received and entertained the members of the academy and their guests. The Watson medal for astronomical research was presented to Dr. J. C. Kapteyn, the Draper medal for astrophysical research to the French Ambassador for M. Henri Deslandres, the Agassiz medal for oceanographical research to the Norwegian minister for Dr. Johan Hjört, and the Comstock prize of the value of \$1,500 for research in radiant energy, to Professor R. A. Millikan, of the University of Chicago. At the dinner on the evening of April 24, Dr. R. S. Woodward acted as toastmaster and speeches were made by the vice-president of the United States, the British Ambassador, Dr. S. Wier Mitchell, Dr. W. W. Keen, president of the American Philosophical Society, and Senator Burton.

At the business meeting of the academy the following new members were elected: Henry Andrews Bumstead, professor of physics, Yale University; L. E. Dickson, professor of mathematics, University of Chicago; Ross G. Harrison, professor of comparative anatomy, Yale University; Gilbert Newton Lewis, professor of physical chemistry, University of California: Lafayette B. Mendel, professor of physiological chemistry, Yale University; George H. Parker, professor of zoology, Harvard University; L. V. Pirsson, professor of geology, Yale University; Edward B. Rosa, chief physicist, Bureau of Standards; Erwin F. Smith, pathologist in charge, Bureau of Plant Industry, U. S. Department of Agriculture; A. O. Leuschner, professor of astronomy, University of California.

The officers elected for a term of six years were:

President—Dr. W. H. Welch, professor of pathology, The Johns Hopkins University.

Vice-president—Dr. Charles D. Walcott, secretary of the Smithsonian Institution.

Home Secretary—Dr. A. L. Day, director of the Geophysical Laboratory of the Carnegie Institution.

SCIENTIFIC NOTES AND NEWS

SIR WILLIAM OSLER, regius professor of medicine, gave, last week, the Silliman lec-

tures at Yale University. The subject of the course was "The Evolution of Modern Medicine."

THE Walker grand honorary prize, which is awarded by the Boston Society of Natural History once in five years, was this year voted to Mr. Robert Ridgway, of the United States National Museum, in recognition of his investigations in ornithology, and particularly for his work on the "Birds of North and Middle America." This prize, the amount of which is one thousand dollars, was founded by the late William Johnson Walker, a benefactor of the society, and is given in recognition of important investigation in natural history, published and made known in the United States of America.

PRESIDENT RICHARD C. MACLAURIN, of the Massachusetts Institute of Technology, has taken out the first papers for citizenship in the United States. His statement shows that he was born in Scotland, forty-six years ago, and that his last foreign place of residence was New Zealand.

Dr. R. S. Breed, for several years professor of biology at Alleghany College, has been selected as bacteriologist of the New York Agricultural Experiment Station, Geneva, N. Y. Dr. Breed succeeds Dr. H. A. Harding who becomes head of the dairy department of the University of Illinois. Dr. Breed is a graduate of Amherst and of Harvard, having a Ph.D. from the latter institution. He will assume the duties of this position about August first.

DR. MAURICE C. TANQUARY, instructor in zoology in the Kansas State Agricultural College, has been granted a three years' leave of absence in order that he may accompany the American Museum of Natural History Crocker Land Expedition.

Dr. A. Hrdlicka, of the U. S. National Museum, has returned from his expedition to Peru. He has secured important collections in physical anthropology and pre-Columbian pathology.

DR. FRANK K. CAMERON, of the U. S. Bureau of Soils, visited the Pacific coast during April in the interests of the fertilizer investigation. In Seattle he delivered before the local society of Sigma Xi an address on "A Dynamic View of Soil Fertility." He was accompanied on the trip by Dr. J. W. Turrentine, who will remain on the coast during the summer, investigating fertilizer resources.

Professor William Herbert Hobbs, who has been abroad on leave of absence since June, 1912, has now returned to the University of Michigan. In the summer of 1912 Dr. Hobbs carried out tectonic and glacial studies in the Swiss and French Alps, and in the following winter visited the deserts of Egypt and the Soudan.

Dr. N. L. Britton and Dr. J. N. Rose, who left New York City on January 25, for the purpose of making a special study of the Cactaceæ of the West Indies have returned. Although they went especially in the interest of the cactus investigation of the Carnegie Institution of Washington, yet a general botanical survey was made, and they have brought back a very large collection of living plants and about 13,000 herbarium specimens. went first to St. Thomas, where the party was Dr. and Mrs. Britton, Dr. J. A. divided. Shafer and Miss Delia W. Marble, explored the Virgin Islands, Porto Rico and Curação, while Dr. Rose, accompanied by Wm. R. Fitch and Paul G. Russell, visited St. Croix, St. Kitts and Antigua, and, after returning to St. Thomas, made extensive collections in Santo Domingo along the southern side and eastern end of the island.

