

Further announcements regarding the Toronto meeting, which will be a very important occasion in international as well as in American science, will be made in *SCIENCE* from time to time.

BURTON E. LIVINGSTON,
Permanent Secretary

SCIENTIFIC NOTES AND NEWS

THE sixtieth annual meeting of the National Academy of Sciences will be held at the National Academy Building, B and 21st Streets, Washington, D. C., April 28, 29 and 30, 1924. The meeting will celebrate the acquisition and occupation of the new building. The principal feature of the occasion will be the dedicatory ceremonies and appropriate special program which, except for the opening business session on Monday, will occupy the first day. The president of the United States is expected to take part. Invitations to attend the exercises have been extended to many scientific institutions, learned societies and distinguished scientists, by both the National Academy and the Research Council.

THE executive committee of the American Association for the Advancement of Science will hold its regular spring meeting in Washington on Sunday, April 27. The main matters of business to come before the committee at that meeting are: (1) Arrangements for the nomination and election of fellows; (2) arrangements for affiliated academies of science; (3) the 1924 campaign for new members and for additional support for the association; (4) arrangements for the Washington meeting. Communications from members should be in the hands of the permanent secretary (Burton E. Livingston, Smithsonian Institution, Washington, D. C.) by April 19 if they are to be brought before the committee at this meeting.

M. BIGOURDAN has been elected president of the Paris Academy of Sciences to succeed M. Albin Haller.

DR. M. VON GRUBER, professor of hygiene and bacteriology at the University of Munich, has been elected president, for a period of three years, of the Bavarian Academy of Science succeeding the astronomer, Dr. H. von Seeliger.

PROFESSOR GRAHAM LUSK, of Cornell University Medical College, has been elected an honorary member of the Physiologische Gesellschaft of Berlin and of the Physiological Society of Great Britain.

THE degree of doctor of science was conferred on Professor Daniel D. Jackson, head of the department of chemical engineering at Columbia University, at the charter day exercises of the University of Pittsburgh, held on February 19.

THE degree of doctor of laws will be conferred by the University of Aberdeen on Dr. J. J. R. Macleod, of the University of Toronto.

IN honor of Dr. Cornelia Clapp, graduate and professor emeritus of Mount Holyoke College, alumnae associations of the college throughout the country held dinners on her birthday on March 17. A radio message by President Mary E. Woolley and a musical program by members of the Department of Music were broadcast from Springfield, Mass. The completion of the \$600,000 building fund for a new biological building to be called Cornelia Clapp Hall was also celebrated.

E. F. W. ALEXANDERSON, consulting engineer of the General Electric Company and chief consulting engineer of the Radio Corporation of America, has been awarded the Order of the Polonia Restituta, by the Polish Government, in recognition of his meritorious services in connection with the building of Poland's new radio station near Warsaw. This station is the first in Europe to make use of the Alexander high frequency alternator now used in all Radio Corporation stations for transoceanic communications.

FRED CRABTREE, head of the department of metallurgical and mining engineering, Carnegie Institute of Technology, has been elected president of the Engineers' Society of Western Pennsylvania.

PROFESSOR G. G. HENDERSON, F.R.S., Regius professor of chemistry in the University of Glasgow, was installed as president of the British Institute of Chemistry at the annual meeting held in London on March 3. At the same meeting, the Meldola Medal (for the work of most promise published by a British chemist under thirty years of age), the gift of the Maccabaeans, was presented to Mr. C. N. Hinshelwood, B.A. (Oxon).

PROFESSOR ARCHIBALD BARR was elected president of the Optical Society at the recent annual meeting in London. Vice-presidents were elected as follows: Sir Frank Dyson, Mr. T. Smith and Mr. T. Y. Baker.

PROFESSOR W. H. PERKIN, Waynflete professor of chemistry at the University of Oxford, has been elected to the board of the British Dyestuffs Corporation, Ltd. Professor Perkin recently undertook the supervision of the research department of the corporation, a duty which he will continue to perform in addition to serving as a director.

WILLIAM G. ELLIOTT, Pittsburgh, Pa., has been awarded the Edward Longstreth Medal by the Franklin Institute for the scientific and commercial development of a method and apparatus for the successful deaeration of feed-water for power plants.

PROFESSOR WALTER F. WILLCOX, of Cornell University, has been appointed by Secretary of Commerce Herbert E. Hoover one of a committee of five statisticians to investigate the method of compiling the cotton and exchange estimates.

