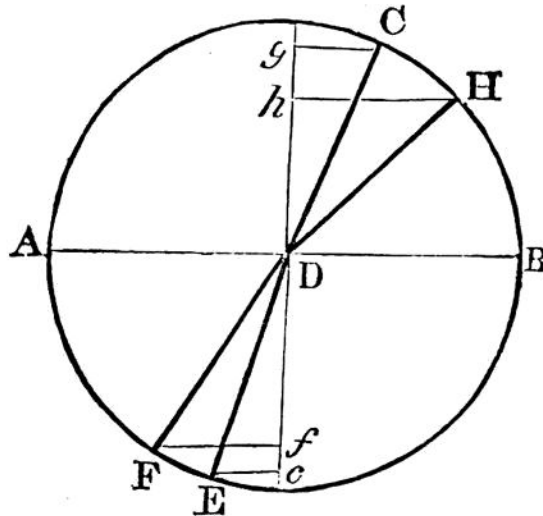


is as 1.336 to 1, and whether the ray has the direction $C D$, $H D$, or any other, it will remain constant; $g C$ will have that relation to $e E$, and $h H$ to $f F$.



All the effects produced upon light by its passage through gases, liquids, and lenses, are to be traced to the existence of this law. In some cases parallel rays are converged, and in others diverged, but the student may always determine what effect will be produced by a consideration of the fundamental law, at the same time bearing in remembrance that when light passes out of a rare into a dense medium, as from air to water, the angle of incidence is greater than the angle of refraction; but when out of a dense into a rare medium, as from water to air, the angle of incidence is less than the angle of refraction.

There are many phenomena in external nature which result from the reflection of light, for nearly all substances possess the power of reflecting, in some degree, the light which falls upon them. Some rocks seem to be, if we may use the expression, almost impermeable to light, and reflect a great portion of that which falls upon them. The intensity of the reflected light from chalk, and from some limestones and sandstones, is, in an unclouded summer's day, too intense for the eye to bear with quiet; and there are other rocks whose colour assures us that they stifle all the light incident on their surfaces; yet it is quite certain that the intensity of light in districts, at least, is in some measure produced by terrestrial reflection.

The atmosphere and clouds, also, have some influence in