Henry H. Norris, professor of electrical engineering in Cornell University and secretary of the Society for the Promotion of Engineering Education, is devoting a leave of absence to a special investigation for the McGraw-Hill Book Company of engineering books in all fields. He will cover both college text-books and general reference books. His work is practically a scientific investigation of these texts. On the basis of this in-

vestigation and the suggestions which Professor Norris will collect, a broad series of new books will be planned and undertaken for all fields of engineering, with a view to a new and more useful technical literature.

The following lectures have been arranged by the department of chemistry of the College of the City of New York:

April 11—Professor Alexander Smith, professor of chemistry and director of the laboratory, Columbia University: "Forms of Sulphur and their Relations."

April 25—Dr. Charles F. McKenna, past president Institute of Chemical Engineers: "Chemical Engineering, Present and Future."

May 9—Mr. A. D. Little, president American Chemical Society: "Manufacture of Wood Pulp and Paper."

May 23—Dr. M. W. Franklin, General Electric Co.: "Ozone."

George C. Whipple, professor of sanitary engineering at Harvard University, is giving a course of lectures on "Applications of Water Analysis" at the Polytechnic Institute of Brooklyn.

Dr. Theobold Smith, of Harvard University, delivered an address to the Pathological Society of Philadelphia, April 24, on "An Attempt to Interpret Present-day Uses of Vaccines."

On April 7 Dr. D. T. MacDougal, of the Carnegie Desert Laboratory, lectured before the Southern California Academy of Sciences in Los Angeles, on "Some Physical and Biological Problems of American Deserts."

The life and services of Dr. John Shaw Billings, late director of the New York Public Library, who died on March 11, were commemorated, before a notable gathering in the Stuart gallery of the Public Library on April 26. Mr. John L. Cadwalader, president of the New York Public Library, presided, and first introduced Dr. S. Weir Mitchell, as one of Dr. Billings's oldest and closest friends, who told of the arduous services rendered by him in his early years in the civil war. Sir William Osler described his great contribution to bibliography. Dr. William H. Welch paid

tribute in behalf of the trustees of Johns Hopkins Medical School and the medical profession to the services of Dr. Billings as a hospital organizer. Mr. Andrew Carnegie spoke of his associations with him in library work and in the organization and conduct of the Carnegie Institution of Washington. Mr. R. B. Bowker presented the tribute and homage of the library profession to the memory of Dr. Billings and his work.

At the meeting of the Johns Hopkins Hospital Historical Club on April 14, Dr. Fielding H. Garrison presented to the medical school a portrait of the late Dr. Robert Fletcher, of the Surgeon-General's Library, Washington, D. C.

Dr. Andrew Sloan Draper, New York state commissioner of education, and former president of the University of Illinois, died at Albany on April 27, aged sixty-four years.

On April 10 the Brooklyn Botanic Garden began the publication of four-page Leaflets. The purpose of the Leaflets is twofold: "first, to give announcements concerning flowering, and other plant activities to be seen in the garden at the time the leaflet is issued; second, to give popular, elementary information about plant life, primarily for teachers, or for others who may wish to learn something about plants besides merely their names." Some of the numbers will aim to give, in simple, nontechnical language, the subject-matter for a nature study lesson, which may be conducted by the teacher, in the garden or elsewhere. The Leaflets, which for the present are issued weekly or bi-weekly during April, May, June, September and October, will be mailed free to those who are interested.

At the closing session of the International Geographical Congress, on April 3, it was agreed that the next congress should be held at St. Petersburg.

The wireless telegraphy station of the Ohio State University did excellent service during the recent flood. When communication by telephone and surface telegraph with other cities was cut off, the wireless became the only means of reaching the outside world.

Messages were sent to Cleveland and the University of Michigan and relayed from those stations by wire to their destination.

THE ninth annual meeting of the Prehistoric Congress of France will be held at Lonsle-Saunier from July 27 to August 2, 1913.

THE forty-fourth annual meeting of the German Anthropological Society will be held at Nurnberg from August 3 to 9, 1913.

