

years ago and now ranks in accomplishment and influence with any in existence will be told. Members of the small group of electrical engineers who formed the pioneer organization of the institute will speak. Elmer Sperry, Elihu Thomson, T. C. Martin and J. J. Carty will address the meeting. These addresses will be followed by the presentation of the Edison medal to John W. Lieb.

The new Moore School of Engineering of the University of Pennsylvania will be dedicated on the afternoon of February 6, when members of the institute will be the honorary guests of the school.

In all nine technical sessions will be held, at which more than forty papers will be presented and discussed. These will cover transmission, superpower, industrial applications of electricity, electrical machinery and electrophysical subjects.

A trip is planned for Friday afternoon to the works of the Bethlehem Steel Company. Afterwards the visitors will be entertained at Lehigh University as guests of the Lehigh Valley Section of the Institute.

The social aspects of the meeting have been well provided for, reaching their climax in the annual dinner-dance on Thursday night. Headquarters will be at the Bellevue-Stratford Hotel.

SCIENTIFIC NOTES AND NEWS

THE prize of \$1,000 offered by a member of the American Association for the Advancement of Science for a notable contribution to science reported at the Cincinnati meeting has been awarded to Dr. L. E. Dickson, professor of mathematics at the University of Chicago, who has developed a far-reaching general theory of the arithmetic of any rational algebra. The titles of the papers read by Professor Dickson, at Cincinnati, were: "Algebras and their arithmetics," "On the theory of numbers and generalized quaternions" and "Quadratic fields in which factorization is always unique."

THE Bôcher memorial prize for mathematical research was awarded at the New York meeting of the American Mathematical Society to Professor George D. Birkhoff, of Harvard University, for his memoir on "Dynamical systems with two degrees of freedom."

DR. L. O. HOWARD, chief of the bureau of entomology of the Department of Agriculture, has been awarded the cross of chevalier of the legion of honor by the French government in recognition of his services to world agriculture.

MAJOR GENERAL GEORGE O. SQUIER, head of the Signal Corps, United States Army, since 1917, was retired from active service, on December 31, at his own request.

DR. A. PARKER HITCHENS, of the Army Medical School, Washington, was elected president of the Society of American Bacteriologists at the twenty-fifth annual meeting, held at Washington. Professor Hutton Harris, Queen's University, Kingston, Ont., was elected *vice-president*; Dr. J. M. Sherman, Cornell University, *secretary-treasurer*, and Dr. E. B. Fred, University of Wisconsin, and Dr. I. C. Hall, University of California, *members of the council*.

DR. MORRISON R. VANCLEAVE, superintendent of nature study in public schools of Toledo, was elected president of the American Nature Study Society at the recent Cincinnati meeting.

PROFESSOR S. I. BAILEY, of Harvard University, returned on December 29 after two years absence at the Harvard Observatory at Arequipa, in Southern Peru, where he studied problems relating to observations of the southern sky.

TEMPORARY appointments to the staff of the Peking Union Medical College have been made as follows: Dr. L. Emmett Holt, clinical professor of the diseases of children, Columbia University; Dr. C. U. Ariëns Kappers, director of the Central Dutch Institute of Brain Research in Amsterdam; Dr. William T. Councilman, Shattuck professor of pathologic anatomy, Harvard Medical School; Dr. Adelbert Fuchs, clinical professor of ophthalmology at Vienna, and Dr. William W. Cort, associate professor of helminthology, School of Hygiene and Public Health of the Johns Hopkins University.

PROFESSORS J. J. ABEL, of the Johns Hopkins University; M. H. Roger, dean of the Paris medical school; S. Recasens, dean of the Madrid medical school, and Lustig, of Florence, were recent visitors at Buenos Aires. During their stay Professors Abel and Roger were appointed honorary members of the biologic society, and Professors Roger and Recasens were made members of the academy of medicine. A special session was held by the academy as a tribute to Ramón y Cajal.

AT the meeting in New York of the American Mathematical Society, officers were elected as follows: *Vice-presidents* for one year, Professor E. V. Huntington, Harvard University; for two years, Professor T. H. Hildebrandt, University of Michigan, and Professor J. H. M. Wedderburn, Princeton University; *secretary* for two years, Professor R. G. D. Richardson, Brown University; *treasurer* for two years, Professor W. B. Fite, Columbia University; *librarian* for three years, Professor R. C. Archibald, Brown University. President Oswald Veblen's term expires in 1924.

