

(78.) As the thickness of a soap-bubble cannot be subjected to direct measurement, it is impracticable, in its case, to verify what must be considered the fundamental principle of this explanation—viz., the regular increase, *in arithmetical progression*, of the thicknesses at which the several successive black or bright rings appear. But of this we may satisfy ourselves, by adopting a different mode of producing and viewing them. When a spectacle-glass or any other convex glass *lens* of long focus is laid

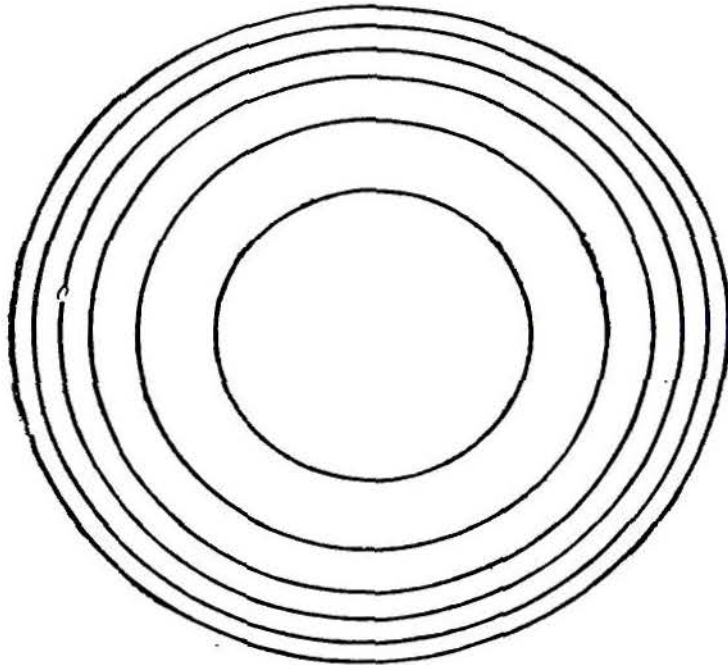


Fig. 6.

down upon a plane glass before an open window (both being scrupulously clean and well polished), and a slight pressure applied, the same dark spot, surrounded by the same series of coloured rings, is seen, their centre being at the point of contact of the glasses, where of course their distance is *nil*. If the focal length of the lens be