points equidistant from A and B are located on it and all points on it are equidistant from A and B.

What were the characteristics of the geometrical figures which we constructed in figures 1, 2 and 3? Each was such that every point which satisfied the condition stated in the problem was located on it, that every point on it satisfied the condition, and that points not on it did not satisfy the condition.

Tell the class that the geometrical figure which is the location of all points fulfilling a given condition is called a *locus*.

What was the locus in figure 1? The circumference of a circle with centre A and radius $1\frac{1}{2}$ inches. In figure 2? A straight line parallel to the given lines and midway between them. In figure 3? The right bisector of the line joining the two points.

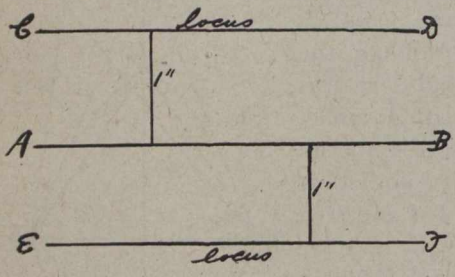

Fig. 4.

IV. Now give the class the following problem: What is the locus of a point one inch distant from a given straight line?

AB is the given straight line and by marking a number of points one inch from AB, the pupils would obtain the two branches of the locus, CD and EF.

These or similar exercises would now be given:—(*a*) What is the locus of the tip of the hand of a clock? (*b*) What is the locus of a man's hand as he works the handle of a common pump? (*c*) What is the locus of a door-handle as the door opens? (*d*) A man walks along a straight road, so that he is always equidistant from the two sides of the road. What is his locus? (*e*) What is the locus of a clock-weight as the clock runs down? (*f*) What is the locus of the centre of a circle of given radius which rolls on the outside of a given circle? On the inside of the given circle?

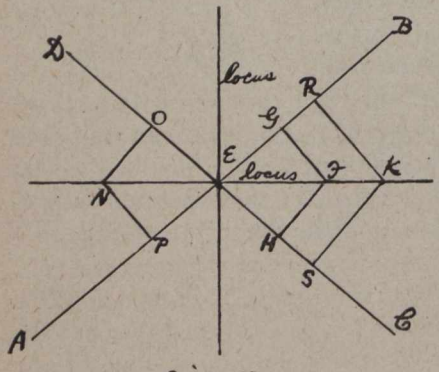

Fig. 5.

V. This more difficult exercise would now be given:—What is the locus of a point equidistant from two given intersecting straight lines?

If any members of the class have difficulty in finding the locus, proceed as follows:—Tell them to take a point F and suppose it is equidistant from EB and EC. What is the distance of F from EB? The