

NOTES.

THE concluding (October) number of volume 20 of the *Transactions of the American Mathematical Society* contains the following papers: "Line-geometric representations for functions of a complex variable," by E. J. WILCZYNSKI; "On the combination of non-loxodromic substitutions," by E. B. VAN VLECK; "On a general class of integrals of the form $\int_0^{\infty} \varphi(t) g(x+t) dt$," by R. D. CARMICHAEL; "Transformations of surfaces applicable to a quadric," by L. P. EISENHART; "Note on two three-dimensional manifolds with the same group," by J. W. ALEXANDER; "A general system of linear equations," by A. J. PELL; Indexes, volumes 11-20.

AT the Brussels meeting of the National Research Council several International Unions were formed. For other unions, where the representation was insufficient divisional committees were formed. In mathematics a divisional committee was nominated and charged with the duty of circulating a draft of statutes so as to obtain the opinion of the principal bodies concerned. M. DE LA VALLÉE POUSSIN was elected president, and the following secretaries of this committee: TH. DE DONDER (Brussels); G. KOENIGS (Paris); M. PETROWITCH (Belgrade); V. REINA (Rome).

The above information of action taken six months ago now reaches American mathematicians for the first time by indirect ways. Before the war international mathematical activities were carried on very efficiently by mathematicians and it may be hoped that they will soon resume charge of their affairs.

AT the meeting of the Edinburgh mathematical society on November 14, the following papers were read: By E. T. WHITTAKER, "A new basis for graduation"; by H. W. RICHMOND, "A geometrical proof of Morley's extension of Feuerbach's theorem."

THE two Benjamin Peirce instructorships in mathematics at Harvard University (see this BULLETIN, volume 21, page

315) are again open to general competition. Applications for the year 1920-21, accompanied by the necessary papers, should reach Professor Osgood not later than February 15, 1920, and all communications relating to these appointments should be addressed to him.

PROFESSOR E. CZUBER, of the Vienna technical school, has retired from active teaching.

AT the University of Hamburg, Dr. W. BLASCHKE and Dr. E. HECKE have been appointed to professorships and Dr. J. RADON to an associate professorship of mathematics.

DR. K. KNOPP has been appointed professor of mathematics at the University of Königsberg.

AT the Dresden technical school, Dr. P. E. BÖHMER has been appointed professor of the mathematics of insurance and Dr. R. VON MISES professor of the resistance of materials, hydraulics, and aerodynamics. Professor J. M. KRAUSE has retired from active teaching.

DR. R. BALDUS has been appointed professor of descriptive geometry at the Karlsruhe technical school.

DR. V. BLAESS has been appointed associate professor of mechanics at the technical school at Darmstadt.

THE following persons have recently been admitted as privat-docents in mathematics at German universities: P. BARNAYS, Miss E. NOETHER, and M. SCHMEIDLER, at the University of Göttingen; P. EPSTEIN, at the University of Frankfurt; F. LEVI, at the University of Leipzig.

THE Royal society of London has awarded a Royal medal to Mr. J. H. JEANS, for his researches in applied mathematics, and the Sylvester medal to Major P. A. MACMAHON for his researches in pure mathematics, especially in connection with the partition of numbers and analysis.

ASSISTANT professor A. F. CARPENTER, of the University of Washington, has been promoted to an associate professorship of mathematics.

PROFESSOR ARNOLD DRESDEN, secretary of the Chicago Section of the American Mathematical Society, has returned to the University of Wisconsin, after a year of service with the Red Cross in France.

AT the University of California, assistant professor B. M. WOODS has been promoted to a full professorship of aerodynamics.

AT the University of Oklahoma, Dr. H. C. GOSSARD, of the U. S. Naval Academy, has been appointed assistant professor of mathematics, and Mr. E. D. MEACHAM has been promoted to an assistant professorship.

ASSISTANT professor FLORENCE P. LEWIS, of Goucher College, has been promoted to an associate professorship of mathematics.

