

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.

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#### 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-*

*titia*, concluding that Linnæus meant by it *Prunus domestica Damascena*, while Gray applied it to *Prunus spinosa*, and Walter to *Prunus angustifolia*. Walter H. Evans describes a new branch from Alaska. A fascicle of Book Reviews, Notes for Students, and News complete the number, which is the concluding one of Volume XXVII.

At the annual meeting of the American Medical Association Dr. George M. Gould, of Philadelphia, proposed that the publication of the *Index Medicus* should be undertaken by the Association. He moved the following resolution, which was referred to the Board of Trustees:

WHEREAS, the suspension of the publication of the *Index Medicus* is a deplorable event, which will result in greatly increased labor on the part of medical men in their literary work, and seriously hindering the progress of medical science, practical as well as literary.

*Be it therefore Resolved*, That the Executive Committee of the American Medical Association appoint a committee of three members of the Association to take charge of the publication of the periodical, perfect plans for the same and engage the service of an editor and of such editorial assistance as may be required; also to choose a publisher and to make contracts with him for the printing, distribution, etc., of the work all in such manner as to continue the high standards of accuracy and bibliographic usefulness so well established by the previous publishers.

*Resolved*, That the Treasurer be instructed to pay all bills of such Committee in payment of necessary expenses of such editing and publication, providing that this outlay does not exceed annually \$3,000.

DR. H. C. MULLER, of Utrecht, Holland, is preparing to publish an *International Journal of Linguistics*, which is to follow the lines of the *International Zeitschrift für Sprachwissenschaft*, which was discontinued after the death of its editor, Dr. Techmer, of Leipzig.

#### DISCUSSION AND CORRESPONDENCE.

##### THE U. S. NAVAL OBSERVATORY.

I HAVE been very much interested in the discussions which have appeared in SCIENCE regarding the Naval Observatory, but, so far as I can learn, certain points have been overlooked which ought to be brought out very plainly.

In the first place, it was really intended by

those members of Congress who were influential in having the institution established that it should be devoted chiefly to scientific work. The label of 'Depôt of Charts and Instruments' was added to it, and the plea of utility was employed, because it was feared that the public would not support a scientific institution. For this reason, also, the institution was placed under the Navy Department, since the salaries of the professors and officers engaged in astronomical work would come from the pay of the Navy and would not appear under the Observatory appropriations.

Though a number of eminent men have been in charge of the Naval Observatory, the chief criticism to be made regarding it would seem to me to be the lack of a continuous, well-defined policy. Our Navy has been built up at times and then been allowed to run down, and the line officers have had but little to do. At such times they want control of everything connected with the service, and the scientific work of the Observatory has had to go to the wall. This was the case for some years before the War of the Rebellion, and also about 1882. Of course, a number of the line officers who have been at the Observatory have been able men, who, with time enough given them, could learn anything or do anything. The reason why they did not do well in astronomical work usually was that it took them too far from the profession for which they had been trained.

Logically, I think the Naval Observatory should be placed under scientific management and taken from the Navy, but, as affairs are really managed under our government, with a chance for the methods of the practical politician, I am not so sure. Several years ago an attempt was made to change the organization of the Observatory, and the Naval Committee of the House of Representatives gave a hearing to those interested in the matter. Judging from that hearing, several questions of this kind will have to be answered in the present discussion.

If the work of the Naval Observatory is compared with that of other large observatories in this country, both as to quality and cost, has not the naval management been as good as any other in this country?