PSYCHE, DECEMBER.

Prof. Vernon Kellogg discusses the nomenclature of the venation of the wings in insects, with special reference to the veins in Ephemeridæ termed premedia and postmedia by Comstock, which the author does not regard as independent veins; illustrative figures are given. Dr. A. Davidson gives some notes on the nest and parasites of a California bee, *Prosopis varifrons*, one of the parasites being described as new by Ashmead. By the aid of a new figure, Mr. H. G. Dyar corrects his former account of the arrangement of the hairs in the larva of *Apatelodes torrefacta*, and discusses the number of its stages. Miss C. G. Soule describes the early stages of *Deidamia inscripta*, and Mr. F. H. Sprague records the capture of the large Acridian, *Schistocerca americana*, near Boston, Mass. An account (already published in Science) is given of the insect collection of the United States National Museum, and the Proceedings of the Cambridge Entomological Club for October are added. In a supplement are illustrated papers from the New Mexico Agricultural Station by Cockerell, Baker and Gillette describing various insects, with some account of their habits.

SOCIETIES AND ACADEMIES.

BIOLOGICAL SOCIETY OF WASHINGTON, 249TH MEETING, SATURDAY, NOVEMBER 16.

Prof. Barton W. Evermann presented a paper on the fishes of the Missouri River Basin.

In its relation to the distribution of its fishes the Missouri Basin may be divided into three parts, viz.: 1. The western or mountainous portion, which is heavily timbered with coniferous forests, which has an abundant rainfall, and whose streams are clear, cold and pure. 2. The middle belt, extending from the forest covered mountains on the west to the western limit of abundant rainfall and deciduous forests on the east, a broad region with limited vegetation and rainfall, large areas of alkali soil which erodes very easily, and whose streams are shallow, shifting and full of alkali and solid matter in suspension. 3. The eastern belt, covered with deciduous trees, possessing abundant moisture, and whose streams are fairly clear and pure, though not cold.

The total number of fishes known to occur in the Missouri Basin is 140 species, representing 24 families and 68 genera.

The principal families represented are the following: Cyprinidæ, 49 species; Percidæ, 20 species; Catostomidæ, 15 species; Centrarchidæ, 12 species; Siluridæ, 10 species.

The great majority of the species are found only in the eastern belt, over 100 of the 140 being found only east of the 102d meridian. Only 11 species are characteristic of the western belt, and only 45 species are known from the Missouri Basin portions of North Dakota, Montana, Wyoming and Colorado.

In the middle belt there are few species and all the fishes there have a more or less bleached appearance, as a result of the peculiar environment of the alkaline water. Perhaps the best example of bleaching is seen in the flat-headed minnow (*Platygobio gracilis*) which, of all fishes, seems best adapted to these conditions.

One of the most interesting results of the field work upon which the paper was based was the definite determination of the westward limit of spiny-rayed fishes. West of the 96th meridian only a dozen species of this large group are known. Three species were found as far west as 98°38′, while only a single specimen (*Etheostoma iowæ*) was found as far west as 100°30′.

Dr. Frank Baker spoke of the nomenclature of nerve cells, calling attention to the unsatisfactory character of the terms hitherto proposed for the elementary units of the nervous system. The following were especially mentioned:

Neuron (Waldeyer), has the form of a collective; *neurodendron* (Kölliker), cumbrous and not characteristic of all stages; *neura* (Rauber), has the form of a plural.

The term *neure* seems better and lends itself well to combination. The cells of the nerve roots (*cellules radiculaires*, von Gehuchten), could be called *rhizoneures*, the columnar cells (*cellules des cordons*), *axoneures;* commissural cells (*cellules des voies courtes*) would be *zygoneures;* long-path cells like those of the pyramidal tract (*cellules des voies longues*) would be *macrodromic neures*, from Gr. μακρος, δρόμος, long course. Rhizoneures could be divided into neures of sensation, *æsthesioneures* and neures

of action, *myoneures*. The latter term may perhaps be improved. Further subdivisions could readily be made when found necessary.

Prof. Edw. L. Greene read a paper on some fundamentals of nomenclature.

F. A. LUCAS, *Recording Secretary.*

NEW YORK ACADEMY OF SCIENCES, NOVEMBER 18, 1895.

THE Academy met with Vice-President Stevenson in the chair. The Section of Geology and Mineralogy immediately organized.

The first paper was read by Prof. J. J. Stevenson: 'Geological Notes on the Indian Territory.'

During a visit to Indian Territory in 1895 some observations were made which may aid in bringing together the results obtained in Arkansas and Indian Territory by Messrs. Winslow, Hill, Chance and Griswold, and which suggest relationships between the Carboniferous of Arkansas, Indian Territory and Texas.

The grouping of the coal measures presented by Mr. Winslow for Arkansas answers almost equally well for the eastern part of Indian Territory, as appears from Dr. Chance's sections, though some of the sub-divisions are wanting in the Territory and the bottom of the section is not reached, there being, yet lower, a very important limestone in the Choctaw nation. The workable coal beds of the territory are in the lower portion of the section,—the Booneville stage of Arkansas, at least 2,000 ft. lower than the Spadra semi-anthracites. At present they appear to be available only within the Choctaw nation, along the Choctaw and the Missouri, Kansas & Texas railways. The limestone, of undetermined thickness, belongs to the coal measures as is shown by the fossils. An asphaltic limestone occurs near Dougherty in the Chickasaw nation, apparently not far from the same horizon. Its fossils show it to belong to the Bend stage of Texas.

