simplicity and results that the whole subject is well worth while.

Any instructor might easily learn many a lesson of value from the pages of the book—if he cared to investigate, for example, just how efficiently he is handling a section of students in any subject he may be teaching.

In Chapter XVII the author shows how the various efficiency methods advocated apply to such specimen departments of human thought and endeavor as psychology, education, sociology, business, etc. A brief historical survey is given in Appendix *B*.

ERNEST W. PONZER.

NOTES.

AT the meeting of the London mathematical society on February 1 the following papers were read: By P. A. MACMAHON: "The significance of a certain algebraic function in the theory of distributions" and "The number of ways of pairing off the members of two identical sets of different quantities"; by W. H. SALMON: "Curves of constant torsion."

AT the meeting of the Edinburgh mathematical society on March 9 the following papers were read: By G. B. JEFFERY: "The transformations of axes for Whittaker's solution of Laplace's equation"; by H. DATTA: "On the failure of Heiermann's theorem."

AMONG recent mathematical works published by Gauthier-Villars are the following: Œuvres de Cauchy, 2e série, Tome XII (Nouveaux Exercices d'Analyse et de Physique, Tome 2), Œuvres de Poincaré, Tome II, and two volumes of the Borel series of monographs, Leçons sur les Méthodes de Sturm dans la Théorie des Equations différentielles linéaires et leurs Développements modernes, by Professor MAXIME BÔCHER, and Intégrales de Lebesgue, Fonctions d'Ensemble, Classes de Baire, by Professor C. DE LA VALLÉE POUSSIN. Tome XIII, 2e série (Nouveaux Exercices d'Analyse et de Physique, Tome 3), of the Œuvres de Cauchy is now open to subscription, and Tome I of the Œuvres de Poincaré is in press.

THE Rice Institute, of Houston, Texas, has just issued, in three volumes, the Book of the Opening of the Rice Institute, an account of the academic festival held in celebration of its formal opening in October, 1912. These volumes contain, in addition to an account of the exercises of dedication, the inaugural lectures delivered by the delegates of various institutions. Among these are the following mathematical lectures: "Molecular theories and mathematics," "Aggregates of zero measure," and "Monogenic uniform non-analytic functions—the theories of Cauchy, Weierstrass, and Riemann," by Professor EMILE BOREL, delegate of the University of Paris; and "Henri Poincaré," "The generalization of analytic functions," and "On the theory of waves and Green's method," by Professor VITO VOLTERRA, delegate of the University of Rome.

BY recent action of the Board of Trustees of the University of Chicago, the President of the University, on recommendation of the head of a department, will welcome doctors of philosophy of the University of Chicago and other universities as guests of the university, with the privilege of attending seminars and of carrying on research in the laboratories and libraries. There will be no charge except for laboratory supplies and a nominal laboratory fee where laboratory work is done. Arrangements should be made with the university in advance.

THE Adams prize of Cambridge University has been awarded to J. H. JEANS, former fellow of Trinity College, for his essay: "Some problems of cosmogony and stellar dynamics." The value of the prize is £250.

PROFESSOR A. N. WHITEHEAD has been elected president of the British mathematical association.

MR. P. A. MACMAHON has been elected president of the Royal astronomical society.

PROFESSOR EDWARD KASNER has been elected a member of the National Academy of Sciences.

DR. E. A. T. KIRCHER, of Harvard University, has been appointed instructor in mathematics at the University of Minnesota.

MR. T. R. HOLLCROFT has been appointed instructor in mathematics at Columbia University.

MR. W. H. WILSON, of the University of Illinois, has been appointed instructor in mathematics at the Massachusetts Institute of Technology.

PROFESSOR GASTON DARBOUX, of the University of Paris, and permanent secretary of the Paris Academy of Sciences, died February 22, at the age of 74 years. He was author of a four-volume treatise on differential geometry bearing the title Théorie générale des surfaces, a work on orthogonal systems of surfaces, one on the cyclide and allied surfaces, and a large number of memoirs in the leading mathematical periodicals. During the last thirty years he has been a member of more than fifty learned societies.

NEW PUBLICATIONS.

I. HIGHER MATHEMATICS.

BAILEY (F. H.). See WOODS (F. S.).

BARROW (I.). Geometrical lectures. Translated with notes and proofs by J. M. Child. London, Open Court, 1917. 8vo. 14+218 pp. 4s. 6d.

BÔCHER (M.). Leçons sur les méthodes de Sturm dans la théorie des équations différentielles linéaires et leurs développements modernes, professées à la Sorbonne en 1913–1914. (Collection de Monographies sur la Théorie de Fonctions publiée sous la Direction de M. Émile Borel.). Recueillies et rédigées par G. Julia. Paris, Gauthier-Villars, 1917. 8vo. 6+118 pp. Fr. 5.00

BOREL (E.). See BÔCHER (M.).

CAJORI (F.). A history of elementary mathematics with hints on methods of teaching. Revised and enlarged edition. New York, Macmillan, 1917. 8vo. 8+324 pp. $1.75

CHILD (J. M.). See BARROW (I.).

JULIA (G.). BÔCHER (M.)

DE MONTESSUS DE BALLORE (R.). Leçons sur les fonctions elliptiques en vue de leurs applications. Paris, Gauthier-Villars, 1917. 8vo. 10+268 pp. Fr. 12.00

REY PASTOR (J.). Fundamentos de la geometría proyectiva superior. (Junta para ampliación de estudios e investigaciones científicas, Laboratorio y seminario matemático publicaciones, Tomo 1.) Madrid, 1916. 8vo. 22+444 pp. Pes. 12.00