes often occur in the midst of the most minute telescopic stars, while all the intermediate classes are absent. Perhaps those stars which we regard as belonging to the lowest order of magnitudes do not always appear as such, solely on account of their enormous distance, but also because they actually have a smaller volume and less considerable development of light.

In order rightly to comprehend the contrast presented by the greater brilliancy, abundance, or paucity of stars, it will be necessary to compare regions most widely separated from each other. The maximum of the accumulation and the greatest luster of stars are to be found between the prow of Argo and Sagittarius, or, to speak more exactly, between the Altar, the tail of the Scorpion, the hand and bow of Sagittarius, and the right foot of Ophiuchus. "No region of the heavens is fuller of objects, beautiful and remarkable in themselves, and rendered still more so by their mode of association" and grouping.† Next in brightness to this por-

\* "Intervals absolutely dark and completely void of any star of the smallest telescopic magnitude."—*Outlines*, p. 536.

† "No region of the heavens is fuller of objects, beautiful and remarkable in themselves, and rendered still more so by their mode of association, and by the peculiar features assumed by the Milky Way, which are without a parallel in any other part of its course."—*Observations at the Cape*, p. 386. This vivid description of Sir John Herschel entirely coincides with the impressions I have myself experienced. Capt. Jacob, of the Bombay Engineers, in speaking of the intensity of light in the Milky Way, in the vicinity of the Southern Cross, remarks with striking truth, "Such is the general blaze of starlight near the Cross from that part of the sky, that a person is immediately made