

tion too long to be quoted in full. H. S. Jennings gives a most interesting review of "Recent Work on the Behavior of Higher Animals."

The American Museum Journal for May has an excellent and well-illustrated article on "The Use of the Chilcat Blanket," by Geo. T. Emmons, a notice of "New Material from the Congo Free State" and a note on "Preserved Tattooed Heads of the Maori of New Zealand." "Museum News Notes" tell of the various expeditions that are in the field or are about to set out.

The Bulletin of the Charleston Museum for April is mainly devoted to an article by Herbert R. Lass on the "April Bird Life of Otranto." Eighty-one species were observed in three days, the most interesting being the snake-birds which have but recently established themselves in this locality.

THE contents of the March issue of *Terrestrial Magnetism and Atmospheric Electricity* are: Portrait of Michel Rykatchew (frontispiece); "Some Microseismic Tremors and their Apparent Connection with Barometric Variations," by John E. Burbank; "Magnetic Survey of the Dutch East Indies" (sixth communication), by W. van Bemmelen; "Biographical Sketch of Michel Rykatchew"; "Störmer's Work on the Physics of the Aurora," reviewed by P. G. Nutting; "Is the Earth's Action on a Magnet only a Couple?" by L. A. Bauer. Letters to the Editor: "Principal Magnetic Storms recorded at the Cheltenham Magnetic Observatory," by O. H. Tittmann; "The Magnetic Character of the Year 1906," by E. van Everdingen. Some of the early issues of *Terrestrial Magnetism and Atmospheric Electricity* have been reprinted so that complete sets can be again supplied. Orders should be sent to the Johns Hopkins Press, Baltimore.

SOCIETIES AND ACADEMIES

THE UTAH ACADEMY OF SCIENCE

ON the evening of Friday, April 3, the Utah Academy of Science was organized in the auditorium of the Packard Library, Salt Lake

City. A constitution was adopted and the following officers were elected:

President—Dr. Ira D. Cardiff, University of Utah.

First Vice-president—Dr. John A. Widtsoe, Utah Agricultural College.

Second Vice-president—Dr. S. H. Goodwin, Proctor Academy.

Secretary—A. O. Garrett, Salt Lake High School.

Treasurer—E. M. Hall, L. D. S. University.

Councillors—Dr. John Sundwall, University of Utah; Dr. E. D. Ball, Utah Agricultural College, and Dr. W. C. Ebaugh, University of Utah.

Three sessions were held, during which the following program was given:

"The Primordial Element: A Recurring Hypothesis," by Dr. W. C. Ebaugh.

"Origin and Distribution of the Flora of the Great Plateau," by Professor Marcus E. Jones.

"Results of Some Investigations of Parasitic Insects," by Professor E. G. Titus.

"Notes on the Nesting Habits of the Genera *Bombus* and *Osmia*," by Dr. Thilena Fletcher Homer.

"The Origin of the Homopterous Fauna of the Desert," by Dr. E. D. Ball.

"Rusts and Smuts of Salt Lake and Adjacent Counties," by A. O. Garrett.

"Concerning the Radiation from the Nernst Lamp," by Dr. L. W. Hartman.

"Refractory Clay, and the Effects of Ingredients upon the Melting Point," by A. F. Greaves-Walker.

"Recent Researches bearing upon the Physical Basis of Heredity," by Dr. Ira D. Cardiff.

"Researches on Gland Cells," by Dr. John Sundwall.

A motion was carried empowering the council to make arrangements for a July excursion to some of the near-by points of interest.

A. O. GARRETT,
Secretary

THE BOTANICAL SOCIETY OF WASHINGTON

THE forty-eighth regular meeting was held at the Ebbitt House on Saturday evening, March 28, at eight o'clock. Previous to the meeting a dinner was served to the members present.

The first paper on the scientific program was by Mr. A. S. Hitchcock, entitled "Grass

Types in the Herbaria of Linnæus and Michaux."

During the spring of 1907 the speaker visited various European herbaria for the purpose of studying the type specimens of American grasses. The present paper included an account of the types in the herbaria of Linnæus, at the rooms of the Linnæan Society in London, Gronovius, and Sloane, at the British Museum of Natural History at South Kensington, Swartz at the Stockholm Academy of Science, and Michaux at the Museum of Natural History at Paris. It is well recognized that in the taxonomic investigation of any group of plants it is necessary to determine with certainty the identity of the species described by the older authors. This identification in many cases can be made only by consulting the type specimens. The speaker endeavored from the data at hand to determine for each species the nomenclatorial type specimen. The type specimen is the specimen or one of the specimens from which the author drew up the description. This specimen often supplements or interprets the description which may have been insufficient to identify the species. The Linnæan species of American grasses are nearly all founded upon definite type specimens collected by Kalm, marked by Linnæus with a "K," by Patrick Browne, marked by Linnæus "Br.," and by Clayton, who furnished specimens to Gronovius. Linnæus usually writes a short diagnosis, followed by citations of synonymy: For example, *Panicum dissectum* L. Sp. Pl. 57, 1753, under which Linnæus gives a diagnosis of his own followed by three synonyms, Roy. lugdb., Pluk. mant. t. 350, f. 2, and Sloane, jam. t. 69, f. 2, and finally habitat in Indiis. In the Linnæan herbarium is a specimen upon the sheet of which Linnæus has written "dissectum" and "K." This specimen, from Kalm, is the only one labeled dissectum by Linnæus. Is this the type specimen? The plant is what has been going under the name of *Paspalum membranaceum* Walt. The diagnosis given by Linnæus applies, but is too short to be satisfactory, but his later description, given in the second edition of the "Species Plantarum," leaves no doubt that he

refers to the preserved specimen. On the other hand we find that none of the three synonyms cited applies to the specimen. We are therefore justified in regarding the preserved specimen as the type specimen of *Panicum dissectum*. It is true that Linnæus erred in giving the locality as the West Indies, an error which doubtless was based on his Sloane citation.

