Eighth Meeting, June 8th, 1894.

Dr C. G. Knott, President, in the Chair.

## On the Highest Wave of Permanent Type.

By John M Cowan, D.Sc.

On a Problem in Tangency.
By G. E. Crawford, M.A.
Figure 17.

Let AOB, DOE be any two intersecting chords of a circle. Required to inscribe a circle in one of the compartments, as BOE.

Draw OF bisecting the angle BOE and let it cut the circle in F. Draw FM perpendicular to AB.

Join $C^{\prime}$ (the centre of the circle) to $O$ and produce to cut the circle in G. [Draw GH in any direction equal to FM, and join $\mathbf{C}^{\prime} H$. Draw OK parallel to $\mathbf{G H}$ cutting $\mathrm{C}^{\prime} \mathrm{H}$ in K .] Cut off $\mathrm{OL}=\mathrm{LQ}=\mathrm{OK}$. Join LF and with Q as centre and radius FM or GH describe a circle cutting LF in S. Draw QSR and draw a parallel to it through $\mathrm{C}^{\prime}$ cutting OF in $\mathrm{F}^{\prime}$ and the circle in $\mathrm{P}^{\prime}$. Then $F^{\prime \prime}$ shall be the centre of the required circle.