The Ouachita mountain system of Arkansas and eastern Indian Territory appears to be independent of the Tishomingo and Arbuckle mountain system, which is in the Chickasaw nation and apparently older than the other. The structure of the Ouachita system is beautifully simple and thoroughly Appalachian, while that of the Chickasaw system is exceedingly complex. The curving trend shown by the Ouachita is so characteristic that one may venture to suggest that in Arkansas it may prove continuous with folds extending into Missouri. Its southern continuation appears to be buried under the Cretaceous overlap of Texas, which, as described by Prof. Hill, completely masks the older structure.

The paper will appear in full in the transactions of even date.

The second paper of the evening was read by Prof. J. F. Kemp: 'Zinc and Lead Mines in Southwestern Virginia.'

The paper was based on a visit of the speaker to the mines the past summer. He first showed their geographical distribution and the general geology of the country. By means of lantern views from photographs taken on the spot, the excessive sub-aerial decay of the blende-bearing limestones was made clear, and the occurrence of the zinc in the mineral calamine as crusts upon the undecomposed limestone and beneath the overlying mantle of clay. It was stated that the chemical reactions which had led to the formation of the ore must have taken place at the ordinary temperatures, and must have been produced by common agents, such as carbonated atmospheric waters, sulphuric acid and sulphate of zinc, produced by the decay of the blende, and silicic acid from the silica in the original limestone. The speaker did not attempt to elucidate the matter further, but cited it as an interesting subject for experiment and investigation.

J. F. KEMP,
Recording Secretary.

AMERICAN CHEMICAL SOCIETY, MEETING OF NOVEMBER 8, 1895.

THE regular meeting was held in the hall of the Mott Memorial Library at 64 Madison avenue, Prof. P. T. Austen in the chair.

The minutes of the previous meeting were read and approved.

The Secretary reported that the letter authorized to be prepared in regard to the death of Louis Pasteur had been received from the Committee and duly forwarded to the French Chemical Society.

Prof. W. P. Mason's paper on 'The Chemical

vs. the Biological Examination of Water' was read by Prof. McMurtrie, in the absence of the author.

In the discussion which followed, the opinion was general that to arrive at a sound conclusion it is necessary to make both examinations, and ...ition all possible should be known of the history of a water.

Prof. McMurtrie stated that in examining a large number of wells in the State of Illinois he found no cases of typhoid fever resulting from the use of well waters in which the nitrites, free and albumenoid ammonia were all low.

These determinations, in conjunction with careful investigation of the history of a water, he found a pretty safe guide to an opinion.

Dr. Horne described an interesting case of large increase of nitrites on mixing three water supplies, the nitrites being low in each of the waters tested separately. Prof. Speyers suggested that the presence of hydrogen sulfid, or other reducing agent in one of the waters, acting on nitrates in the others, might produce this phenomenon.

A paper 'On the Heat of Solution of Certain Carbon Compounds' was read by Prof. C. L. Speyers.

Dr. Austen read a "Note on Runge's 'Bildungstrieb' of Substances," and exhibited a copy of this old and rare work.

Mr. Cutts read a paper, by T. S. Gladding, 'On the Gravimetric Method of Determining Phosphoric Acid by the Phospho-Molybdate Method.'

'Specimens showing the Effects of Gun Cotton Explosions' were exhibited by Mr. W. H. Burleigh.

The meeting was then adjourned to the second Friday in December.

DURAND WOODMAN, *Secretary.*

BOSTON SOCIETY OF NATURAL HISTORY.

THE Society met for the first meeting of the season on November 6th; 116 persons were present.

The presentation of papers by title, and matters of business announced, the Society listened to Prof. George Lincoln Goodale, who spoke on some peculiarities of Australasian vegetation. Limiting his remarks chiefly to Australia, Prof. Goodale alluded to the natural and political divisions of that vast island-continent and described, with the aid of a series of lantern slides, some of the chief characteristics of its flora, the northeastern shores fringed with mangroves, the distinctness of the desert vegetation, the size and magnificence of the giant Eucalypts, and the interesting features of species of Acacia and Casuarina and of tree ferns. Attention was called to the vast number of genera and species that constitute the Australian flora, a single lantern slide showing at a moderate estimate more than 150 species; the total number of species found in Australia is estimated at about 10,000. Australian vegetation is supposed to have been derived from some point westward of the continent.

SAMUEL HENSHAW, *Secretary.*

NEW BOOKS.

Electricity and Magnetism. FRANCIS E. NIPHER. St. Louis, Mo. 1895. Pp. xi+426. $3.25.

The Intellectual Rise of Electricity. PARK BENJAMIN. New York, D. Appleton & Co. 1895. Pp. 611.

Transmissions par câbles Métalliques. H. LÉAUTÉ and A. BÉRARD. Gauthier-Villars et. fils and G. Masson. Pp. 184.

Les Nouvelles Théories Chimiques. A. ÉTARD. Paris, G. Masson and Gauthier-Villars et fils. Pp. 196.

Guide d'océanographie. J. THOULET. G. Masson and Gauthier-Villars et fils. 1805. Pp. 224.

Histoire de la philosophie atomistique. LÉOPOLD MABILLEAU. Paris, Félix Alcan. Pp. 560.

De Saint-Louis a Tripoli par le lac Tchad. P. L. MONTEIL. Paris, Félix Alcan. Pp. 462.

The Story of the Indian. GEORGE BIRD GRINNEL. New York, D. Appleton & Co. 1895. Pp. x+270. $1.50.

The Story of the Earth. H. G. SEELEY. New York, D. Appleton & Co. Pp. vi+186. 40 cts.

Der Schuss. FREDERICK BRANDEIS. Vienna, Pesth and Leipzig, A. Hartleben. 1895. Pp. 280.

Englishe Chrestomathie. Vienna, Pesth and Leipzig, A. Hartleben. 1895. Pp. 182.