

even than that; inasmuch as the new planet had never been seen at all, and was discovered by mathematicians entirely by their feeling of its influence, which they perceived through the organ of mathematical calculation.

“There can be no doubt that to M. Le Verrier belongs the glory of having first published a prediction of the place and appearance of the new planet, and of having thus occasioned its discovery by astronomical observers. M. Le Verrier's first prediction was published in the *Comptes Rendus de l'Acad. des Sciences*, for June 1, 1846 (not Jan. 1, as erroneously printed in my Note). A subsequent paper on the subject was read Aug. 31. The planet was seen by M. Galle, at the Observatory of Berlin, on September 23, on which day he had received an express application from M. Le Verrier, recommending him to endeavor to recognize the stranger by its having a visible disk. Professor Challis, at the Observatory of Cambridge, was looking out for the new planet from July 29, and saw it on August 4, and again on August 12, but without recognizing it, in consequence of his plan of not comparing his observations till he had accumulated a greater number of them. On Sept. 29, having read for the first time M. Le Verrier's second paper, he altered his plan, and paid attention to the physical appearance rather than the position of the star. On that very evening, not having then heard of M. Galle's discovery, he singled out the star by its seeming to have a disk.

“M. Le Verrier's mode of discussing the circumstances of Uranus's motion, and inferring the new planet from these circumstances, is in the highest degree sagacious and masterly. Justice to him cannot require that the contemporaneous, though unpublished, labors of Mr. Adams, of St. John's College, Cambridge, should not also be recorded. Mr. Adams made his first calculations to account for the anomalies in the motion of Uranus, on the hypothesis of a more distant planet, in 1843. At first he had not taken into account the earlier Greenwich observations; but these were supplied to him by the Astronomer Royal, in 1844. In September, 1845, Mr. Adams communicated to Professor Challis values of the elements of the supposed disturbing body; namely, its mean distance, mean longitude at a given epoch, longitude of perihelion, eccentricity of orbit, and mass. In the next month, he communicated to the Astronomer Royal values of the same elements, somewhat corrected. The note (L.), vol. ii., of the present work (2d Ed.), in which the names of MM. Le Verrier and Adams are mentioned in conjunction, was in the press in August, 1846, a