

Finally, in regard to Judge Johnson's "outline of the evolution of the Florida Peninsula," I confess to being ignorant of its existence either in print or otherwise, until long after my own views had not only been verbally communicated to many members of the U. S. Geological Survey and presented to the Biological Society of Washington, but had been circulated in type-written copies for the use of Mr. Eldridge's field-party. It is proper to say that while I had for some time entertained the theoretical view of the insulation of the Eocene island of Florida, the final proof was supplied by the field observations of Mr. T. W. Stanton of the U. S. Geological Survey, while the exploration of the Chipola beds, for material by which their age was determined, and the discovery of their existence in the typical locality on the Chipola River were first made by Mr. Frank Burns of the U. S. Geological Survey; though Langdon had previously observed the lower bed at Alum Bluff, which proves to be of the same age.

WM. H. DALL.

Smithsonian Institution, Oct. 31.

#### BOOK-REVIEWS.

*A Course on Zoölogy. Designed for Secondary Education.* By MONTMAHON and BEAUREGARD. Translated from the French by WM. H. GREEN. Phila., J. B. Lippincott Co. 75 cts.

THE introductory books of science of Paul Bert for use in the lower schools are very well known in this country, and have been of very great value in introducing science into the lower grades of education. The above course of zoölogy by Montmahon and Beauregard is designed as a second book in the same series, and is planned to give to a higher grade of students a somewhat extensive study in zoölogy. The translation of this book into English will be of great value to many of our high schools where an elementary text-book in zoölogy is desired and one interesting to students. The plan of the book is the natural method of proceeding from the known to the unknown. It begins with an out-

line of the study of human anatomy and physiology, and passes from this subject to the study of the dog, the chicken, the lizard, the frog, the fish, and then to the invertebrates, beginning naturally with insects and crustacea and then passing through the lower orders of invertebrates somewhat more hurriedly. After having thus given a general study of a type illustrative of each of the large groups of animals, the last half of the book is occupied with a popular study of the larger and better known animals, chiefly mammals and birds. This part of the book is very abundantly illustrated with figures of the animals mentioned and described, and throughout the illustrations are abundant and good. For the purpose designed this book is open to the criticism that it attempts to crowd rather too much detailed information and too many scientific terms into a short compass. But, on the whole, the style is simple, easily understood by the student for whom the book is designed, and the book seems to be admirably adapted for exciting an interest in zoölogical subjects among students of the secondary grade of schools. The scholar will hardly get a systematic knowledge of zoölogy out of the book, but this could not be expected of any zoölogy adapted to the secondary schools. The work can hardly fail to excite an interest, however, in the scholar and lead him to using his own eyes in the observation of nature, which is, of course, the chief design of scientific instruction in the lower schools. This book can thus certainly be recommended for introduction into high schools and even into schools of lower grade.

*Chemical Theory for Beginners.* By LEONARD DOBBIN and JAMES WALKER. New York, Macmillan & Co. 8°. 248 p. 70 cents.

THE study of chemical theories should be based upon a wide range of experimental facts; and the title of this little volume is unpromising. The theories, however, are supported by numerous experiments. The beginner may find some things hard to understand, but much that is profitable. Those who are familiar with

#### CALENDAR OF SOCIETIES.

##### Philosophical Society, Washington.

Nov. 26.—F. L. O. Wadsworth, Method of Determination of the Metre in Terms of a Wave Length of Light; B. E. Fernow, Recent Contributions Towards the Discussion of Forest Influences; R. T. Hill, The Occurrence of Iron in Mexico.

##### New York Academy of Sciences, Biological Section.

Nov. 14.—The papers were: Arthur Hollick, On Additions to the Palæobotany of Staten Island. About forty species were presented, of which half had been already described from Greenland Cretaceous and from the Laramie. The fossils, leaf-fragments, fruits, and seeds, occur in fire-brick clay, or in ferruginous sandstone or concretions. The genera notably represented were *Populus*, *Platanus*, *Myrica*, *Kalmia*, *Acer*, and *Williamsonia*. H. F. Osborn, Report upon a Collection of Mammals from the Cretaceous (Laramie). The multituberculates, *Meniscoëssus* and *Ptilodus*, were assigned to the *Plagiaulacidæ*, the former a probable ancestor of *Polymastodon*. The relations of these mammals were shown to be closer to *Puerco* than to Upper Jurassic forms. Arthur Willey, On the Significance of the Pituitary Body, and made the suggestion, founded on researches on the *Ascidians* and *Amphioxus*, that, if the Amphirhinc condition of the higher vertebrates was preceded by a Monorhinc condition, the nose in the latter case was not represented by the small nasal sac of *Petro-myzon*, of which the unpaired character is undoubtedly secondary, as shown both by its development (Dohrn) and by its nerve-supply; but the nose in the Monorhinc an-

cestor of the Vertebrates was the organ which we know as the Pituitary Body or Hypophysis cerebri in all existing Vertebrates, this being represented in the *Ascidians*, as shown by Julin, by the subneural gland and its duct, and in *Amphioxus* by the so-called olfactory pit. The Pituitary Body is to the lateral Nares what the Pineal Body is to the lateral Eyes. Bashford Dean exhibited an entire *Cladodus*, a unique specimen recently collected in the Cleveland Shales. The tail, for the first time shown, indicates historically the origin of this part in modern elasmobranches.

#### Publications Received at Editor's Office.

ADDISON, STEELE AND BUDGELL. Sir Roger de Coverley Papers. English Classics for Schools. New York, American Book Co. 148 p. 12°. 20 cents.  
ALLSOR, F. C. Practical Electric-Light Fitting. New York, Macmillan & Co. 275 p. 14°. \$1.50.  
BABBT. 99 Methods of Utilizing Boiled Beef. Tr. from the French. New York, John Ireland. 122 p. 8°. 75 cents.  
BARKER, A. S. Deep-Sea Sounding. New York, Wiley. 133 p. Maps. 8°. \$2.  
BARKER, GEO. F. Physics; Advanced Course. Second Edition. New York, Holt. 902 p. 8°. \$1.50.  
CAMPBELL, H. J. Elementary Biology. London and New York, Macmillan & Co. 284 p. 12°. \$1.60.  
CONTRIBUTIONS from the Botanical Laboratory of the University of Pennsylvania. Vol. 1., No. 1. Philadelphia, University of Pa. 72 p., pl. 8°. \$1.50.  
DINGLE, EDWARD. A study of Longitude. Plymouth, Eng., Geo. H. Sellick. 24 p. 8°. 1s.  
GALTON, FRANCIS. Finger Prints. London and New York, Macmillan & Co. 216 p. 8°. \$2.  
HOSKINS, L. M. Elements of Graphic Statics. London and New York, Macmillan & Co. 191 p., pl. 8°. \$2.25.  
IRVING, WASHINGTON. Ten Selections from the Sketch-Book. English Classics for Schools. New York, American Book Co. 149 p. 12°. 20c.  
MCLENNAN, EVAN. Cosmical Evolution. Chicago, Donobue, Henneberry & Co., 1890. 399 p. 8°. \$1.50.  
SCOTT, SIR WALTER. Ivanhoe. English Classics for Schools. New York, American Book Co. 484 p. 12°. 50 cents.  
SHAKESPEARE, WM. Julius Cæsar. English Classics for Schools. New York, American Book Co. 114 p. 12°. 20 cents.

#### Reading Matter Notices.

Ripans Tabules: for torpid liver.

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