

The importance of Christian Mayer's labors has, long after his death, been thankfully and publicly acknowledged by Struve and Mädler. In his two treatises, *Vertheidigung neuer Beobachtungen von Fixstern-trabanten* (1778), and *Dissertatio de novis in Cælo sidereo Phænomenis* (1779), eighty double stars are described as observed by him, of which sixty-seven are less than 32" distant from each other. Most of these were first discovered by Christian Mayer himself, by means of the excellent eight-feet telescope of the Mannheim Mural Quadrant; "many even now constitute very difficult objects of observation, which none but very powerful instruments are capable of representing, such as ρ and 71 Herculis, ϵ 5 Lyræ, and ω Piscium." Mayer, it is true (as was the practice long after his time), only measured distances in right ascension and declination by meridian instruments, and pointed out, from his own observations, as well as from those of earlier astronomers, changes of position; but from the numerical value of these, he omitted to deduct what (in particular cases) was due to the proper motion of the stars.*

These feeble but praiseworthy beginnings were followed by Sir William Herschel's colossal work on the multiple stars, which comprises a period of more than twenty-five years; for although Herschel's first catalogue of double stars was published four years after Christian Mayer's treatise on the same subject, yet the observations of the former go back as far as 1779—indeed, even to 1776, if we take into consideration the investigations on the trapezium in the great nebula of Orion. Almost all we at present know of the manifold formation of the double stars has its origin in Sir William Herschel's work. In the catalogues of 1782, 1783, and 1804, he has not only set down and determined the position and distance of 846 double stars,† for the most part first discovered by himself, but, what is far more important than any augmentation of number, he applied his sagacity and power of observation to all those points which have any bearing on their orbits, their conjectured periodic times, their brightness, contrasts of colors, and classification according to the amount

* Struve, in the *Recueil des Actes de la Séance publique de l'Acad. Imp. des Sciences de St. Pétersbourg*, le 29 Déc., 1832, p. 48-50. Mädler, *Astr.*, s. 478.

† *Philos. Transact. for the Year 1782*, p. 40-126; for 1783, p. 112-124; for 1804, p. 87. Regarding the observations on which Sir William Herschel founded his views respecting the 846 double stars, see Mädler, in Schumacher's *Jahrbuch für 1839*, s. 59, and his *Untersuchungen über die Fixstern-Systeme*, th. i., 1847, s. 7.