

## NOTES

The two hundred twenty-second regular meeting of the American Mathematical Society, being its seventeenth regular meeting in the West and the forty-ninth meeting of the Chicago Section, will be held on Friday and Saturday, April 14 and 15, 1922, at the University of Chicago, in honor of the twenty-fifth anniversary of the Chicago Section. On Friday afternoon, Professor A. B. Coble will give a symposium lecture on *Cremona transformations and applications to algebra, geometry, and modular functions*.

The February meeting of the Society was held in New York at Columbia University on February 25. By request of the programme committee Professor J. L. Coolidge gave an address on *The basis of mathematical probability*.

The Council has accepted an offer from an anonymous donor to pay the cost, up to four thousand dollars, of an extra volume of the *TRANSACTIONS OF THIS SOCIETY*, to be brought out promptly. This extra volume will be sent without charge to all subscribers and exchanges now on the list.

The July number (vol. 43, no. 3) of the *AMERICAN JOURNAL OF MATHEMATICS* contains the following papers: *Integral products and probability*, by P. J. Daniell; *Introduction to a general theory of elementary propositions*, by E. L. Post; *Note on Schläfli's elliptic modular equations*, by Arthur Berry; *Associated forms in the general theory of modular covariants*, by Olive C. Hazlett; *On (2, 3) compound involutions*, by T. R. Hollcroft.

The June number (ser. 2, vol. 22, no. 4) of the *ANNALS OF MATHEMATICS* contains: *An analytical solution of Biot's problem*, by Tsuruichi Hayashi; *Minimal surfaces containing straight lines*, by J. K. Whittemore; *An extension of Green's lemma to the case of a rectifiable boundary*, by E. B. Van Vleck; *Periodic conjugate nets*, by E. S. Hammond; *On the transformation of convex point sets*, by J. L. Walsh.

Professor H. A. Lorentz, of the University of Leyden, will lecture at the University of Wisconsin from March 20 to March 30, on *Light and the constitution of matter*. A colloquium in his honor on *Fundamental concepts of electrodynamics and of the electron theory* will be held under the auspices of the Department of Physics of the University of Wisconsin on March 30-31 and April 1.

The former students of the Department of Mathematics of Bryn Mawr College, through Dean Isabel Maddison, announce that a mathematical meeting will be held at Bryn Mawr on April 18 in honor of Professor C. A. Scott, on the completion of her thirty-seventh year as Head of the Department of Mathematics. After an address of welcome by President M. C. Thomas, and an introductory address by Miss Marian Reilly, Professor A. N. Whitehead, of the South Kensington Imperial College of Science will speak on *Relativity and gravitation, group tensors, and their application to the formulation of physical laws*. An honorary committee for this occasion consists of Professors R. C. Archibald, G. D. Birkhoff, E. W. Brown, F. N.

Cole, J. A. Eiesland, James Harkness, E. R. Hedrick, F. P. Lewis, Isabel Maddison, E. N. Martin, H. A. Merrill, E. H. Moore, Frank Morley, L. W. Reid, R. G. D. Richardson, E. J. Townsend, Oswald Veblen, H. S. White, and R. G. Wood.

The Massachusetts Institute of Technology has begun publication of a new periodical to be known as the JOURNAL OF MATHEMATICS AND PHYSICS OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY, of which the first number appeared in November, 1921. The editors are Professors F. S. Woods, H. M. Goodwin, F. G. Keyes, and C. L. E. Moore.

In September, 1921, the Helmholtz-Gesellschaft was formally organized at the meeting of physicists held at Jena. This Society has accumulated a considerable capital, the interest of which is to be used to support scientific work in physics and technology. In celebration of the one hundredth anniversary of the birth of Helmholtz, which occurred August 31, a *Festschrift* will be published, which will include a paper by Paul Hertz on the foundations of geometry.

On January 23, Professor David Hilbert, of the University of Goettingen, celebrated his sixtieth birthday. On this occasion, his friends, colleagues, and former students presented to him an address, an album of photographs, and a memorial volume of mathematical papers. Among those who joined in these remembrances were over sixty-five American friends and former students. The celebration was directed by a committee consisting of Professors O. Blumenthal (chairman), R. Courant, G. Hamel, E. Hecke, A. Schönflies, and (for America) E. R. Hedrick. The mathematical papers of the memorial volume will appear separately either in the MATHEMATISCHE ANNALEN or in the MATHEMATISCHE ZEITSCHRIFT.

