the stars may be changed from such a variety of causes, considering that amazing distance at which it is certain some of them are placed, it may require the observations of many ages to determine the laws of the apparent changes even of a single star; much more difficult, therefore, it must be to settle the laws relating to all the most remarkable stars."

After the time of Bradley, the mere possibility, and the greater or less probability, of the movement of the solar system, were in turn advanced in the writings of Tobias Mayer, Lambert, and Lalande; but William Herschel had the great merit of being the first to verify the conjecture by actual observations (1783, 1805, and 1806). He found (what has been confirmed, and more precisely determined by many later and more accurate inquiries) that our solar system moves toward a point near to the constellation of Hercules, in R. A. 260° 44′, and N. Decl. 26° 16′ (reduced to the year 1800). Argelander, by a comparison of 319 stars, and with a reference to Lundahl's investigations, found it for 1800 : R. A. 257° 54′·1, Decl. +28° 49′·2; for 1850, R. A. 258° 23′·5, Decl. +28° 45′·6. Otto Struve (from 392 stars) made it to be for 1800 : R. A. 261° 26′·9, Decl. +37° 35′·5; for 1850, 261° 52′·6, Decl. 37° 33′·0. According to Gauss,* the point in question falls within a quadrangle, whose extremes are, R. A. 258° 40′, and Decl. 30° 40′; R. A. 258° 42′, Decl. +30° 57′; R. A. 259° 13′, Decl. +31° 9′; R. A. 260° 4′, Decl. +30° 32′.

It still remained to inquire what the result would be if the observations were directed only to those stars of the southern hemisphere which never appear above the horizon in Europe. To this inquiry Galloway has devoted his especial attention. He has compared the very recent calculations (1830) of Johnson at St. Helena, and of Henderson at the Cape of Good Hope, with the earlier ones of Lacaille and Bradley (1750 and 1757). The result† for 1790 was R. A. 260° 0′, Decl. 34° 23′; therefore, for 1800 and 1850, 260° 5′, +34° 22′, and 260° 33′, +34° 20′. This agreement with the results obtained from the northern stars is extremely satisfactory.

If, then, the progressive motion of our solar system may be considered as determined within moderate limits, the

* In a letter addressed to me. See Schum., *Astr. Nachr.*, No. 622, s. 348.

† Galloway, on the *Motion of the Solar System*, in the *Philos. Transact. for* 1847, p. 98.