DR. GEORGE H. BIGELOW, director of the Pay Clinic of the Medical School of Cornell University, son of

Dr. Enos H. Bigelow, president of the Massachusetts Medical Society, has been appointed to the position of director of the Division of Communicable Diseases in the Massachusetts State Department of Public Health.

DR. JAN METZELAAR, lately fishery expert of the Holland Bureau of Fisheries, has accepted a similar post in the State Commission of Michigan, at Ann Arbor.

PROFESSOR NELSON C. BROWN, head of the department of wood utilization at the State College of Forestry, Syracuse University, has been granted a year's leave of absence. While in New York he inaugurated a campaign for an endowment fund for the American Forestry Association.

DR. REINHARD BEUTNER, formerly with Rockefeller Institute for Medical Research and later at the University of Leyden, Holland, is now with the Combustion Utilities Corporation at its laboratories at Long Island City, N. Y.

THE annual address of the Sanitary Division of the American Society of Civil Engineers will be given at a dinner held at the Hotel McAlpin, New York City, on January 15, by Professor George C. Whipple, of Harvard University. His subject will be "Sanitation—its relation to health and life."

DR. DAVID MARINE, director of laboratories of Montefiore Hospital, New York City, will deliver the fourth Harvey Society Lecture at the New York Academy of Medicine, on Saturday evening, January 19. His subject will be "The etiology and prevention of simple goitre."

A SYMPOSIUM on catalysis will be the chief topic of the meeting of the New England Section of the American Chemical Society to be held at the Massachusetts Institute of Technology, on January 12. Professor Wilder D. Bancroft, of Cornell University, will preside and present the opening paper. Professor Hugh S. Taylor, of Princeton, will speak on "Negative catalysis," Dr. Alfred T. Larson, of the Fixed Nitrogen Research Laboratory, Washington, D. C., on "Ammonia catalysis," Professor Colin G. Fink, of Columbia University, on "Catalytic electrolytic generation of oxygen," and Professor James F. Norris, of the Massachusetts Institute of Technology, will discuss "Certain new catalytic effects of zinc and aluminium chlorides."

SIR WILLIAM BRAGG gave, on December 27, the first of the Christmas series of juvenile lectures at the Royal Institution, London, on "The atoms of which things are made."

DR. OTTO KLOTZ, director of the Dominion Observa-

tory, died at Ottawa, Canada, on December 28, aged seventy-one years.

DR. J. H. HAMBURGER, professor of physiology in the University of Groningen, who lectured in the United States in 1922, died on January 4, aged sixty-four years.

THE death is announced at Paris of Gustave Eiffel, the engineer who built the tower that bears his name.

ON December 21, the name of "The Thompson Institute for Plant Research, Inc.," was changed to "Boyce Thompson Institute for Plant Research, Inc." This was done for the purpose of making evident in the name that Colonel William Boyce Thompson founded and endowed this institute as a memorial to his mother and father.

MRS. ANDREW TODD MCCLINTOCK, widow of Dr. McClintock, of Wilkes-Barre, Pa., has created a trust fund of her estate, amounting to approximately \$500,000, to be known as the "Andrew Todd McClintock Memorial," to be used to conduct researches into the nature, causes and treatment of gastro-intestinal troubles. The only provision made in the endowment is that she retains a life interest in half of the income. A research agency is appointed and provision is made for carrying on the work perpetually.

A PART of Rancho La Brea, including the famous Brea Pits, from which many remains of the Paleozoic age, among them 600 saber-tooth tigers, have been removed, has been given to Los Angeles County by G. Allen Hancock, its present owner, to be made into a public park. The property faces for approximately half a mile upon Wilshire Boulevard, in an outlying section of the city, which within the last few months has begun to be built up into a residential district. It was stipulated by the donor that the county board of supervisors expend \$25,000 within a year in improving the land and laying the foundations for a permanent public park.

HENRY J. LOFTUS, of London, has made a gift of two hundred and fifty acres of land in Virginia to Buchtel College. This land adjoins the tract recently given the university by Dr. James S. Swartz, of New York City. It is situated in Fairfax County, between Washington, D. C., and Mount Vernon.

