33. The paper of Professor Moulton is devoted to the consideration of a class of periodic orbits in which the mean motion of the line of nodes of the orbit of one the bodies, referred to the mean plane of the motion of the other two, is arbitrary except for the condition that it shall be commensurable with the synodic mean motion of the three bodies. The discussion involves a new treatment of Hill's linear differential equation with periodic coefficients.

As applied to the lunar theory, the paper shows how to construct expressions for the coordinates of a body having the same synodical period and mean rate of revolution of the line of nodes as observations show the moon has. These are the terms which are said to depend upon the mean motions of the sun and moon, the parallax of the moon, and the latitude of the moon.

34. Professor Bolza's paper gives an extension of Weierstrass's theorem on the expression of the total variation by means of the E-function and of Kneser's theorem on transversals to the so-called most general case of an extremum of a simple definite integral, in which it is required to minimize an integral of the form

$$I = \int_{x_0}^{x_1} f(x, y_1, \cdots, y_n ; y_1', \cdots, y_n')dx$$

involving n unknown functions $y_1, \cdots, y_n$ of x and their first partial derivatives $y_1', \cdots, y_n'$, connected by $r < n$ differential equations $f_\rho(x, y_1, \cdots, y_n ; y_1', \cdots, y_n') = 0$ $(\rho = 1, 2, \cdots, r)$.

F. N. COLE,
Secretary.

THE NEW HAVEN COLLOQUIUM.

THE Fifth Colloquium of the AMERICAN MATHEMATICAL SOCIETY was held, at the close of the thirteenth summer meeting, at Yale University, New Haven, Conn., opening on Wednesday morning, September 5, 1906 and extending until noon of the following Saturday. Since the colloquium has become a highly important element in the Society's activities, an outline of its historic development may here be of interest.