

two laminae of Mr Herapath's quinine salt, are laid one on the other conformably (or with their axes parallel), the light polarized by one passes freely through the other; but if the one be turned round on its own plane, on the other, the intensity of the transmitted beam gradually diminishes, until the axes cross at right angles, in which position the combination is quite opaque. A similar gradual diminution of light, up to complete extinction, takes place when a ray polarized by reflexion from glass, or in any other manner, is received on such a plate, made to rotate in its own plane. The effects are just what might be expected to happen if a flight of *flattened* arrows were discharged at a grating of parallel wires. Those only whose planes were parallel to the wires would be able to pass, and having passed one such grating, would penetrate any number of others placed conformably behind it, but not if placed transversely. This is a simile, not an explanation, but it conveys, though coarsely, to the mind a conception of the distinction between polarized and unpolarized light, not to be despised as an aid to the imagination.

(137.) If a "polarizing frame" of glass plates, such as above described, be laid down before an open window, and, the eye being held near it so as to embrace a large illuminated area or "field of view," a tourmaline plate be looked through, and turned slowly round, in its own plane before the eye; a position will be found in which the appearance of a dark cloud comes over the frame, extending over a very considerable visual angle; the central portion being completely obscure; and the darkness shad-