AT Purdue University, assistant professor GLENN JAMES has resigned to become assistant professor of mathematics at the Carnegie Institute of Technology. Assistant professor T. E. MASON has been promoted to an associate professorship. Professor LAURENCE HADLEY, of Earlham College, has been appointed associate professor of mathematics, and Professor F. H. HODGE, of Franklin College, instructor in mathematics.

ASSOCIATE professor R. B. McCLENON, of Grinnell College, has been promoted to a full professorship of mathematics.

ASSISTANT professor C. N. MILLS, of South Dakota State College, has been appointed professor of mathematics at Heidelberg University, Tiffin, Ohio.

ADJUNCT professor J. J. LUCK has been promoted to an associate professorship of mathematics at the University of Virginia.

DR. C. H. FORSYTH, of Dartmouth College, has been promoted to an assistant professorship of mathematics.

IN the mathematics department of the U. S. Naval Academy, Dr. C. C. BRAMBLE has been promoted to an assistant pro-

fessorship and Mr. PAUL HEMKE, of Northwestern University, has been appointed instructor.

DR. J. V. DEPORTE has been appointed assistant professor of mathematics at the New York State College for Teachers, Albany.

ASSISTANT professor H. H. CONWELL, of the University of Idaho, has been promoted to an associate professorship of mathematics

DR. R. L. CHARLES has been promoted to an associate professorship of mathematics at Lehigh University.

MISS M. E. DANIELLS has been promoted to an assistant professorship of mathematics at Iowa State College.

DR. C. M. HEBBERT has been appointed instructor in mathematics at the University of Illinois.

MR. F. W. PARSONS, of Ohio Northern University, has been appointed assistant professor of mathematics and engineering in Whittier College.

DR. H. B. CURTIS and Mr. F. L. BROWN have been appointed instructors in mathematics at Northwestern University. Mr. F. L. KERR has resigned his instructorship to become registrar of the university.

MR. FREDERICK WOOD has been appointed instructor in mathematics at the University of Wisconsin.

AT the College of the City of New York, Mr. HARRY LANGMAN has been appointed instructor in statistics and Dr. H. F. MACNEISH instructor in mathematics.

DR. J. W. CAMPBELL, of Wesley College, Winnipeg, has been appointed associate in mathematics and astronomy at the State University of Iowa.

DR. R. A. ARMS, of Juniata College, has been appointed instructor in mathematics at the University of Pennsylvania.

MR. J. J. TANZOLA has been appointed instructor in mathematics at Cooper Union, New York City.

THE death is reported of Professor A. GOB, of the Athénée royal at Liège, at the age of fifty-one years.

RODOLPHE GUIMARAES, author of *Les Mathématiques en Portugal*, died in 1918 at the age of fifty-two years.

THE death is reported of Professor G. DEMARTRES, of the University of Lille, at the age of seventy-one years.

DR. O. DANZER, of the Vienna technical school, died March 26, 1919.

PROFESSOR E. BÖTTCHER, of the University of Leipzig, died August 5, 1919, at the age of seventy-two years.

PROFESSOR O. DZIOBEK, of the Charlottenburg technical school, died recently at the age of sixty-three years.

PROFESSOR F. GRAEFE, of the Charlottenburg technical school, died December 2, 1918, at the age of sixty-three years.

PROFESSOR E. NETTO, of the University of Giessen, died recently at the age of seventy-two years.

DR. K. T. REYE, formerly professor at the University of Strassburg, died recently at the age of eighty-one years.

PROFESSOR R. STURM, of the University of Breslau, died recently at the age of seventy-seven years.

DR. J. WELLSTEIN, formerly professor at the University of Strassburg, died June 24, 1919, in his fiftieth year.

MR. P. E. B. JOURDAIN died October 1, 1919, at the age of thirty-eight years.

PROFESSOR JAMES MACLAY, of Columbia University, died November 28, 1919, at the age of fifty-five years.

BOOK CATALOGUES: Galloway and Porter, Cambridge, catalogue 97, list of 495 titles in mathematics and physics.