It is announced that the preparation of the complete edition of the works of Sophus Lie, undertaken in 1912 by Teubner but suspended because of the greatly increased cost of printing, will be resumed with the financial support of the Norwegian Mathematical Society. The title of the edition will read: *Sophus Lie, Gesammelte Abhandlungen, im Auftrage des Norwegischen Mathematischen Vereins und mit Unterstützung der Akademien zu Kristiania und Leipzig herausgegeben von Friedrich Engel und Paul Heegaard*. It is planned to publish seven volumes, of which volume three, the first to appear, is now in press.

The mathematical library of the late Professor Paul Stäckel, of Heidelberg, is offered for sale by Walter Richters Buchhandlung und Antiquariat, at Leipzig, for 45,000 marks. It consists of more than 900 volumes.

The members of the Division of Mathematics of Harvard University have constituted themselves an informal committee to solicit contributions to relieve the present financial need of the JAHRBUCH ÜBER DIE FORTSCHRITTE DER MATHEMATIK. The deficit of the JAHRBUCH for the coming fiscal year will amount to about one thousand dollars. The editor, Professor L. Lichtenstein, has appealed for aid. The Emergency Society for German and Austrian Science and Art, which last year appropriated 20,500

marks for the *JAHRBUCH*, contemplates the continuance of its support, subject to the coöperation of American mathematicians. In view of the importance of the *JAHRBUCH*, and of the fact that it is virtually indispensable in the pursuit of research, it is hoped that members of the Society will subscribe generously toward its support. Contributions should be sent to Professor W. C. Graustein, 44 Langdon St., Cambridge 38, Mass.

A notable gift for the promotion of mathematical interests in America was announced by the Mathematical Association of America at its summer meeting in September, 1921. Mrs. Mary Hegeler Carus, as trustee for the Edward C. Hegeler Trust Fund, donated to the Association the sum of \$1200 annually for five years for the purpose of publishing a series of monographs whose purpose should be to popularize mathematics by making accessible at nominal cost the best thoughts and keenest researches in this field set forth in expository form comprehensible to teachers and students of mathematics and to other readers of mathematical intelligence. The deed of gift includes the promise to capitalize this annual income by a permanent endowment fund if at the end of five years the project shall have proved successful. The trustees of the Association are taking steps to select a board of editors who shall have charge of all details connected with the publication of the proposed monographs.

Among the effects of the late Professor Maxime Bôcher are a considerable number of reprints of his published articles, which his son desires to place in the hands of those who would appreciate them. Members of the Society who desire such reprints should consult the list of Bôcher's writings in this *BULLETIN*, vol. 25, p. 209 (1919), and send to Professor O. D. Kellogg, Harvard University, Cambridge, Mass., a list by number of the reprints desired.

The Belgian Academy announces the following subjects for prizes in mathematics and physics to be awarded in 1922: A study of the absorption of light in interstellar space; A contribution to the infinitesimal geometry of curved surfaces; A contribution to the theory of the antennæ used in wireless telegraphy. The prize in each case is 1500 francs.

The Richard Lieben prize of the Vienna Academy of Sciences has been awarded to Professor H. Hahn, of the University of Vienna, and Professor J. Radon, of the University of Hamburg.

Professor H. Hahn, of the University of Vienna, has been elected a corresponding member of the Vienna Academy of Sciences.

Professors J. Horn, of the Darmstadt Technical School, A. Kneser, of the University of Breslau, E. Landau, of the University of Göttingen, and E. Salkowski, of the Hannover Technical School, have been elected members of the Leopoldinisch-Carolinische Deutsche Akademie der Naturforscher.

Honorary degrees of doctor of engineering have been conferred on Professor E. Doležal, of the Vienna Technical School, by the Technical School of Aix, and on Professor K. Heun, of the Karlsruhe Technical School, by the Berlin Technical School.

The French Government has conferred the cross of the legion of honor on Professor H. Fehr, dean of the faculty of sciences of the University of Geneva, in recognition of his assistance in enabling French soldiers interned in Switzerland to continue their studies there during the war.

The honorary degree of doctor of science was conferred on Professor Albert Einstein by the University of Manchester.

The University of St. Andrews has conferred the honorary degree of doctor of laws on Professor A. N. Whitehead.

The Royal Society of Edinburgh has elected as honorary fellows Professor Salvatore Pincherle, of the University of Bologna, and Sir Ernest Rutherford.

Sir J. J. Thomson succeeds Sir Richard Glazebrook as president of the Institute of Physics, London.

