

NOTES.

At the request of the Council of the Society, the Committee of Publication has decided to begin the next volume of this BULLETIN (vol. XXVIII) with the number to be dated January, 1921. Hence the usual October, November, December numbers will not be issued this fall. Volume XXVIII will consist of ten numbers as usual; however, with mere change of dates. This change of dates has been contemplated for several years;— it will be convenient because the BULLETIN year will hereafter coincide with the calendar year, with the fiscal year of the Society, and with the terms of office of the editors and other officers. This year the change can be made without any real delay, for the printers' strike has so far deferred publication that to date the next number in January will only correspond to the actual fact. Subscribers to the new volume should notice that they will receive the usual number of issues, and that they will actually receive them quite as soon as would be possible otherwise.

The annual meeting of the Society will be held in Toronto on December 28-29, in connection with the sessions of the American Association for the Advancement of Science. The usual Christmas meeting at Chicago, as well as the annual meeting usually held in New York, has been transferred to Toronto, and will be merged with the annual meeting. Titles and abstracts of papers for this meeting should be sent to the Secretary of the Society, R. G. D. Richardson, Brown University, and must be in his hands not later than December 10, 1921.

At one of the sessions of the Toronto meeting, Professor R. D. Carmichael will give an address as retiring chairman of the Chicago Section. The subject will be *Algebraic guides to transcendental problems*.

The fourteenth regular meeting of the Southwestern Section of the Society will be held in St. Louis at Washington University on Saturday, November 25. Titles and abstracts of papers for this meeting must be in the hands of the Secretary of the Section, E. B. Stouffer, University of Kansas, not later than November 5, 1921.

A list of dates of meetings and other announcements is printed on the inside of the back cover.

The April number (vol. 22, no. 2) of the TRANSACTIONS OF THE AMERICAN MATHEMATICAL SOCIETY contains the following papers: *On division algebras*, by J. H. M. Wedderburn; *Oscillation theorems for the real, self-adjoint linear system of the second order*, by H. J. Ettliger; *New proofs of certain finiteness theorems in the theory of modular covariants*, by Olive C. Hazlett; *On the convergence of certain trigonometric and polynomial approximations*, by Dunham Jackson; *Determination of all general homogeneous polynomials expressible as determinants with linear elements*, by L. E. Dickson; *Pseudo-canonical forms and invariants of systems of partial differential equations*, by A. L. Nelson; *Arithmetical paraphrases (II)*, by E. T. Bell; *On the zeros of solutions of homogeneous linear differential equations*, by C. N. Reynolds, Jr.; *A generalization of the Fourier cosine series*, by J. L. Walsh; *Polynomials and their residue systems*, by A. J. Kempner.

The April number (vol. 43, no. 2) of the AMERICAN JOURNAL OF MATHEMATICS contains: *Boundary value and expansion problems: algebraic basis of the theory*, by R. D. Carmichael; *Algebraic theory of the expressibility of cubic forms as determinants, with application to diophantine analysis*, by L. E. Dickson; *The impossibility of Einstein fields immersed in flat space of five dimensions*, by Edward Kasner; *Finite representation of the solar gravitational field in flat space of six dimensions*, by Edward Kasner; *On the motion of two spheroids in an infinite liquid along their common axis of revolution*, by Bibhutibhusan Datta.

The mathematical seminar of the University of Warsaw has founded a new periodical, FUNDAMENTA MATHEMATICÆ, devoted entirely to the theory of assemblages and related subjects, such as analysis situs, mathematical logic and theory of axioms. Articles offered for publication should be sent to the editors, S. Mazurkiewicz and W. Sierpiński, at the University of Warsaw, and must be written in French, Italian, English, or German. Two volumes have already appeared.

The Society of German Engineers announces that it will publish, beginning early in 1921, a new periodical devoted to applied mathematics, the ZEITSCHRIFT FÜR ANGEWANDTE MATHEMATIK UND MECHANIK. The editors are R. von Mises (editor in chief), A. Föppl, R. Mollier, H. Müller-Breslau, L. Prandtl, and R. Rügenberg.

