

## NOTES.

THE July number (volume 8, number 3) of the *Transactions* of the AMERICAN MATHEMATICAL SOCIETY contains the following papers: "General theory of approximation by functions involving a given number of arbitrary parameters," by J. W. YOUNG; "On derivatives over assemblages," by E. R. HEDRICK; "Geometrie proiettive di congruenza e geometrie proiettive finite," by B. LEVI; "Collineations in a finite projective geometry," by O. VEBLEN; "Geometry in which the sum of the angles of every triangle is two right angles," by R. L. MOORE; "Non-desarguesian and non-pascalian geometries," by O. VEBLEN and J. H. MACLAGAN-WEDDERBURN; "Modular theory of group matrices," by L. E. DICKSON; "Existence proof for a field of extremals tangent to a given curve," by O. BOLZA; "A new form of the simplest problem of the calculus of variations," by G. A. BLISS; "On certain isothermic surfaces," by A. E. YOUNG.

THE University of Illinois has been added to the list of institutions contributing to the support of the *Transactions*.

THE concluding (July) number of volume 8 of the *Annals of Mathematics* contains: "Multiply perfect numbers of four different primes," by R. D. CARMICHAEL; "On a system of parastroids," by R. P. STEPHENS; "A peculiar example in minima of surfaces," by E. R. HEDRICK; "On maximum and minimum values of the modulus of a polynomial," by D. N. LEHMER; "On the minimum surface of revolution in the case of one variable end point," by Miss M. E. SINCLAIR; "On the polynomial convergents of a power series," by M. B. PORTER.

THE annual list of American doctorates published in *Science* presents for the academic year 1906-1907 327 names, of which 168 are credited to the sciences. The following 13 successful candidates offered mathematics as major subject (the titles of the theses are appended): Miss F. A. ALLEN, Wisconsin, "On the determination of cyclic involutions of order three"; C. S. ATCHISON, Johns Hopkins, "Curves with a directrix"; G. D. BIRKHOFF, Chicago, "Asymptotic properties of certain ordinary differential equations with applications to boundary value and expansion problems"; W. C. BRENKE, Harvard, "A con-