connection special adaptation to divers habitats brings about great differences in plants, and we find those of high altitudes and dry sunny locations differing widely from those of moist low places. Many of the problems of distribution and of special floras are touched upon in this connection. The special functions of the green leaves in the formation of organic food from the absorbed inorganic food; the transport of substances in living plants and the propelling forces in the conversion and distribution of materials constitute an interesting but a much more technical group of facts, leading naturally to the treatment of growth and ultimate structure of plants, till we reach the completed structures, passing by progressive stages in complexity from unicellular organisms to plant bodies and the forms of their roots, stems and leaves.

The remainder of the work is promised soon and will be looked for with much interest. The translators deserve a great deal of credit for the clearness of the style, the beauty of the text and the fine character of the illustrations, which are taken from the original plates, by permission of the author.

A traverse le Caucase. ÉMILE LEVIER. Neuchatel, Attinger Frères. 1894.

As the rest of the title indicates, these are the notes and impressions of a botanist, illustrated by numerous photographs taken by one of the party, Mr. Stephen Sommier, supplemented by others from the collection of Vittorio Sella, whose Alpine and Caucasian views are famous. The illustrations add great interest to the work, giving, as they do, views of the people, their towns and buildings, and the wild, picturesque country in which they live. The journal also is full of word pictures, and recounts in a lively and interesting manner the experiences of the party, the details of their journey as well as their adventures in the wild gorges among the snow-clad mountains which they traversed. Their experiences with the natives, the numerous courtesies and hospitalities received from the Russian officials, their adventures in search of plants and game, their photographic trials and anthropological researches, fill a large and handsome volume of 335 pages and hold the interest of the reader from beginning to end. A map completes the list of illustrations, one of which is a picture of the Botanic Garden at Tiflis. A list of new species detected is appended.

ELIZABETH G. BRITTON.

SOCIETIES AND ACADEMIES.

BIOLOGICAL SOCIETY OF WASHINGTON, 247TH MEETING, SATURDAY, OCTOBER 19TH.

MR. SYLVESTER D. JUDD read a paper entitled 'The Food of the Catbird, Brown Thrasher and House Wren,' in which he said that these three birds destroy beetles, ants, caterpillars, grasshoppers and many other insects; also, that the wren is exclusively insectivorous, but that the catbird and thrasher subsist largely on wild fruits, occasionally making inroads on cultivated varieties.

Mr. L. O. Howard spoke briefly of a new enemy of the Hellgrammite fly. In August of the present year Mr. R. S. Clifton called his attention to the fact that the egg masses of the Hellgrammite on the shores of the Potomac River were being eaten by some insect. Investigation showed that the egg masses, which had never before been known to be attacked by any insect, were being eaten wholesale by the larva of *Anthicus haldemanni*, an extremely rare Anthicid beetle. Of the hundreds of egg masses examined none were unattacked. The beetle gnaws a hole through the cover of the egg mass and lays its eggs within. The larvæ feed upon the Hellgrammite eggs until full grown, then crawl away to a crack in the rocks and transform to pupæ.

The speaker claimed especial interest for the observation from three facts: (1). The egg masses of the Hellgrammite were previously supposed so be uninfested by any insect enemy. (2.) *Anthicus haldemanni* is a very rare beetle, which has never before been taken in the District of Columbia. It occured in hundreds this season at the point where the observations were made. (3.) Almost no observations are upon record regarding the early stages of the family Anthicidæ. Of the 130 odd North American species the larvæ of none have heretofore been observed.

Mr. Dall showed some fat still containing a

quantity of dried muscular fibres obtained under the following conditions: The geological horizons known as the 'Kowak clays' and the 'Ground ice formation,' from which mammoth remains have been obtained on the Arctic coast, especially at Elephant Point, Kotzebue Sound, appear to be represented in the river deltas of the northern coast of the peninsula of Alaska. Here, near the mouth of the Naknek River, in the spring of 1894 the freshets cut away the clays until the falling bank revealed mammoth bones in the newly exposed portion. The spot was visited by the natives who obtained mammoth bones and a large quantity of fat which they used in greasing their skin boats. The quantity is estimated at 300 pounds. A little later the locality was visited by Mr. W. J. Fisher, who reports that the cavity in the bank of frozen clay still retained something of the form of the body of the mammoth, and under the organic débris, bones, etc., at the bottom, he obtained a piece of the fat in good preservation, which he presented to Mr. Dall, who now exhibited it. Mr. Dall recalled that at Kotzebue Sound, in cavities of the ground ice, he obtained what he believed to be dung of the mammoth, still having a strong ammonical smell. It would seem that the present carcass had been more or less demoralized before it was imbedded in the clay, as no mention is made of the existence of hair or skin in connection with the remains, only of disintegrated muscular tissue, bones and fat.

Dr. Wardell Stiles spoke briefly of the proposed memorial to Dr. Rudolph Leuckhardt and of the steps taken by the recent International Zoölogical Congress in regard to the adoption of an international code of nomenclature.

Dr. C. Hart Merriam spoke on the American Shrews. From a study of about 2,000 specimens he recognizes 60 species and subspecies, 11 of which are restricted to southern Mexico and Guatemala. Of the total number, 18 belong to the genus *Blarina*, 2 to *Notiosorex* and 40 to *Sorex*. The latter genus is subdivided into the 3 subgenera usually recognized — *Microsorex*, *Neosorex* and *Atophyrax*.

F. A. Lucas,
Secretary.

THE ACADEMY OF SCIENCE OF ST. LOUIS.

The first Fall meeting of the Academy was held at the Academy rooms, Monday evening, October 21st. Prof. Francis E. Nipher made a donation to the Academy of his new volumne on 'Electricity and Magnetism.'

Prof. Wm. Trelease read a paper on 'The Gases Produced by Certain Bacteria,' by L. H. and Emma Pammel.

President Green made mention of the death of Prof. C. V. Riley, one of the former Presidents of the Academy, and announced that he would appoint a committee to prepare a suitable memorial of Prof. Riley's death.

A. W. Douglas,
Recording Secretary.

NEW BOOKS.

Elements of the Mathematical Theory of Electricity and Magnetism. J. J. Thomson. Cambridge, The University Press. New York, Macmillan & Co. 1895. Pp. vi+510. $2.60.

An Introduction to General Biology. William T. Sedgwick and Edmund B. Wilson. Second edition. New York, Henry Holt & Co. 1895. Pp. xii+231.

Elementary Physical Geography. Ralph S. Tarr. New York and London, Macmillan & Co. 1895. Pp. xxxi+488.

Charles Lyell and Modern Geology. T. G. Bonney. London, Cassell & Co. New York, Macmillan & Co. 1895. Pp. vi+224. $1.25.

Missouri Geological Survey, Vol. II. Charles R. Keyes. Jefferson City. 1895. Pp. 405.

Elements of Geometry. George C. Edwards. New York and London, Macmillan & Co. 1895. Pp. xii+293. $1.10.

Science and Art Drawing, A Complete Geometrical Course. J. Humphrey Spanton. London and New York, Macmillan & Co. 1895. Pp. xiv+582. $3.25.

Reconnoissance of the Gold Fields of the Southern Appalachians. George F. Becker. U. S. Geological Survey. 1895. Pp. 85.

Catalogue of the Marine Mollusks of Japan with Descriptions of New Species and Notes on Others Collected by Frederick Stearns. Henry A. Pilsbry. Detroit, Frederick Stearns. 1895. Pp. vi+196.