

21. The ordinary discriminant of the ternary quadratic form $a_x^2 + b_x x_3 + c x_3^2$ is expressible as the resultant of the binary forms a_x^2, b_x plus c times the discriminant of a_x^2 . Professor Glenn proves the corresponding general theorem for the ternary form of order m , and derives explicit formulas for the $\frac{1}{2}m(m-1)$ ordinary discriminants (conditions that the forms degenerate into distinct linear factors) in terms of the coefficients of the form. One of these discriminants is a linear expression in the resultant of a_x^m and b_x^{m-1} and the discriminant of a_x^m , while the rest are obtained from this one by operating by powers of

$$\Delta_1 = m a_0 \frac{\partial}{\partial b_0} + (m-1) a_1 \frac{\partial}{\partial b_1} + \cdots + a_{m-1} \frac{\partial}{\partial b_{m-1}}$$

and

$$\Delta_2 = m a_m \frac{\partial}{\partial b_{m-1}} + (m-1) a_{m-1} \frac{\partial}{\partial b_{m-2}} + \cdots + a_1 \frac{\partial}{\partial b_0}.$$

He also considers the explicit form of the satellite form of the m -ic and its character as an invariant.

F. N. COLE,
Secretary.

THE WINTER MEETING OF THE CHICAGO SECTION.

THE twenty-eighth regular meeting of the Chicago Section of the American Mathematical Society was held at the University of Minnesota, Minneapolis, Minn., on Wednesday, Thursday, and Friday, December 28-30, 1910, in affiliation with the American Association for the Advancement of Science. Five half-day sessions were held, beginning Wednesday afternoon with a meeting in connection with Section A (mathematics and astronomy) to hear the address of the retiring vice-president, Professor E. W. Brown of Yale University, on "The relations of Jupiter with the asteroids." Other papers of a mathematical character at this session and at its continuation on Thursday morning were by Professor F. R. Moulton of the University by Chicago on "The debt of mathematics to astronomy," and of Dr. W. D. Macmillan of the University of Chicago on "An integrable case in the problem of three bodies." The vice-president of Section A, Professor E. H. Moore of the University of Chicago, presided throughout this session.