

Some Recent Advances in Spectrum Analysis: By JOSEPH S. AMES. Attention was called to the fact that the supposed discovery of oxygen in the sun was disproved by observations of Mr. Jewell; that as yet there was no spectroscopic evidence of the presence of *two* elementary gases in cleveite gas; that for the formula connecting lines in the series so often observed in spectra Balmer has recently suggested

$$\frac{1}{\lambda} = a - \frac{b}{n^2 + c}$$

where $n=3, 4, 5$, etc.; that series of this kind have been discovered in the spectrum of oxygen; that a most important mathematical relation has been found to exist between the series observed in the spectrum of any one element. The importance of the study of these series with reference to molecular theories was touched upon.

CHAS. LANE POOR,
Secretary.

BIOLOGICAL SOCIETY OF WASHINGTON.—271ST MEETING, SATURDAY, JANUARY 30.

DR. C. HART MERRIAM spoke of 'The Pribilof Island Hair Seal,' stating that it differed from the Eastern Harbor seal, *Phoca vitulina*, in its greater size, in the simpler character of the true molars and in the greater extent of the articulation of the premaxillaries with the nasals. As specimens were lacking between Greenland and Bering Sea, it was uncertain whether the Pribilof seal was a species or subspecies, although it was probably the latter. Several names had been applied to hair seals from the North Pacific, but the one which would probably stand was *Phoca larga*.

Mr. C. H. Townsend presented a paper on 'The Origin of the Alaskan Live Mammoth Story,' saying that of late years many reports had appeared in newspapers to the effect that Indians declared that the mammoth was still living in Alaska. The speaker stated that in 1885 he visited Cape Prince of Wales in the Corwin, and, in reply to questions of the natives concerning the bones of the mammoth with which they were familiar, showed them figures of the skeleton and drew a restoration of the animal. These figures were copied by the natives, and,

as the natives of widely separated regions have communication with each other by canoes and dog teams, he had no doubt that in this manner the figure and information had become widely spread. Being subsequently related and shown to visitors these had given rise to the reports of living mammoths.

Mr. Frank Benton spoke at some length on 'The Giant Bee of India,' saying that apiarians were much interested in introducing this species into the United States, owing to the increasing demand for wax in the arts. The species built a large comb on the under side of a limb or overhanging rock, and was much sought for by the natives of the regions where it is found. Mr. Benton described his efforts to obtain specimens and bring them to the United States and said that, although these first attempts had not succeeded, he thought that the bee could be successfully introduced into the southern United States.

Mr. L. O. Howard presented a communication entitled 'Parasites of Shade-tree Insects in Washington,' in which he showed the exact details of the reduction of *Orgyia leucostigma*, which appeared in extraordinary numbers in the District of Columbia in the summer of 1895, to perfect harmlessness in the summer of 1896. Thirty-seven species of parasitic insects were engaged in this work; 17 species were primary Hymenopterous parasites, 6 primary Dipterous parasites and 14 Hymenopterous hyperparasites. Among the hyperparasites 12 were secondary, 2 tertiary and one of the latter probably also quaternary. The speaker generalized at some length on the subject of insect parasitism as illustrated by this rather striking instance.

F. A. LUCAS,
Secretary.

NEW YORK ACADEMY OF SCIENCES, BIOLOGICAL SECTION, JANUARY 11, 1897.

DR. G. S. HUNTINGTON read a paper entitled 'A Contribution to the Myology of *Lemur bruneus*.'

The paper deals with some of the ventral trunk muscles and the appendicular muscles of the forelimb and pectoral girdle. A comparison of the structure of these muscles with the corresponding parts in other members of the sub-

order shows *L. bruneus* to possess marked primate characters in the arrangement of the pectoral girdle muscles and the muscles of the proximal segment of the anterior limb. This is especially evident in the lateral recession of the pectorales; the compound character of the ectopectoral insertion, the junctions of a pectoralis abdominalis with the typical entopectoral insertion, and the presence of an axillary muscular arch, derived from the tendons of the Latissimus dorsi and connected with the deep plane of insertion of the ectopectoral tendon.

The presence of a third or inferior portion of the coraco-brachialis is noted in addition to the upper and middle portion usually present in Lemuroidia.

The ventral trunk muscles present a distinct carnivore type in their arrangement, instanced by the high thoracic extension of the rectus abdominalis, the occurrence of a well-developed supra costalis, the union of levator scapulæ and serratus magnus, the thoracic extension of the scalenus group; interlocking both with the serratus magnus and obliquus externus.

The aponeurosis of the obliquus externus presents a well-developed division of the internal pillar of the external abdominal ring, dove-tailing with the one from the opposite side and forming the triangular ligament of the same.

Mr. H. E. Crampton, Jr., reported some of his 'Observations upon Fertilization in Gastropods.'

The observations were made upon the eggs of a species of *Doris*, collected last summer on the Pacific Coast by Mr. Calkins, and upon a species of *Bulla* which deposited eggs at Woods Holl during the months of August and September. The results may best be summarized by stating that a complete confirmation was obtained of the accounts of fertilization given by Wilson and Mathews, Boveri, Hill for sea-urchins, Meade on *Chetopterus Kostanecki* and Wiejewski upon *Physa*, etc. The sperm nucleus is preceded by the divided centrosome, an aster, however, not being found till the union of the germ-nuclei. The first polar spindle lies at each pole a double centrosome, the second maturation spindle but one. These are of great size, however, and the one remaining in the egg

finally disintegrates, the centrosomes of the first cleavage spindle being derived from the sperm. The germ-nuclei do not fuse, but lie very close to one another, in contact.

Mr. N. R. Harrington gave an account of the life history of *Entoconcha*, a mollusc parasitic in a Holothurian. His paper was illustrated by photographs.

The following paper was read by title:

N. R. Harrington and B. B. Griffin: 'Notes on the Distribution, Habits and Habitat of some Puget Sound Invertebrates.'

C. L. BRISTOL,
Secretary.

NEW BOOKS.

Travels in West Africa. MARY H. KINGSLEY. London and New York, The Macmillan Company. 1897. Pp. xvi+736. \$6.50.

Experimental Morphology. CHARLES BENEDICT DAVENPORT. New York and London, The Macmillan Company. 1897. Part I. Pp. xiv+280. \$2.60.

Microscopic Researches on the Formative Property of Glycogen. CHARLES CREIGHTON. London, Adam and Charles Black. 1896. Part I. Pp. viii+152 and Five Plates.

Traité élémentaire de mécanique chimique. P. DUHEM. Paris, A. Hermann. 1897. Pp. viii+299.

Vorlesungen über die electromagnetische Theorie des Lichts. H. VON HELMHOLTZ. Hamburg and Leipzig, Leopold Voss. V. Pp. xii+370. M. 14.

Elementary Human Physiology. JOHN GRAY MCKENDRICK. London, W. & R. Chambers, Ltd. 1896. Pp. 240+xvi.

A Laboratory Note-Book of Elementary Practical Physics. L. R. WILBERFORCE and T. C. FITZPATRICK. Cambridge University Press. 1896. Part I., pp. 31. Part II., pp. 46. Part III., pp. 39. 3s.

Untersuchungen über die Sinnesfunctionen der Menschlichen Haut. MAY VON FREY. Leipzig, S. Hirzel. 1896. No. III. Pp. 175-266. Einzelpreis. 5 M.

Spectralanalytische Untersuchung des Argons. J. M. EDER and E. VALENTA. Gerold, Vienna. 1896. Pp. 39.