sécantes données. Chacune de ces droites passe aussi par un des points d'intersection des parallèles aux asymptotes menées par les extrémités de chacune des cordes CB′ et BC′.

On peut appliquer cette propriété à la construction des hyperboles.

La méthode de transformation des figures par polaires réciproques permet de déduire des théorèmes précédents autant de théorèmes corrélatifs sur les tangentes aux coniques.

Note on the regular solids.

By Professor STEGGALL.

The usual methods of proving the existence of regular polyhedra, as given in Wilson and in Todhunter, appear to most students somewhat difficult. It seemed worth while trying, therefore, whether a simpler or more direct proof could not be obtained. The following note shows how this may be done.

The problem is to distribute p points uniformly on a sphere. Suppose that they are arranged in n-sided polygons, and that each angle is $2\pi/m$, then the number of polygons $= pm/n$, and their total area is $pm(2n\pi/m + 2\pi - n\pi)/n = 4\pi$, the radius of the sphere being unity.

Hence
$$\frac{2}{m} + \frac{2}{n} - 1 = \frac{4}{pm}$$
of which the only admissible solutions are $m = n = 3$; $m = 3$, $n = 4$ or 5; $m = 4$ or 5, $n = 3$; giving all the five figures.

A certain cubic connected with the triangle.

By Professor STEGGALL.

In examining some of the lines that occur in connection with the recent geometry of the triangle, the cubic whose equation in trilinear co-ordinates is
$$abc(\beta^2 - \gamma^2) + \beta ca(\gamma^2 - a^2) + \gamma ab(a^2 - \beta^2) = 0$$