NOTES.

THE concluding (June) number of volume 14 of the *Annals of Mathematics* contains the following papers: "On the uniformization of algebraic functions" by W. F. OSGOOD; "Manifolds of n dimensions," by O. VEBLEN and J. W. ALEXANDER; "Systems of plane curves whose intrinsic equations are analogous to the intrinsic equation of an isothermal system," by H. W. REDDICK; "The probability of the arithmetic mean compared with that of certain other functions of the measurements," by E. L. DODD; "Cusp and undulation invariants of rational curves," by J. E. ROWE.

THE Paris academy of sciences has awarded the biennial Petit d'Ormay prize of 10000 francs to Professor C. GUICHARD, of the University of Paris, for his contributions to mathematics.

THE Belgian academy of sciences announces the following prize problem for the year 1914:
"Present a contribution to the study of the properties of analytic functions which cannot take certain values in a given domain."
Competing memoirs should be prepared under the usual conditions and be in the hands of the secretary before August 1, 1914. The prize is fr. 1000.

AN international committee has recently been formed to promote the establishment of uniform notations in the theories of potential and elasticity by international cooperation. In its first circular the committee requests from astronomers, mathematicians, and physicists replies to the following question: What are the notions and notations in respect of which it is desirable to establish uniformity? The replies will be collated as soon as possible, and a second circular will then be issued inviting suggestions as to the methods by which uniformity may be brought about. The subject will then be laid before the International congress of mathematicians in 1916 for discussion, and again in 1920 for a final decision.
Replies and inquiries should be addressed to Professor ARTHUR KORN, Schlüterstrasse 25, Charlottenburg-Berlin, Germany.

THE annual meeting of the French association for the advancement of science was held at Tunis, during the week from March 22 to 29. The section of mathematics was under the presidency of M. MOURGNOT, chief of the topographical service of Tunis. Twenty-eight papers were read before the section, as follows: (1) "Tables of successive prime numbers of eight and of nine figures," by A. Gérardin; (2) "Mathematical game," by A. Gérardin; (3) "A calendar discovered by H. Tarry," by A. Gérardin; (4) "Life of A. Gauthier," by E. Lebon; (5) "Life of H. Poincaré," by M. Mourgnot; (6) "A problem of enumeration," by C. Halphen; (7) "Equality of the nth degree," by G. Tarry; (8) "Organization of instruction in Tunis," by M. Mourgnot; (9) "Practical means of finding the day of the week of a given date," by M. Cuénod; (10) "Some new properties of inscribed quadrilaterals," by M. Durel; (11) "Criticism of Darwin's hypothesis of the origin of the moon," by E. Belot; (12) "A new criterion for determining whether a given number is prime," by E. N. Barisien; (13) "On two ellipses derived from the circle of Joachimsthal," by E. N. Barisien; (14) "Extension of the limaçon of Pascal," by E. N. Barisien; (15) "Application of Volterra's equation to certain problems in life insurance," by R. Risser; (16) "Comparison of the Julian or Gregorian with the Mohammedan calendar," by M. Gardès; (17) "Construction of the center of curvature of the ellipse," by M. Balitrand; (18) "A theorem on the involute of the ellipse," by M. Balitrand; (19) "Foucault's pendulum," by C. Litre; (20) "Mathematical instruction," by J. Richard; (21) "A system of measurement," by M. Kesselmeyer; (22) "Establishment of a provisional mortality table," by R. Risser; (23) "The arithmetician Frenicle," by A. Aubry; (24) "On nomography," by F. Boulad; (25), (26), (27), three communications by Dr. Welsch, titles not given; (28) "Recent work in astronomy," by M. Montangerand.

The next meeting of the association will be held at Havre, in August, 1914. The president of the section of mathematics is Dr. REBIÈRE, of Havre, and the secretary is Dr. A. GÉRARDIN, of Nancy.

