

ACTS OF CONGRESS RELATING TO SCIENTIFIC WORK

FOLLOWING is a list of some of the acts of the last congress relating to scientific work:

H. R. 17138—Authorizing an appropriation of \$50,000 to enable the secretary of agriculture to cooperate with the South Carolina Agricultural Experiment Station in investigating the dairying and livestock industries and the problems pertaining to the establishment and development of such industries, including cropping systems, soil improvement and farm-management studies related to such industries, and for demonstration, assistance and service in developing agriculture of the Sand Hill region of the Southeast. (Appropriation lost through failure of second deficiency bill.)

S. 1640—Authorizing the secretary of agriculture to establish and maintain a national arboretum on land within or adjacent to the District of Columbia for purposes of research and education concerning tree and plant life; authorizing the president to transfer to the jurisdiction of the secretary of agriculture by executive order any land now belonging to the United States located along the Anacostia River north of Benning Bridge, to be used for arboretum purposes; authorizing an appropriation of \$300,000 for the purchase of additional land for arboretum purposes, with a restriction that the purchase price of any part of said land shall not exceed the full value assessment of such property last made before purchase thereof plus 25 per cent. of such assessed value; and authorizing the secretary of agriculture to create an advisory council in relation to the plan and development of the national arboretum to be established under this act, to include representatives of national organizations interested in the work of the arboretum. The act provides that the arboretum shall be administered separately from the agricultural, horticultural and forestry stations of the Department of Agriculture, but that it shall be so correlated with them as to bring about the most effective utilization of its facilities and discoveries. (Appropriation for land purchases lost through failure of second deficiency bill.)

S. 4153—Authorizing an appropriation of \$820,000 for the acquisition of squares 576 and 578 in the District of Columbia as an addition to the United States Botanic Garden. (Appropriation lost through failure of second deficiency bill.)

S. 4910—Granting approximately 54,000 acres of public lands to the State of New Mexico for use of the New Mexico College of Agriculture and Mechanic Arts in conducting educational, demonstration and experimental work with livestock, grazing methods and range forage plants.

S. 5722—Authorizing an appropriation of \$876,398 for the construction of new conservatories and other necessary buildings for the United States Botanic Garden.

S. J. Res. 120—Authorizing acceptance by the secretary of agriculture of a gift of about 1,760 acres of land in Teton County, Wyo., to be known as the Izaak Walton League Addition to the winter elk refuge maintained by the Biological Survey at Jackson Hole, Wyo., to be used

for the grazing of, and as a refuge for, American elk and other big game animals.

MEETING OF THE NATIONAL ACADEMY OF SCIENCES

FOLLOWING is the program of scientific papers to be presented at the annual meeting of the National Academy of Sciences in Washington on April 25 and 26.

Monday, April 25, at 10:00 A. M.

FRANCIS G. BENEDICT and CORNELIA GOLAY BENEDICT: *The nature of the insensible perspiration.*

DOUGLAS H. CAMPBELL: *The embryology of Equisetum debile Roxb.*

W. J. V. OSTERHOUT: *Some aspects of protoplasmic surfaces.*

FLORENCE R. SABIN and CHARLES A. DOAN: *The effect of tubercle bacilli and the chemical fractions obtained from analysis on the cells of the connective tissues in rabbits.*

F. E. DENNY (introduced by John M. Coulter): *The effect of small amounts of chemicals in increasing the life activities of plants.*

A. V. HILL (by invitation): *The measurement of the heat production of nerve (illustrated).*

R. W. WOOD: *Physical, chemical and biological effects of high frequency sound-waves (illustrated).*

GEORGE A. BATSELL (introduced by Ross G. Harrison): *Additional evidence as to the intercellular formation of connective tissue.*

April 25 at 2:00 P. M.

L. E. DICKSON: *Generalizations of Waring's problem on powers.*

R. A. MILLIKAN and I. S. BOWEN: *Relationships in the spectra of the elements of the first row of the periodic table (illustrated).*

F. E. WRIGHT: *The polarization of light by reflection from rough rock surfaces, with special reference to the material exposed at the moon's surface.*

WALTER S. ADAMS and ALFRED H. JOY: *High dispersion stellar spectra and some results of a study of γ Cygni.*

WALTER S. ADAMS and ALFRED H. JOY: *The relationship of spectral type to period among variable stars.*

F. K. RICHTMYER (introduced by J. S. Ames): *The variation of the adsorption of X-rays with wave length.*

K. T. COMPTON and P. M. MORSE: *Theory of the normal cathode fall.*

E. C. WATSON (introduced by R. A. Millikan): *Spatial distribution of the photo-electrons ejected by X-rays.*

CHARLES E. ST. JOHN: *Revision of Rowland's tables of solar spectrum wave lengths.*

DE THIERRY (by invitation): *Application of law of similitude to hydraulic laboratory research.*

DAYTON C. MILLER: *Report on ether drift experiments at Cleveland in 1927.*

C. G. ABBOT: *Periodicity in solar radiation.*

PAUL R. HEYL (introduced by G. K. Burgess): *A re-determination of the Newtonian constant of gravitation.*
 EDWARD KASNER: *Differential invariants of irregular elements.*

Evening, at 8:30, in the Central Hall

FRANK B. JEWETT and HERBERT E. IVES: *Some recent advances in the art of distant electrical communication.*

Following this address, to which the members of the scientific societies of Washington are invited, the rooms adjacent to the Central Hall will be open for the inspection of the scientific exhibits.

