

SCIENTIFIC NOTES AND NEWS

DR. ROSS G. HARRISON, Sterling professor of biology at Yale University, has accepted the invitation of the Royal Society of London to give the Croonian Lecture on June 29.

PROFESSOR NIELS BOHR, of the University of Copenhagen, will give the Graduate School Convocation address at Brown University on June 17, his title being "Explanation in Natural Science."

THE John Fritz Gold Medal, which was awarded last November to Daniel Cowan Jackling, of San Francisco, for "notable industrial achievement in initiating mass production of copper from low-grade ores, through the application of engineering principles," was presented to him at a recent meeting in New York of the American Institute of Mining and Metallurgical Engineers. Dr. Geo. Otis Smith, chairman of the Federal Power Commission, made the principal address.

THE gold medal of the National Institute of Social Sciences will be presented to Clifford W. Beers, who initiated the movement for mental hygiene which led to the establishment of the National Committee for Mental Hygiene, the twenty-fifth anniversary of which will be celebrated in New Haven on May 6. Mr. Beers will also be the guest of honor at a meeting to be held on May 10 at the Twentieth Century Club, Boston, to commemorate the twentieth anniversary of the establishment of the Massachusetts Society for Mental Hygiene and the twenty-fifth anniversary of the movement.

FRANK A. PERRET, director of the new volcanological station at the foot of Mt. Pelée, St. Pierre, Martinique, has been appointed Chevalier de la Légion d'honneur by the French Government.

A CORRESPONDENT of the *Journal* of the American Medical Association states that at a recent meeting of the All-Russian Central Executive Committee the degree of honorary science-worker was awarded to the following physicians: Professors Alexis I. Abrikosov, of the First Moscow Medical Institute, for his scientific work in the field of pathology; Professor Nicolas N. Bourdenko, for his scientific work in neuropathology and medical education; Professor Wladimir I. Wojachek, of the Military Medical Academy, for his studies in otolaryngology; Professor Ivan I. Grekov, of the Second Leningrad Medical Institute, who instructed many scientific workers in the field of surgery; Professor Alexis W. Martynov, of the Moscow First Medical Institute, for his surgical work and teaching, and Professor Basil B. Cramer, for his scientific work in the field of neuropathology.

By an order of the Committee of Privy Council of

Great Britain made after consultation with the Medical Research Council and with the president of the Royal Society, Sir Thomas Lewis, director of the department of clinical research in University College Hospital, London, has been appointed a member of the council in succession to Professor J. J. R. Macleod, of the University of Aberdeen.

LORD DAWSON of Penn was reelected on April 10 as president of the Royal College of Physicians, London.

AT the annual election of the Pennsylvania Academy of Sciences Dr. John C. Johnson, State Teachers College, West Chester, was elected *president*; Dr. S. H. Derickson, Lebanon Valley College, Annville, *vice-president*; Dr. H. W. Thurston, Pennsylvania State College, *treasurer*; Dr. T. L. Guyton, Pennsylvania Department of Agriculture, Harrisburg, *secretary*; Dr. V. Earl Light, Lebanon Valley College, *assistant secretary*, and R. W. Stone, Geological Survey, Harrisburg, *editor*. The annual summer meeting will be held in August at Ohio Pyle. The place of meeting for the tenth annual meeting has not been selected.

THE officers elected for a three-year term by the Wisconsin Academy of Sciences, Arts and Letters at the annual meeting held at Madison, April 7 to 8, include: *President*, Rufus M. Bagg, Lawrence College, Appleton; *Vice-president for the Division of Sciences*, Storrs B. Barrett, Yerkes Observatory; *Vice-presidents—for the Division of Arts*, Anselm M. Keefe, St. Norbert College, West De Pere, *for the Division of Letters*, A. R. Hohlfeld, University of Wisconsin; *Secretary-Treasurer*, H. A. Schuette, University of Wisconsin; *Librarian*, W. M. Smith, University of Wisconsin; *Curator*, C. E. Brown, State Historical Museum.

THE council of the University of Bristol has accepted with regret the resignation as from July 31 of Professor A. J. Sutton Pippard from the chair of civil engineering on his appointment to the London University chair of civil engineering at Imperial College. Professor Pippard is a graduate of the university and returned to fill the chair vacated by Professor Ferrier in 1928.

