atomic weight should be determined with the utmost accuracy, and what Stas did for a few elements ought to be done for all. This work has more than theoretical significance; its practical bearings are many, but it cannot be done to the best advantage along established lines. So far the investigators have been a mob of individuals; they need to be organized into an army. Collective work, cooperative research, is now demanded, and the men who have hitherto toiled separately should learn to pull together. Ten men, working on a common plan, in touch with one another, can accomplish more in a given time than a hundred solitaries. The principles at issue are well understood; the methods of research are well established; but the organizing power has not yet appeared. Shall this be a great institution for research, able to take up the problems which are too large for individuals to handle, or a voluntary cooperation between men who are unselfishly inclined to attempt the work? This question I can not answer; doubtless it will solve itself in time; but I am sure that a method of collective investigation will be found sooner or later, and that then the advance of exact knowledge will be more rapid than ever before. When the atomic weights are all accurately known, the problem of the nature of the elements will be near its solution. Some of the wealth which chemistry has created might well be expended for this purpose. Who will establish a Dalton laboratory for research, and so give the work which he started a permanent home?

F. W. CLARKE.

SCIENTIFIC BOOKS.

British Museum (Natural History); First Report on Economic Zoology. By FRED. V. THEOBALD, M.A.

This is a volume of xxxiv–192 pages, with 18 illustrations, consisting primarily of a series of reports to the Board of Agriculture, of reports and letters to a variety of unofficial correspondents, and of reports to the Foreign Office and the Colonial Office, drawn up by Mr. Theobald during the years 1901–1902. Mr. Theobald has recently been employed by the trustees of the British Museum to assist the director in such work, especially with a view of furnishing the Board of Agriculture with scientific information on Economic Zoology, in accordance with a request made by that department of His Majesty's government.

As may be supposed, the subjects treated have come from all parts of the British Empire and are of more than local interest. The insects mentioned, having especial interest for the American entomologist, are the pear midge, *Diplosis pyrivora* Riley; the mussel scale, *Mytilaspis pomorum;* the apple aphis, *Aphis mali;* the tarnished plant bug, *Lygus pratensis,* attacking chrysanthemums; *Dermestes lardaris;* the bud moth, *Hedya ocellana;* the pear-leaf blister mite, *Eriophyes pyri;* and the Colorado potato beetle which made its appearance in England in 1901 and again in 1902. This last pest appeared in Tilbury dockyard on potato plants on the workmen's allotments. The land was cleared of all potato hulm and the hulm burned with paraffin, at night, on the ground and under the supervision of an officer of the Board of Agriculture; the ground soaked with paraffin, and plowed ten inches deep, after which it was dressed with gas lime, 60 tons per acre. Despite this treatment a few beetles appeared in 1902, but these were promptly collected and destroyed.

While not comparing with the classical reports of the late Miss Ormerod, from an entomological point of view, this is England's first attempt at providing for an official entomologist, and it is to be hoped that it may prove a beginning that will expand until the mother country will no longer continue to be outdone by even her smallest colonies, like Tasmania, Cape Colony and Natal, for illustration. Mr. Theobald might well be wholly employed in this work, and his first report is a good indication that he would prove a most

capable and efficient officer, if he were afforded the proper facilities for carrying out the proper functions of Government Entomologist.

F. M. Webster.

SCIENTIFIC JOURNALS AND ARTICLES.

The American Naturalist for September begins with 'A Contribution to the Morphology and Development of *Corymorpha pendula* Ag' by Albert J. May. This includes a study of the origin of the sex cells and of the phenomena associated with oögenesis. J. Arthur Harris has a paper on 'The Habits of *Cambarus*' which contains many interesting observations on the burrowing habits of some species and their 'chimney building.' Max Morse contributes the nineteenth of the 'Synopses of North American Invertebrates,' this being devoted to the Trichodictidæ, forming a monograph of the North American species. The balance of the number comprises reviews and notes, the botanical notes being many in number.

With the October issue *The American Museum Journal* begins its appearance as a quarterly. The number is practically devoted to an account of 'The Jesup North Pacific Expedition' accompanied by maps and illustrations. The supplement forms 'Guide Leaflet No. 12,' and in its thirty-two pages W. D. Matthew describes 'The Collection of Fossil Vertebrates' which has recently been rearranged. This Leaflet contains many illustrations and a large amount of information; it should be in great demand by others than museum visitors.

SOCIETIES AND ACADEMIES.

ONONDAGA ACADEMY OF SCIENCE.

The first meeting of the Academy since the summer vacation was called to order by the president, Dr. Kraus, in the rooms of the Historical Society in Syracuse on September 25, 1903. P. F. Schneider presented a paper on 'Mica Prospects in Northern Georgia.' He gave a description of the area in which the mica occurs, of the mica-feldspar, pegmatite dikes in which it occurs, and considered the conditions favoring the further development, such as the water power, cost of labor, etc. He closed with a statement of the different uses of mica. Mica has been produced in limited quantities in northern Georgia in years past and Mr. Schneider concludes that the surface indications justify further development and an increased output.

T. C. Hopkins,
Corresponding Secretary.

DISCUSSION AND CORRESPONDENCE.

THE ANIMAL PARASITE SUPPOSED TO BE THE CAUSE OF YELLOW FEVER.

My connection with the Working Party No. 1 of the Yellow Fever Institute and the basis on which I rest my claim as being the *first to have interpreted correctly and given value to the things found in the bodies of the mosquitoes infected from yellow fever patients.*

Working Party No. 1 of the Yellow Fever Institute (a bureau of the U. S. Marine Hospital Service), consisting of Dr. Herman B. Parker, P.A., surgeon and chairman, Washington, D. C., Professor G. E. Beyer, biologist at Tulane University, and Dr. O. L. Pothier, pathologist, Charity Hospital, New Orleans, reports in Bulletin No. 13 of the Institute the results of its labors in Vera Cruz during the summer of 1902.

Section 6 of this bulletin contains the description of an animal parasite which was found in the bodies of mosquitoes infected from yellow fever patients.

In the letter of transmittal the following sentence occurs:

> In the proper study and classification of this new parasite the Working Party desires to express its thanks to Mr. J. C. Smith, of New Orleans, La., for valuable aid and suggestions in working out the life-history of the organism.

I claim that the above recognition is not commensurate with the services I rendered to the party. That it was not 'aid and suggestions' that the party received from me, but that it was given the pith of the whole matter included in the section entitled: 'The Contaminated *Stegomyia fasciata* and its Parasite,' as I will show further on.