

References

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NEWS and Notes

John N. Adkins, assistant professor of geophysics at Massachusetts Institute of Technology, has been granted a year's leave of absence to head the Geophysics Branch, Physical Sciences Division, Office of Naval Research. His activities in ONR will include directing research in meteorology, oceanography, and earth sciences being carried on under contract in leading university, government, and industrial laboratories throughout the country. The Geophysics Branch also directs the scientific aspects of various expeditions. Dr. Adkins succeeds **Roger R. Revelle**, who will return to the Scripps Institution of Oceanography as associate director after a leave of absence from that institution.

C. Merrill Whorton and **Frank C. Womack** will join the faculty of the School of Medicine, Louisiana State University, as assistant professors of pathology on July 1. Dr. Whorton is at present associated with the Mallory Institute of Pathology, Boston City Hospital, and is on the staff of Tufts Medical College, and Dr. Womack is an instructor in pathology at Vanderbilt University School of Medicine.

Carroll L. Mann, who has headed the Department of Civil Engineering at North Carolina State College since 1916, will retire on June 30.

G. B. MacDonald will retire as head of the Forestry Department, Iowa State College, on July 1 but will continue as professor in the Department. The chairmanship will be taken over by

George B. Hartman, a 1917 graduate in forestry from Iowa State College, who has been associated with the Long Bell Lumber Company in Louisiana.

Thomas C. Poulter, associate director of the Armour Research Foundation, will join the staff of the Stanford Research Institute in a similar capacity later this year. In addition to the research he has done in many scientific fields, he is a well-known Antarctic explorer.

Carl Nielsen, associate director of research at Abbott Laboratories, North Chicago, Illinois, has been made a knight of the Order of Dannebrog by Frederik IX, King of Denmark, in recognition of his work in promoting closer relationships between Denmark and the United States, especially in the scientific and pharmaceutical fields.

Robert E. Dickinson and **Henry M. Kendall** have been appointed full professors in the Department of Geography, Syracuse University. Dr. Dickinson, formerly of the University of London, will have charge of work in political geography, the development of geographic thought, and the geography of Europe, while Dr. Kendall, formerly of Amherst, will be responsible for introductory work in geography and climatology.

Donald M. Hester, former assistant professor of mathematics at the New Mexico School of Mines, has joined the faculty of the Northeast Missouri State College, Maryville.

Roger M. Herriott, associate in general physiology at the Rockefeller Institute for Medical Research, Princeton, New Jersey, has been appointed professor of biochemistry at the Johns Hopkins University School of Hygiene and Public Health, effective July 1.

Dr. Herriott will succeed **Reginald M. Archibald**, who has accepted a position at the Rockefeller Institute.

Robert J. Lowry, assistant professor of botany at Michigan State College, has been appointed to a similar post at the University of Michigan for the academic year 1948-49.

Sergio De Benedetti, of the Clinton Laboratories, Oak Ridge, Tennessee, has been appointed associate professor of physics at Washington University, St. Louis.

John Phillips, head of the Botany Department, Witwatersrand University, Union of South Africa, has been named director of the British Overseas Food Corporation, which is to handle all food production developments in the British Colonial Empire. An authority on South African soil conservation, Prof. Phillips will direct Colonial agricultural policy and research. He will take up his new post next November.

Lawrence H. Aller, assistant professor of astronomy at Indiana University, has been appointed associate professor of astronomy at the University of Michigan beginning August 1.

Visitors to U.S.

N. P. Allen, superintendent of the Metallurgy Division, National Physical Laboratory, Teddington, England, arrived in this country on April 21 for a two-month visit.

D. J. Watson and his wife, **M. A. Watson**, both members of the staff of the Rothamsted Experimental Station, England, after spending several months in Australia, have arrived here and are now visiting various research centers. They are traveling under a fellowship awarded them by the Ministry of Agriculture.

H. A. McKenzie, research officer in the Division of Food Preservation, Australian Council for Scientific and Industrial Research, is spending approximately 9 months in physical chemistry research at the Frick Chemical Laboratory, Princeton University.

Colleges and Universities

A fully-equipped German Diesel engine research laboratory, valued at more than \$1,000,000, is soon to be transplanted to the campus of Oklahoma A & M College, according to an announcement made by John W. Studebaker, Commissioner of Education. Location of the former Klockner-Humboldt-Deutz laboratory at Stillwater will provide the College with one of the two largest Diesel engine research centers in this country, the other center being at Pennsylvania State College. Oklahoma A & M's Division of Engineering is to be replaced by the Oklahoma Institute of Technology, established as a result of allocation of the laboratory.

