

NOTES.

THE approaching Annual Meeting of the AMERICAN MATHEMATICAL SOCIETY will extend through the two days, Monday and Tuesday, December 29–30. The Council will meet on Monday morning, and the annual election of officers and other members of the Council will be held on Tuesday morning. At the opening of the afternoon session on Monday, the retiring President, Professor ELIAKIM HASTINGS MOORE, will deliver the presidential address, the subject of which will be: "The Foundations of Mathematics."

ON recent academic occasions, the AMERICAN MATHEMATICAL SOCIETY has been represented by delegates as follows: At the Abel Centenary, by Professor E. B. VAN VLECK and Dr. E. B. WILSON; at the installation of President James, of Northwestern University, by President E. H. MOORE; at the installation of President Swain, of Swarthmore College, by Professor CHARLOTTE ANGAS SCOTT. The Society has recently received an invitation to send delegates to the coming centenary of the University of Jurievi (Dorpat).

THE forthcoming report of the librarian of the AMERICAN MATHEMATICAL SOCIETY will show that the library has made satisfactory progress during the year. There are now about twice as many periodicals on the exchange list as there were a year ago, about three times as many bound volumes of a non-periodical character, and over twenty times as many bound volumes of journals. The total number of bound volumes has increased from 121 to over 900. Several noteworthy gifts have been made to the library, including Bowditch's translation of Laplace's *Mécanique céleste*, and two volumes by the late Professor Benjamin Peirce from his own collection. An appeal is again made to members to present to the library copies of their works, whether elementary or advanced, to the end that the collection may become an exponent of the country's mathematical progress. It is also suggested that members may have copies of earlier works, including volumes of journals, which they would be willing to donate for such a purpose. Such gifts would be very welcome, especially if published in this country. Since the Society has no funds with which to make

purchases, it is forced to depend solely upon the generosity of its friends and upon its accessions in the way of exchanges.

THE National academy of sciences held its autumn meeting at Johns Hopkins University on November 11 and 12. No mathematical papers were presented.

AT the meeting of the London mathematical society held on November 13, the following papers were read:—By Dr. E. W. HOBSON: "On the infinite and the infinitesimal in mathematical analysis."—By Professor D. HILBERT: "On the proposition concerning the equality of the base angles in an isosceles triangle."—By Professor A. C. DIXON: "Expansion by means of Lamé's functions."—By Mr. W. H. YOUNG: "Note on unclosed sets of points defined as the limits of a sequence of closed sets of points."—By Professor H. LAMB: "Wave propagation in two dimensions."—By Professor M. J. M. HILL: "The continuation of certain fundamental power series."—By Mr. L. CRAWFORD: "A geodesic on a spheroid and an associated ellipse."

AN appeal has been sent out by the treasurer of the Royal society for financial support in completing the author catalogue of scientific papers from 1883 to 1900, and in publishing the subject index for the nineteenth century. The list of papers, arranged by authors, has been completed to 1883, at an expense of nearly \$75,000, and the work on the list arranged by subjects has been partly done. The work of cataloguing papers issued since the beginning of the twentieth century has become so burdensome that the Royal Society has turned it over to an international committee.

THE second international congress of mathematicians will be held at Heidelberg in 1904.

COLLEGE OF FRANCE. — The following mathematical courses are given during the first semester of the present academic year, opening December 1, 1902:—By Professor CAMILLE JORDAN: Differential equations, two hours.—By Professor M. BRILLOUIN: Electric waves, two hours.—By Professor J. HADAMARD: Calculus of variations, one hour; Differential equations of continuous media, one hour.—By Professor LEBESGUES: Definite integrals and Fourier series, one hour.

It is of interest to recall that the chair now held by Professor Lebesgues was established a few years ago by M. Peccot under

the peculiar condition that the appointee should be under thirty years of age. The tenure of office is three years. M. Lebesgue's predecessor was M. E. Borel, whose lectures on Divergent series (1899–1900), Series with positive terms (1900–1901), and Meromorphic functions (1901–1902), recently published by Gauthier-Villars, present substantial evidence of the wisdom of M. Peccot's foundation. Both M. Borel and M. Lebesgue are graduates of the Ecole normale supérieure.

AT the Ecole normale supérieure, Professor J. TANNERY lectures on Galois theory and Professor P. Painlevé on Abelian functions.

PROFESSOR J. W. GIBBS, of Yale University, has been elected a corresponding member of the Munich academy of sciences.

MR. R. TUCKER retired from the position of honorary secretary of the London mathematical society on November 13. He has held this office since 1867, having been elected soon after the organization of the society.

A PORTRAIT of the late Professor P. G. Tait was unveiled at Peterhouse, Cambridge University, in October, by Lord Kelvin. Addresses were made by Lord Kelvin and by Sir George Stokes, master of Pembroke.

MR. R. W. H. T. HUDSON, B.A., has been appointed lecturer in mathematics at University College, Liverpool.

DR. H. S. CARSLAW lecturer in mathematics in the University of Glasgow, and fellow of Emmanuel College, Cambridge, has been appointed professor of pure and applied mathematics at the University of Sydney.

PROFESSOR MARTIN DISTELI, of Carlsruhe, has been called to the University of Strassburg as associate professor of mathematics.

DR. K. DÖHLEMANN, of Munich, has been advanced to the associate professorship in descriptive geometry.

PROFESSOR E. MÜLLER, of Königsberg, Prussia, has been called to the Technische Hochschule, at Vienna, as professor of mathematics.

DR. M. RADAKOVIC, of Innsbruck, has been advanced to an associate professorship of mathematics.

PROFESSOR D. KIKUCHI, president of the University of Tokio, recently created a baron by the emperor, has been made minister of education for Japan. Dr. SADAJI TAKAGI, of Tokio, has been advanced to an associate professorship of mathematics.

PROFESSOR F. KOLÁČEK, of Brunn, has been called to Prague as professor of mathematical physics in the Bohemian University.

PROFESSOR W. H. BOUGHTON, of Denison University, has been appointed professor of civil engineering in the University of West Virginia.

THE death is announced of Professor NIKOLAUS BUDAJEW, of St. Petersburg, at the age of sixty-nine years.

GENERAL ANNIBALE FERRERO, director of the Italian geodetic survey, died on August 7, in Rome.

PROFESSOR P. H. PHILBRICK died at Medford, Oregon, October 10, 1902. Dr. J. W. DAVIS died in New York, November 7, 1902. Both were members of the AMERICAN MATHEMATICAL SOCIETY.

THE following catalogues of second-hand mathematical works have recently appeared: R. Friedlaender & Sohn, 11 Carlstrasse, Berlin, N. W., no. 420, general mathematics, 114 pages; no. 421, calculus of probabilities, 16 pages. Mayer and Müller, 2 Prinz Louis Ferdinandstrasse, Berlin, N. W., no. 189, history of mathematics and other sciences, 5295 numbers; A. Herrman, 6 Rue de la Sorbonne, Paris, no. 76, part 2, mathematical works from the library of the late Joseph Bertrand, 88 pages.

PROFESSOR G. W. GREEN, of the department of mathematics in the Illinois Wesleyan University, died at Bloomington, Ill., on December 10, aged forty-five years.

PROFESSOR HENRY MITCHELL, formerly of the Massachusetts Institute of Technology and well known for his work on the U. S. Coast and Geodetic Survey, died in New York on December 1, at the age of seventy-two.