The University of Edinburgh has conferred the degree of doctor of laws on Dr. Irving Langmuir, of the research laboratory of the General Electric Company, Schenectady. Dr. Langmuir opened the discussion on *The structure of molecules* at the Edinburgh meeting of the British Association.

The University of Groningen has conferred an honorary degree in mathematics and astronomy on Miss Annie J. Cannon, of the Harvard Observatory, in acknowledgment of her work on stellar spectra.

Professor C. N. Haskins has been appointed one of the three representatives of the American Mathematical Society in the Division of Physical Sciences of the National Research Council to succeed Professor L. E. Dickson, whose term expires on July 1, 1922.

Professors Florian Cajori and O. D. Kellogg have been elected fellows of the American Academy of Arts and Sciences.

The following university courses in mathematics are announced:

HARVARD UNIVERSITY (academic year 1921-1922).—All courses meet three times a week throughout the year, except those marked \*, which meet for half a year.—By Professor W. F. Osgood: Differential and integral calculus (advanced course); Infinite series and products.\*—By Professor C. L. Bouton: The elementary theory of differential equations;\* Differential equations, with an introduction to Lie's theory of continuous groups.—By Professor J. L. Coolidge: Vector analysis;\* The geometry of the circle.—By Professor O. D. Kellogg: Dynamics (second course).\*—By Professor G. D. Birkhoff: The theory of functions (introductory course); The theory of relativity.\*—By Professor W. C. Graustein: Differential geometry of curves and surfaces;\* Projective geometry;\* Introduction to modern geometry.—By Dr. E. Hille: The analytical theory of heat and problems in elastic vibrations.\*—By Dr. J. L. Walsh: Introduction to the theory of potential functions and Laplace's equation;\* The partial differential equations of mathematical physics.\* Professor Kellogg and Dr. Hille will conduct a fortnightly seminar in analysis. Courses of research are also

offered by Professor Coolidge in geometry, by Professor Kellogg in the theory of potential functions, by Professor Birkhoff in the theory of differential equations, and by Professor Graustein in geometry.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY (academic year 1921-1922).—By Dr. Norbert Wiener: Fourier's series, two hours.—By Dr. George Rutledge: Theory of functions, two hours.—By Dr. S. D. Zeldin: Vector analysis, two hours.—By Professor H. B. Phillips: Modern electric theory, two hours.—By Professor C. L. E. Moore: Aeronautics, two hours.—By Professor F. S. Woods: Advanced calculus, three hours; Higher geometry, two hours.—By Professor F. L. Hitchcock: Mathematics applied to chemistry, three hours.

RICE INSTITUTE (academic year 1921-1922).—By Dr. H. E. Bray: Projective geometry and linear and quadratic forms.—By Professor P. J. Daniell: Statistical economics; Theory of radiation, electrons, and gravitation.—By Professor G. C. Evans: Integral equations; Theoretical economics, mathematical treatment.—By Professor L. R. Ford: Differential equations.—By Mr. L. E. Ward: Euclidean and non-euclidean differential geometry.

UNIVERSITY OF PENNSYLVANIA (academic year 1921-1922).—By Professor E. S. Crawley: Theory of numbers, three hours (first term).—By Professor G. H. Hallett: Higher algebra, three hours; Galois theory of equations, three hours (second term).—By Professor O. E. Glenn: Invariants, three hours.—By Professor F. H. Safford: Partial differential equations, three hours.—By Professor M. J. Babb: Differential equations, three hours (first term); Functions of a complex variable, three hours (second term).—By Professor G. G. Chambers: Projective geometry, three hours.—By Professor H. H. Mitchell: Probability, three hours (first term); Algebraic numbers, three hours (second term).—By Professor F. W. Beal: Differential geometry, three hours.—By Professor J. R. Kline: Functions of a real variable, three hours (first term); Integrals of Lebesgue and related integrals, three hours (second term).

At the Technical School at Graz, Dr. B. Baule, of the University of Hamburg, has been appointed professor of mathematics, and Dr. E. Kruppa has been promoted to an associate professorship.

Dr. P. Funk has been promoted to an associate professorship of mathematics at the German Technical School at Prague.

At the University of Frankfurt, Professor M. Dehn, of the Breslau Technical School, has been appointed full professor of mathematics. Professor A. Schoenflies has retired from active teaching.

The Hannover Technical School has called Professor R. Grammel, of the Stuttgart Technical School, to a professorship of mathematics. Professor L. Kiepert has retired from active teaching.

Professor H. Grassmann has been promoted to a full professorship of mathematics at the University of Giessen.

