The light then which this wave conveys will be incident perpendicularly on the surface E H, or in the direction of the lines B F, C G, and these lines continued to K and L, on the lower surface, would be the course of the *rays* B F, C G, supposing them to undergo the *ordinary* refraction. Considering now the *extraordinary;* suppose the portions E F, G H of the surface screened, and only the portion F G of the wave allowed to enter. This on striking the surface, will excite at every point over its whole extent a luminiferous vibration, which will be propagated

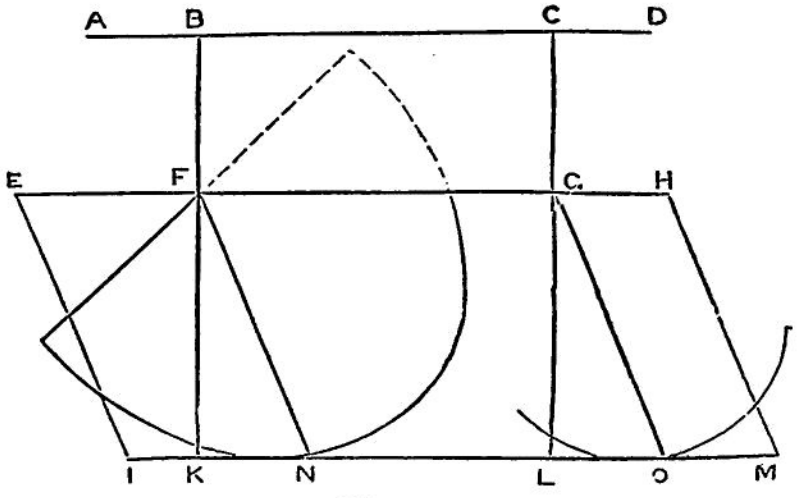

Fig. 14.

within the crystal in a spheroidal wave, having its shorter axis parallel to that of the crystal: and all these spheroids being equal and similar, the plane which touches them all, and which *is*, in effect, the extraordinarily refracted *plane wave within the crystal*, will advance parallel to the surface E H. Suppose it arrived at the other surface I M, and let N O be the points of contact of that surface with the spheroidal elementary waves whose centres are F and G at that moment. Then will N O be that portion of the