itself. The training of the observational faculties is what the college instructor in natural history more especially desires in the preparation for higher work, and it matters little whether that training has been obtained in the study of botany, zoology, physiology or geology.

In the little work that has recently been published by Professor and Mrs. Comstock another step in the right direction has been made. The material for instruction in entomology is everywhere at hand, summer and winter, and for its abundance, diversity and instructiveness is unexcelled in any department of elementary biology; and 'Insect Life' has made the way plain for this elementary instruction in high schools and the higher grades of the grammar school under intelligent teachers. The work is an introduction to the study of animal life, calling for direct observation on the part of both teacher and pupil, and it is a better text-book for elementary instruction than any general work on botany or zoology can be, for classification is only an incidental part of the book. Excepting a few elementary chapters on the anatomy, metamorphoses and classification of insects, nearly the whole book is devoted to nature-study of the more familiar insects in their own haunts and in the laboratory. The concluding chapters tell in simple language how to prepare and preserve specimens for the cabinet. The pupil is encouraged to make a special study of some branch, and there can be no question but that such special study will do more to quicken his powers of observation and his enthusiasm than any amount of generalizations. The book fills a unique place in entomological literature and is to be highly commended. It is written simply and is fully and admirably illustrated by Mrs. Comstock.

S. W. W.

SOCIETIES AND ACADEMIES.

BIOLOGICAL SOCIETY OF WASHINGTON. 279TH MEETING, SATURDAY, OCTOBER 9TH.

MR. L. O. HOWARD exhibited a specimen of the Giant Water Beetle of Cuba.

Mr. R. T. Hill, under the title 'Notes on Antillean Faunas, Past and Present,' gave a resumé of his studies on the geology of the region, describing the various upheavals and subsidences that had taken place and their effects on the fauna of the West Indies and particularly of Jamaica. He stated that communication between the Pacific and the Gulf of Mexico was cut off much earlier than had been generally supposed.

Professor Barton W. Evermann spoke of 'The Catfish of Louisiana,' stating that few were aware of the extent of the fishery, 2,000,000 pounds being shipped annually. Two species were taken, *Ictalurus furcatus* and *I. nigricans*, the latter species having for some time been regarded as belonging to the genus *Amiurus*. During low water the fishes were taken in the bayous by means of extremely long trout lines, but during high water they were taken in the flooded woods, mostly on single lines.

Dr. Theo. Gill discussed 'The Inadequacy of the Order Bunotheria,' stating that the group was not a natural one.

F. A. LUCAS,
Secretary.

NEW YORK ACADEMY OF SCIENCES, SECTION OF GEOLOGY, OCTOBER 18, 1897.

THE first meeting of the Section for the autumn was largely devoted to accounts by various members of the scientific meetings of interest held during the summer. President Stevenson spoke briefly of the work of the International Congress of Geologists at St. Petersburg. The Secretary spoke of the work of the Geographical Section of the British Association for the Advancement of Science, at Toronto, and Professor Martin gave a similar account of the work of the Geological Section at the same meeting. The principal paper of the evening, apart from these descriptions, was by Mr. Charles Bullman, who gave a descriptive account of the location and character of the auriferous gravels of the State of Colombia, illustrated by many specimens. In the opinion of the speaker, the auriferous gravels are of wide distribution and thickness, and of exceeding value, and much more extensively distributed than stated by Mr. F. C. Nicholas, who gave a paper before the Academy on the same topic at one of the spring meetings. The speaker believes that the gold deposits are still being laid down with consider-

able richness and that the whole area around the San Juan river is extremely rich in auriferous deposits. The paper was discussed by Mr. Nicholas, who reiterated his statements that the gold-bearing clay deposits are not as extensive as they at first may seem to be, and that they are isolated to a few small localities now being dissected and drained by small streams.

RICHARD E. DODGE,
Secretary.

ANNUAL MEETING OF THE NEW YORK SECTION OF THE AMERICAN CHEMICAL SOCIETY.

THE annual meeting of the New York Section of the American Chemical Society was held at the College of the City of New York on Friday evening, October 15th, Dr. William McMurtrie presiding and fifty-two members present. The result of the election of officers for the ensuing year was as follows: Dr. William McMurtrie, Chairman; Dr. Durand Woodman, Secretary and Treasurer; Drs. C. A. Doremus, A. C. Hale and A. A. Breneman, Executive Committee; Dr. McMurtrie, C. F. McKenna and Marston T. Bogert, Delegates to the Scientific Alliance of New York.

Brief remarks were made by the Chairman on the death of Dr. M. Alsberg, one of the eight original founders of the Society, and an obituary notice by Dr. H. Endemann was read by the Secretary.

A paper was read by Professor P. C. McIlhiney on 'Some Experiments on Thermo-electric Pyrometry,' in which a very expensive form of electric pyrometer was described and directions given for its arrangement. Dr. McMurtrie made an address on 'Recent Progress in Industrial Chemistry,' after which a vote of thanks was unanimously passed to the Chairman for his faithful and energetic efforts during the year to make the meetings interesting and successful.

DURAND WOODMAN,
Secretary.

THE ACADEMY OF SCIENCE OF ST. LOUIS.

AT the meeting of the Academy of Science of St. Louis, held on the evening of October 18, 1897, the Secretary presented in abstract a paper by Frank Collins Baker, entitled 'The Molluscan Fauna of Western New York,' dealing with specimens collected by the author between July 5 and July 29, 1897, and based on some 1,500 specimens, representing 75 species, and giving exact data concerning weather, temperature and altitude for each station in 19 different localities visited. The paper enumerates 146 species and 10 varieties, including those previously recorded for the section with which it deals. The lingual dentition of *Bythinia tentaculata* is described and figured, and several species have been subjected to critical review.

Professor H. A. Runicke made some informal remarks on recent progress in our knowledge of the constitution of steel, with reference both to its microscopy and chemistry.

WILLIAM TRELEASE,
Recording Secretary.

NEW BOOKS.

Sleep; Its Physiology, Pathology, Hygiene and Psychology. MARIE DE MANACÉÏNE. London, Walter Scott, Ltd.; New York, Charles Scribner's Sons. 1897. Pp. vii + 341. $1.25.

Elements of Comparative Zoology. J. S. KINGSLEY. New York, Henry Holt & Co. 1897. Pp. vii + 357.

Children's Ways. JAMES SULLY. New York, D. Appleton & Co. 1897. Pp. viii + 193. $1.25.

The Living Substance as Such, and as Organism. GWENDOLEN FOULKE ANDREWS. Boston, Ginn & Co. 1897. Pp. 176.

Light, Visible and Invisible. SILVANUS P. THOMPSON. New York and London, The Macmillan Company. 1897. Pp. xii + 294.

Ordinary Differential Equations. JAMES MORRIS PAGE. New York and London, The Macmillan Company. 1897. Pp. xviii + 226. $1.25.

A Text-Book of Special Pathological Anatomy. ERNST ZIEGLER. Translated and edited from the eighth German edition by Donald MacAlister and Henry W. Cattell. Sections IX.–XV. New York and London, The Macmillan Company. 1897. Pp. xv + 579 —1221 + xxxi. $4.00.