

## NOTES

The opening number of volume 23 (1921-22) of the ANNALS OF MATHEMATICS contains the following papers: *On matrices whose elements are integers*, by Oswald Veblen and Philip Franklin; *An algorism for differential invariant theory*, by O. E. Glenn; *The general theory of cyclic-harmonic curves*, by R. E. Moritz; *More theorems on the complete quadrilateral*, by J. W. Clawson; *A theorem on cross-ratios in the geometry of inversion*, by J. L. Walsh; *The condition for an isothermal family on a surface*, by J. K. Whittemore; *The reversion of class number relations and the total representation of integers as sums of squares or triangular numbers*, by E. T. Bell; *Note on the term maximal subgroup*, by G. A. Miller; *Reducible cubic forms expressible rationally as determinants*, by L. E. Dickson; *Note on the Picard method of successive approximations*, by Dunham Jackson; *A fundamental system of covariants of the ternary cubic form*, by L. E. Dickson; *The modular theory of polyadic numbers*, by A. A. Bennett; *Some algebraic analogies in matrix theory*, by A. A. Bennett; *Generalized conjugate matrices*, by Philip Franklin.

A Benjamin Pierce Instructorship in Mathematics at Harvard University (see this BULLETIN, vol. 21, page 315) is open to general competition. Applications for the year 1923-24, accompanied by the necessary papers, should reach Professor Birkhoff not later than February 15, 1923, and all communications relating to this appointment should be addressed to him.

Max Gutzmer, of Berlin, has presented the Leopoldinisch-Carolinische Akademie der Naturforscher with a sum of money as an endowment of a prize for important German mathematical work. Details concerning the conditions of award will be announced later by the Academy.

Professor A. Wangerin has been elected honorary member of the Leopoldinisch-Carolinische Akademie, and has been awarded its Cothenius Medal for his mathematical work.

The Accademia dei Lincei has awarded its royal prize for astronomy for the period 1915-1920 to Professor G. Armellini, of the University of Pisa.

Dr. A. Fraenkel has been promoted to an associate professorship at the University of Marburg.

Dr. T. Kaluza has been promoted to an associate professorship at the University of Königsberg.

Professor R. König, of the University of Tübingen, has been appointed professor of mathematics at the University of Münster.

Dr. H. Rademacher, of the University of Berlin, has been appointed to an associate professorship at the University of Hamburg.

Professor L. Hotopp, of the Hannover Technical School, has retired from active teaching.

Dr. E. Feyer has been admitted as privatdocent at the Breslau Technical School.

At the University of Geneva, Dr. D. Mirimanoff has been appointed associate professor of the calculus of probabilities, and Dr. R. Wavre associate professor of the calculus and rational mechanics.

Professor H. Beghin, of the Ecole Navale, and Dr. Soula have been appointed maitres de conférences in mathematics at the University of Montpellier.

The following have been admitted as privatdocents at Italian universities: G. Andreoli, at the University of Naples; G. Aprile, at the University of Catania; G. Mignosi, at the University of Palermo; R. Serini and G. Usai, at the University of Pavia.

Mr. R. A. Sheets, of Denison University, has been promoted to an assistant professorship of mathematics.

Miss Evelyn Walker has been promoted to an assistant professorship of mathematics at Hunter College.

Associate Professor Gillie A. Larew, of Randolph-Macon Woman's College, has been promoted to a full professorship of mathematics.

Associate Professor H. H. Conwell, of Beloit College, has been promoted to a full professorship of mathematics.

Mr. David Hiches has been appointed professor of mathematics at Creighton University.

At the University of Wyoming, Professor C. E. Stromquist is on leave of absence on account of illness. Professor H. C. Gossard, who has for two years served as regional secretary of the Student Y. M. C. A., has returned to teaching and is acting head of the department of mathematics.

At Amherst College, Professor E. L. Dodd, on leave of absence from the University of Texas, is taking the place of Professor J. G. Hardy.

At Washington University, Mr. Theodore Doll of Northwestern University has been appointed assistant professor of mathematics.

At the University of Virginia, Mr. F. L. Brown, of Northwestern University, has been appointed assistant professor of mathematics.

At the University of Iowa, Dr. W. H. Wilson has been appointed assistant professor of mathematics, and Dr. Roscoe Woods has been appointed associate in mathematics.

The following appointments to instructorships in mathematics in American colleges and universities are announced:

- University of Akron, Miss W. H. Lipscombe;
- Albion College, Mr. Leon Sears;
- Beloit College, Mr. R. M. Robinson;
- University of California, Dr. Elsie McFarland; Southern Branch, Dr. F. C. Leonard;
- University of Chicago, Dr. Mayme I. Logsdon;
- Colgate University, Mr. H. A. D. Bell;
- Cornell College, Mount Vernon, Mr. Edmund Ingalls;
- Denison University, Mr. H. B. Lemon;
- Georgia School of Technology, Mr. G. T. Trawich;
- University of Georgia, Mr. A. H. Stevens;
- Kenyon College, Mr. F. L. White;
- Lake Forest College, Miss Marie M. Johnson;
- Lehigh University, Mr. H. S. Bunn;
- University of Maine, Mr. F. S. Beale, Mr. Edward Brow, Mr. W. E. Loring;
- Northwestern University, Mr. R. L. Jackson, Mr. J. D. Voss;
- Ottawa University, Mr. H. W. Bailey;
- University of North Dakota, Mr. J. D. Leith;
- University of Pittsburgh, Mr. Z. N. Holler;
- Princeton University, Dr. Einar Hille, Mr. G. B. Briggs;
- Sweet Briar College, Miss Mary Searle;
- University of Texas, Mr. J. E. Burnam, Mr. R. Lubben;
- Tufts College, Mr. P. D. Wilkins;
- Wheaton College, Miss Martha F. Chadbourne;
- University of Wisconsin, Miss Camilla Hayden.

Professor A. Höfler, of the University of Vienna, died February 26, 1922, at the age of sixty-eight years.

Professor E. Kötter, of the Technical School at Aachen, died January 26, 1922, at the age of sixty-two years.

Professor C. Kostka, of Insterburg, died December 28, 1921, at the age of seventy-five years.

Professor Axel Thue, of the University of Christiania, died March 7, 1922, at the age of fifty-nine years.

Professor Ernest Lebon, of the Lycée Charlemagne, Paris, died February 12, 1922, in his seventy-sixth year.

Dr. A. R. Willis, of the department of mathematical physics at the Royal College of Science, died June 23, 1922, at the age of seventy-two years.

Rear Admiral C. H. Davis, U. S. N., died at Washington December 27, 1921, at the age of seventy-six years. He was twice superintendent of the Naval Observatory.

Emeritus Professor A. A. Markov, of the University of Petrograd, died July 27, 1922, at the age of sixty-six years.