SOCIETIES AND ACADEMIES.

BIOLOGICAL SOCIETY OF WASHINGTON, 272D MEETING, SATURDAY, MARCH 27.

C. H. TOWNSEND spoke of 'The Distribution and Migration of the Northern Fur Seal,' giving a summary of the results obtained from a study of the log books of pelagic sealers, and illustrating his remarks by a chart showing the location of the seals on the Asiatic and American coasts at different seasons. The two herds, the American and the Asiatic, did not mingle, and the migrations of the former were much the more extensive of the two.

Charles Louis Pollard discussed 'What Constitutes a Type in Botany,' arguing in favor of recognizing multiple types when necessary. He suggested the abolition of the expression 'duplicate type,' on the ground that all specimens on which the original diagnosis is based must be of coordinate rank as actual types.

Lester F. Ward gave a 'Description of Seven Species of *Cycadeoidea* from the Iron Ore Deposits of Maryland,' saying that up to November 4, 1893, but a single species was known, based on four specimens collected by Philip Tyson before 1861. In 1893 Mr. Arthur Bibbins began work in the iron ore beds, under the auspices of the Woman's College of Baltimore, and up to the preset time he had procured no less than 59 specimens. These belonged to seven different species, but at present there was no reason to recognize more than the one genus *Cycadeoidea*.

F. A. LUCAS,
Secretary.

ANTHROPOLOGICAL SOCIETY OF WASHINGTON.

THE 260th meeting of the Society was held on March 2, 1897.

Dr. H. Carrington Bolton read a paper entitled 'The Language used in Talking to Domestic Animals.' He discussed the subject under the various animals controlled by man, dogs, horses, cattle, sheep, swine and poultry, and gave illustrations from nearly every country in Europe and every State in the Union. His essay, which elicited much discussion, will appear in full in the *American Anthropologist*.

The discussion was by Professor Lester F. Ward, W. H. Blodgett, P. B. Pierce, Dr. Frank Baker, Mr. Walter Hough, Dr. J. H. McCormick and others.

J. H. MCCORMICK,
General Secretary.

MEETING OF THE N. Y. SECTION OF THE AMERICAN CHEMICAL SOCIETY.

THE New York Section of the American Chemical Society held its regular meeting on March 5th.

The following papers were read:

'Note on the Volumetric Estimation of Lead,' by J. H. Wainwright.

'Electrolytic Production of Alkali Nitrites,' by Wm. M. Grosvenor.

'Method of Drying Sensitive Organic Substances,' by C. C. Parsons.

'Chemistry of the Sanitary Control of Milk Supplies,' by E. J. Lederle.

'Quantitative Separations by Sodium Nitrite,' by Gilette Wynkoop.

'On the Composition of Beet Sugar Ash,' by C. F. A. Meisel.

'Determination of Lead in Lead Ores,' by Richard K. Meade.

The meeting was well attended, and much interest was shown in the papers read.

DURAND WOODMAN,
Secretary.

THE GEOLOGICAL CLUB OF THE UNIVERSITY OF MINNESOTA, FEBRUARY 20, 1897.

MR. WARREN UPHAM read a paper entitled 'The Topography and Glacial Geology of the City of St. Paul.'

Attention was directed to the remarkable northeastward loop of the Mississippi river, here interrupting its general southeastward course. The rock formations beneath the drift have a horizontal stratification, being, in ascending order, the St. Peter sandstone, Trenton limestone and Trenton shales. The observed thickness of the shales is about 145 feet, their highest outcrop being 260 feet above the river or 945 feet above the sea. Above these bed rocks the glacial and modified drift deposits form the surface, and rise in morainic hills and smoother ridges from 200 to nearly 400 feet above the

river. The most noteworthy feature in the glacial geology of the area of St. Paul (comprising 55 square miles) consists in its deposits of modified drift at high levels, forming a group of plateaus of gravel and sand, rising with steep slopes to nearly flat upper plains 100 to 125 feet above the highest terraces representing the old flood plain of the river valley. These plateaus tell of a water level peculiar to this area; and the general contour of the region, the sigmoid course of the Mississippi, and two moraine belts, one of northeastern drift in the east part of the city, and another of northwestern drift in the west part, imply that this was the site of a glacial or ice-dammed lake, which is named *Lake Hamline*. The surface of the glacial lake during the early part of its existence, as shown by the Hamline and Como plateaus, was about 250 feet above the present river, or 930 to 940 feet above the present sea level. A little later, when the plateau a mile east of Lake Como was formed, the glacial lake level had fallen five or ten feet. Still later plateaus show that this lake finally was reduced to 875 or 870 feet above the sea. Its outlet was toward the southwest and south, across the present watershed between the Minnesota and Mississippi rivers, to Rich Valley and the Mississippi. The modified drift forming the plateaus has an aggregate volume of a tenth of a cubic mile, and it is thought to have been brought by streams from the englacial and finally superglacial drift of the waning ice sheet.

Charles P. Berkey,
Secretary.

THE TEXAS ACADEMY OF SCIENCE.

The regular monthly meeting of the Texas Academy of Science was held in the chemical lecture room of the University of Texas on Friday evening, March 5, 1897.

Papers were presented by Dr. E. F. Northrup, professor of physics, on 'Ether,' and by Dr. H. W. Harper, professor of chemistry, on 'A New Suggestion Concerning the Transmutation of Matter.'

Since the February meeting of the Academy the transactions for 1896 have been published, together with the proceedings, from its organization, January 9, 1892, to January 1, 1897, thus completing Volume I. This publication of 404 pages contains the constitution, lists of officers, patrons, fellows and members, thirty-four papers in full and seven abstracts. Of the papers and abstracts thirteen are upon geological or related subjects; six on mathematics; six on biological and allied topics; four on engineering; two on philosophy; two on education and culture; and one each on physics, language, ethnology and physiological chemistry; to these there must also be added four addresses of a somewhat general character.

As now constituted the Academy consists of two patrons, each of whom has paid into the treasury $500, thirty-four fellows and 107 members.

Frederic W. Simonds.

NEW BOOKS.

The Will to Believe. W. James. New York, London and Bombay, Longmanns, Green & Co. 1897. Pp. xvii+332.

An Introduction to Geology. William B. Scott. New York and London, The Macmillan Company. 1897. Pp. xxvii+573. $1.90.

Untersuchungen über den Bau der Cyanophycien und Bakterien. Alfred Fischer. Jena, Gastav Fischer. 1897. Mark 7.

Zur Zoogeographie der landbewohnenden Wirbellosen. Otto Stoll. Berlin, R. Friedländer & Sohn. 1897. Pp. 113. Mark 4.

Das Tierreich. I. Lieferung, Aves. bearbeitet von Ernst Hartert. Berlin, R. Friedländer und Sohn. 1887. Pp. 98. Subscription price, Mark 4.50.

First Principles of Natural Philosophy. A. E. Dolbear. Boston and London, Ginn & Co. 1897. Pp. 318.

Laboratory Practice for Beginners in Botany. W. A. Setchell. New York and London, The Macmillan Company. 1887. Pp. xiv+199. 90 cts.

La cause première d'après les données expérimentales. Émile Ferriere. Paris, Felix Alcan. Pp. 462.

The Phase Rule. Wilder D. Bancroft. Ithaca, N. Y., The Jour. Phys. Chem. 1897. Pp. viii+255.