

diminish, and the star gradually resembled Jupiter ; but by January, 1573, it had become less bright than that planet. Successive photometric estimates gave the following results : for February and March, equality with stars of the first magnitude (*stellarum affixarum primi honoris*—for Tycho Brahe seems to have disliked using Manilius's expression of *stellæ fixæ*) ; for April and May, with stars of the second magnitude ; for July and August, with those of the third ; for October and November, those of the fourth magnitude. Toward the month of November, the new star was not brighter than the eleventh in the lower part of Cassiopeia's chair. The transition to the fifth and sixth magnitude took place between December, 1573, and February, 1574. In the following month the new star disappeared, and, after having shone seventeen months, was no longer discernible to the naked eye." (The telescope was not invented until thirty seven years afterward.)

The gradual diminution of the star's luminosity was, moreover, invariably regular ; it was not (as is the case in the present day with η Argûs, though indeed that is not to be called a *new* star) interrupted by several periods of rekindling or by increased intensity of light. Its color also changed with its brightness (a fact which subsequently gave rise to many erroneous conclusions as to the velocity of colored rays in their passage through space). At its first appearance, as long as it had the brilliancy of Venus and Jupiter, it was for two months white, and then it passed through yellow into red. In the spring of 1573, Tycho Brahe compared it to Mars ; afterward he thought that it nearly resembled Betelgeux, the star in the right shoulder of Orion. Its color, for the most part, was like the red tint of Aldebaran. In the spring of 1573, and especially in May, its white color returned (*albedinem quandam sublividam induebat, qualis Saturni stellæ subesse videtur*). So it remained in January, 1574 ; being, up to the time of its entire disappearance in the month of March, 1574, of the fifth magnitude, and white, but of a duller whiteness, and exhibiting a remarkably strong scintillation in proportion to its faintness.

The circumstantial minuteness of these statements* is of

* *De admiranda Nova Stella, anno 1572, exorta in Tychonis Brahe Astronomiæ instauratæ Progymnasmata*, 1603, p. 298-304, and 578. In the text I have closely followed the account which Tycho Brahe himself gives. The very doubtful statement (which is, however, repeated in several astronomical treatises) that his attention was first called to