THE Forestry Commission has set apart an area in the Glenbranter Forest estate, between Loch Fyne and the Firth of Clyde, as a permanent memorial to Sir Isaac Bayley Balfour, who for 34 years before his death, in 1922, was Regius Keeper of the Royal Botanic Garden at Edinburgh, and rendered signal service to the cause of botany, horticulture and arboriculture. With the cooperation of the Office of Works, it is proposed to plant the area with Asiatic rhododendrons and other trees, shrubs and plants

propagated in the Royal Botanic Garden at Edinburgh in which Sir I. Balfour was especially interested. It has also been proposed by some of Sir Isaac's friends to erect in the memorial area a modest rest-house dedicated to his memory, where students and others interested in the various families may study them at first hand and under what will amount to natural conditions. In connection with this, a memorial committee, with Sir John Stirling-Maxwell as chairman, has been formed at 25, Drumsheugh-gardens, Edinburgh.

It is officially announced that the International Council for the Exploration of the Sea, which met in Paris last month, has decided to carry out a scientific investigation of the fisheries of Iceland and the Faroes. Much of the work will be carried out by means of the Danish research ship *Dana*, and operations will extend from the neighborhood of Iceland to the north of Norway. Hydrographical-biological cruises will also be undertaken from the west of Scotland to the Faroes. British trawlers are predominant in the fishing in the region concerned, and the investigations contemplated are of considerable importance to Great Britain. The council also decided to support a proposal put forward by Professor Otto Pettersson and Commodore C. F. Drechsel for an international expedition to study the system of currents of the oceans, with special reference to the relations between changes in these currents and changes in the fish life of the seas. It was considered that such an investigation could best be begun by a preliminary expedition lasting about four years, which would cost £30,000 to £35,000 a year, in addition to the cost of acquisition of a suitable ship.

DR. ROY WALDO MINER, curator of the department of lower invertebrates of the American Museum of Natural History, has returned from a trip to the Bahama Islands in the interests of a new exhibit planned for the Hall of Ocean Life of that institution, now in the course of construction. This exhibit is to show a twenty-five foot section of a coral reef as it appears under its natural living conditions in the wonderful coral lagoons of Andros Island in the Bahamas. Along the shore of the island extends a line of coral reefs for a distance of sixty miles, enclosing a lagoon a mile in width, within which are thousands of coral clumps, or shoals, each one a marvelous sea garden in itself. It is planned to select one of these clumps as a basis for a new group, and to depict the characteristic variety of corals, sea fans, sea plumes and reef fishes of brilliant colors. In this connection it is planned to cooperate with Mr. J. E. Williamson, the inventor of the undersea tube which is now at Nassau in the Providence Islands. During his trip, Dr. Miner descended in this tube and looked out upon

the submarine world through a plate glass window one and a half inches thick. The use of the tube will facilitate an accurate and authoritative study of undersea life to a degree not otherwise possible. Diving apparatus will be used for collecting the specimens yet necessary for the group. Arrangements are being made with the Bahama Government through the courtesy of Sir Harry Cordeaux, governor of the islands, to conduct the work under his official sanction. An expedition comprising several artists and other technical experts of the museum staff will leave shortly, under Dr. Miner's leadership, to engage in this undertaking. It is expected that three years will be required to complete the group.

AN invitation was recently extended by the Rockefeller Foundation to Japanese scientific men who were deprived by the earthquake of all facilities for work to go to Peking to continue their investigations in the laboratories of the Peking Union Medical College. Eight men from the Imperial University and the Imperial Institute for Infectious Diseases were appointed by the authorities of the university in Tokyo, and they have now begun their work in the laboratories of pharmacology, physiologic chemistry and bacteriology. The party is headed by Dr. Nukada, professor of pharmacology of the Imperial University of Tokyo. Among the units of the Imperial University that were completely destroyed were the buildings which housed the departments of physiology, pharmacology and biochemistry.

DURING the past summer, as we have already reported, a project for the investigation of hookworm disease in China was initiated under the joint auspices of the department of pathology of the Peking Union Medical College and the International Health Board of the Rockefeller Foundation. Dr. W. W. Cort and Dr. J. B. Grant are cooperating in the direction of this work. Dr. Cort has been carrying on similar investigations in the West Indies for the last three years. The *Journal* of the American Medical Association further states that Dr. N. R. Stoll, who was recently appointed associate in parasitology on the staff of the Peking Union Medical College and who took part in the West Indian expedition, will devote his entire time to the work. In addition, two Chinese physicians and several technicians have been employed. A field laboratory has been established at Soochow Hospital, where both laboratory and field work were started on July 1. Early in August, Dr. Cort and Dr. Grant proceeded to Chefoo, where a survey was made with headquarters at the Temple Hill Hospital. Later in the year, work will be undertaken at Canton in co-operation with the Canton Christian College. It is planned to carry on this work in China until October, 1924.