Paspalum paniculatum L. Syst. ed. 10. 855. 1759. The description is a two-line diagnosis followed by "Sloane, jam. t. 22. f. 2." Some botanists have considered this name to be founded upon the cited Sloane figure, the type of which is at the British Museum and is *Panicum fasciculatum* Sw. But a comparison of the Linnæan diagnosis with that of Sloane shows that they are not at all the same, and that furthermore the former description applies to the plant preserved in the Linnæan herbarium, from Browne, and not to the Sloane plant, hence the Linnæan plant is the type.

Panicum dichotomum L. Sp. Pl. 58. 1753. In this case Linnæus has no diagnosis of his own, but commences with a citation from Gronovius. Hence the type specimen is not the Linnæan specimen (which is not what has been going under the name of *P. dichotomum*) but is the Clayton plant in the British Museum which is the basis of Gronovius's description.

The paper included a discussion of several other cases taken from studies upon the types of Linnæus, Swartz and Michaux.

The second paper was by Mr. W. J. Spillman, who discussed "The meaning of 'elementary species.'" This paper is expected to be published in full in SCIENCE.

HAVEN METCALF,

Corresponding Secretary, pro tem.

THE CHEMICAL SOCIETY OF WASHINGTON

THE 182d meeting of the Washington Section of the Chemical Society was called to order at the Cosmos Club on Thursday, April 9, at 8 P.M. President Chamberlain presided, the attendance being forty-seven.

The following paper was read by Mr. Wade: "Distribution of Nutrients in a Soil," by G.

H. Failyer, J. G. Smith and H. R. Wade. The authors showed the composition of the different separates—clay, silt and sand. The amount of CaO , MgO , K_2O and P_2O_5 is greater in the finer separate—clay. The mechanical composition of two soils might be the same, and yet these soils might be very different chemically, and *vice versa*.

The meeting adjourned to meet at the Chemical Laboratory of the Johns Hopkins University, Baltimore, on Saturday, April 11, at 8 p.m., at which time Professor H. N. Morse addressed the members on "Osmotic Pressure." Professor Morse explained the construction and use of the various apparatus necessary in carrying on his researches. After adjournment the members were given the privilege of visiting Professor Morse's laboratory, where other apparatus was examined. A resolution was passed thanking Professor Morse for his paper, President Remsen for his hospitality, and to the owners of the copper and petroleum works for allowing the members of the society to visit the works. Over fifty members from Washington attended the lecture, at which the attendance was over eighty.

J. A. LÉCLERC,
Secretary

THE ONONDAGA ACADEMY OF SCIENCES

At the March meeting of the Onondaga Academy of Sciences, Principal John D. Wilson spoke of the "Geographic Influences in the Development of America." He described the form and structure of the continent, its eastern mountain barrier, the three important gateways through them, the character of the people entering by each, the favorableness of the New York entrance, and its importance in regard to location, climate and character of the people entering, and the effect of the favorable environment upon the people. All of these circumstances led him to prophesy that New York will ultimately prove the largest and most important city in the world.

The secretary, Philip F. Schneider, spoke of "The Formation of the Diamond." He described the occurrence of the peculiar cubic

carbon in the stony meteorites from Arva, Hungary and Novo Urie, Siberia, and in the iron meteorites from Youndegin, West Australia, and Smithville, Tennessee; also the subsequent discovery of diamonds in these and other meteoric irons, describing with special care the diamonds of the Cañon Diablo meteorite obtained by Foote, Huntington, Kunz and others. He next considered the various methods of producing the diamond artificially, speaking at length of the method so successfully employed by Moissan of utilizing the intense heat of the electric furnace and enormous pressure generated by the sudden cooling of molten iron, and of the experiments of Friedlander of stirring molten olivene with graphite and thus producing diamonds. The analogy between the artificial diamonds and their matrix and those of the meteorites strongly suggests a similar origin in nature. That diamonds will ultimately be proved to have been formed at great depth and under intense heat and pressure either in a magma of molten iron or of olivene is probable, although the careful development of this part of the lecture was deferred until the next meeting.

The following officers were elected:

President—John D. Wilson.

Vice-president—Charles W. Hargitt.

Secretary—Philip F. Schneider.

Corresponding Secretary—Franklin H. Chase.

Treasurer—Louise W. Roberts.

Librarian—Mrs. L. L. Goodrich.

Councillors—D. M. Totman and S. R. Calthrop.

F. H. CHASE,
Corresponding Secretary

DISCUSSION AND CORRESPONDENCE

ARE PENSIONS FOR COLLEGE TEACHERS A FORM OF SOCIALISM

I REGRET to see in *SCIENCE* of April 24, an expression of opinion by Professor J. McK. Cattell about the Carnegie Foundation for the Advancement of Teaching which seems to be based on evidence that will not stand the test of a careful examination. The principle involved is familiar to economic students, for it lies at the basis of a much