G_a is of the same form. Hence it remains only to consider the number of those which have no operator besides identity in common with G_a.

All these subgroups may be divided into two classes, viz: (1) those which are transformed into themselves by G_a, and (2) those which are transformed into different groups by the operators of G_a. The number of the former class may evidently be written in the form $ap + bq$, a and b being positive integers. If a group of the latter class occurs, all its operators must be commutative to every operator of G_a * and hence $r > p(q-1)$. In this case the given theorem is evidently true. It may be observed that the number of self-conjugate subgroups of G is not necessarily of the given form, *e. g.*, the direct product of two non-commutative groups of order 21 contains only two self-conjugate subgroups of this order.

CORNELL UNIVERSITY,
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NOTE ON THE TETRAHEDROID.

BY DR. J. I. HUTCHINSON.

(Read before the American Mathematical Society at the Meeting of February 26, 1898.)

IN a brief paper, "A special form of a quartic surface," *Annals of Mathematics*, vol. 11, p. 158, I have called attention to an interesting special form of the locus of the vertex of a cone passing through six points. I wish to point out in this note the connection between this special surface and the tetrahedroid.

Given six arbitrary points in space 1, 2, 3, 4, 5, 6. These determine a system of ∞^3 quadric surfaces each of which pass through the six points. Denote this configuration by Σ.

Choose any arbitrary point P and consider the polar planes of P with respect to the system of quadrics. There are determined in this way ∞^3 planes forming a configuration Σ_1.

To a quadric in Σ corresponds a plane in Σ_1. The vertices of the cones of Σ have for locus a surface K of the fourth order. The planes of Σ_1 corresponding to the cones of Σ envelope a Kummer surface. The point in each plane corresponding to the cone vertex is the point of tangency.

* Dyck, *Mathematische Annalen*, vol. 22, p. 97.