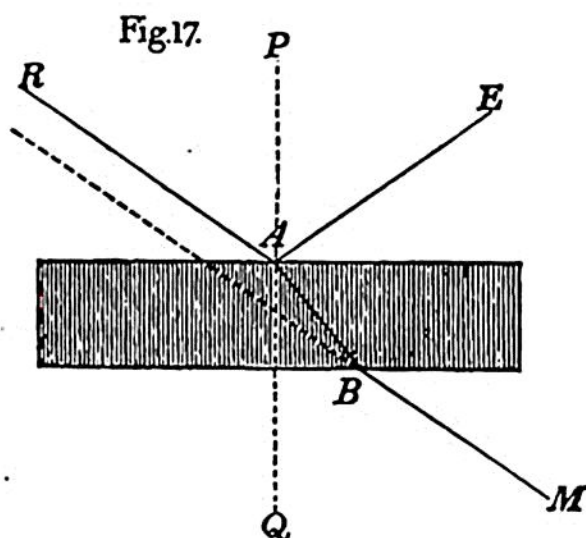


ponderable bodies will be analogous to the diffusion of gaseous bodies; and by knowing their velocity and applying the same law, we may deduce their comparative gravities.

*Reflection, and Refraction, of Light.*—In free space, as before observed, light moves in straight lines; but when a ray, *R*, Fig. 17, falls upon a



polished surface, as of glass, a portion of it is reflected in the direction *A E*, and the angle, *R A P*, called the angle of *incidence*, is always equal to the angle, *P A E*, called the

angle of *reflection*. Another portion, *A B*, passes through the glass, but instead of continuing to move in the same straight line, is bent considerably out of that direction, towards the perpendicular *P Q*; it then makes its exit at *B*, and goes on in the direction *B M*, parallel to its original direction, *R A*. This portion of the ray is said to have undergone *refraction*; a term indicating that its natural course has been broken. Such are the general facts; and the study of their laws, varieties, and peculiarities, as modified by different media, constitutes the science of optics; a branch of knowledge not falling within our present enquiry. In connection with this part of our subject, it only