DR. EMMET CARVER, for the past three years of the department of physical chemistry, University of Illinois, has joined the research staff of the Eastman Kodak Company, Rochester, N. Y.

WALTER L. WEDGER has resigned as chief chemist of the Department of Public Safety of Massachusetts to become chief chemist of the Central Railway Signal Company of the United States and Canada with main offices in Boston.

PROFESSOR H. EDIN, chemist at the Swedish Royal Agricultural Experiment Station at Stockholm, Sweden, is at present visiting the United States.

DR. JOSEPH S. DAVIS, a director of the Stanford Food Research Institute, sailed recently for Europe, where he will serve as a consulting economist for the American representatives on the reparations commission investigating Germany's economic and financial situation.

DR. W. ARMSTRONG PRICE, who has for the last year been engaged in consulting oil and gas geology in the Appalachian fields with headquarters at Clarksburg, West Virginia, is spending March and April in field work in northern Mexico.

PROFESSOR PHILIP H. MITCHELL, of Brown University, will continue during the coming summer the investigation of the cause and remedy of the decline of Connecticut River shad. This investigation, authorized by the Connecticut Legislature, was started during the spring and summer of 1923.

MAJOR J. H. RUSSELL, of the Indian Medical Service, and director of public health, Madras, India, is in Baltimore studying at the city health department. Major Russell is also taking a course in vital statistics at the School of Hygiene and Public Health, Johns Hopkins University.

PROFESSOR F. PASCHEN, of the University of Tübingen, has accepted an invitation of the University of Michigan to be in residence during the first semester of the year 1924-25. He will lecture and direct research in the field of spectroscopy.

DR. JAMES F. KEMP, of the department of geology of Columbia University, is giving a short course of special lectures in the geological department of McGill University. Dr. Kemp's lectures deal with recent advances in our knowledge of the geology of the Lesser Antilles, and with the result of recent developments in certain of the great mining camps of the western United States.

ON March 15 Professor E. Newton Harvey, department of physiology, Princeton University, delivered an address to The Royal Canadian Institute, Toronto, on "Luminescence in animals."

DR. LOUIS A. BAUER gave the Sigma Xi lecture at Rutgers College and the State University of New Jersey on March 17, his topic being, "The magnetism of the earth and the electricity of the atmosphere."

DR. COLIN G. FINK, professor of electrochemistry, Columbia University, addressed the members of the Connecticut Valley Section of the American Chemical Society on "The hydrometallurgy of copper" at a dinner meeting held at New Britain, Conn., on March 15th.

DR. G. KINGSLEY NOBLE, curator of herpetology at the American Museum of Natural History, addressed the Biological Society of the College of the City of New York on March 6 on: "The homologies of the alisphenoid region of the lateral brain case of mammals."

PROFESSOR ALEXANDER SILVERMAN, head of the department of chemistry of the University of Pittsburgh, gave an address on the subject of natural and artificial silk, termed "Silk-worm competitors," before the Academy of Science and Arts of Pittsburgh on March 6.

DR. EDWIN B. WILSON, professor of vital statistics, School of Public Health, of Harvard University, gave a public lecture on "Statistical inference," the DeLamar lecture, February 25, at the School of Hygiene and Public Health, Johns Hopkins University.

DR. HANS DRIESCH, professor of zoology in the University of Leipzig, gave four lectures in English on "The possibility of metaphysics" at King's College on March 12, 14, 18 and 19, at the invitation of the University of London.

PROFESSOR A. FOWLER, Yarrow research professor of the Royal Society, will deliver the Bakerian lecture on May 15. The subject of the lecture will be "The spectra of silicon at successive stages of ionization."

PROFESSOR J. SYMINGTON, F.R.S., emeritus professor of anatomy in Queen's University, Belfast, died on February 24, aged seventy-two years.

DR. ROBERT TIGERSTEDT, professor of physiology at Helsingfors, has died at the age of seventy years.

THE death is announced of Dr. A. Ewald, emeritus professor of physiology in the University of Heidelberg, aged seventy-five years.

PROFESSOR FELIX VON LUSCHAN, who held the chair of anthropology and ethnology in the University of Berlin, has died, aged sixty-nine years.

