

comitance." Of course this is a wider field than mere joy as specific emotion, but inclusive of it. It may be surmised that the expansive movement for the pleasant and contrary for painful stimulus—which is reinforced by these experiments—is simplest biological reaction concerned with appropriation and rejection in feeding by primitive organisms. However, joy as specific emotion is later and must be studied more introspectively in its functional activity than Mr. Dearborn has done. In neurasthenia joy does not act, as I recall in my own case, once receiving news which normally would have brought great joy but left me quite listless at the time.

HIRAM M. STANLEY.

BOOKS RECEIVED.

- The Races of Europe, a Sociological Study.* WILLIAM Z. RIPLEY. New York, D. Appleton & Company. 1899. Pp. xxxii+624.
- A Selected Bibliography of the Anthropology and Ethnology of Europe.* WILLIAM Z. RIPLEY. New York, D. Appleton & Company. 1899. Pp. 160.
- Plant Relations.* JOHN M. COULTER. New York, D. Appleton & Company. 1899. Pp. 264.
- Industrie des matières colorantes azoïques.* GEORGE F. JAUBERT. 1899. Pp. 167.
- Transactions of the American Microscopical Society.* Edited by the Secretary. Lincoln, Neb., Hunter Printing Co. 1899. Vol. XX. Pp. 369.
- Report of the Meteorological Service of Canada for the year ending Dec. 31, 1896.* R. F. STUPART, Director. Vol. I., pp. 295; Vol. II., pp. 796.
- The Soluble Ferments and Fermentation.* J. REYNOLDS GREEN. Cambridge, University Press. 1899. Pp. xiii+480. 12s.

SCIENTIFIC JOURNALS AND ARTICLES.

THE June number of the *Bulletin of the American Mathematical Society* contains a report of the April meeting of the Society, by the Secretary; 'Surfaces of Revolution in the Theory of Lamé's Products,' by Dr. F. H. Safford; a review of 'Picard's Algebraic Functions of Two Variables,' by Arthur Berry, M.A.; 'Note on Page's Ordinary Differential Equations,' by Dr. L. E. Dickson; a review of 'Tannery's Arithmetic,' by Professor James Pierpont; 'Notes,' and 'New Publications.' The July

number of the *Bulletin*, which concludes volume 5 of the new series, contains 'The Asymptotic Lines of the Kummer Surface,' by Dr. J. I. Hutchinson; 'On a Definitive Property of the Covariant,' by Mr. C. J. Keyser; 'The Known Finite Simple Groups,' by Professor L. E. Dickson; a review of 'Schoenflies's Geometry of Movement' and of its French translation by Speckel, by Professor F. Morley; a review of the new edition of 'Weber's Algebra,' by Professor James Pierpont; 'Shorter Notices;' 'On Elliptic Functions,' by Professor James Pierpont; 'Notes;' 'New Publications;' annual list of papers read before the Society and subsequently published, and an elaborate index of the volume.

THE June number of the *Botanical Gazette* opens with a morphological study of the common May apple, *Podophyllum peltatum*, by Mr. Theo. Holm, illustrated by ten figures drawn from nature by the author. Mr. Holm discusses the mode of germination, the distribution, relation and arrangement of the leaves and buds. Some structural details of the mature plant are also given. The study shows clearly that *Podophyllum* is closely related in its habits and ecological peculiarities to a little natural group of plants: *Diphylleia*, *Jeffersonia*, *Caulophyllum*, *Actæa* and *Cimicifuga*. He thinks it better to associate these plants than to separate them by the insignificant floral characters which have been used to put them into separate orders. Capt. John Donnell Smith continues his description of new plants from Guatemala and other Central American republics. Mr. T. S. Brandegee also describes a considerable number of new species of Western plants. Dr. C. O. Townsend discusses the effect of ether upon the germination of seeds and spores. He finds that a weak atmosphere of ether tends to hasten the time of germination, while a larger amount of ether retards or prevents it. Dr. A. P. Anderson figures and describes a new *Tilletia* parasitic upon the cultivated rice. An appreciative biographical sketch of the late Dr. Alvin Wentworth Chapman is contributed by Dr. Charles Mohr, a long-time friend of Chapman. It is accompanied by a small but excellent portrait of Dr. Chapman. Professor F. A. Waugh discusses the application of the name *Prunus insi-*