Board of Managers of the garden and its Board of Scientific Directors for their wisdom in securing a broad foundation and an assurance of liberal management.

The following papers were read before the Society:

Some notes on a revision of the genus *Mnium*, illustrated with specimens and photographs of types: ELIZABETH G. BRITTON.

The New York Botanical Garden: N. L. BRITTON.

A contribution to a knowledge of North American phycophilous fungi: GEO F. ATKINSON.

The genus *Liriodendropsis:* ARTHUR HOLLICK.

The Laboulbeniaceæ: ROLAND THAXTER.

Notes on aquatic fungi: ROLAND THAXTER.

A synopsis of North American rushes: FREDERICK V. COVILLE.

Summary of a revision of the genus *Dicranum:* CHARLES R. BARNES and RODNEY H. TRUE.

Corrections in the description of *Coscinodon Rauei* and *O. Renauldi*, and a comparison of these species: ELIZABETH G. BRITTON

CHARLES R. BARNES.

UNIVERSITY OF WISCONSIN.

SCIENTIFIC NOTES AND NEWS.

A NEW JURASSIC PLESIOSAUR FROM WYOMING.

THE writer has recently been fortunate in finding in the Baptanodon Beds of the Upper Jurassic of Wyoming the remains of a large Plesiosaur, the first of the group from the Jurassic found in America. The horizon is below that of the large Dinosaurs. The precise generic location of the specimen is at present difficult, until more of the specimen has been detached from the hard matrix. It is, therefore, placed provisionally in the genus *Cimoliosaurus*, to which the ascertained characters seem to refer it. The species may be known as *C. rex.*

A centrum of a dorsal vertebra measures 108 mm. in length by 130 mm. in transverse diameter. An anterior cervical centrum is deeply cupped on one end and nearly flat on the other, and measures 65 mm. in length by 80 mm. in width. The arch is united by suture, and the ribs have a single attachment. The femur is about 1200 mm. in length (a portion of the shaft is missing), 375 mm. in width at the distal end, and 300 mm. at the head. A basal phalange is 105 mm. in length, 65 mm. in width at either end and 37 mm. through the shaft.

A full description of the remains found will be shortly given by Professor Williston and the writer. W. C. KNIGHT.

THE EARLIEST NAME FOR STELLER'S SEA COW AND DUGONG.

IN 1811, Illiger published a number of new genera,* proposing among others, *Rytina* for the sea cow of Bering Island and *Halicore* for the dugong of the Indian Ocean. Nearly all recent writers on mammals have adopted these genera, apparently overlooking the fact that both animals had been named before 1811. As early as 1794 Retzius described the sea cow in the 'Handlingar' of the Stockholm Academy of Science, placing it in a new genus which he called *Hydrodamalis*,† and the species, based on the *Vacca marina* of Steller, *Hydrodamalis stelleri.* The generic description is sufficient to identify the animal even if the species and the vernacular name used by Steller had not been given. As *Hydrodamalis* has 17 years priority over *Rytina* it should be adopted as the generic name of the northern sea cow. The earliest specific name is that given by Zimmermann in 1780, and the species should stand *Hydrodamalis gigas* (Zimm.). The abandonment of *Rytina* necessitates a change in the name of the family (*Rytinidæ*), which

* Prodromus Syst. Mamm. et Avium.

† Kongl. Vetensk. Acad. nya Handlingar, Stockholm, XV., Oct.–Dec., 1794, p. 292.

may be called *Hydrodamalidæ*, there being no other genus in the group.

Lacépède, in 1801, used *Dugong** as a generic name for the sirenian afterwards called *Halicore* by Illiger, but not being a classical word it did not come into general use. As it is the first name for the genus there seems to be no good reason for not adopting it. The specific name was first proposed by Müller in 1776,† who spelled it *dugon*—without the final g. This was evidently not a misprint, as the same spelling occurs twice. The name for the dugong will, therefore, be *Dugong dugon* (Müller), while the unfortunate compound *Dugongidæ* becomes necessary for the family, instead of the more euphonious *Halicoridæ*.

