cially excited the astonishment of all who saw it. As scintillation is always accompanied with dispersion of color, much has been said of its colored and continually-changing light. Arago (*Annuaire pour* 1834, p. 299–301, and *Ann. pour* 1842, p. 345–347) has already called attention to the fact that the star of Kepler did not by any means, like that of Tycho Brahe, assume, at certain long intervals, different colors, such as yellow, red, and then again white. Kepler says expressly that his star, as soon as it rose above the exhalations of the earth, was white. When he speaks of the colors of the rainbow, it is to convey a clear idea of its colored scintillation. His words are: "Exemplo adamantis multanguli, qui solis radios inter convertendum ad spectantium oculos variabili fulgore revibraret, colores Iridis (stella nova in Ophiucho) successive vibratu *continuo* reciprocabat." (*De Nova Stella Serpent.*, p. 5 and 125.) In the beginning of January, 1605, this star was even brighter than Antares, but less luminous than Arcturus. By the end of March in the same year it was described as being of the third magnitude. Its proximity to the sun prevented all observation for four months. Between February and March, 1606, it totally disappeared. The inaccurate statements as to the great variations in the position of the new star, advanced by Scipio Claramontius and the geographer Blaew, are scarcely (as Jacques Cassini, *Elémens d'Astr.*, p. 65, long since observed) deserving of notice, since they have been refuted by Kepler's more trustworthy treatise. The Chinese Record of Ma-tuan-lin mentions a phenomenon which exhibits some points of resemblance, as to time and position, with this sudden appearance of a new star in Ophiuchus. On the 30th of September, 1604, there was seen in China a reddish-yellow ("ball-like?") star, not far from π of Scorpio. It shone in the southwest till November of the same year, when it became invisible. It reappeared on the 14th of January, 1605, in the southeast; but its light became slightly duller by March, 1606. (*Connaissance des Temps pour* 1846, p. 59.) The locality, π of the Scorpion, might easily be confounded with the foot of Ophiuchus; but the expressions southwest and southeast, its reappearance, and the circumstance that its ultimate total disappearance is not mentioned, leave some doubts as to its identity.

(*t*) This also is a new star of considerable magnitude, and seen in the southwest. It is mentioned in Ma-tuan-lin. No further particulars are recorded.

(*u*) This is the new star discovered by the Carthusian monk Anthelmus on the 20th of June, 1670, in the head of Vulpes (R. A. 294° 27′; Decl. 26° 47′), and not far from β Cygni. At its first appearance it was not of the first, but merely of the third magnitude, and on the 10th of August it diminished to the fifth. It disappeared after three months, but showed itself again on the 17th of March, 1671, when it was of the fourth magnitude. Dominique Cassini observed it very closely in April, 1671, and found its brightness very variable. The new star is reported to have regained its original splendor after ten months, but in February, 1672, it was looked for in vain. It did not reappear until the 29th of March in the same year, and then only as a star of the sixth magnitude; since that time it has never been observed. (Jacques Cassini, *Elémens d'Astr.*, p. 69–71.) These phenomena induced Dominique Cassini to search for stars never before seen (by him!). He maintained that he had discovered fourteen such stars of the fourth, fifth, and sixth magnitudes (eight in Cassiopeia, two in Eridanus, and four near the North Pole). From the absence of any precise data as to their respective positions, and especially since, like those said to have been