At the eighty-sixth convocation of the University of Chicago, held on March 18, announcement was made of the election of thirty-five students as members of Sigma Xi for evidence of ability in research work in science. Six of these were women.

WE learn from the British Geographical Journal that news has been received in Holland from an official source that Mount Carstensz, the highest known summit of the snowy range of western New Guinea, has been successfully ascended by Dr. A. F. R. Wollaston, accompanied by Lieutenant van de Water, of the Dutch army. This, it will be remembered, was the chief task which Dr. Wollaston (who had taken a leading part in the previous expedition to Dutch New Guinea, organized by the British Ornithologists' Union) had set himself when undertaking his new expedition, and he is to be congratulated on successfully accomplishing his object. The height of the peak has been variously estimated, being thought for a time to reach an altitude approaching 18,000 feet. Recent surveys, however, especially those of the previous British expedition, had given reason for reducing the height to something under 16,000 feet.

A DEPUTATION from the Eugenic Education Conference recently held in London had an interview with Mr. Trevelyan, parliamentary secretary to the Board of Education, on April 2, asking that an inquiry should be held as to the advisability of encouraging the presentation of the idea of racial responsibility to students in training and children at school. The deputation, which was headed by Major L. Darwin, president of the Eugenics Education Society, stated that it was not desired that eugenics should be an extra subject in

the curriculum, or that it should be required to be taught by unwilling teachers, but it urged that the training college curriculum should be adapted to include the biological and physiological knowledge on which a eugenic ideal could be based, and that the subject should be approached from the evolutionary standpoint. Mr. Trevelyan said that the board, while unable to make sex hygiene or eugenics a compulsory subject of instruction in elementary schools or training colleges, recognized the importance of the matter, and had no wish to discourage experiments in teaching on those lines.

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It is stated in the *Electrical World* that several pieces of electrical apparatus constructed by Volta during his early electrical experiments were discovered recently by Sir Henry Norman, a member of the British parliament, in a little curiosity shop in an out-of-the-way section of a small Italian town. The uncle of the shopkeeper was Volta's cook and body servant for thirty years. On his death he left much of his experimental apparatus with this servant, and it has since passed down from generation to gen-The collection comprises a cuperation. board full of old apparatus, a number of books, portraits, papers and letters and some personal and domestic articles. Sir Henry Norman suggests that the collection be purchased and presented to the Royal Institution to be placed with Faraday's original apparatus.

UNIVERSITY AND EDUCATIONAL NEWS

THE will of the late Isaac M. Jackson, of Plymouth, Mass., among other public bequests, gives \$15,000 to Yale University.

IT is reported that the medical department of Willamette University, Salem, has been merged with the medical department of the University of Oregon, located at Portland, the merger to take effect at the conclusion of the present college year. There will hereafter be but one medical college in the state. A biennial appropriation of \$45,000 has been made by the Oregon legislature for the medical department of the state university.

THE development of a health instruction bureau in connection with the Extension Division of the University of Wisconsin has been authorized by the regents. According to authorities in medicine, hygiene and vital statistics, the average duration of human life could be raised fifteen years if all the present available medical and hygienic knowledge were intelligently applied. The new health bureau will undertake to carry out to the people of Wisconsin this knowledge. Bulletins will be published on preventable diseases, infant mortality, hygiene and similar subjects. Public lectures, health institutes. etc., will also be given.

Professor Allyn A. Young, of Washingington University, St. Louis, has been appointed professor of economics at Cornell University, to succeed Professor E. W. Kemmerer, now of Princeton University.

DISCUSSION AND CORRESPONDENCE

A METHOD FOR MAKING PARAFFIN BOTTLES FOR HYDROFLUORIC ACID

THE usual method of making containers for hydrofluoric acid for use in softening hard woody tissue is, either to use the large wax bottles in which the acid comes from the dealer; or ordinary glass bottles which have previously been coated on the inside with paraffin. Owing to the size of the bottles the first of these methods is inconvenient, unless a large number of blocks of wood are to be softened at one time, and the second method is often unsatisfactory, as the paraffin sometimes cracks, allowing the acid to eat through the glass. These difficulties led me to devise the following bottle which is easy to make and is more satisfactory in its operation than the above.

Ordinary cardboard mailing tubes, of the proper diameter, should be cut into lengths of about ten centimeters each. These should be thoroughly infiltrated by placing them in a vessel of melted paraffin and leaving them in the oven for a short time. After the cardboard has become infiltrated the tubes should be removed, and when the paraffin has hard-