Or again, we may prove the equality of the angles as follows: The triangles DAF, EAF have their sides equal. Hence (Ch. III., 1) the angles DAF, EAF are equal.

In practice it is not necessary to draw the lines DF, EF.

A number of exercises should be given in bisecting angles of various magnitudes, the bevel being used in each case to determine whether the bisection is accurate.

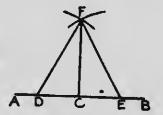
The protractor may also be used for bisecting angles.

It is suggested that the pupil be given excreises in estimating with the eye the bisecting lines of a number of angles, the bisection being afterwards accurately reached by geometrical construction.

Greater accuracy is likely to be secured in bisecting an angle, by making AD, AE and DF, EF of considerable length. The point F is then remote from A, and any trifling error in locating the exact point where the circles intersect, has less effect on the angle at A through being on the circumference of a large circle (radius AF).

3. From a point in a line to draw a line at right angles to it.

If C be the point in AB from which the perpendicular is to be drawn, place one point of the dividers or compasses at C, and mark off equal lengths CD and CE. Then with centres D and E describe por-



tions of circles with equal radii, intersecting at F. Draw FC: it is perpendicular to AB.