IN recognition of the work of Dr. Evans in metallurgy, the General Board of the University of Oxford has appointed him assistant director of research in metallurgy, without stipend from the university, for the period during which he holds the Royal Society Armourers' and Brasiers' research fellowship in metallurgy.

LAWRENCE MOHUEY, curator of birds and mammals at the Natural History Museum at San Diego, Cali-

fornia, has been appointed federal inspector of exotic birds and mammals entering the port of San Diego.

THE J. T. Baker Chemical Company Eastern Analytical Research Fellowship for 1933-34 has been awarded to Mr. G. W. Low, Jr., graduate of Princeton University, 1931. Mr. Low will engage in analytical investigations at Princeton.

GERALD ASHLEY WARING, geologist in the U. S. Geological Survey, has returned to Washington after two years spent on a detailed survey of the coal deposits of Alaska.

DR. FORREST SHREVE and Dr. T. D. Mallery, of the Desert Laboratory of the Carnegie Institution, and Dr. Ira L. Wiggins, of Stanford University, recently returned from an expedition to the valleys of the Yaqui and Mayo Rivers in southern Sonora. The transition from desert to thorn-forest was studied, some physiological work was done on *Larrea* and *Encelia*, and nearly 400 plants were collected.

SIR HUBERT WILKINS has sailed on the *Bremen* to take part in the proposed Antarctic flight of Lincoln Ellsworth and Bernt Balchen. Sir Hubert is *en route* to Germany, where he will make preparations for the flight before going on to Cape Town and then to New Zealand, where he will meet the Ellsworth-Balchen expedition.

DR. W. F. G. SWANN, director of the Bartol Research Laboratories of the Franklin Institute at Swarthmore, addressed the institute on April 19, on "The Work of the Bartol Research Foundation."

DR. HENRY E. SIGERIST, formerly director of the Institute of Medicine at the University of Leipzig, who succeeded Dr. William H. Welch as director of the Institute of the History of Medicine of the Johns Hopkins University, delivered an illustrated lecture before the Washington Academy of Sciences on April 20. His subject was "Medicine of the Renaissance."

DR. FLORENCE R. SABIN, member of the Rockefeller Institute for Medical Research, gave on May 2 the first lecture on the foundation established at Goucher College by the Baltimore Association for the Promotion of the University Education of Women. The subject of the lecture was "Cells in Relation to Tuberculosis."

DR. WILLIAM BEEBE, director of the department of tropical research at the New York Zoological Park, will address the Phi Beta Kappa Alumni in New York at the annual meeting on May 10. The title of his lecture will be "Four Hundred Fathoms Down."

MARKUS RENIER, visiting research professor of Lafayette College, an engineer of the Department of Public Works of the British government in Palestine,

is giving a series of lectures on mathematical rheology at the John C. Green School of Engineering, Princeton University.

DR. MILTON J. ROSENAU, professor of preventive medicine and hygiene, Harvard Medical School, will give two courses at the summer session of the University of California. One course will deal with epidemiology, the other with public health.

THE eleventh Colloid Symposium, which was scheduled to be held at the University of Wisconsin on June 15, 16 and 17, has been postponed for one year.

THE twenty-first annual meeting of the Eugenics Research Association will be held on June 3 at the American Museum of Natural History, New York City.

THE annual spring meeting of the Association of Consulting Psychologists will be held on May 6 at the University of Pennsylvania.

THE third annual meeting of the Field Conference of Pennsylvania Geologists is to be held at Harrisburg, Pennsylvania, on May 27, 28 and 29 at the invitation of the Pennsylvania Topographic and Geologic Survey. Field trips will include Cornwall Mines, the Triassic and the Paleozoic sections of south-central Pennsylvania.

THE ninth annual field conference of the New York State Geological Association will be held in the New York City region on May 12 and 13. The association will convene at Newburgh, New York, on the morning of Friday, May 12, and will proceed by car through Peekskill to northern New York City; stops will be made at localities displaying the overthrusting of the crystalline rocks of the Highlands northward on the younger Paleozoic rocks, and the meta-sediments of northern New York City will be examined. An evening session will be held at Columbia University. Saturday, May 13, will be devoted to a study of the Triassic rocks west of the Hudson River, and of the glacial features and the serpentine on Staten Island. Further information may be obtained from the secretary, Dr. G. Marshall Kay, Columbia University.

