

and asserted that freedom of scientific work from political and policy-making influence is of prime importance. It adds that for technical advice the Congress and the executive departments should have ready access to, and should use, the best talents available within and without the government services.

One of the principal recommendations in the report concerns grants-in-aid of research projects which hold definite promise of importance industrially, medically or otherwise in the public interest. The report states that at present there are many developments of this nature which a relatively small amount of financial support would release for the stimulation of industry and commerce, and the improvement of public health. An appropriation of \$3,500,000 for scientific research by non-governmental institutions during the next two years is recommended and an annual appropriation of

\$100,000 for the support of the Science Advisory Board is also requested.

During the past year the board has studied a number of matters connected with the federal scientific bureaus. These reports, which are soon to be made public, cover the mapping services of the Federal Government; the relation of the patent system to the stimulation of new industries; the relationship of the Bureau of Chemistry and Soils to the other bureaus in the Department of Agriculture; medical and public health problems in the Federal Government; the report of the joint committee appointed by the Science Advisory Board and Regional Coordinating Committees of Railway Executives to study the matter of research methods and possibilities in the railway field, and a study of means for lessening the hazard of collision of ships in fog.

SCIENTIFIC NOTES AND NEWS

DR. EDWARD W. BERRY, professor of paleontology and dean of the College of Arts and Sciences at the Johns Hopkins University, has been appointed to the revived office of provost of the university. Dr. Joseph S. Ames, the predecessor of President Isaiah Bowman, was provost from 1926 to 1929, but on his accession to the presidency no successor was appointed.

DR. MAX MASON, who joined the Rockefeller Foundation as director for natural sciences in 1928, becoming president in 1930, previously from 1925 to 1928 president of the University of Chicago, has announced his retirement. He plans to resume his mathematical work.

DR. FRANK SCHLESINGER, director of the Yale University Observatory and professor of astronomy at Yale University, has been made a member of the Legion of Honor by the French Government, with the rank of officer.

DR. MARY B. KIRKBRIDE, associate director of the Division of Laboratories and Research of the New York State Department of Health, has been presented a gold medal by the New York State Association of Public Health Laboratories "in recognition of her devoted service to that organization." Dr. Kirkbride was elected in 1919 as the first secretary-treasurer of the association and has acted in that capacity since that time.

THE medal of the American Society of Civil Engineers, awarded for an original paper on sanitary engineering, has been given to John H. Gregory, professor of civil and sanitary engineering at the Johns Hopkins University, for a paper on "Intercepting Sewers and Storm Stand-by Tanks at Columbus, Ohio." The

medal has been awarded only three times since it was instituted in 1924.

THE Hubbard Gold Medal, award of the National Geographic Society for geographic achievements, will be presented on December 11 to Captain Albert W. Stevens and Captain Orvil A. Anderson, commander and pilot of the stratosphere balloon, *Explorer II*. General Pershing, a trustee of the society, will make the presentations in Constitution Hall.

AN award of 10,000 Belgian francs as first prize in the competition sponsored by the George Montefiore Foundation of the University of Liège, Belgium, for "the greatest contribution to the art and science of electrical engineering during the last three years," has been made to Gabriel Kron, of the General Electric Company, for his memoir on "Non-Riemannian Dynamics of Rotating Electrical Machinery." The first prize in the competition, which is international in scope, has not been awarded to an American since 1923 when it was given to Dr. J. B. Whitehead, dean of the engineering faculty, the Johns Hopkins University.

PROFESSOR MARIE-VICTORIN, head of the department of botany of the University of Montreal, has been awarded the Coincey Prize by the Paris Academy of Sciences.

DR. HANS DRIESCH, professor of philosophy at the University of Leipzig, has been elected an honorary member of the British Philosophical Society.

DR. CHARLES E. COTTON, secretary and executive officer of the Minnesota Livestock Sanitary Board, in recognition of his work in the eradication of bovine tuberculosis was the guest of honor in November at

the annual dinner of the Minnesota Public Health Association in Minneapolis. Speakers included Dr. Morris Fishbein, editor of the *Journal* of the American Medical Association; Dr. Charles H. Mayo, of Rochester, Minn., president of the State Public Health Association; Dr. J. Arthur Myers, professor of medicine and preventive medicine and public health, the University of Minnesota School of Medicine, and Frederick E. Murphy, publisher of the *Minneapolis Tribune*.