Attention is called to the announcement, on one of the fly-leaves of this number of the BULLETIN, concerning the JOURNAL DE MATHÉMATIQUES PURES ET APPLIQUÉES, often called LIOUVILLE'S JOURNAL or JORDAN'S JOURNAL. The success of the effort to maintain this important journal is of interest to mathematicians everywhere. Gratifying response has been received already by friends of the JOURNAL in this country.

The summer meeting of the British Association for the Advancement of Science will be held at Edinburgh, September 7-14. Professor O. W. Richardson has been appointed president of Section A (mathematics and physics) for this meeting.

A meeting of the National Academy of Sciences was held in Washington, April 25, 26 and 27, 1921. Professor Albert Einstein and the Prince of Monaco were guests of honor at the annual dinner. Professor G. A. Miller and Professor A. E. Kennelly were elected to membership. The following mathematical papers were read: by Edward Kasner, *A model of the solar gravitational field*; by G. D. Birkhoff, *On the problem of three or more bodies*; by L. E. Dickson, *Quaternions and their generalizations*; by L. E. Dickson, *Investigations in algebra and number theory*; by H. F. Blichfeldt, *On the approximate solution in integers of a set of linear equations*.

At a meeting of the American Philosophical Society in Philadelphia, April 21, 22 and 23, Professor G. D. Birkhoff was elected to membership. The following papers were read by members of the American Mathematical Society: by L. E. Dickson, *The atomic theory and ideal numbers*; by J. A. Miller, *Application of the interferometer to the determination of stellar parallaxes*; by F. R. Moulton, *Recent astronomical explorations in space and in time*; by M. B. Snyder, *1. Universal volcanism and the cosmic atomic numbers; 2. Planck's constant "h," a variable*.

As a result of the preliminary conference held in January (BULLETIN, p. 336) a committee of the National Research Council on the mathematical analysis of statistics has been organized, consisting of H. L. Rietz (chairman), J. W. Glover, E. V. Huntington, T. L. Kelley, R. Pearl, and W. M. Persons.

The lectures on the theory of relativity delivered by Professor Albert Einstein at Princeton (BULLETIN, p. 386) will be published by the Princeton University Press. Professor Einstein lectured at the University of Chicago on May 3, 4 and 5.

Professor Emile Borel has been elected a member of the Paris Academy of Sciences in the section of geometry, as successor to the late Professor Georges Humbert. Sir George Greenhill has been elected correspondent in the section of mechanics, as successor to the late Professor W. Voigt.

Professor Albert Einstein has been elected a foreign member of the Royal Society of London.

The honorary degree of doctor of science has been conferred by the University of Manchester on Dr. Horace Lamb and Sir Ernest Rutherford.

The Royal Society of Edinburgh has awarded the Macdougall-Brisbane prize for the period 1918–1920 to Professor J. H. M. Wedderburn of Princeton, in recognition of his investigations on hypercomplex numbers.

Professor E. Naetsch has been appointed professor of analytic geometry at the Technical School at Dresden, not at the Technical School at Darmstadt, as was announced in the May number of this BULLETIN.

Dr. G. Bouligand, of the University of Rennes, has been appointed professor of rational mechanics at the University of Poitiers.

Sir Asutosh Mookerjee (Mukhopâdhyây), president of the Calcutta Mathematical Society, has been appointed vice-chancellor of Calcutta University.

At a general meeting of the members of the Royal Institution held May 9, Sir J. J. Thomson was elected honorary professor of natural philosophy, and Sir Ernest Rutherford professor of natural philosophy.

Mr. T. A. Brown has been appointed senior lecturer in mathematics for 1921–1922 at University College, London.

It is reported that Professor H. Lamb is to be appointed to an honorary lectureship to be called the Rayleigh lectureship in mathematics, at Cambridge University.

Arrangements for exchange professorships in engineering and applied sciences have recently been completed between certain French and American universities and technical schools. Professor A. E. Kennelly, of Harvard University and the Massachusetts Institute of Technology, has been chosen as the first American representative.