Museum News reports that at the meeting of the American Association which will be held in Chicago in June the dates will articulate with those of other conventions which are attended by museum workers: June 8-10, American Federation of Arts; June 12-14, American Association of Museums; June 14-15, Association of Art Museum Directors; June 15-17, College Art Association; June 19-30, American Association for the Advancement of Science. The sections and chairmen are as follows: Art, Walter H. Siple, Cincinnati; History, Robert W. Bingham, Buffalo;

Science, Charles C. Adams, Albany; Art Technique, Edward W. Forbes, Cambridge; Technical (Science technique), E. L. Judah, Montreal; Superintendents, J. Francis McCabe, Chicago; Education, Mrs. Grace Fisher Ramsey, New York; Public Relations, I. T. Frary, Cleveland; Radio, Chauncey J. Hamlin, Buffalo; College, Carl E. Guthe, Ann Arbor.

THE American Mining Congress will be held in Pittsburgh from May 8 to 12. Discussions will be centered about present problems of the coal industry, these including management, mining methods, safety program, mechanical production, haulage, and coal analyses. A large exhibit will be installed in the William Penn Hotel in Pittsburgh, where most of the manufacturers will display products used by the coal mining industry. J. B. Warriner, president of the American Mining Congress, will lead the sessions held in Pittsburgh, with subchairmen in charge of divisional activities. The Pittsburgh committee is headed by Dr. L. E. Young, vice-president of the Pittsburgh Coal Company.

THE ninety-third annual meeting of the German Society of Naturalists and Physicians will be held in Hannover in 1934. There will be no meeting during the present year.

FOLLOWING the resignation of Dr. James Franck, professor of physics at the University of Göttingen and member of the Kaiser Wilhelm Institute of Physical Chemistry and Electrochemistry at Berlin, the resignations have been received, according to press reports, of Professor Herbert Freundlich, distinguished for his work in colloid chemistry, and of Dr. Michael Polanyi, physicochemist, vice-directors of the institute. An Associated Press dispatch, dated April 28, states that Professor Hermann Jacobsohn, of the University of Marburg, has committed suicide by throwing himself before a train. It is also reported that Dr. Bernhard Zondek, who has been forced from his professorship of gynecology in the University of Berlin, may be given a position in the University of Stockholm. Dr. Gustav Bucky, for three years director of the Central Röntgen Institute and the cancer department at the Rudolf Virchow Hospital, who was reported early this month to be "on vacation," has also resigned and is now in New York. Dr. Bucky is an American citizen of German-Jewish birth.

IN regard to dismissals of German professors, a correspondent of *The New York Times* writes: "Twenty-six Jewish professors were dismissed from the faculties of the leading Prussian universities on April 25 by Bernhard Rust, Nazi Minister of Culture for that state. This makes a total of forty-two Jewish or Republican savants who have lost their teaching

posts at Prussian universities within the month, but it is announced officially that these removals constitute only a first instalment in a general house-cleaning of the German academic groves from what is known, in Nazi parlance, as "alien influence." No fewer than eighteen among the Jewish professors who lost their positions belonged to the faculty of the University of Frankfurt-am-Main, while seven were dropped from the University of Göttingen and one from the University of Marburg."

THE seventy-eighth annual exhibition of the Royal Photographic Society of Great Britain is to be held in London from September 9 to October 7, inclusive. It is requested that all entries for the technical section from residents of the United States be sent to Dr. Walter Clark, Eastman Kodak Research Laboratories, Rochester, New York. Exhibits should be mounted but not framed, and should reach Dr. Clark not later than June 20. Exhibits for Section III may consist of photographs or transparencies related to the following subjects: natural history, photomicrography, radiography, astronomical and aerial photography, stereoscopy, survey and record work, press and theatrical photography, meteorological, geological and metallurgical applications of photography and useful photographic devices. It is hoped that a generous contribution will be made in order to maintain the high standard set by American contributors to the technical section in previous years. Entry forms may be obtained on application to Dr. Clark. There is no fee.

DURING the past fall and winter the Bacteriological Laboratories at the Pennsylvania State College have been entirely remodeled and reequipped and have been used during the first semester. Specially designed laboratory desks have been installed. Rolling doors make it possible to divide the larger laboratory with ample accommodations for a section of fifty students into two laboratories for smaller groups when desirable. An important item of new equipment is the constant temperature room (37° C.) which affords sufficient space for incubation of class cultures. The facilities now provide excellent working conditions for 280 students registered in the division of bacteriology.

