

Neptune. But here we seemed to have quite a sort of tame comet keeping within bounds, and within call. Of course its return was watched for with eagerness, but alas! it never made its appearance again. At its next return in 1776 this was well accounted for, as owing to the relative situations of the earth, sun, and comet, it could not have been visible; but at the next, in 1781, the earth was favourably situated, since  $5\frac{1}{2}$  years would place the sun in the opposite part of its orbit; but 11 years in the same, and the calculators for a time were puzzled. The solution of the enigma was a very strange one. The poor comet had got bewildered. It had plunged headlong into the immediate sphere of Jupiter's attraction—had intruded, an uninvited guest, into his family circle—actually nearer to him than his fourth satellite, and into a situation where Jupiter's attraction for it was two hundred times that of the sun. Of course its course was for a time commanded entirely by this new centre of motion, and the comet was completely diverted from its former orbit.

(31.) So far all was clear enough. But people began to ask how, with so short a period, and being a tolerably large comet, it had never been seen before? Here again Lexell called Jupiter to the rescue. As he had taken away, so it turned out he had given. Jupiter, it will be borne in mind, comes round to the same point of his orbit in 11 years and 10 months; two of the comet's revolutions would occupy 11 years and 3 months, so that tracing back the comet two revolutions in its ellipse, and Jupiter rather less than one in his circle from the place