At the annual meeting of the board of trustees of the Carnegie Foundation for the Advancement of Teaching, held on November 27, the following officers of the board were elected for the year 1935-36: *Chairman*, Thomas W. Lamont, of New York City; *Vice-chairman*, Frederick C. Ferry, president of Hamilton College; *Secretary*, L. D. Coffman, president of the University of Minnesota. Dr. W. C. Murray, president of the University of Saskatchewan, presided as chairman of the board. New trustees elected were Chancellor Samuel Paul Capen, of the University of Buffalo, and President Harold W. Dodds, of Princeton University. Members of the executive committee re-elected were Frederick C. Ferry and William Allan Neilson. Dr. Walter A. Jessup is president of the foundation.

OWING to his advanced age Professor von Eiselberg has resigned his presidency of the International Congress of Surgery to be held at Cairo in December and has been succeeded by Dr. J. Schoemaker, of The Hague.

DR. WALTER H. MEYER, chief of the section of forest measurements at the Pacific Northwest Forest Experiment Station at Portland, Ore., has become professor of forestry at the University of Washington. Dr. Meyer will take up his work in January.

DR. H. ARTHUR MEYER, of the Swiss Forest School at Zurich, who has completed a year's study of forest biometrics in the Forest Service at Washington, has accepted a professorship in the new School of Forestry being organized by the Mexican Forest Service at Mexico City.

PROMOTIONS in the science departments of the Michigan College of Mining and Technology include: Dr. Ella Lucille Wood, from associate professor to professor of geography, and J. M. Harrington and Fay Partlo, from assistant to associate professor of mathematics and physics, respectively.

AFTER a period of service of ten years, Dr. Donald F. Jones has retired from the editorship of *Genetics*, and Professor L. C. Dunn, of Columbia University, has been elected to succeed him. Manuscripts intended for publication in *Genetics*, and all editorial corre-

spondence, should now be addressed to the editor of *Genetics*, 804 Schermerhorn Extension, Columbia University, New York City.

DR. MENAS S. GREGORY, whose enforced resignation as head of the Bellevue Psychiatric Clinic in June, 1934, resulted in a libel suit brought by him against Dr. S. S. Goldwater, hospital commissioner, has been appointed by Dr. Goldberger consultant psychiatrist of the Psychiatric Division of Bellevue Hospital. The post is a new one, established by the Department of Hospitals and the Medical Board of Bellevue. Dr. Gregory preferred not to reassume the active duties of the directorship.

KENNETH ABLEITER, instructor in soils at the North Dakota Agricultural College, has been named senior soil technologist in the Division of Soil Survey, Bureau of Chemistry and Soils, Washington. He will have charge of a new project for determining the best uses for land. The salary has been fixed at \$4,600 per year.

DR. J. J. DURRETT, of New York, has been reappointed chief of the Drug Division of the Food and Drug Administration. He will take charge of the work early in January. He returns to his former post after an absence of a little more than four years. During that period he was associated with E. R. Squibb and Sons, of New York City.

DR. ABRAHAM WHITE, instructor in physiological chemistry at the Yale University School of Medicine, has been awarded a grant by the Committee on Scientific Research of the American Medical Association for the study of the chemistry and metabolism of the sulfur of proteins.

PROFESSOR RICHARD GOLDSCHMIDT, of the Kaiser-Wilhelm Institut für Biologie, Berlin-Dahlem, Germany, arrived in the United States on November 26 to deliver a series of lectures. He will lecture before the Society of Sigma Xi at the University of Chicago on December 3 on "Genes and Hormones in Sex Determination." He will also lecture at Yale University, Columbia University, Cornell University and the University of Rochester. He may be reached during December in care of the Zoological Laboratory, University of Chicago, or the Department of Zoology, Columbia University.

PROFESSOR REGINALD A. DALY, of Harvard University, delivered the annual fall lecture in geology at Syracuse University on November 19, speaking on "The Changing World of the Ice Age." He also addressed the advanced students of the department of geology and geography on "Submarine Trenches."

DR. ARTHUR H. COMPTON, of the University of Chicago, delivered the first of a series of Dohme lectures

at the Johns Hopkins University on December 3. His subject was "Recent Studies in Cosmic Rays."

