

about 90 of these papers are abstracted and reviewed, chiefly by M. Binet.

L'Année philosophique, of which M. Pillon is the editor and Alcan the publisher, in the issue for 1897 reaches its eighth volume. It contains articles by M. Renouvier on the idea of God, by M. Dauriac on the philosophy of Paul Janet, and by the editor on Bayle and the altruism of Epicurus. The editor also offers a review of French philosophical publications extending to 140 pages. There is no bibliography.

MESSRS. LEMCKE AND BUECHNER, New York, are the American agents of a newly established bibliography of French periodicals, edited by M. Jordell. The example set in America was last year followed in Germany, and we are now glad to welcome a similar enterprise in France. In this first issue 146 periodicals are included, a subject index and an authors' index being provided. Scientific journals are not, as a rule, considered, but it is exactly articles that appear in the general journals that are most likely to escape the attention of scientific men, and the usefulness to them of such an index is evident. It should be accessible in all the larger libraries.

GENERAL.

It is stated that progress has been made with the preparation, for publication, of the extensive scientific material collected during the voyage of the *Fram*, and that there is a likelihood that the first volume of memoirs will be issued during the coming summer or autumn. The collection will be in quarto form, and the separate memoirs will be the work of a number of specialists in the subjects treated, each being paged separately. The total number will probably be about twenty, forming from three to five volumes. The memoirs will be published at the expense of the Nansen Fund for the advancement of science.

A QUARTO memoir upon *Polypterus* is being projected at Columbia University as the result of the Senff Expedition to the Nile. Specialists in the nerves, muscles, blood vessels and visceral anatomy will divide the work, which is designed to be of the most exhaustive character. Mr. Harrington is taking charge of the distribution of the Senff collection

to specialists in all parts of the country and in Europe, with the understanding that the results will be published by the New York Academy of Science, and thus constitute a special and uniform series, which can finally be issued in compact form.

PROFESSOR TITCHENER, of Cornell University, is preparing for publication early in the fall 'A Laboratory Manual of Experimental Psychology,' which will be published by The Macmillan Company. The work will be in two volumes and will detail an elementary course of laboratory work. The first volume will deal with qualitative analysis, the second with the exact measurement of mental processes. Each volume will be published in a student's and a teacher's edition, the former giving instructions as regards the conduct of experiments, control of introspection, etc., and the latter furnishing references, cognate questions and exercises and standard results.

BOOKS RECEIVED.

In the Australian Bush and the Coast of the Coral Sea.

RICHARD SEMON. London and New York, The Macmillan Company. 1899. Pp. xii + 552. \$6.50.

The Principles of Bacteriology. FERDINAND HUEPPE.

Translated by DR. E. O. JORDAN. Chicago, The Open Court Publishing Co. 1899. Pp. viii + 467. \$1.75.

The Dawn of Reason or Mental Traits in the Lower Animals. JAMES WEIR. New York and London, The Macmillan Company. 1899. Pp. xiii + 234. \$1.25.

A Brief Introduction to Modern Philosophy. ARTHUR KENYON ROGERS. New York and London, The Macmillan Company. 1899. Pp. viii + 360.

The Story of the Cotton Plant. F. WILKINSON. New York, D. Appleton & Co. 1899. Pp. 191.

SCIENTIFIC JOURNALS AND ARTICLES.

THE *Journal of Physical Chemistry*, January. 'Pressure temperature Diagrams for Binary Systems,' by Wilder D. Bancroft. 'The Dissociative Power of Solvents,' by Louis Kahlenberg and Azariah T. Lincoln: a study of electrical conductivity of a number of salts in non-aqueous solutions, more fully noticed in 'Notes on Inorganic Chemistry.' 'Boiling-point curves,' by E. F. Thayer: the boiling point curves for mixtures of alcohol and chloroform,

acetone and alcohol, and chloroform and acetone; it is found that a mixture of benzene and alcohol with 33.5% alcohol distils unchanged at 66.7° under 737 mm. pressure; chloroform and alcohol with 7% alcohol distils without change at 58.5° under 732.5 mm.; and chloroform and acetone with 19% acetone distils unchanged at 63.4° under 737.1 mm.; the boiling points of all mixtures of alcohol and acetone lie between the boiling points of pure alcohol and pure acetone. 'Reversible Reactions,' by John Waddell: a mathematical paper on the conversion of ammonium cyanate into urea, criticising a recent paper by Walker and Hambly in the *Journal of the Chemical Society*.

'SCIENTIFIC vs. Poetic Study of Education' is the title of the opening article, by Charles DeGarmo, in the *March Educational Review* (Holt & Co.). Other articles in the number will be: 'The High School Principal,' by John Tetlow; 'A School-Garden in Thuringia' (Illustrated), by Herman T. Lukens; 'Educational Value of Bird-Study,' by Frank M. Chapman; 'Vacation Schools,' by Charles Mulford Robinson; 'Report of the Chicago Educational Commission'; 'Fraudulent Diplomas and State Supervision,' by Henry Wade Rogers; 'School Supervision in New York State,' by Walter S. Allerton.

THE Geographical Association of Great Britain, at its annual meeting, on January 11th, adopted the *Journal of School Geography*, edited by Professor R. E. Dodge, New York, as its medium for the publication of information of service to teachers of geography.

SOCIETIES AND ACADEMIES.

WASHINGTON BOTANICAL CLUB.

THE third regular meeting was held February 1, 1899, at the residence of Mr. J. G. Smith.

Mr. C. L. Shear exhibited and discussed a parasitic fungus found on *Abies concolor* and *Picea Engelmannii* in the subalpine regions of the Rocky Mountains. This fungus attacks the lower branches of the younger trees, first forming a brown, felt-like layer over the branch and gradually spreading until frequently a foot or more of the branch is enveloped and killed. The fungus is closely related to *Herpotricha*

nigra Hartig, which is frequent on conifers in similar regions in Europe. Though not agreeing exactly with the description, it seems to be what was first described by Professor C. H. Peck in Hayden's Report as *Sphaeria Coulteri*.

Under the title 'Plant Formations of Western Lake Erie' a brief account was given, by Mr. A. J. Pieters, of the swamp formation and of the aquatic plant formation of the Put-in-Bay region. The extensive swamps on the main land at East Harbor are made up of various plant associations in each of which there is a dominant species, while in the other, dominant species of the formation are nearly or quite excluded, though many smaller forms are present everywhere if the depth of water does not prevent. The *Scirpus Americanus* Association is characteristic of the beach either when this is subject to heavy wave action or on dry sand bars; it also occurs in lagoons behind the bars. Throughout the swamp the different associations succeed each other, their arrangement being sometimes dependent upon depth of water, while at other times no relation could be detected between depth of water or character of bottom and the presence of the dominant species.

The aquatic plant formation was classified provisionally into associations which were grouped under two headings: *a*, free swimming forms; *b*, attached species. Three associations were recognized under the first:

1. The Plankton. This includes the free swimming, microscopic forms in deep water.

2. The Utricularia Association. Rootless, fine-leaved phanerogams and masses of algæ floating free beneath the surface in quiet water.

3. The Lemna Association. Small phanerogams floating free on the surface of the water.

Five associations of attached forms were recognized:

4. The Cladophora Association. Algæ attached to stones on the bottom or to the submerged stems of plants.

5. The Desmid Association. Mostly unicellular algæ lightly attached to fine-leaved phanerogams in quiet water.

6. The Chara Association. Low-growing plants covering the bottoms of shallow bays or pools.