The KHD laboratory, formerly located at Oberursel, Germany, was assigned to the United States by the Joint Chiefs of Staff shortly after VE-Day, and the donation to Oklahoma A & M was made possible through a joint allocation of OTS, Department of Commerce, and the Office of Education, FSA. Oklahoma was selected from 114 colleges not only because of its location in the interior of the country, but also because of its location near the oil industry, the availability of building space, and the availability of funds to defray the large annual expense of conducting this type of research.

Through the Visiting Scholars Program of the University Center of Georgia several persons have recently served as advisers in academic programs of the institutions in the Center as well as delivering formal lectures. Among those who took part in the February program were Merle Curti, professor of history, University of Wisconsin, who lectured at Emory University and Agnes Scott College on "The American Mind in Postwar Eras"; Thomas Munro, curator of the Cleveland Museum, who discussed "The Arts in Modern Life" at Emory

and the University of Georgia; Dael Wolfe, executive secretary of the American Psychological Association, who conducted a series of seminars, conferences, and lectures for the Departments of Psychology at the University of Georgia, Agnes Scott College, Emory University, and the Georgia School of Technology; and William F. Windle, chairman of the Department of Anatomy, University of Pennsylvania Medical School, who lectured on various aspects of embryology at Emory University, the University of Georgia Medical School, and Grady Memorial Hospital in Atlanta. These visits are made possible by grants from the Committee on Visiting Scholars and are shared in by as many institutions in the Center as possible.

Summer Programs

A course on Catalysis in Organic Chemistry will be offered June 25-August 28 by Northwestern University in the recently dedicated Teaching Unit of the Ipatieff High Pressure and Catalytic Laboratory. The course will cover principles of catalysis, hydrogenation, dehydrogenation, oxidation, isomerization, polymerization, alkylation, catalytic cracking, hydration, dehydration, and condensation. In the laboratory, which is equipped with the latest type of apparatus especially designed for instruction in catalytic techniques, each student will have an opportunity to carry out catalytic reactions under pressure and at atmospheric pressure. Some of the experiments will cover methods of handling gaseous substances. A laboratory manual has been prepared for this course. Herman Pines, who is to give the course, has been a close collaborator of Prof. Ipatieff for the last 18 years. Further information may be obtained by writing to: Director, Summer Session, Northwestern University, Evanston, Illinois.

The Biological Laboratory, Cold Spring Harbor, New York, in an effort to stimulate interest in research with bacteriophages, is again offering a summer course for research workers. The course, to be given by Mark H. Adams, of New York University, is designed to acquaint scientists with some of the techniques used in research

with bacterial viruses and with the recent results of such work. It will be held from June 28 to July 17.

A Symposium on Theoretical and Nuclear Physics, extending from June 28 to August 11, has been announced at the University of Michigan. Visiting lecturers include H. B. G. Casimir, Philips Research Laboratory, Eindhoven, who will be in residence throughout the session and who will present "Theoretical Aspects of Low-Temperature Physics"; Julian Schwinger, Harvard University, whose topic will be "Recent Developments in Quantum Electrodynamics"; E. M. McMillan, University of California, who will deal with "Recent Experiments in High-Energy Physics"; and Martin Deutsch, Massachusetts Institute of Technology, whose subject will be "Selected Topics in Nuclear Spectroscopy." Semi-weekly seminars will also be arranged.

There will be no fees for visitors holding the doctoral degree. A prospectus and further information may be obtained from the Department of Physics, University of Michigan, Ann Arbor.

The Tissue Culture Commission is sponsoring a four-week course dealing with the principles, methods, and applications of tissue culture. The course will be given under the direction of Raymond C. Parker at the Connaught Medical Research Laboratories, University of Toronto, from July 5 to July 30. Instruction will include demonstrations and first-hand practical experience for the student in all major current procedures, as well as daily lectures by visiting investigators experienced in various fields.

Applications should be sent to Margaret R. Murray, secretary of the Commission, whose address is 630 West 168th Street, New York City 32. These should include information relative to the present position of the applicant, his academic and other training pertinent to the undertaking, and the general nature of the project for which he wishes to use the techniques. The number admitted to the course will of necessity be limited. To be considered, applications must reach the secretary by May 15; applicants will be notified concerning their acceptance by June 1. The fee for the

course will be \$50.00, payable upon admission. Housing accommodations in Toronto will be available at reasonable rates at the University dormitories.

Meetings and Elections

The American Institute of Biological Sciences, associated with the Division of Biology and Agriculture, National Research Council, with headquarters at 2101 Constitution Avenue, Washington, D. C., is assisting in the arrangements for the annual meetings of biological societies meeting in Washington, September 10-13, prior to the centennial meeting of the American Association for the Advancement of Science.

