

NOTES.

THE opening (January) number of volume 36 of the *American Journal of Mathematics* contains the following papers: "Determination of all primitive collineation groups in more than four variables which contain homologies," by H. H. MITCHELL; "On non-homogeneous equations with an infinite number of variables," by R. D. CARMICHAEL; "On constrained motion," by P. FIELD; "Covariant curves of the plane rational quintic," by J. I. TRACEY; "The group of isomorphisms of an abelian group and some of its abelian subgroups," by G. A. MILLER; "Self-projective rational curves of the fourth and fifth orders," by R. M. WINGER; "Iterated limits in general analysis," by R. E. ROOT.

The frontispiece of the volume is a portrait of W. STAHL.

AT the meeting of the London mathematical society held on January 15 the following papers were read: By S. T. SHOVELTON, "A generalization of the Euler-Maclaurin summation formula," and "Deduction of formulas of mechanical quadrature from the Euler-Maclaurin summation formula"; by A. YOUNG, "Binary forms."

AT the Atlanta meeting of the American association for the advancement of science Professor E. B. VAN VLECK delivered a vice-presidential address before Section A on "The influence of Fourier's series upon the development of mathematics." The address has been published in *Science*, January 23. Professor H. S. WHITE was elected vice-president of Section A. The next meeting of the Association will be held at Philadelphia from December 28, 1914, to January 2, 1915, under the presidency of Dr. C. W. ELIOT. Professor F. R. MOULTON is secretary of Section A.

THE editors of volume 7 of the Encyclopedia of mathematical sciences will hold a joint session with the French philosophical society April 6-8, for the purposes of formulating the general plan of the work. Addresses or reports have already been arranged for, by the following speakers: Professors Enriques, Whitehead, Hadamard, Langevin, Couturat, Brunschwig, Dufumier, Winter, and Reymond. The sessions will be held at the Sorbonne in Paris, under the presidency of Professor E. Boutroux.

THE tercentenary of the publication of JOHN NAPIER'S *Logarithmorum Canonis mirifici Descriptio* will be celebrated by a congress to be held at Edinburgh, beginning July 24, under the auspices of the Royal society of Edinburgh and a committee representing the Royal society of London and other scientific bodies. The proceedings of the congress will be published in a memorial volume. A general invitation is extended to all mathematicians and others interested to attend the celebration. Further information may be obtained from the general secretary of the Royal society of Edinburgh, 22 George Street, Edinburgh.

THE academy of sciences of Paris announces the following subjects for the next awards of the mathematical prizes: Bordin prize (3000 francs): for 1915, "A notable contribution in the investigation of curves of constant torsion; determine, if possible, such curves that are algebraic or at least those that are rational." As the prize was not awarded in 1913, the subject announced for that year will be repeated for the award of 1917: "Perfect in some important point the arithmetic theory of non-quadratic forms." Grand prize (3000 francs): "Apply the methods of Henri Poincaré to the integration of some simple linear algebraic differential equations." In addition to manuscripts submitted in competition the academy reserves the right to consider memoirs already published. The award will be made in 1916. The Poncelet prize (2000 francs) for a meritorious work in applied mathematics in 1915 and in pure mathematics in 1916. Vaillant prize (4000 francs) for 1917: "Determine and study all the surfaces which can be generated in two different ways by the motion of a rigid curve."

PROFESSOR O. PERRON, of the University of Tübingen, has accepted the professorship of mathematics at the University of Heidelberg, as successor to Professor L. KOENIGSBERGER.

PROFESSOR P. STROOBANT, of the University of Brussels, and Professor M. STUYVAERT, of the University of Ghent, have been elected members of the royal Belgian academy of sciences.

PROFESSOR A. KRAZER, of the technical school at Carlsruhe, has been elected an honorary member of the Swiss society of naturalists.

PROFESSORS A. GUTZMER, of the University of Halle, L. KOENIGSBERGER, of the University of Heidelberg, and R. VON LILIENTHAL, of the University of Münster, have received the title of Geheimer Regierungsrat.

DR. O. TOEPLITZ, of the University of Göttingen, has been appointed associate professor of mathematics in the University of Kiel.

DR. H. F. BAKER, Cayley lecturer in mathematics at Cambridge University, has been appointed Lowndean professor of astronomy and geometry, as successor to the late Sir ROBERT BALL.

THE Sylvester medal of the Royal society has been awarded to Dr. J. W. L. GLAISHER.

DR. C. M. WOODWARD, emeritus professor of mathematics and applied mechanics in Washington University, died on January 12, at the age of 77 years.

MR. D. L. PETTEGREW, of the Massachusetts mutual life insurance company, died on January 19, at the age of 86 years. Mr. Pettegrew had been a member of the American Mathematical Society since 1893.

NEW PUBLICATIONS.

I. HIGHER MATHEMATICS.

- BENDT (F.). Grundzüge der Differential- und Integralrechnung. 5te Auflage, durchgesehen und verbessert von G. Ehrig. Leipzig, Weber, 1914. 8vo. 16+268 pp. Cloth. M. 3.00
- BERGMANN (H.). Das Unendliche und die Zahl. Halle, Niemeyer, 1913. 8vo. 7+88 pp. M. 2.50
- BONNAR (W.). The mathematical laws of psychic phenomena; discovered, formulated and elucidated with practical diagrams. Buffalo, N. Y., Bonnar, 1913. 4to. 20+193 pp. \$5.00
- BOSMANS (H.). Les démonstrations par l'analyse infinitésimale chez Luc Valerio. (*Annales de la Société scientifique de Bruxelles, tome 37.*) Louvain, Ceuterick, 1913. 22 pp. Fr. 2.00
- Sur quelques exemples de la méthode des limites chez Simon Stevin. (*Annales de la Société scientifique de Bruxelles, tome 37.*) Louvain, Ceuterick, 1913. 33 pp. Fr. 2.00
- BÜCHER, Neue, über Naturwissenschaften und Mathematik. (Die Neuigkeiten des deutschen Buchhandels, nach Wissenschaften geordnet.) Mitgeteilt Herbst 1913. Leipzig, Hinrichs, 1913. 8vo. Pp. 51-74. M. 0.30