809.

SCHRÖTER'S CONSTRUCTION OF THE REGULAR PENTAGON.

[From the *Messenger of Mathematics*, vol. XII. (1883), p. 177.]

THE following construction of the regular pentagon, analogous to the more complicated one for the polygon of 17 sides, is given in the paper, H. Schröter, Zur *v. Staudt*schen "Construction des regulären Siebenzehnecks," *Crelle*, t. LXXV. (1873), pp. 13—24.

Take in a circle AB, CD diameters at right angles to each other, and at C, D draw in the directions A to B and B to A respectively, the lines Cc, $=4$ radii, and Dd, $=1$ radius; draw cd meeting the circle in the points E and F; draw CE and CF cutting AB in the points e and f respectively, and through these at right angles to AB draw the chords 34 and 25 respectively, then we have $A2345$ a regular pentagon.