The participating societies are the Botanical Society of America, the American Society of Zoologists, the Genetics Society, the American Society of Plant Taxonomists, and the Mycological Society of America. The Limnological Society and the Ecological Society plan to hold their meetings and will be housed at the University of Maryland. Tentative plans to meet at the same time have also been made for the Phycological Society of America and the American Microscopical Society.

The American Institute of Nutrition, at the Atlantic City Meeting of the Federation of American Societies for Experimental Biology, March 14-19, elected the following officers for 1948-49: E. M. Nelson, president; C. G. King, vice-president; N. R. Ellis, treasurer; and J. H. Roe, secretary.

The American Society for X-Ray and Electron Diffraction and the Crystallographic Society of America, meeting in joint scientific sessions for the first time, were the guests of Yale University March 31 through April 3. The meetings, at which about 60 papers were presented, were attended by 190 crystallographers and featured a symposium on the structures of organic crystals.

Among the new developments in computation methods designed to facilitate the laborious calculations required for the determination of the positions of atoms in complex struc-

tures is the production of an oscilloscope-screen image of an accurate contour map of electron densities or "Patterson functions," described by R. Pepinsky, of Alabama Polytechnic Institute. Prof. Pepinsky's paper was interrupted by a burst of spontaneous applause when the contour-map image was shown.

W. H. Zachariasen, of the Argonne National Laboratory and the University of Chicago, described the crystal chemistry of a group of compounds containing the elements from actinium (89) through americium (95). The structures of 96 of these have been completely determined, some of them by Rose C. L. Mooney, and partial structural determination has been achieved for 46 additional compounds. The crystal structures of the elements have also been determined, but they are not yet available for publication. This work necessitated exceptionally refined X-ray diffraction methods since the samples available were very small, some of them weighing less than 10 μ g.

Papers on the structures of silicate crystals and their interrelations were presented by W. J. Gruner, of the University of Minnesota, retiring president of the Crystallographic Society of America, and by M. J. Buerger, of the Massachusetts Institute of Technology.

B. T. Matthias, of the Bell Telephone Laboratories, in a paper vividly illustrated by colored photomicrographs, described the ferroelectric behavior of single crystals of barium titanate, reporting the results of work done by him at the Massachusetts Institute of Technology. This substance, which has a dielectric constant 300 times that of quartz, occurs in a variety of crystal types whose interrelations are as yet only imperfectly understood.

Among the instruments featured in the instrumentation session was an improved Geiger counter spectrometer with extended angular range for sensitively detecting X-rays reflected at high angles, described by E. A. Hamacher and W. Parrish, of the Philips Laboratories. A double curved-crystal monochromator, giving high-intensity radiation with a minimum of parasitic scattering, was developed by A. Guinier and G. Fournet of the

Laboratoire d'Essais des Arts et Métiers in Paris for the study of low-angle scattering of X-rays from crystalline substances. Their paper was read, in their absence, by I. Fankuchen, of the Brooklyn Polytechnic Institute. (ELIZABETH A. WOOD.)

(The officers of ASXRED are pictured on the cover of this issue. They are, left to right: C. S. Barrett, Institute for the Study of Metals, University of Chicago, counselor; A. L. Patterson, Bryn Mawr College, president; E. A. Wood, Bell Telephone Laboratories, secretary; and C. C. Murdock, Cornell University, treasurer. P. P. Debye, of Cornell University, who is vice-president, was unable to attend the meeting.)

The American Society for Pharmacology and Experimental Therapeutics, at its annual business meeting in Atlantic City on March 16, elected the following officers: Carl A. Dragstedt, Northwestern University Medical School, Chicago, president; H. B. Van Dyke, Columbia University, vice-president; H. B. Haag, Medical College of Virginia, Richmond, secretary; K. K. Chen, Lilly Research Laboratories, Indianapolis, treasurer; and Arthur C. DeGraff, New York University College of Medicine, Robert A. Woodbury, University of Tennessee, Memphis, and Gordon A. Alles, 770 South Arroyo Parkway, Pasadena, California, councilors.

NRC News

Word has been received by the National Research Council that the Royal Society of New Zealand, in cooperation with the New Zealand scientists and the Government of New Zealand, is actively engaged in developing plans for holding the 7th Pacific Science Congress in 1949. The meetings are scheduled for Auckland from February 2 to 8 and for Christchurch from February 16 to 22. Excursions in the North Island are scheduled for February 9 to 15 and in the South Island after the 22nd.

The 6th Pacific Science Congress was held in California in 1939 and the 7th Congress was projected for the Philippines in 1943. Plans for holding the latter Congress were changed

at the request of the Philippine Government on account of the extensive war damage to their scientific installations. After consultation with member countries, the Council of the Pacific Science Association approved the invitation of New Zealand to be the host country for the 7th Congress. The 6 previous Congresses have been held in Honolulu, Australia, Japan, the Netherlands East Indies, Canada, and the United States.

