motion was taken account of in the investigation, in a manner we need not here explain. The only other, and in the then state of knowledge a very obvious, way of accounting for it, was to ascribe these anomalous movements to the attraction of an *unseen* companion ; in other words, to consider Sirius as in reality a "double star;" its companion being either a non-luminous body, and in the nature rather of a planet than an associated sun ; or, if luminous, so feebly so as to be lost in the rays of Sirius itself, which, in powerful telescopes, is of dazzling brightness. Accordingly, Professor Peters, to whom we owe this interesting investigation, proceeded (by steps which we could not possibly make clear to our readers, and which indeed only *experts* in mathematical calculation can follow) to compute the relative orbit of the pair on the theory of gravitation, and thence to ascertain,—not their *mutual* distance from each other (for that necessarily *then* remained uncertain) but that of Sirius itself *from their common centre of gravity*. For this he found an apparent angular measure, of $2''\cdot4$, corresponding to about $16\frac{1}{4}$ times the distance of the earth from the sun ; and calculating on his final result, the observed anomalous deviations from uniform rectilinear motion were found to be satisfactorily accounted for.

(37.) It is now time, however, to mention what, to render our explanation more simple, we have hitherto kept out of view, viz., that all the foregoing calculations were directed only to that part of the "proper motion" of Sirius which carries it in the direction of a parallel to the earth's equator, or, as it is technically called, "in