T. S. Palmer.

Washington, D. C.

AN INTERNATIONAL ZOÖLOGISTS' DIRECTORY.

Messrs. Friedländer & Son, of Berlin, have just isssued a very useful 'International Zoölogists' Directory' of 740 pp. octavo, containing about 12,000 names and addresses. It includes to a certain degree the official position of each person, for it is not a simple alphabetical list, but has several subdivisions, the classification being primarily geographical by countries. Under the country the towns are given alphabetically, excepting that the capital is placed first. Under each place are given, first, names of those attached to the different educational and scientific institutions (each institution apart), and here the names are given in the order and with the specification of their rank; unattached names follow alphabetically; some names, therefore, appear more than once, but only once in full. There is much supplementary information in brief statements regarding the publications of the different institutions. The specialties of each person are given in an abbreviated form, and the names are again classified in a scientific register (37 pp.) at the end under each specialty, and here names of those not authors and merely collectors are designated by an asterisk. Dealers and natural history artists are given last and separately under each place. Separate geographical and personal indexes enable us quickly to find what we may seek in the volume. It is excellently planned and admirably executed. We hope it has come to stay, but it will need constant revision.

* Mém. de l'Institut, Paris, III, 1801, Nouv. Tabl. Méthod., p. 501.

† Natursystems Suppl., 1776, pp. 21–22.

NATURAL SCIENCE TRAINING FOR ENGINEERS.

In an article in the *Engineering Magazine* for September, Professor N. S. Shaler considers the question "as to the share of natural science which should be incorporated in the several four-year courses leading to the bachelor's degree in the departments of civil, electrical, mechanical and mining engineering." The reorganization of the Lawrence Scientific School of Harvard University has made the investigation of this question desirable, and the results of the inquiry have to a great extent been embodied in its schemes of instruction. Sound general instruction in physics, knowledge of the principles of chemistry, an elementary course in geology, a good theoretical training in metallurgy, a certain amount of determinative mineralogy and an elementary half course in geography are enumerated as necessities for every engineer. The time required for the study of these subjects is about four-fifths of the study period of a college year, which is evidently excessive. Prof. Shaler considers that the burden of the student may be considerably lightened by attendance at the summer school of the University, when each student is required to give his time to one course. "It has been found that the six weeks' term, owing to the concentration of attention, serves to carry the pupil

quite as far as he is likely to advance in an ordinary year of work. * * * Including the year of his entrance, a student has four summers at his disposal before attaining his bachelor's degree. By giving up six weeks of each of three vacations he may win all the time required for the elementary science courses which are to be expected of the engineer." The latter part of the paper is devoted to the requirements of engineers who wish to be fitted for any one of the several branches of the profession, and considers in turn mechanical, electrical, marine, hydraulic, topographical and mining engineering, for each of which it is necessary that work in particular sciences should be carried to a higher plane. Professor Shaler considers it "an open question as to whether our science schools are not going too far in the effort to acquaint their students with the details of the several departments of engineering. * * * It is likely that in the end our schools will confess a limitation in their work and win firm ground by acknowledging that their province is to give the student a thorough education in the original sense of the word, supplying him with a large theoretical outfit, leaving the technique of his occupation to the time he begins work in a particular employment." Another argument for this point of view is that the education of an engineer differs from that of candidates for other professions. The classics and much else studied with the sole object of culture are perforce omitted. Professor Shaler says: "While I fully believe that natural science can do an excellent part in the civilizing process, it cannot do this if the teaching be devoted to immediate ends. The work must be done in the large, truly academic way; it must take the subject for itself, and not as a mere means to a professional result." The article concludes with a plea for the addition of one year to the curriculum of the technical schools: "While the way to a profession through the path of the college may be held to be too long, that through the technical school is clearly too short for the needs of the work their graduates have to do." The extra year, besides making it much easier to add a fitting amount of natural science to the curriculum of the engineer, would also be a decided gain in the opportunities for studying English, French and German, and would admit of a more advantageous distribution of professional studies than can be accomplished under the present system.

GENERAL.

