posterior surface which will *first be struck* by the refracted wave. The portions beyond on either side, I N and O M, will *subsequently* receive the divergent undulations, which (as we have already explained) give rise to diffracted fringes bordering the shadows of the screens E F, G H. Thus we see that the space between N and O, and not that between K and L, will receive the full illumination from the aperture F G, which has therefore been propagated obliquely in the direction of the lines F N, G O, and not of the perpendiculars F K, G L.*

(144.) The deviation of the refracted ray from *the plane* of incidence, and from that of ordinary refraction, will be readily understood when it is borne in mind that whether at a perpendicular or an oblique incidence, a *plane exterior wave* is transformed by the extraordinary, as well as the ordinary refraction, into a plane *interior* one, and that the plane of incidence *of a ray* is perpendicular to both these planes. It cannot therefore contain the extraordinary refracted ray (which is a radius of the spheroid) without containing at the same time a normal to the elliptic surface of propagation at its point of contact with the interior plane wave, that is to say, unless it contain also the axis of the spheroid. In other words, the extraordinary ray will always deviate from the plane of incidence, unless in the case when that plane coincides with some one of the meridians of the spheroid in question.

(145.) Since there is no double refraction in the direction of the axis of the rhomboid, it follows that in that

* This is Huyghens's explanation, and the correct one.