

La Caille, Tobias Mayer, Cagnoli, Piazzzi, Zach, Pond, Taylor, Groombridge, Argelander, Airy, Brisbane, and Rümker.

We here only allude to those works which enumerate a great and important part\* of the stars of the seventh to the tenth magnitude which occupy the realms of space. The catalogue known under the name of Jerome de Lalande's, but which is, however, solely based on observations made by his nephew, François de Lalande, and by Burckhardt between the years 1789 and 1800, has only recently been duly appreciated. After having been carefully revised by Francis Baily, under the direction of the "British Association for the Advancement of Science" (in 1847), it now contains 47,390 stars, many of which are of the ninth, and some even below that magnitude. Harding, the discoverer of Juno, catalogued above 50,000 stars in twenty-seven maps. Bessel's great work on the exploration of the celestial zones, which comprises 75,000 observations (made in the years 1825–1833 between  $-15^\circ$  and  $+45^\circ$  declination), has been continued from 1841 to 1844 with the most praiseworthy care, as far as  $+80^\circ$  decl., by Argelander at Bonn. Weisse of Cracow, under the auspices of the Academy of St. Petersburg, has reduced 31,895 stars for the year 1825 (of which 19,738 belonged to the ninth magnitude) from Bessel's zones, between  $-15^\circ$  and  $+15^\circ$  decl.;† and Argelander's exploration of the northern heavens from  $+45^\circ$  to  $+80^\circ$  decl. contains about 22,000 well-determined positions of stars.

\* I here compress into a note the numerical data taken from star catalogues, containing lesser masses and a smaller number of positions, with the names of the observers, and the number of positions attached: La Caille, in scarcely ten months, during the years 1751 and 1752, with instruments magnifying only eight times, observed 9766 southern stars, to the seventh magnitude inclusive, which were reduced to the year 1750 by Henderson; Tobias Mayer, 998 stars to 1756; Flamstead, originally only 2866, to which 564 were added by Baily's care (*Mem. of the Astr. Soc.*, vol. iv., p. 1291–64); Bradley, 3222, reduced by Bessel to the year 1755; Pond, 1112; Piazzzi, 7646 to 1800; Groombridge, 4243, mostly circumpolar stars, to 1810; Sir Thomas Brisbane, and Rümker, 7385 stars, observed in New Holland in the years 1822–1828; Airy, 2156 stars, reduced to the year 1845; Rümker, 12,000 on the Hamburg horizon; Argelander (Cat. of Abo), 560; Taylor (Madras), 11,015. The British Association Catalogue of Stars (1845), drawn up under Baily's superintendence, contains 8377 stars from the first to  $7\frac{1}{2}$  magnitudes. For the southern stars we have the rich catalogues of Henderson, Fallows, Maclear, and Johnson at St. Helena.

† Weisse, *Positiones mediæ stellarum fixarum in Zonis Regionum a Besselio inter  $-15^\circ$  et  $+15^\circ$  decl. observatarum ad annum 1825 re ductæ* (1846); with an important Preface by Struve.