

combine these elements properly, are necessary steps in all study of phenomena. These two processes are the products of what may be called a refined form of Mill's method of concomitant variations.

The chapter dealing with the idea of order of magnitude and measurement is of particular interest to the scientist.

H. D. THOMPSON.

NOTES.

PROFESSOR FELIX KLEIN'S Lectures on Mathematics, known as "The Evanston Colloquium" (New York, Macmillan, 1894), are out of print. A. Hermann, of Paris, has just brought out a French translation of this work, prepared by M. L. Laugel; the title is, "Conférences sur les mathématiques, faites au congrès de mathématiques tenu à l'occasion de l'exposition de Chicago." M. Laugel has added seventeen pages of valuable bibliographical notes, thus bringing the references up to date.

M. Laugel has also accomplished the difficult task of translating into French the collected mathematical works of Bernhard Riemann. This translation is now in the press of MM. Gauthier-Villars and will soon be ready.

THE memoir on the analytical representation of direction, etc., published by Caspar Wessel, in 1797, which contains the earliest systematic attempt at a geometrical interpretation of imaginaries was the subject of Professor W. W. Beman's vice-presidential address before Section A of the American Association for the Advancement of Science last summer. The address was published in full in *Science*, vol. 6, pp. 297-307 (Aug. 27, 1897).

AT the meeting of the Paris Academy of Sciences, February 7, 1898, the death of the well-known publisher, M. JEAN ALBERT GAUTHIER-VILLARS, was announced, and resolutions were adopted in recognition of his manifold services to science, particularly of his generous assistance to the French Government and the Academy in publishing the complete works of Lagrange, Fermat, Fourier, and Cauchy.

THE Schubert prize of the Imperial Academy of Sciences, St. Petersburg, has been awarded to PROFESSOR SIMON NEWCOMB for work in theoretical astronomy.