ANNOUNCEMENT is made by the Dominion Government that the Federal Fisheries Department is about to establish a new biological station at Prince Rupert, B. C. It will be utilized for research work in connection with the fisheries of the coast, and also for the dissemination of information of educational value.

The British Medical Journal writes: "The munificent gift made by the Rockefeller Foundation to University College, London, and its Medical School, will not have been forgotten. It has been, however, long understood that the foundation did not intend to limit to London the financial assistance it would give to medical educational institutions in Great Britain. We understand that the foundation has for some time been making inquiries in Edinburgh, and is about to provide the cost of a clinical research laboratory there; it is also considering the endowment of a chair in clinical surgery."

THE twenty-fourth biennial edition of the directory of the Washington Academy of Sciences has been issued. This contains the names and addresses of members of the academy and of each of the sixteen affiliated societies. A list of the scientific and technical societies of Washington which are not affiliated with the academy, and of national societies having headquarters or offices in Washington, is also included.

By the provisions of the will of the late Dr. William Johnson Walker two prizes are annually offered by the Boston Society of Natural History for the memoirs written in the English language. For the best memoir presented a prize of sixty to one hundred dollars may be awarded; for the next best memoir a prize not exceeding fifty. The subject for 1924 is any work in the field of botany, for 1925, any work in the field of geology or mineralogy.

UNIVERSITY AND EDUCATIONAL NOTES

THE College of Forestry of Syracuse University has received as a gift from Charles Lathrop Pack, of Lakewood, N. J., a tract of 1,000 acres of Adirondack forest land at Barber Point, Cranberry Lake. It will be known as the Charles Lathrop Pack Demonstration Forest.

ACCORDING to an announcement from Carnegie Institute of Technology in Pittsburgh, a fellowship in metallurgy of the value of \$750 has been established by the department of metallurgical and mining engineering, for which an appointment is to be made immediately. The first problem to be studied under the fellowship is "an investigation of the effects of small

percentages of phosphorus on the physical properties of low carbon steel especially under alternating stresses and shock."

LADY RODDICK has given \$50,000 for the erection of an entrance to the grounds of McGill University in memory of her husband, the late Sir Thomas Roddick.

DR. ORLANDO H. PETTY, physician in charge of the Department of Metabolism of the Philadelphia General Hospital, has been appointed professor of the diseases of metabolism in the graduate school of medicine of the University of Pennsylvania.

DR. DAVID P. BARR, assistant professor of medicine at the Cornell University Medical College, has been appointed Busch professor of medicine by Washington University, St. Louis.

DR. H. C. HOWARD, formerly research chemist on the staff of the B. F. Goodrich Co., is now assistant professor of chemistry at the University of Missouri.

DR. FAY-COOPER COLE, assistant professor of anthropology in Northwestern University and curator in the Field Museum of Natural History, has been appointed to give instruction in the department of sociology and anthropology at the University of Chicago.

DISCUSSION AND CORRESPONDENCE UNIFORMITY IN WEIGHTS AND MEASURES

To close the discussion, may I say that Mr. Russell's statement in *SCIENCE*, November 30, 1923, pp. 442-3, needs careful reading. He says:

The Troy pound (which is Mr. McAdie's another kind of pound) was abolished as a legal weight in the United Kingdom eighty years ago and the Troy pound is likewise entirely obsolete in the United States. There is accordingly only one pound weight in the United States and United Kingdom.

This conveys the impression (while not explicitly saying so) that the Troy pound *has been legally abolished* in the United States and is entirely obsolete.

On the contrary the only authorized material standard of weight in this country is the Troy pound at the Mint (if we except Kilogram No. 20, delivered at the White House January 2, 1890). Moreover if one asks for a pound of gold at the Mint (we have no present intention of doing so) he will get 12 ounces, 5,760 grains. But the farmer who sells a pound of golden butter must give 16 ounces, 7,000 grains, or go to jail. Some day some farmer Senator will discover this and use it as campaign ammunition.

Mr. Russell says "the long ton is obsolescent." Uncle Sam then must be sound asleep, for the United States Government requires in fuel deliveries 2,240