WE learn from *Nature* that the memorial to Lord Lister which has been erected in Portland Place was unveiled on March 13 by the president of the Royal Society, Sir Charles Sherrington, G.B.E. The memorial was executed by the late Sir Thomas Brock, R.A., and forms part of the public commemoration of Lister's work decided upon at a meeting held at the Mansion House in October, 1912. Besides this monument, a tablet with medallion and inscription has been placed in Westminster Abbey, and an international Lister memorial fund has been established for the advancement of surgery. In order to carry out the scheme for the establishment of a memorial fund it was resolved, at a meeting held in July, 1920, to award a sum of £500, together with a bronze medal, every three years, in recognition of distinguished contributions to surgical science, the recipient being required to give an address in London under the auspices of the Royal College of Surgeons of England. The award will be made by a committee consisting of members nominated by the Royal Society, the Royal College of Surgeons of England, the Royal College of Surgeons in Ireland, the University of Edinburgh and the University of Glasgow.

THE next meeting of the American Astronomical Society will be held at Dartmouth College, Hanover, New Hampshire, on August 3 to 6, 1924.

THE Kentucky legislature, which adjourned *sine die* on March 19, 1924, in passing Senate Bill 9, an emergency measure, made new and special appropriations in the sum of \$51,000 immediately available for the use of the Kentucky Geological Survey. This bill was approved by Governor W. J. Fields on March 7. Dr. Willard Rouse Jillson, director and state geologist, announces that the regular or budget appropriation of \$40,500 will be expended, as in the past, for geologic and topographic work, and that the new funds, which are additional, will be used principally for investigations into undeveloped mineral resources, chief among which are indicated rock asphalt, cement materials, petroleum, natural gas and coal.

THE biological laboratories of the United States Bureau of Fisheries, located at Woods Hole, Mass.; Beaufort, N. C., and Fairport, Iowa, will open on June 20, and are expected to remain in active operation until about September 15. A limited number of research rooms and tables will, as usual, be available to those qualified to conduct investigations in the various branches of marine and fresh-water biology. The opportunities and facilities at Woods Hole and Beaufort are well known. At Fairport there is a new and well equipped laboratory, with needed collecting apparatus, and ponds and tanks. Both river water and filtered water are provided. This field offers opportunities for zoological and botanical investigations

as well as for chemical studies relating to biological problems. Those desiring to have the use of tables and other facilities at these laboratories may communicate with Henry O'Malley, Commissioner of Fisheries, Washington, D. C.

Two new laboratories, for botany and zoology, are nearing completion at the Puget Sound Biological Station of the University of Washington at Friday Harbor. The buildings are of one-story construction of white tile stucco with red tile roofs. They are twenty-four by fifty-five feet and are set about ten feet above high-water mark. Each building has concrete floors, an aquarium and several cement water tables.

W. EMLEN ROOSEVELT, cousin of the late President Roosevelt, has given to the National Association of Audubon Societies a tract of land at Oyster Bay for a bird sanctuary. The association, which devotes itself to the protection of bird and animal life, will put a "cat-proof" iron fence around the property, set out trees and shrubs that provide the best food for birds, put up a memorial fountain to the late President and will call the park the Roosevelt Bird Sanctuary. The property given by Mr. Roosevelt consists of about eleven and one half acres, roughly triangular in shape, surrounding and adjacent on three sides to Young's Memorial Cemetery at Oyster Bay, where President Roosevelt is buried. It is an ideal place for birds. There are plenty of trees with the kind of food that birds like, and lots of thickets, which birds love. Some more blackberry bushes and tall trees may have to be added. The association will erect the fountain and put in a pool where the birds can drink, pay all the costs of maintenance and supply an ornithologist as a caretaker of the sanctuary. There is a house near by which will be rented to provide rest rooms for bird students and perhaps accommodations for those who wish to stay there to make an extended study of the birds. The public will be admitted on certain occasions.

THE plans for the erection and equipment of a new research institute for animal diseases, in connection with the Royal Veterinary College, Camden Town, England, will be ready for submission to the governors at an early date, and it is expected that the institute will be completed within a year. A grant of £25,000 has been made to the institute by the Development Commission on the recommendation of the Advisory Committee on Research in Animal Diseases. Sir John McFadyen, the principal of the Royal Veterinary College, Camden Town, will be the director.

