

be accommodated for the principal focus of the lens, the reflex will suddenly be replaced by a sharp image of some of the retinal blood-vessels. By causing the subject to look slightly inwards and upwards, the optic disc will become visible, as an oval pale pink area, through the middle of which the central artery of the retina will be seen entering and breaking up into its various branches.

To observe the macula lutea, the subject should look straight at the hole in the ophthalmoscope mirror, but the strong light falling on this most sensitive part of the retina will cause the pupil to become contracted, unless the eye is under

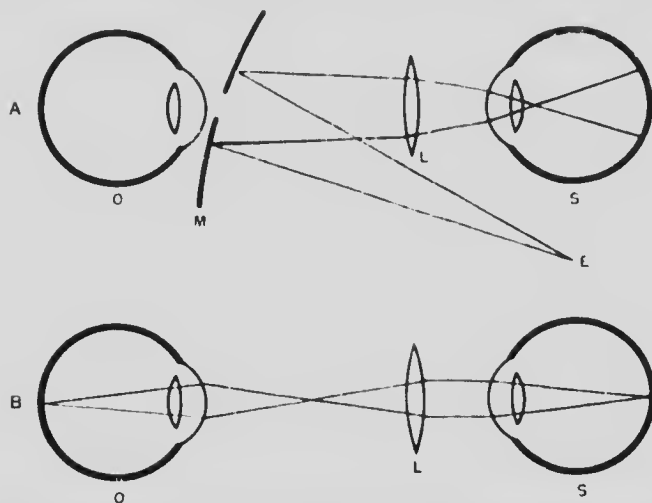


FIG. 35. Ophthalmoscope. Indirect method. Fig. A gives the course of the rays of light from the lamp. Fig. B the rays forming the image on the observer's retina. L, lamp; M, mirror; O, lens; o, observer's eye; s, subject's eye.

the influence of atropine. The peripheral parts of the retina can be observed by causing the subject to look up and down and right and left as the case may be, as far as possible, the head being kept motionless and the eye alone rotated.

Estimation of Refraction by the Ophthalmoscope.—In the direct method of examining the retina, it was seen that, when the accommodation of both observer's and subject's eye was relaxed, a clear image was seen only if both eyes were emmetropic. This forms the basis of a method of ascertaining errors of refraction.