Professor O. Haupt, of the University of Rostock, has been appointed to a full professorship at the University of Erlangen.

At the University of Bonn, Professor F. Hausdorff, of the University of Greifswald, has been appointed professor of mathematics. Professor J. O. Müller has been appointed lecturer in algebra, theory of numbers, and theory of probability.

At the University of Hamburg, Professor M. von Laue, of the University of Berlin, has been appointed professor of theoretical physics. Dr. P. Riebesell has been promoted to a professorship.

Professor L. Lichtenstein, of the University of Münster, has been appointed full professor of mathematics at the University of Leipzig.

Professor F. Pfeiffer has been promoted to a full professorship of mathematics at the University of Heidelberg.

Dr. G. Prange has been appointed lecturer in applied mathematics at the University of Halle.

Professor W. Schlink has been appointed professor of technical mechanics at the Darmstadt Technical School.

The following persons have been admitted as privat-docents: Dr. S. Breuer, at the Karlsruhe Technical School; Dr. G. Doetsch, at the Hanover Technical School; Dr. K. Reinhardt, at the University of Frankfurt.

Professor L. Donati, of the University of Bologna, has retired from active teaching.

Professor G. Scorza, of the University of Catania, has been appointed professor of analytic geometry at the University of Naples.

Professors O. Lazzarino and M. Picone, of the University of Cagliari, have been appointed associate professors at the University of Catania. At the University of Cagliari, Dr. Pia Nalli has been appointed associate professor of infinitesimal analysis, and Dr. Lucio Silla associate professor of rational mechanics.

Professor Henri Lebesgue has been appointed professor at the Collège de France, as successor to the late Professor Georges Humbert.

Professor H. C. Plummer, Royal Astronomer of Ireland and professor of astronomy at the University of Dublin, has been appointed professor of mathematics at the Ordnance College, Woolwich.

Mr. H. J. Davis, of University College, Southampton, has been appointed lecturer in mathematics at the Bradford Technical College.

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 of mathematics.

Dr. H. R. Kingston, formerly of the University of Manitoba, has been appointed professor and head of the department of mathematics at Western University, London, Ontario.

Dr. Theodore Lyman has been appointed to the Hollis professorship of mathematics and natural philosophy at Harvard University, the chair successively held by Benjamin Peirce and Wallace C. Sabine.

At the California Institute of Technology, Professor H. A. Lorentz, of the University of Leyden, will be in residence as lecturer and research associate during two months of the winter of 1921-22. Dr. C. G. Darwin, of Cambridge University, has been appointed professor of mathematical physics for the academic year 1922-23.

Professor G. G. Chambers and H. H. Mitchell have been promoted to full professorships of mathematics at the University of Pennsylvania.

Dean T. F. Holgate, of Northwestern University, has been invited to spend his sabbatical year (1921-22) at the University of Nanking, China, lecturing on mathematical subjects and assisting in the general organization of the University.

At Oberlin College, Dr. C. H. Yeaton, of the Milwaukee College of Engineering, has been appointed assistant professor of mathematics. Mr. F. E. Carr has been promoted to an assistant professorship.

Mr. L. S. Hill has been appointed associate professor of mathematics at the University of Maine.

Dr. W. E. Edington, of the University of Illinois, has been appointed assistant professor of mathematics at Pennsylvania State College.

Professor M. O. Tripp, of the University of Maine, has been appointed professor of mathematics at Wittenberg College.

Dr. D. V. Steed, of the University of California, has been appointed assistant professor of mathematics at the University of Southern California.

Mr. E. L. Mackie, of Harvard University, has been appointed assistant professor of mathematics at the University of North Carolina.

Dr. C. G. P. Kuschke has been appointed assistant professor of mathematics and physics at the University of Porto Rico.

Professor Eva Chandler, of Wellesley College, has retired from active teaching.

Dr. C. N. Reynolds, of Dartmouth College, has been appointed assistant professor of mathematics at the University of West Virginia.

Professor Gertrude I. McCain, of Oxford College, Oxford, Ohio, has been appointed professor of mathematics at Westminster College, New Wilmington, Pa.

President R. J. Aley, of the University of Maine, formerly professor of mathematics and dean at the University of Indiana, has been appointed president of Butler College, Indianapolis.

Professor J. D. Bond, of the Agricultural and Mechanical College of Texas, has been appointed associate professor of mathematics at Louisiana State University.

Dr. F. R. Morris, of the University of California, has been made head of the department of mathematics at the State Teachers and Junior College at Fresno.