One of the recently endowed Sterling professorships at Yale University has been assigned to Professor E. W. Brown.

Assistant Professor P. J. Daniell, of the Rice Institute, has been promoted to a full professorship of applied mathematics.

Assistant Professor H. M. Robert, Jr., of the United States Naval Academy, has been promoted to an associate professorship of mathematics.

At the University of Alberta, Associate Professor S. D. Killam has been promoted to a full professorship and Assistant Professor J. W. Campbell to an associate professorship.

At Cornell University, Professor James McMahan retires at the close of the current academic year. The previously announced Heckscher Research grant to Mr. H. S. Vandiver for the continuation of his investigations on the theory of algebraic numbers has been extended to cover the first term of the year 1921-22, and Mr. Vandiver has been granted leave of absence for that period. Mr. Jesse Osborn of Pennsylvania State College and Mr. R. L. Jeffery of Acadia College have been appointed instructors.

At Clark University, Professors W. E. Story, Henry Taber and Joseph de Perott retired in June.

At Dartmouth College, Professor C. N. Haskins has been appointed chairman of the department of mathematics for a term of two years. Assistant Professor R. D. Beetle has been promoted to a full professorship. Professor E. G. Bill has been appointed Dean of Freshmen; he retains his professorship, but will not give instruction during the academic year 1921-22. Professor J. W. Young returns to the department after two years' leave of absence during which he has served as chairman of the National Committee on Mathematical Requirements. Assistant Professor F. M. Morgan has been granted leave of absence for the second semester of the academic year 1921-22.

Dr. J. F. Ritt, of Columbia University, has been promoted to an assistant professorship of mathematics.

Mr. H. L. Smith, of the University of Wisconsin, has been appointed professor of mathematics at the University of the Philippines.

Dean P. C. Porter, of the Baylor College has been appointed assistant professor of mathematics at Baylor University.

Associate Professor E. D. Grant, of the Michigan College of Mines, has been appointed head of the department of mathematics at Earlham College.

Mr. J. A. Herrington, of the University of Wisconsin, has been appointed associate professor of mathematics and engineering at Beloit College.

Mr. T. L. Hamlin, of Union College, has been appointed head of the department of mathematics at the Clarkson College of Technology, Potsdam, N. Y., as successor to Professor H. M. Royal, resigned.

At the College of Wooster, Mr. C. O. Williamson has been promoted to an assistant professorship of applied mathematics.

Assistant Professor F. N. Bryant, of the State College of Washington, has been appointed assistant professor of mathematics at Syracuse University.

At the College of William and Mary, Mr. J. S. Counselman has been appointed professor of mathematics and Mr. J. C. Lyons assistant professor.

Professor J. B. Hamilton has been appointed head of the department of mathematics at the University of Tennessee.

Mr. J. P. Beaman has been appointed head of the department of mathematics at the Kentucky Wesleyan College, as successor to Professor C. S. Venable, resigned.

Mr. F. J. Rogers has been appointed head of the department of mathematics at Shaw University, Raleigh, N. C.

Professor L. S. Dancyey has been appointed head of the department of mathematics at Carroll College, Waukesha, Wis., as successor to Professor S. B. Ray, resigned.

Mr. L. C. Bagley, of Washburn College, has been appointed professor of mathematics at Ottawa University.

Mr. Thurman Andrew has been promoted to a professorship at the West Virginia Wesleyan College, as successor to Professor C. E. White, resigned.

In October, 1920, Mr. F. A. Lewis, of the Texas Agricultural and Mechanical College, and Dr. C. G. P. Kuschke were appointed assistant professors of mathematics.

At The Citadel, the military college of South Carolina, Major R. G. Thomas, professor of mathematics and engineering for thirty-one years, has been made professor emeritus. He was succeeded by Colonel O. J. Bond.

At Fairmount College, Wichita, Mr. H. G. Titt, of Yankton College, has been appointed professor of mathematics and dean of the College of Liberal Arts.

At Villanova College, Reverend J. S. O'Leary has been appointed professor of mathematics, as successor to Reverend F. A. Driscoll, who has been made president of the college.

