

# SCIENCE

EDITORIAL COMMITTEE: S. NEWCOMB, Mathematics; R. S. WOODWARD, Mechanics; E. C. PICKERING Astronomy; T. C. MENDENHALL, Physics; R. H. THURSTON, Engineering; IRA REMSEN, Chemistry; J. LE CONTE, Geology; W. M. DAVIS, Physiography; HENRY F. OSBORN, Paleontology; W. K. BROOKS, C. HART MERRIAM, Zoology; S. H. SCUDDER, Entomology; C. E. BESSEY, N. L. BRITTON, Botany; C. S. MINOT, Embryology, Histology; H. P. BOWDITCH, Physiology; J. S. BILLINGS, Hygiene; J. McKEEN CATTELL, Psychology; J. W. POWELL, Anthropology.

FRIDAY, MARCH 9, 1900.

PROFESSOR THOMAS EGLESTON.

## CONTENTS:

<i>Professor Thomas Egleston:</i> PROFESSOR A. J. MOSES.....	361
<i>The Seventieth Birthday of Carl von Kupffer.—His Life and Works:</i> PROFESSOR BASHFORD DEAN..	364
<i>Recent Progress in Geodesy:</i> DR. J. F. HAYFORD .....	369
<i>The Plankton of Fresh Water Lakes:</i> C. DWIGHT MARSH.....	374
<i>Scientific Books:—</i>	
<i>The Cambridge Natural History:</i> PROFESSOR J. H. COMSTOCK. <i>Traité de Zoologie Concrète:</i> DR. GARY N. CALKINS. <i>Paleozoic Reticulate Sponges:</i> CHARLES SCHUCHERT.....	389
<i>Scientific Journals and Articles.....</i>	392
<i>Societies and Academies:—</i>	
<i>The Annual Meeting of the New York Academy of Sciences:</i> PROFESSOR RICHARD E. DODGE. <i>American Mathematical Society:</i> PROFESSOR F. N. COLE. <i>The Texas Academy of Science:</i> F. W. S.....	393
<i>Discussion and Correspondence:—</i>	
<i>Marginal Tabs for Logarithm Tables:</i> PROFESSOR H. W. HOLMAN.....	396
<i>Notes on Physics:</i> F. C. C.....	396
<i>Zoological Notes:—</i>	
<i>Bird Migration, The Stereornithes Again:</i> F. A. L.....	397
<i>The Assay Commission.....</i>	397
<i>Scientific Notes and News .....</i>	398
<i>University and Educational News.....</i>	400

THOMAS EGLESTON, planner and first professor of the School of Mines of Columbia University, died on Monday morning, January 15th, at his home, 35 West Washington Square, New York City, at the age of sixty-seven years.

Professor Egleston was born in New York City, December 9, 1832. He prepared for college under Dr. Dudley, of Northampton, took the regular four years' classical course at Yale and graduated in 1854; and in the following year took a post graduate course in the Yale Scientific School of Analytical Chemistry under Professor Benjamin Silliman, Jr.

In 1856 he went to Europe more for rest than to pursue any special course of study, but, becoming interested in the lectures in geology and chemistry at the Jardin des Plantes of Paris, he spent a good deal of time in the collections and laboratories and later, desiring to pursue more systematic work, applied for and obtained the permission of the government to attend certain lectures at the École des Mines, especially those of Professor de Senarmont on Mineralogy, of Elie de Beaumont on Geology, and of Professor Bayle on Paleontology. He completed his course at the school in 1860, having not only attended the lectures but worked in all the laboratories. During the vacations and at the close of his course he travelled extensively in France and Germany, studying and collecting.

MSS. intended for publication and books, etc., intended for review should be sent to the responsible editor, Professor, J. McKeen Cattell, Garrison-on-Hudson, N. Y.

fossils, regarding his *Hydnoceras* as a cephalopod. In the same year Vanuxem described another form, *Uphantænia*, as a plant, and this was the current interpretation for all the *Dictyospongiæ* until 1881, when Whitfield, from Lower Carbonic material, determined that they were the remains of sponges. Nearly all these fossils are found in sandstone, while the living *Euplectellas* are commonly anchored on muddy bottoms.