The Congress will be organized in 10 Divisions, within which there will be a varying number of sections. The Divisions cover the fields of Geophysics and Geology, Meteorology, Oceanography and Marine Biology, Zoology, Botany, Soil Resources and Agriculture, Anthropology, Public Health and Nutrition, Social Sciences and related sciences in so far as the Pacific Ocean region is concerned.

The Pacific Science Board of the NRC will be glad to hear from American scientists who expect to attend the Congress in New Zealand.

Deaths

R. Bruce Horsfall, 80, well-known illustrator of scientific articles, books, and museum habitat groups, died March 24 at Monmouth Memorial Hospital, Long Branch, New Jersey. As recently as two years ago he was actively engaged in painting backgrounds for displays in the Rutgers University Geological Museum, to which he recently donated about 1,000 paintings and drawings of wildlife and scenery.

Howard L. Kingsley, 55, professor of educational psychology at Boston University, died April 7.

Thomas S. Gates, 75, president of the American Philosophical Society and chairman and former president of the University of Pennsylvania, died suddenly April 8 at his summer home on Cape Cod, after a long career of leadership and public service.

Rupert Blue, 80, Surgeon General of the U. S. Public Health Service from 1912 to 1920 and a past president of the American Medical Association, died April 12 at Roper Hospital, Charleston, South Carolina.

E. Monroe Bailey, 68, head of the Analytical Chemistry Department at the Connecticut Agricultural Experiment Station for 28 years prior to his retirement in September 1945, died in New Haven April 13.

The Robert H. Goddard Rocket Exhibit opened April 22 for a 3-month showing at the American Museum of Natural History in New York. Prior to his death in 1945, Dr. Goddard had been engaged in rocket research for 35 years, earlier as a professor of physics at Clark University and during the war as a U. S. Navy investigator at Roswell, New Mexico. Among the items in the collection will be found a 22-foot pressure-type liquid-fuel rocket, 18 inches in diameter; a smaller pump-type liquid-fuel rocket; a number of dry powder rocket projectiles; and 5 different types of rocket motor heads which Dr. Goddard developed in search for an efficient fuel feed. A special feature of the exhibit is a revised version of the world's first liquid-fuel rocket, which was fired for 2½ seconds and rose in a high trajectory, traveling a distance of 184 feet. Its average speed was 60 mph, and its fuels were liquid oxygen and gasoline. The principles of rockets and jet propulsion will be traced historically from 1909 to the time of Dr. Goddard's death through the use of pictures and actual samples.

The exhibit is sponsored by the Daniel and Florence Guggenheim Foundation, which had contributed support to Dr. Goddard's work from 1930 to 1945.

P. D. Nieucokoop, of the Zoological Laboratory of the Rijks-Universiteit, Janskerkhof 3, Utrecht, Holland, would be grateful for reprints in the field of experimental embryology, especially concerning the central nervous system.

The American Society of Mechanical Engineers, under the sponsorship of the Engineers Joint Council, early last month published *The engineering societies yearbook, 1948*, the first of a planned periodical series on the purposes, activities, membership, policies, and new developments of all engineering societies, clubs, and councils.

Thirty-five Canadian and 275 U. S. societies and 8 international organizations are described. Information is also given on student branches of national societies. The 5 societies sponsoring the *Yearbook* (AIEE, AIME, ASCE, ASME, and AICHe) had a total of 119,588 members in the fall of 1947; of these, 22,517 were student members. A combined membership of 337,000 is estimated for 1950.

The *Yearbook* is priced at \$3.00, and copies are available from the ASME, 29 West 39th Street, New York City 18.

Make Plans for—

Kansas Academy of Science, 80th annual meeting, April 29–May 1, Pittsburg, Kansas.

Society of American Bacteriologists, Texas Branch, April 30–May 1, Baylor Medical School, Houston, Texas.

American Section, International Scientific Radio Union, joint meeting with **Institute of Radio Engineers**, May 3–5, Washington, D. C.

Association of American Physicians, May 4–5, Chalfonte-Haddon Hall, Atlantic City, New Jersey.

Ohio Academy of Science, May 6–8, University of Toledo.

American Institute of Chemists, Annual Meeting and Silver Anniversary commemoration, May 7, Hotel Pennsylvania, New York City.

Society of American Bacteriologists, May 10–14, Nicollet Hotel, Minneapolis, Minnesota.

American Psychiatric Association, May 17–20, Statler Hotel, Washington, D. C.

Conference on Hemoglobin, June 15–18, Cambridge, England.

American Medical Association, annual session, June 21–25, Chicago, Illinois.

★ **AAAS** **Centennial Celebration** **Washington, D. C.** **September 13–17, 1948** ★