Mr. E. K. Paxton has been appointed assistant professor of mathematics at Washington and Lee University.

Professor A. H. Norton, of Elmira College, has been appointed president and head of the department of mathematics at the Keuka College for Women.

Professor E. F. Canaday, of the University of South Dakota, has been appointed professor of mathematics at Meredith College.

At Central Wesleyan College, Warrenton, Mo., Professor J. H. Frick, head of the department of mathematics for fifty years, has retired. He was succeeded by Mr. H. V. Knorr.

Dr. V. H. Wells has been appointed assistant professor of mathematics at Carleton College.

At the University of Oklahoma, Dr. J. O. Hassler, of the Crane Junior College, has been appointed associate professor of mathematics. Assistant Professor H. C. Gossard has resigned, to enter Y. M. C. A. work. Assistant Professor E. D. Meacham has been granted leave of absence for 1921-22.

Mr. F. H. Murray, of Harvard University, has been awarded one of the American Field Service fellowships for study in the French universities.

Recent appointments as instructor in mathematics in American colleges and universities are as follows: Colgate University, Mr. Torvald Frederiksen; Columbia University, Dr. E. L. Post; Cornell College, Mt. Vernon, Iowa, Mr. G. F. Rouse; Denison University, Miss Grace E. Jefferson; Illinois College, Miss Lois Daniels; Lafayette College, Mr. R. J. W. Templin; Princeton University, Mr. Philip Franklin; Randolph-Macon College, Mr. B. F. Walton; Randolph-Macon Woman's College, Miss Virginia Watts; Ripon College, Mr. William Bollenbeck; Shorter College, Miss Jennie D. Ehlers; State College of Washington, Miss Gladys H. Freeman and Mr. H. H. Irwin; Tufts College, Miss Edith L. Bush and Mr. B. A. Hazeltine; University of Maine, Mr. A. I. Bless; University of Nebraska, Mr. J. H. Taylor; University

of Oklahoma, Mr. H. G. Lieber, Miss Dora McFarland and Miss Ella Mansfield; University of Pittsburgh, Mr. F. J. Burkett; University of Vermont, Mr. F. W. Householder and Mr. H. G. Millington.

From an account of the life and work of Staeckel sent by Professor W. Lorey, the following extracts are selected:* Paul Staeckel was born at Berlin, August 20, 1862, and died December 12, 1919. He studied at the University of Berlin, having among his teachers Kronecker, Weierstrass, Helmholtz and Fuchs; he received his doctorate in 1884 and his teacher's certificate in 1885. He taught at the Berlin Wilhelm gymnasium and at the universities and technical schools of Halle, Königsberg, Hanover, Karlsruhe and Heidelberg. Among his scientific researches are studies on mechanics, arithmetic properties of analytic functions and the representation of even numbers as sums and differences of primes. He edited the fourth volume of the German report of the International Commission on the Teaching of Mathematics, translated Borel's *Eléments de Mathématiques*, and exhibited elsewhere much interest in pedagogy. His contributions to the history of mathematics include editorial service in connection with Euler's collected works and with Ostwald's mathematical classics; a collection of original sources on the theory of parallels, in collaboration with Engel; a study of the geometric work of Gauss; and numerous articles in *Bibliotheca Mathematica*.

Professor A. M. G. Floquet, of the University of Nancy, died October 7, 1920, at the age of seventy-two years.

Colonel Vallier, correspondent of the Paris Academy of Sciences in the section of mechanics and well known for his work in ballistics, died March 29, 1921.

Professor Alfred Doolittle, of the Catholic University, died February 23, 1921.

Mr. J. S. Hoffman, instructor in mathematics at Tufts College, died June 29, 1920, at the age of twenty-three years.

* A full account by Professor Lorey appears in the *ZEITSCHRIFT FÜR MATHEMATISCHEN UND NATURWISSENSCHAFTLICHEN UNTERRICHT ALLER SCHULGATTUNGEN*, vol. 52, pp. 85-88.