

right ascension." If that movement were coincident in direction with such a parallel, there would remain nothing further to explain. But such is not the case. It is oblique; and may therefore be regarded as composed of two movements,—the one along that parallel (in right ascension), the other perpendicular to it, or, as it is technically called, "in declination." Now these movements admit of a distinct and separate examination, and it is clear that, if *both* do not agree in indicating the same kind of undulation and the *same identical period*, the explanation so afforded of what may be called one half of the phænomenon is at variance with that of the other. Mr Peters left this other half untouched; but very recently that also has been examined by an American computist, Mr Safford, on the same principles; and the result is that the orbital motion, which accounts for the one set of movements, gives at the same time a sufficiently satisfactory explanation of the other.

(38.) Here, then, we are furnished with another example like that afforded by the grand discovery of the planet Neptune by the calculations of Adams and Leverrier. The existence of a celestial body not seen and not before known to exist, has been revealed to us and its orbit computed, by the simple application of mathematical calculation grounded upon observed irregularities in the movements of one already well known.

(39.) The parallel of the cases promises to be still closer. Neptune, as is well known, was immediately sought and found in the place assigned to it by the calculation. In January 1862, Mr Alvan Clark, an eminent