Professor G. H. Cresse, of the U. S. Naval Academy, has been appointed associate professor of mathematics at the University of Arizona.

Mr. E. T. Browne has been appointed assistant professor of mathematics at Trinity College.

Professor T. O. Walton, of Michigan Agricultural College, has been appointed assistant professor of mathematics at Kalamazoo College.

Dr. E. S. Hammond, of Princeton University, has been appointed assistant professor of mathematics at Bowdoin College.

At Purdue University, Professor William Marshall has been made acting head of the department of mathematics; Mr. F. H. Hodge and Mr. C. S. Doan have been appointed assistant professors.

At Kansas State Agricultural College, Miss Bess J. McKittrick, Miss Emma Hyde and Mr. C. S. Lewis have been promoted to assistant professorships.

At Northwestern University, Associate Professor E. J. Moulton has been promoted to a full professorship.

At Johns Hopkins University, Dr. F. D. Murnaghan has been promoted to an associate professorship of applied mathematics.

At Yale University, Professor W. A. Wilson has been promoted to a full professorship.

At Lehigh University, Assistant Professors J. E. Stocker and J. B. Reynolds have been promoted to associate professorships of mathematics and astronomy.

At Smith College, Assistant Professor Susan R. Benedict has been promoted to a full professorship.

At Dickinson College, Professor W. W. Landis has leave of absence, which he is spending in Europe. Professor N. B. Rosenberger is acting head of the Department of Mathematics.

At the University of Minnesota, Associate Professor W. F. Holman has been promoted to a full professorship, and Assistant Professor H. H. Dalaker has been promoted to an associate professorship.



At Kalamazoo College, Professor T. O. Walton of the Michigan Agricultural College has been appointed assistant professor.

At the University of Wisconsin, Assistant Professor A. Dresden has been promoted to an associate professorship.

At Colorado College, Associate Professor W. V. Lovitt has been promoted to a full professorship.

At Iowa State College, Professor Maria M. Roberts has been appointed Dean of the Junior College; Assistant Professor Helen Tappan has been promoted to an associate professorship; Professor E. R. Smith of Pennsylvania State College has been appointed head of the Department; Dr. E. S. Allen of West Virginia University has been appointed associate professor; Dr. J. S. Turner has been appointed assistant professor. Professor J. V. McKelvey, whose appointment at Westminster College was previously announced (this BULLETIN, vol. 27, p. 337), will remain at Iowa State College.

Mr. E. H. Vance has been appointed professor of mathematics at Defiance College.

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

Bradley Polytechnic Institute, Mr. A. E. Gant;  
Bucknell University, Mrs. Theron Clark;  
University of California, Dr. P. H. Daus;  
Colgate University, Mr. H. A. Dobell;  
Colorado College, Miss W. M. Spingler;  
Harvard University, Mr. H. W. Brinkman, Mr. R. M. Foster, Dr. C. E. Hille (Peirce instructor), Mr. Lincoln LaPaz, Dr. J. L. Walsh (permanent instructor);  
Hood College, Miss Rachel T. Easterbrooks;  
University of Illinois, Dr. C. C. Camp, Dr. J. M. Stetson, Dr. Beulah Armstrong;  
Iowa State College, Mr. A. L. Young;  
Knox College, Miss Helen Calkins;  
Mills College, Dr. Nina M. Alderton;  
University of Minnesota, Mr. C. G. Phipps;  
University of Missouri, Miss Katherine Wyant;  
University of Pennsylvania, Mr. J. D. Eshleman;  
Princeton University, Dr. C. C. MacDuffee, Dr. E. L. Post;  
Purdue University, Mr. J. W. Branson, Mr. E. G. Keller, Mr. J. Knox, Mr. J. H. Shock;  
Rice Institute, Mr. L. E. Ward;  
University of Rochester, Mr. D. E. Whitford;  
Rose Polytechnic Institute, Mr. A. J. Bedard;  
University of Texas, Mr. R. L. Wilder;  
Union College, Mr. Ralph Bennett, Mr. A. D. Snyder;  
Washington and Jefferson College, Mr. C. J. Cardin;

Wellesley College, Miss Rachel Blodgett, Miss Ruby Willis;  
Western College for Women, Miss May B. Carter;  
University of Wisconsin, Mr. M. L. MacQueen, Mr. E. B. Miller, Mr.  
A. R. Wapple;  
Yale University, Dr. M. C. Foster.

Dr. A. W. A. Thaer, director of the Oberrealschule at Hamburg, died March 1, 1921, at the age of sixty-six years.