THE Empire Cotton-Growing Corporation has offered to the University of Manchester for five years a grant to promote study and research in mycology and entomology in those aspects which deal with the diseases of plants caused by animal and fungal para-

sites and which are known to be of importance to cultivators of cotton. It is made a condition of the grant that the university should admit cotton research scholars and their assistants to the laboratories of the university. The university is also asked to deal with inquiries from scientific advisers to cotton-growers, and for this purpose should have available such publications as would be likely to give the required information. The council of the university has expressed its gratification at the offer, and has accepted the grant. In the department of botany Mr. Samuel Williams will undertake investigations on plant diseases under the direction of Dr. Wilfrid Robinson, who has for some years past been engaged in research on plant pathology. In the zoological department Mr. R. A. Wardle will supervise the investigations in entomology.

UNIVERSITY AND EDUCATIONAL NOTES

By the will of Alexander F. Morrison, of the California bar, a bequest of \$1,000,000 is left to the University of California.

HERBERT W. RICE, of Providence, R. I., has given to Brown University a scholarship which will yield annually \$700 for graduate work in chemistry.

By the will of William Prescott, of Liverpool, £20,000 is given to the Liverpool University for the founding of a chair of agriculture.

PROFESSOR ALFRED NORTH WHITEHEAD, hon. D.Sc. (Manchester), hon. LL.D. (St. Andrews), fellow of Trinity College, Cambridge, and professor of applied mathematics in the Imperial College of Science and Technology, has been appointed professor of philosophy at Harvard University. He will begin his work in September, 1924, and will give courses on metaphysics, logic and the philosophy of science.

At the Stanford University Medical School the following promotions will be made for the year 1924-25: Dr. Jean Oliver from associate professor in pathology to professor; Dr. Edward B. Towne from assistant professor of surgery to associate professor; Dr. George deF. Barnett from assistant clinical professor of medicine to associate professor; Maurice L. Tainter from assistant in pharmacology to instructor.

KENNETH C. HEALD, chief of the gas and oil section of the United States Geological Survey, has been appointed associate professor of geology at Yale University with assignment to the Sheffield Scientific School. The following promotions from assistant to associate professor have been made: Ralph G. Van Name, chemistry; Edwin Hoyt Lockwood, mechanical engineering; Carlton T. Bishop, structural engineering, and Charles A. A. Bennett, philosophy.

DISCUSSION

EXTENSIVE VOLCANIC ACTIVITY IN THE MIDDLE TERTIARY OF THE SOUTH TEXAS COASTAL PLAIN*

IN the course of a short field study of the geologic formations in Live Oak and McMullen counties, Texas, which the writer made early in September, 1923, an extensive deposit of volcanic tuff and agglomerate was discovered. The area in which this volcanic material outcrops is situated near the center of the Gulf Coastal Plain of Texas from 65 to 90 miles south of San Antonio. A more complete report on this deposit will be published later.

This tuffaceous deposit is considered to be of formational rank on the basis of (1) lithologic dissimilarity to the formations above and below it, and (2) its unconformable relations to the adjacent formations. It is here designated as the Gueydan formation from the Gueydan Ranch and Survey in southeastern McMullen County, where it is well exposed.

The Gueydan tuff consists of a lower yellowish-white trachyte tuff and an upper brownish-pink latite or andesite tuff. These members are separated in places by a bed of pink and green mottled, massive, bentonitic clay. The trachyte tuff often exhibits well-marked sun-cracks and frequently contains small pumice pebbles. The latite or andesite tuff contains, in addition to pebbles of pumice as much as three inches in diameter, scattered boulders of black vesicular andesite up to three feet in diameter and a few rounded pebbles of hard sandstone. At the base of the formation is a bed of coarse conglomerate attaining a thickness of twenty feet.

The Gueydan formation lies unconformably above the Frio formation of uppermost Eocene age and unconformably below the Oakville sandstone of Upper Miocene age. Although no fossils were seen in it and no rocks of probable Oligocene age have been reported heretofore from the southern half of the Coastal Plain province of Texas, it is provisionally placed in the Oligocene. The Gueydan formation outcrops in a belt, from three to seven miles wide, that was traced from three miles east of Three Rivers, Live Oak County, southwest to the Duval County line, a distance of over thirty miles. So far as known at the present time, this is the largest deposit of volcanic material that has been found in the Texas Coastal Plain.

The old volcanoes from which the Gueydan tuff was erupted have not been discovered. It is possible either that more detailed field work will bring them to light or that the eroded cones have been covered up by deposits younger than the Gueydan. It is unlikely

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