$$\frac{P_n + A_n R^{1/\lambda} + B_n R^{2/\lambda} + C_n R^{3/\lambda} + \cdots + K_n R^{(\lambda-2)/\lambda} + L_n R^{(\lambda-1)/\lambda}}{Q_n}$$

and the corresponding convergent by α_n/β_n, Professor Lehmer has obtained certain interesting inequalities connecting the P's and Q's, which show that there can be only a finite number of P's which have the same value. In a former paper it was shown that the Q's satisfy the indeterminate equation

$$(-1)^{n-1} Q_n = \alpha_n^\lambda - R\gamma_n^\lambda,$$

and by a general theorem due to Axel Thue (Christiania, *Videnskabs-Selskabet Skrifter,* 1908, No. 3), there can be only a finite number of Q's having the same value in the expansion. This important result has not yet been derived from the discussion of the continued fraction itself.

4. The first paper by Professor Dickson gave a survey of the main results in the theory of invariants arising in the theory of numbers. Special attention was given to the construction of formal modular invariants from the geometrical standpoint developed in the October number of the *Transactions.*

5. The second paper by Professor Dickson related to the theory of modular cubic and quartic curves for the interesting case in which the modulus is 2. Such a quartic curve has at most seven bitangents (and aside from special cases exactly seven) whose intersections are either singular points or points with indeterminate polars. In general, all such points are intersections of bitangents. The equivalence of two quartic curves can be decided from a knowledge of their real points, their singular points, and their points with indeterminate polars.

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MODULAR INVARIANT PROCESSES.

BY PROFESSOR O. E. GLENN.

(Read before the American Mathematical Society, September 8, 1914.)

Introduction.

LET $f = a_0 x_1^n + \cdots$ be an ordinary algebraical quantic in m variables. Suppose that it is subjected to linear trans-