DR. CLINTON J. DAVISSON, of the Bell Telephone Laboratories in New York, spoke before the Physics Colloquium at Brown University on November 18 on "Electron Optics."

WALTER HOGE MACINTIRE, of the department of chemistry at the Agricultural Experiment Station, University of Tennessee, gave the fifth Harvey W. Wiley memorial address of the Association of Official Agricultural Chemists at the annual meeting on November 11 in Washington. Dr. Wiley was a founder and the first president of the association.

PROFESSOR HEINRICH RIES, of Cornell University, gave a series of three lectures on clays and clay products before the department of geology of Columbia University on November 11, 12 and 13.

F. J. SIEVERS, of the Massachusetts State College, in his capacity as director of the Herman Frasch Foundation for Research in Agricultural Chemistry recently addressed the members of the honor society Gamma Sigma Delta at the University of Missouri on "Changes Necessary in Research to Meet Changed Conditions in Economics."

THE second lecture in the Smith-Reed-Russell series for this year at the School of Medicine of the George Washington University, was held on November 26. The speaker was Dr. Siegfried J. Thannhauser, of Freiburg, Germany, and the Boston Dispensary. The subject of his address was "Cholesterol, its Chemical, Physiological and Clinical Aspects."

DR. W. C. CURTIS, president of the Union of American Biological Societies, writes that a meeting of the council will be called at 3:00 P. M., Sunday, December 29, in the Jefferson Hotel, St. Louis. This meeting will consider: (1) The current problem of *Biological Abstracts*; (2) the future of the Union; (3) reports of officers and other business. It is earnestly requested

that each member-society arrange for its members of the council to be in attendance, or arrange for attendance of one or more substitutes for such council members who can report to the society at its next business meeting. Any biologist who is vitally interested in the future of the *Abstracts* and who may be in St. Louis on December 29 is invited to attend the meeting and participate in the discussion, although not a member of the council or an appointed substitute.

At the meeting of the American Academy of Tropical Medicine in St. Louis on November 20 and 21, the following officers were elected: Dr. Richard P. Strong, of the Harvard Medical School, *president*; Dr. Wilbur A. Sawyer, director of the International Health Board of the Rockefeller Foundation, *vice-president*; Dr. Ernest Carroll Faust, of the Tulane University School of Medicine, *secretary*; Dr. W. W. Cort, of the School of Hygiene and Public Health, the Johns Hopkins University, was reelected *treasurer*. Dr. William H. Taliaferro, of the University of Chicago, and Dr. Thomas T. Mackie, of the School of Medicine of Cornell University, were elected members of the council. Initiated by the academy, the American Foundation for Tropical Medicine held its organization meeting, electing as president Dr. Isaiah Bowman, president of the Johns Hopkins University, and as executive secretary Dr. Earl B. McKinley, dean of the School of Medicine of the George Washington University. The foundation will be incorporated in the District of Columbia and will hold its next meeting late in January when a formal program will be adopted for 1936.

It is announced that the *Journal of Industrial Hygiene*, edited at the Harvard School of Public Health, Boston, will take in 1936 the name *Journal of Industrial Hygiene and Toxicology*. It will resume its former publishing schedule of ten issues a year instead of six and the content of original papers will be increased about 50 per cent.

DISCUSSION

CONFIRMATION OF COSMIC PHENOMENON

Two types of confirmation have appeared for the phenomenon I described on page 351 of the October 11 issue of *SCIENCE*. The first was the occurrence on October 24 of a general fadeout of very high radio frequencies. On October 10 began a great increase in sun-spot activity, accompanied by a general improvement in radio transmission on the higher frequencies. Amateurs and others found that they received excellent daytime signals on much higher frequencies than usual. By October 21 to 23 the upper limit of fre-

quency had reached the highest value ever observed by the National Bureau of Standards. Then, for a single day, October 24, this was completely reversed. The upper limit of frequency on this one day dropped to half its value on the preceding days, and on October 25 and succeeding days returned to the high previous values. This was accompanied also by a remarkable change in the virtual height of the F_2 layer of the ionosphere; this height shot up to 460 km on October 24 from a height of about 250 km on the preceding and following days. These changes were the most