

Electric Currents'; Professor E. Ray Lankester, four lectures on 'Thirty Years' Progress in Biological Science'; Professor Dewar, four lectures on 'The Liquefaction of Gases'; Dr. William Huggins, three lectures on 'The Instruments and Methods of Spectroscopic Astronomy.'

SOCIETIES AND ACADEMIES.

ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA.

At the meeting on March 26th Dr. M. V. Ball called attention to the microscopic preparation of the germ characteristic of erysipelas, the botanical name of which is *Streptococcus pyogenes*. The culture of the organism had been used with most gratifying success in the treatment of cancer, the cure of some cases having been reported, while others had been manifestly benefited. A subcutaneous injection of the culture raises the temperature to 104° in 20 minutes. This palliative effect of the poison of erysipelas had long been known, the improvement of cancer cases accidentally affected having been noticed years ago in hospitals.

Dr. S. G. Dixon spoke of the morphological resemblance between *Actinomyces*, or the ray fungus, and *Aegerita candida*, a white fungus, found growing on damp decaying wood. The former is believed to produce in cattle and man the disease known as lump jaw, or *Actinomyces*. Should the two fungi prove to be identical, the hitherto unknown cause of lump jaw in cattle would not only be explained, but cattle breeders would be enabled to prevent, to a great extent, the much dreaded disease.

Mr. Henry C. Pilsbry exhibited fine specimens of the genus *Cerion*, and called special attention to the variations of the teeth or plates on the collumella, some of which extended far into the shell, while in other individuals they are quite superficial, the external characters, however, remaining

the same. He believed the use of these folds was to enable the mollusk to keep a more firm grasp of the shell, and thus move it about more freely, as it hangs from twigs and leaves.

The geographical distribution of the species is peculiar. They inhabit Cuba, Hayti, the Bahamas and Florida Keys and reappear in Curacao, off the northern coast of South America, but are completely absent from Jamaica and the Caribbean chain. There is, therefore, a wide gap between the northern and southern areas inhabited by the genus *Cerion*, although the islands in this space are apparently favorable to the existence of snails. A suite of specimens illustrating species of *Cerion* was exhibited.

EDW. J. NOLAN, *Recording Secretary*.

NEW YORK ACADEMY OF SCIENCES.

At the meeting of the Section of Astronomy and Physics of the New York Academy of Sciences on April 1st Professor R. S. Woodward was elected chairman and William Hallock secretary for the following year.

President Rees gave a very interesting resumé of the work done in astronomy during 1894. This paper may appear in *SCIENCE* a little later.

President Rees then showed some of Professor Barnard's wonderful photographs of the Milky-Way, pointing out the evidences of the peculiar geometrical clustering of the stars in certain parts, as well as the 'dark lanes' and 'star streams' discovered by Barnard. He also showed photographs of several comets, especially Brooks', which went through such interesting changes. The photographs brought out most beautifully the unusual structure of the tail, and the sudden changes in shape, especially when it seemed to have encountered a resisting medium and apparently broke the tail near its middle.

The pictures were discussed and admired

by the members. Mr. C. A. Post admitted that his skepticism as to 'star streams' had been conquered, and argued that from the photograph it seemed more probable that Brooks' comet had run its head against the obstacle rather than its tail, as maintained by Professor Barnard.

WM. HALLOCK, *Sec'y of Section.*

THE TEXAS ACADEMY OF SCIENCE, APRIL 5.

Brief announcement of my recent discoveries in the mathematics of engineering: DR. G. B. HALSTED.

The storm-water storage system of irrigation: ROBERT A. THOMPSON.

Cometary Orbits as related to the solar system: CHARLES K. McDONALD.

Microscopic exhibition of slides sent by Dr. A. J. Smith on the organism which causes malarial fever: W. W. NORMAN.

SCIENTIFIC JOURNALS.

AMERICAN JOURNAL OF MATHEMATICS, APRIL.

A Method for Calculating Simultaneously all the Roots of an Equation: EMORY MCCLINTOCK.

Sur le logarithme de la fonction gamma: CH. HERMITE.

Sur la pression dans les milieux diélectriques ou magnétiques: P. DUHEM.

On Ternary Substitution-Groups of Finite Order which leave a Triangular unchanged: H. MASCHKE.

PSYCHE, APRIL.

A Comparison of Colias hecla with Colias meadii and Colias elis: THOMAS E. BEAN.
Western Pediciæ, Bittacomorphæ and Trichoceræ: C. R. OSTEN SACKEN.

Failure to emerge of Actias luna: CAROLINE G. SOULE.

Entomological Notes.

JOURNAL OF GEOLOGY, FEB.-MARCH.

Sedimentary Measurement of Cretaceous Time: G. K. GILBERT.

Use of the Aneroid Barometer in Geological Surveying: C. W. ROLFE.

A Petrographical Sketch of Ægina and Methana:

Part III. HENRY S. WASHINGTON.

On Clinton Conglomerates and Wave Marks in Ohio and Kentucky (Concluded): AUG. F. FOERSTE.

Glacial Studies in Greenland: T. C. CHAMBERLIN.

Editorials; Publications.

BULLETIN OF THE TORREY BOTANICAL CLUB.
APRIL.

Biographical Sketch of Dr. J. Bernard Brinton (with portrait): By a Committee of the Philadelphia Botanical Club.

Food Plants of the North American Indians: V. HARVARD.

The Classification of the Archegoniates: LUCIEN M. UNDERWOOD.

Rules for Citation adopted by the Madison Botanical Congress and Section G., A. A. A. S. Proceedings of the Club.

Index to Recent Literature Relating to American Botany

NEW BOOKS.

The Story of the Stars. G. F. CHAMBERS. New York, D. Appleton. 1895. Pp. 160.

Evolution and Effort. Edmond Kelly. New York, D. Appleton, & Co. 1885. Pp. vii+297. \$1.25.

A Primer of Evolution. Edward Clodd. New York and London, Longmans, Green & Co. 1895. Pp. 186.

Repetitorium der Chemie. CARL ARNOLD. 6th Ed. Hamburg und Leipzig, Leopold Voss. 1894. Pp. x + 613. M. 6.

Anleitung zur Mikrochemischen Analyse. H. BEHRENS. Hamburg und Leipzig, Leopold Voss. 1895. Pp. xi + 224. M. 6.

Bildungselemente und Erziehlicher Wert des Unterrichts in der Chemie. RUDOLPH ARENDO. Hamburg und Leipzig, Leopold Voss. 1895. Pp. 103. M. 2.

Le Petrole. A. JACCARD. Paris, Felix Alcan. 1895. Pp. xii + 292.