IN connection with the commemoration of the one hundred and ninetieth birthday of Thomas Jefferson, founder of the University of Virginia, presentation to the university was made of a ten-inch photographic telescope of 45-inch focal length from Mount Wilson Observatory. The telescope is to be used by Dr. S. A. Mitchell, director of the McCormick Observatory, in photographing 18,000 stars to determine their proper motions. Funds to provide a complete new mounting have been provided by the Carnegie Institution of Washington.

FRANK A. WARDLAW and his son, Frank A. Wardlaw, Jr., have recently presented to the U. S. National Museum the only cast now known to exist from a life mask of Thomas A. Edison. The mask was made in 1878, the year of the invention of the phonograph and the year before the invention of the incandescent lamp. As this was the only mask of Edison ever made, it will be of value as a record. The same donors presented original Edison lamps of the first types of paper filament and bamboo filament lamps, a galvanometer used by Joseph Henry, and several models of locomotives and marine engines.

THE executive committee of the sixth International Congress for Industrial Diseases and Accidents, held at Geneva last year, has instituted a prize of 1,000 Swiss francs for the best essay on the estimation of the consequences of an industrial accident. The type-script of the essay, which may be written in English, French, German or Italian, should be sent to the general secretary of the congress, Geneva, before December 31, 1934.

At a recent meeting of the American Institute of Nutrition—Dr. H. C. Sherman, president, and Dr. John R. Murlin, secretary-treasurer—*The Journal of Nutrition*, owned by the American Institute of Nutrition, was transferred to The Wistar Institute. Beginning in January, 1934, this journal will be published by the institute under the same editorial management. Announcement of an increase in the number of yearly issues will be made later. The acquisition of *The Journal of Nutrition* is the first step in the creation of a department of nutrition at The Wistar Institute.

THE return of a permanent American delegate to

the International Institute of Agriculture at Rome is probable as the result of action by the Senate Foreign Relations Committee, which has approved a bill by Senator Hiram Johnson, of California, to finance representation at a cost of \$48,500 a year. The institute is the nucleus for world planning in crop production. Seventy-four nations participate and America had a permanent delegate at the institute up until four years ago.

THE New York Botanical Garden is now conducting a school for gardeners modeled on those of Kew and Edinburgh. In the past the gardening profession in the United States has been recruited almost entirely from Europe. Student-gardeners are temporary employees remaining at the garden for two years. During the day-time they perform the duties of gardener, being moved as opportunity permits from one department to another to broaden their experience. They attend a two-year course of evening lectures, including such subjects as general and systematic botany, physics and chemistry, soils and fertilizers, plant pathology, entomology, genetics and plant breeding. They also attend demonstrations by the staff and visit other gardens. On satisfactory completion of the two years course a certificate is awarded, also a year's extension of employment at the garden during which time the student is expected to seek employment elsewhere. Appointment as student-gardener is limited to those prepared to do the work without remuneration. The New York Botanical Garden, in cooperation with the Horticultural Society of New York and the National Association of Gardeners, is also conducting a course for professional gardeners in the basic sciences underlying gardening practise.

DISCUSSION

THE CRISIS IN SCIENTIFIC RESEARCH AND THE WAY OUT

WE find ourselves, to-day, faced with a crisis in scientific research, especially in biology and medicine. Professor Krogh has already referred to it at the Thirteenth International Congress of Physiology, held at Boston in 1929.

The causes of this difficulty would seem to lie in a discrepancy between the efforts and the results of research work. The effects of collective scientific endeavor are to-day quantitatively so vast that the possibility of surveying and applying them with complete assurance and certainty becomes ever more remote. From this results a constant increase in specialization; one perceives the various connections less and less clearly, the great clear directing lines and historical points of view tending to disappear. Or, one is obliged to undertake a quite incredible

amount of labor, in fact, to devote one's entire life, so to speak, to the subject, without even being certain that the results will prove worth the trouble.

This often only half perceived, almost unconsciously felt, recognition discourages many young scientists so that they turn more willingly towards those forms of activity which promise more practical results, and this constitutes the chief danger to scientific research and its traditions.

The principal cause of all this lies, in my opinion, in the fact that in the technique of publication and survey of scientific results, in the method of mental and scientific synthesis, the old established customs still hold sway, but these are no longer suited to the pace and necessities of our time. We are, to-day, accustomed to the scientific organization of work in every sphere of industry, commerce and administration, one may even say in politics and political propa-