PROFESSOR C. L. DOOLITTLE writes that the University of Pennsylvania has begun the erection of an Astronomical Observatory, the purpose being to furnish facilities for instruction in astronomy and for original research. The site is five miles west of the present University buildings, being two miles beyond the city limits. The principal instruments are an 18-inch Equatorial, with Spectroscope, a Meridian Circle and a Zenith Telescope, each of 4 inches aperture. The optical parts are by Brashear, the instrumental by Warner & Swasey. As the Observatory Library is for the most part a thing of the future, any publications relating to astronomy or allied subjects which may be sent will be very acceptable. At present the Observatory has nothing to offer in exchange, but hopes to have at a future time. Contributions may be sent to The Flower Observatory, University of Pennsylvania, Philadelphia.

MR. O. H. TITTMANN, assistant in the Coast and Geodetic Survey, has been appointed delegate from the United States to the International Geodetic Association that meets in Berlin on the 30th inst., and sailed from New York on the 17th.

PROFESSOR ERNST RITTER, whose appointment as assistant professor of mathematics

in Cornell University, was recently announced, died on September 23d, of typhoid fever, on his arrival from Germany. The New York *Tribune* gives the following particulars concerning his life: Ernst Ritter was born at Waltershausen, Germany, on January 9th, 1867. He spent twelve years at the gymnasium at Gotha, and afterwards studied mathematics and natural science under Thomas, at Jena, and under Klein and Schwartz, at Göttingen. In 1890 he passed the government teacher's examination with the highest distinction, after two years of pedagogical work at Cassel, and at the Wöhlerschule in Frankfurt. He took the degree of Ph. D., *summa cum laude*, at Göttingen in 1892. In 1893 he was appointed assistant to Professor Klein, and began to devote his entire time to mathematics, contributing regularly to mathematical periodicals. Last year he lectured on geometry and the theory of automorphic functions, in which he was an authority. He was appointed to his Cornell professorship last June.

The death is announced of Samuel C. Booth, mineralogist and naturalist. Mr. Booth began life as a poor farmer, but at the age of fifty years had gained a competency. He spent, however, much time in scientific study and became recognized as an authority in his chosen branches, and was able to leave behind much valuable information on scientific subjects, and a collection of rare minerals.

The Institute of France has appointed a large and influential committee to further the object of erecting a statue of Lavoisier at Paris. It has been decided to make the memorial international and the committee have issued a circular asking help from all who wish to do honor to the memory of the great chemist.

The Danish Academy of Sciences offers five prizes for papers which must be presented before the end of October, 1896, to Secretary of the Academy, Prof. G. H. Zeuthen, Copenhagen. The subjects are as follows: (1) The Electrolysis of Organic Substances; the gold medal of the Academy valued at 320 kr. (2) Algebraic Equations with their Numerical Coefficients in Relation to the Abel Equations; the gold medal of the Academy. (3) Field Mice and their Food; prize of 400 kr. (4) The Physical Constitution of Cultivated Earth; prize of 600 kr. (5) The bacteriological products in sour milk; prize of 400 kr.

La Société de Médecine Publique et d'Hygiène Professionelle, according to an announcement in the *British Medical Journal*, offers a prize for an essay on the following subject: 'Preventable Diseases; Means of Preserving Oneself from them and Preventing their Diffusion.' The prize is open to competitors of all nationalities. The essays, which must be written in French, must be sent in—with the usual precautions as to anonymity—before October 10th, to M. Cheysson, 115 Boulevard St. Germain, Paris. The first prize is of the value of £48, the second of £32. The sum of £20 will be distributed among 'honorable mentions.'

Professor Hallock writes that, in the list of colors given in the abstract of J. H. Pillsbury's paper on page 353, green should be inserted, making the colors: red, orange, yellow, green, blue and violet, with black and white.

The Third South African Medical Congress was held at Durban from July 12th to 19th.

It is reported that news has been received from a Danish trading station that a three-masted ship corresponding to Dr. Nansen's vessel, the 'Fram,' was seen by Eskimos last July embedded in an ice drift, and somewhat to the southward of 66° N. latitude.