

ions of stars in the Milky Way might be seen by his still more powerful forty-feet reflecting telescope.\*

After a careful consideration of all the fixed stars, whether visible to the naked eye or merely telescopic, whose positions are determined, and which are recorded in catalogues, we turn to their distribution and grouping in the vault of heaven.

As we have already observed, these stellar bodies, from the inconsiderable and exceedingly slow (real and apparent) change of position exhibited by some of them—partly owing to precession and to the different influences of the progression of our solar system, and partly to their own proper motion—may be regarded as landmarks in the boundless regions of space, enabling the attentive observer to distinguish all bodies that move among them with a greater velocity or in an opposite direction—consequently, all which are allied to telescopic comets and planets. The first and predominating interest excited by the contemplation of the heavens is directed to the fixed stars, owing to the multiplicity and overwhelming mass of these cosmical bodies ; and it is by them that our highest feelings of admiration are called forth. The orbits of the planetary bodies appeal rather to inquiring reason, and, by presenting to it complicated problems, tend to promote the development of thought in relation to astronomy.

Amid the innumerable multitude of great and small stars, which seem scattered, as it were by chance, throughout the vault of heaven, even the rudest nations separate single (and almost invariably the same) groups, among which certain bright stars catch the observer's eye, either by their proximity to each other, their juxtaposition, or, in some cases, by a kind of isolation. This fact has been confirmed by recent and careful examinations of several of the languages of so-called savage tribes. Such groups excite a vague sense of the mutual relation of parts, and have thus led to their receiving names, which, although varying among different races, were generally derived from organic terrestrial objects. Amid the forms with which fancy animated the waste and silent vault of heaven, the earliest groups thus distinguished were the seven-starred Pleiades, the seven stars of the Great Bear, subsequently (on account of the repetition of the same form) the constellation of the Lesser Bear, the

\* Compare Struve, *Etudes d'Astr. Stellaire*, 1847, p. 66 and 72 ; *Cosmos*, vol. i., p. 150 ; and Mädler *Astr.*, 4te Aufl., § 417.