April 26 at 9:30 A. M.

R. H. CHITTENDEN: *Biographical memoir of William Henry Brewer.* (To be read by title.)

EDWIN H. HALL: *Thermionic emission and the "universal constant" A.*

H. F. BLICHFELDT: *On the minimum values of positive quadratic forms.*

W. H. CREW and E. O. HULBURT (introduced by J. S. Ames): *Pressures in discharge tubes.*

FRANCIS B. SILSBEE (introduced by G. K. Burgess): *Current distribution in supra conductors.*

K. T. COMPTON and C. C. VAN VOORHIS: *Heats of condensation of positive ions and the mechanism of the mercury arc.*

W. A. NOYES: *Magnetic hydrogen atoms and non-magnetic hydrogen molecules.*

W. A. NOYES: *The relation of the octet of electrons to ionization.*

JOHN C. MERRIAM: *Exhibit of research results in the Grand Canyon.*

CHARLES W. GILMORE (introduced by John C. Merriam): *Footprints of unknown vertebrate animals in the Carboniferous and Permian of the Grand Canyon, Arizona.*

DAVID WHITE: *The age of the Hermit shale in the Grand Canyon, Arizona.*

CHESTER STOCK and RALPH W. CHANEY (introduced by John C. Merriam): *Fauna and flora of a new Pleistocene asphalt deposit near Santa Barbara.*

JOHN C. MERRIAM: *Significance of geologic range, or life period of animal species.*

NEIL M. JUDD (introduced by W. H. Holmes): *The architectural evolution of Pueblo Bonito.*

April 26 at 2:00 P. M.

D. F. HEWETT (introduced by David White): *Late Tertiary thrust faults in the Mojave Desert.*

ARTHUR L. DAY: *Boring for natural steam in California.*

ARTHUR L. DAY: *Recent volcanic activity in Japan.*

DOUGLAS JOHNSON (introduced by David White): *Sea-level surfaces and the problem of coastal subsidence.*

HARRY FIELDING REID: *The fundamentals of isostasy.*

SCIENTIFIC NOTES AND NEWS

DR. J. J. ABEL, professor of pharmacology at the Johns Hopkins University, will be presented with the Willard Gibbs medal at the second annual meeting of

the Mid-West regional division of the American Chemical Society in Chicago on May 27 and 28.

DR. SIMON FLEXNER, director of the Rockefeller Institute for Medical Research, gave a series of three lectures on epidemiology under the Herter Foundation of the University and Bellevue Hospital Medical College, New York, on April 18, 20 and 22.

PROFESSOR JAMES W. JOBLING, of the Columbia University College of Physicians and Surgeons, was elected president of the American Association of Pathologists and Bacteriologists at the recent Rochester meeting.

At the Richmond meeting of the American Chemical Society, Professor Richard Willstätter, until recently head of the department of chemistry at the University of Munich, now lecturing in the United States, was elected an honorary member. The society restored to honorary membership Dr. Wilhelm Ostwald and Dr. Walter Nernst, who had been dropped from the rolls during the war.

SIR FREDERICK GOWLAND HOPKINS, professor of biochemistry at the University of Cambridge, received from the University of Aberdeen, at the graduation ceremonies on March 23, the honorary degree of LL.D.

At the June convocation of the University of Durham, the honorary degree of D.C.L. will be conferred upon Sir James Berry, president of the Royal Society of Medicine and consulting surgeon to the Royal Free Hospital.

DR. CHARLES F. JENKIN, professor of engineering at Oxford University, and Dr. A. C. Seward, professor of botany at the University of Cambridge, will receive honorary degrees from the University of Edinburgh at the graduation ceremony on June 1.

DR. JOHANNES THIENEMANN, director of the bird station at Rositten, has been elected a corresponding member of the American Ornithologists' Union and of the Danzig Society of Natural History.

PROFESSOR WILLIAM THALBITZER, Danish naturalist and Arctic explorer, has been awarded the Loubat prize of the Swedish Academy of Science.

THE council of the Geological Society of London has this year awarded the proceeds of the Daniel-Pidgeon Trust Fund to Mr. William Elgin Swinton, who proposed to undertake the comparison of British Mesozoic reptilia with those from similar deposits on the continent of Europe.

DR. ARTUR HANTZSCH, professor of chemistry at the University of Leipzig, celebrated his seventieth birthday on March 7.