THE following courses in mathematics are announced for the academic year 1913–1914:

JOHNS HOPKINS UNIVERSITY.—By Professor F. MORLEY:

Higher geometry, three hours (first half year); Theory of functions, three hours (second half year).—By Professor A. B. COBLE: Discontinuous groups, two hours.—By Dr. A. COHEN: Differential geometry, two hours; Theory of functions, two hours.—By Mr. H. P. BATEMAN: Theory of the potential, one hour.

PRINCETON UNIVERSITY.—By Professor H. B. FINE: Theory of functions of a complex variable, three hours.—By Professor H. D. THOMPSON: Infinitesimal geometry, three hours.—By Professor L. P. EISENHART: Projective geometry, three hours; Seminar, two hours.—By Professor P. BOUTROUX: Differential equations, three hours.—By Professor E. P. ADAMS: Electricity and magnetism, three hours; Analytic mechanics, three hours.—By Professor E. SWIFT: Theory of the Newtonian potential, three hours.—By Professor H. McL. WEDDERBURN: Higher analysis, three hours.—By Dr. T. H. GRONWALL: Analytic theory of numbers, three hours.

LORD RAYLEIGH, chancellor of the University of Cambridge, received the honorary degree of doctor of civil law at the recent convocation exercises of Durham University.

PROFESSOR E. PICARD, of the University of Paris, has been elected to membership in the royal Hungarian academy of sciences of Budapest.

PROFESSOR F. HAUSDORFF, of the University of Bonn, has accepted the professorship of mathematics at the University of Greifswald.

DR. E. JACOBSTHAL has been appointed docent in mathematics at the technical school at Berlin.

PROFESSOR I. SCHUR, of the University of Berlin, has been appointed professor of mathematics at the University of Bonn.

PROFESSORS G. D. BIRKHOFF, J. L. COOLIDGE, and E. V. HUNTINGTON, of Harvard University, have been elected to membership in the American academy of arts and sciences.

PROFESSOR S. EPSTEEN, of the University of Colorado, has been appointed State Commissioner of Insurance and has received academic leave of absence for the coming year.

PROFESSOR J. W. GLOVER, of the University of Michigan, has been appointed expert special agent of the bureau of the United States census to supervise the preparation of a special volume on vital statistics. Extensive and systematic mortality tables are to be prepared on the population and the vital statistics of the United States.

DR. S. E. BRASEFIELD has been appointed assistant professor of mathematics at Rutgers College.

DR. S. D. KILLAM has been appointed instructor in mathematics in the University of Alberta.

DR. H. W. CRAMBLET has been appointed instructor in mathematics at the University of Rochester.

PROFESSOR H. WEBER, of the University of Strassburg, died May 17, at the age of 71 years.

NEW PUBLICATIONS.

I. HIGHER MATHEMATICS.

APPELL (P.). See PAPELIER (G.).

BERGHOLZ (O. A.). Substitutionsbeweis des grossen Fermatschen Satzes auf Grund der Formel für $(a + b)^2$. Dussau, Art'l, 1913. 8vo. 22 pp. M. 1.50

BLASCHKE (W.). See STUDY (E.).

CAPRILLI (A.). Nuove formole d'integrazione. Livorno, Belforte, 1912. 16mo. 7 + 178 pp. L. 4.00

CHARLES (R. L.). See FRANKLIN (W. S.).

COTTY (G.). Les fonctions abéliennes et la théorie des nombres. (Thèse.) Toulouse, Privat, 1912. 8vo. 173 pp.

CREFCOEUR (A. J. M.). Cours d'analyse infinitésimale. 1re partie: Calcul différentiel et calcul intégral. 2e édition, revue et augmentée. Paris, Béranger, 1912. 358 pp. Fr. 8.00

DIENES (P.). Leçons sur les singularités des fonctions analytiques. Paris, Gauthier-Villars, 1913. 8vo. 8+172 pp. Fr. 5.50