that in the plane of the section of the prism at right angles to the edge. If, instead of cutting the crystal into such a prism, it be formed into a flat plate, with its faces parallel to the axis of the rhomboid; such plate will in like manner extinguish one of the pencils into which a ray incident perpendicularly on it is divided, allowing the other to pass; and the pencil so transmitted is completely polarized in a plane perpendicular to the axis of the plate. This property of a tourmaline plate renders it invaluable as an optical instrument, affording the readiest and most convenient means of procuring a polarized beam of light for the examination of crystals and other purposes. Its only drawback is, that this mineral is most commonly coloured with a strong tint of blue or green, which affects the colour of the transmitted light. Some specimens, however, while equally effective in destroying one of the refracted pencils, are yet but slightly tinged with colour as respects the other, which is therefore transmitted fully polarized, but with only a slight tinge of brownish yellow. The other substance, of late much resorted to for the same purpose, the iodo-sulphate of quinine, crystallizes in very thin scales like mica, of a purplish-brown hue, which in like manner polarize completely one half the incident light, which passes freely through them; the other half being extinguished. This curious property was discovered by Mr Herapath, who first formed the compound in question.

(136.) When two parallel plates of tourmaline cut from the same crystal in the mode above described, or