Professor J. K. Thomae, of the University of Jena, died April 1, 1921, at the age of eighty-one years.

The death is reported of Professor V. Dantschler von Kollesburg, of the University of Graz, at the age of seventy-three years.

The death is reported of Professor N. Joukowski, of the Moscow Technical School.

The death is reported of Professor A. Riggenbach-Burckhardt, of the University of Basel.

J. A. Gaillot, formerly sub-director of the Paris Observatory and collaborator with Leverrier in the preparation of his tables, died at Chartres, June 4, 1921, at the age of eighty-seven years.

Professor Gabriel Lippman, of the department of physics of the University of Paris, died on June 13, 1921, at the age of seventy-five years.

Mr. H. T. Gerrans, of Oxford University, died June 20, 1921. Mr. Gerrans had been a member of the American Mathematical Society since 1901.

Professor Hermann Amandus Schwarz of Berlin died November 30, 1921. Born January 25, 1843, he studied at Berlin, receiving his doctorate in 1864. He taught at Halle, Zürich, Göttingen, and Berlin. He held the honorary doctorate of the University of Christiania and was a member of the learned societies of Berlin, Göttingen, and Paris. He published a number of memoirs on subjects of analysis and differential geometry. His collected works appeared in 1890.

Professor Camille Jordan of the Collège de France and the École Polytechnique, died January 21, 1922. He was born at Lyon, January 5, 1838. He received the doctorate at Paris in 1861. He was widely known for his important and valuable contributions to analysis, algebra and geometry. He was a member of the Institute and of a large number of mathematical societies, and held honorary degrees from Christiania and Louvain. He was editor of the *Journal de Mathématiques Pures et Appliquées*. He served as Vice-President of the Fourth International Congress of Mathematicians at Rome, 1908.

Professor Nathaniel French Davis, Emeritus, of Brown University, died May 17th, 1921. Professor Davis was born at Laconia, New Hamp-

shire, June 11th, 1847. He attended Brown University and the University of Göttingen, and held the degree of LL.D. from Colby College. After teaching in secondary and normal schools, he came to Brown University as instructor in 1874 and became assistant professor in 1879, associate professor in 1889, professor in 1890, and emeritus professor in 1915. Professor Davis had been a member of the American Mathematical Society since 1891.

Professor Alfred Monroe Kenyon, head of the Department of Mathematics at Purdue University, died on July 27th, 1921. Professor Kenyon was born at Medina, Ohio, December 10th, 1869. He attended Hiram College, Case School of Applied Science, and Harvard University. After teaching in a secondary school, at Case School of Applied Science, and at the Massachusetts Nautical Training School, he came to Purdue as instructor in 1898, became associate professor in 1901, professor in 1903, and head of the Department in 1908. He was the author of several college text-books. Professor Kenyon had been a member of the American Mathematical Society since 1900.

Professor Henry Turner Eddy, Emeritus, of the University of Minnesota, died December 18, 1921. He was born at Stoughton, Mass., June 9, 1844. He studied at Yale, Cornell, Berlin and Paris, receiving his doctorate at Cornell in 1872. He held honorary degrees from Central College and Yale. He taught at Yale, Cornell, and Princeton, was Dean and later President at Cincinnati, and served as President of Rose Polytechnic Institute from 1890 to 1894. He came to Minnesota as Professor in 1894, and became Dean of the Graduate School in 1906. He retired from both positions with the title Emeritus in 1912. Professor Eddy was Secretary of Section A of the American Association for the Advancement of Science in 1882, and Vice-President of the Association in 1884. He was President of the Society for the Promotion of Engineering Education in 1896. He had been a member of the American Mathematical Society since 1891.

Professor Wooster Woodruff Beman of the University of Michigan died January 18, 1921. He was born May 28, 1850. He studied at the University of Michigan, receiving his master's degree in 1873. He taught at Kalamazoo College and at Michigan, where he became full Professor in 1887. He had been a member of the American Mathematical Society since 1891. He was Secretary of Section A of the American Association for the Advancement of Science in 1890, and Vice-President in 1897. He was well known as joint author of a number of elementary text-books and as a translator of several famous monographs.

Professor Charles Leonard Bouton of Harvard University died February 20, 1922. He was born at St. Louis, April 25, 1869. After receiving his mathematical training at Washington University, Harvard and Leipsic, he taught at Washington University and at Harvard. He had been a member of the American Mathematical Society since 1898, and served on the editorial staff of the BULLETIN and the TRANSACTIONS.