

that such a resisting medium really exists, are certain circumstances occurring in the motion of a body revolving round the sun, which is now usually called *Encke's comet*. This body revolves in a very eccentric or oblong orbit, its greatest or aphelion distance from the sun, and its nearest, or perihelion distance, being in the proportion of more than ten to one. In this respect it agrees with other comets; but its time of revolution about the sun is much less than that of the comets which have excited most notice; for while they appear only at long intervals of years, the body of which we are now speaking returns to its perihelion every twelve hundred and eight days, or in about three years and one-third. Another observable circumstance in this singular body, is its extreme apparent tenuity: it appears as a loose indefinitely formed speck of vapour, through which the stars are visible with no perceptible diminution of their brightness. This body was first seen by Mechain and Messier, in 1786,\* but they obtained only two observations, whereas three, at least, are requisite to determine the path of a heavenly body. Miss Herschel discovered it again in 1795, and it was observed by several European astronomers. In 1805 it was again seen, and again in 1819. Hitherto it was supposed that the four comets thus observed were all different; Encke, however, showed that the observations could only be explained by considering them as returns of the same revolving body; and by doing this, well merited that his name should be associated with the subject of his discovery. The return of this body in 1822, was calculated beforehand, and observed in New South Wales, the comet being then in the southern part of the heavens; but on comparing the calculated and the observed places, Encke concluded that the observations could not be exactly explained, without supposing a resisting medium. This comet was again generally observed in

\* Airy on Encke's Comet, p. 1, note.