The present monograph begins with 'General Observations on the Sponges.' These are followed by sections on the affinities, structure of the skeleton, preservation, and occurrence, of the *Dictyospongiæ*. A detailed review of the bibliography, in which there are 42 entries, is next given, and then come a classification and the descriptions of genera and species. The family *Dictyospongiæ* is here divided into seven sub-families, all new. These are: *Dictyospongiinæ*, *Thysanodictyinaæ*, *Calathospongiinæ*, *Physospongiinæ*, *Hyphantæniinæ*, *Hallodictyinaæ*, and *Aglithodictyinaæ*. Of new genera there are *Dictyospongia*, *Hydriodictya*, *Prismodictya*, *Gonglospongia*, *Botryodictya*, *Tylodictya*, *Helicodictya*, *Rhabdosispongia*, *Ceratodictya*, *Lebedictya*, *Thysanodictya*, *Arystidictya*, *Aclæodictya*, *Griphodictya*, *Calathospongia*, *Clepsydropongia*, *Roemerispongia*, *Hallodictya* and *Aglithodictya*. *Mastodictya* is another new genus, but is undefined. *Sphærodictya* is proposed to replace in part *Teganium* Rauff, which seems to include heterogeneous material. *Cyathophycus* is considered objectionable, because the name indicates a plant. On this ground Dawson changed it to *Cyathospongia*, a name used earlier by Hall. In this volume, the latter term is replaced by *Cyathodictya*. It is a question whether anything is gained by these changes (*Cyathophycus* to *Cyathodictya*, and *Uphantænia* to *Hyphantænia*).

*Hydnoceras* Conrad was proposed for 'an extravagant type of orthoceran cephalopod.' This, however, never came into use and is here revived 'not because it was founded on a misconception, but because it perpetuates one' (sic). On the other hand *Dictyophyton* was introduced by Hall in 1863, 'at the request of Mr. Conrad \* \* \* to replace the term *Hydnoceras*.' The genotype is *D. newberryi*, which was also accepted for *Thamnodictya* in 1884.

Under the rules of nomenclature such changes are not usually permissible, but since *Dictyophyton* 'tends to perpetuate the old and erroneous conception of the algaous nature of these fossils' the name may be allowed.

The paleontology of New York serves as the highest expression of the work on American invertebrates, not only from a scientific standpoint, but also in artistic appearance. This volume on the sponges continues the previous standard, in spite of the fact that the preservation of the extinct glass sponges does not permit of much detailed elaboration. From an artistic standpoint, the present monograph is equalled by no other, not even by the elaborate 'Système Silurien du Centre de la Bohême' of Barrande. Professor Hall long ago recognized the accurate and artistic draughtsmanship of Mr. George B. Simpson and the ability of Mr. Philip Ast in lithographic work. Few can appreciate the skill and patience of the latter in overcoming technical difficulties. For 50 years New York has nobly supported her workers in pure science, and paleontologists look to that Commonwealth and to Dr. Clarke for a continuance of the splendid series of volumes on the paleontology of the State.

CHARLES SCHUCHERT.

#### BOOKS RECEIVED.

- The International Geography*, by seventy authors. Edited by HUGH ROBERT MILL. New York, D. Appleton & Co. 1900. Pp. xx + 1088. \$3.50.
- Jenaer Glas und seine Verwendung in Wissenschaft und Technik*. H. HOVESTADT. Jena, Fischer. 1900. Pp. xii + 429. 9 Mark.
- The Criminal*. AUGUST DRÄHMS, with an introduction by CESARE LOMBROSO. New York and London. The Macmillan Company. 1900. Pp. xiv + 402. \$2.00.
- Municipal Government*. BIRD S. COLER. New York, D. Appleton & Co. 1900. Pp. ix + 200.
- Man and his Ancestor*. CHARLES MORRIS. New York and London. The Macmillan Co. Pp. vi + 238. \$1.25.

#### SCIENTIFIC JOURNALS AND ARTICLES.

THE January number (Vol. I., No. 1) of the *Transactions* of the American Mathematical Society contains the following articles: 'Conics and cubics connected with a plane cubic by