tions. We have only to suppose our lines A B, *b a*, and their parallels P Q, *p q*, inclined to each other at the angle in question, and of unequal length ; to divide them similarly (*i.e.*, in the same proportion) in the points 1, 2, 3, 4, 5—and we shall obtain a set of ellipses, none of which, however, can in either of the cases have its axes equal, or pass into a circle, for this plain reason—that no circle can touch internally all the four sides of any parallelogram except a rhomb.

(153.) Conversely, a ray circularly polarized may be considered as compounded of, and may (by suppressing either of them and letting the other pass, through a tourmaline plate) be resolved into two equal rays, each of half its intensity, polarized at right-angles to each other, and differing in phase by a quarter-undulation. If one of them be in advance of the other by that phase-difference, the rotation will be in one direction—if in arrear, in the other. Elliptic polarization, on the other hand, when it exists, may be recognized by the possibility of resolving the ray so polarized into two oppositely polarized, and either of unequal intensity, or, if equal, differing in phase otherwise than by a quarter-undulation.

(154.) Finally, a ray polarized in any one plane may be regarded as equivalent to two equal rays, circularly polarized in opposite directions of rotation, and having a common zero-point.

(155.) A ray of ordinary light may be considered as a confused assemblage of rays, polarized indifferently in all sorts of planes. It is, therefore, a mixed phænome-