53.

ON THE TRIANGLES IN- AND EX-SCRIBABLE TO A GENERAL CUBIC CURVE.

[*Johns Hopkins University Circulars*, I. (1880), p. 49.]

THE general cubic being thrown into the form $xy^2 + yz^2 + zx^2 + mxyz = 0$, the lines $x = 0$, $y = 0$, $z = 0$ will constitute an in- and ex-scribable triangle to the curve. The number of such was stated to be 24; consisting of 12 pairs of conjugates, each pair being in triple-perspective position with respect to each other, and the centres of the perspective projection being three collinear points of inflexion. Accordingly, the twenty-four triangles will consist of four groups of three pairs of conjugate in- and ex-scripts. The law for the number of polygonal in- and ex-scripts, with any assigned number of sides, will be found stated in No. 4, Vol. II. of the *American Journal of Mathematics* [above, p. 341].