

talline lens is divided into two compartments, called the *anterior* and *posterior chambers*. The fluid which fills these chambers is a clear watery liquid, called the *aqueous humor*. The portion of the globe behind the lens, which is much the largest, is filled by a gelatinous liquid, perfectly transparent, like that of the chambers, but somewhat more dense. This is called the *vitreous humor*, (*h.*)

77. The object of this apparatus is to receive the rays of light, which diverge from all points of bodies placed before it, and to bring them again to a point upon the retina. It is a well-known fact, that when a ray of light passes obliquely from one medium to another of different density, it will be refracted or turned out of its course more or less, according to the difference of this density, and the obliquity at which the ray strikes the surface. This may be illustrated by the following figure, (Fig. 14.)

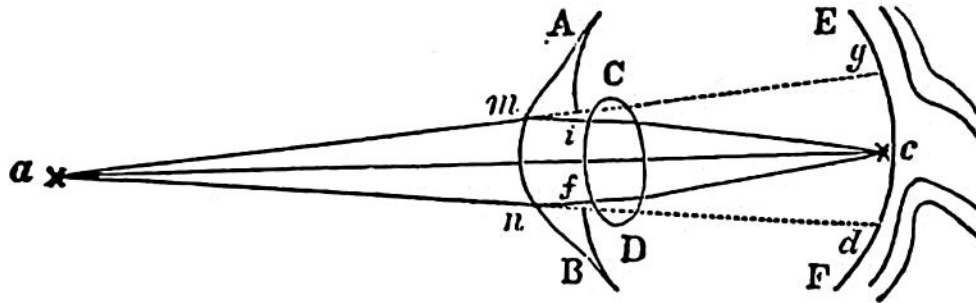


Fig. 14.

The ray *ac*, which strikes the cornea *AB* perpendicularly, continues without deviation, until it reaches the bottom of the eye at *c*. But the rays *am* and *an*, which strike the eye obliquely, change their direction, and instead of proceeding onward to *mg* and *nd*, take the direction *mi* and *nf*. A still further refraction, though less considerable, is occasioned by passing through the crystalline lens *CD*, and the vitreous humor, so that the two rays, *mi* and *nf*, will at last meet in a point. This point is called the *focus*, (*c*), and in distinct vision is always precisely at the retina, *EF*.

78. From this arrangement, the image found upon the