ing in the vicinity, their contribution to the pollen would so greatly outnumber the fir, borne three hundred miles from the higher Appalachians, that the fir would be far below 1 per cent, rather than representing 12 per cent, of the tree pollen. Furthermore, fir is found only within the bottom 18 inches of the deposit, while extensive fir forests still persist in the higher Appalachians.

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News and Notes

Dr. Norman L. Munn, professor of psychology at Vanderbilt University, Nashville, Tennessee, has accepted the professorship of psychology at Bowdoin College, Brunswick, Maine, and will take up his duties at the latter institution in October 1946.

Rexford Guy Tugwell, Governor of Puerto Rico, has been appointed professor of political science at the University of Chicago. Dr. Tugwell will also direct a new program of education and research in planning, which opens 1 January 1946, in cooperation with the American Institute of Architects and agencies of the public administration clearing house.

Edward L. Bowles, expert consultant to the Secretary of War, was awarded a Distinguished Service Medal on 14 November 1945. Dr. Bowles, now an Army member of the National Academy of Sciences and the NRC Board for National Security, came to his present assignment from Massachusetts Institute of Technology, where as a professor he was head of Electrical Communications.

Dr. Franz R. Goetzl, of the Permanente Foundation, Oakland, California, has received a grant of $3800 a year from the Whitehall Pharmacal Company for studies on the physiology of pain and the action of analgesic drugs.

Dr. Nandor Porges, formerly biochemist at the Southern Regional Research Laboratory, is now technical director in charge of the chemical and bacteriological laboratories conducting research and development for the Chase Chemical Company, Newark, New Jersey, pharmaceutical and manufacturing chemists.

Dr. Laurence S. Foster, formerly of the Department of Chemistry at Brown University, who for the past three years has been employed on the Manhattan Project at Brown, the University of Chicago, and Massachusetts Institute of Technology, has been appointed chief of the Metals Forming Branch of the Research Laboratory at the Watertown Arsenal, Watertown, Massachusetts.

Dr. Norman H. Cromwell, of the University of Nebraska, has been promoted from assistant professor to associate professor of chemistry.

Announcements

The University of California at Berkeley announces the establishment of a new Division of Medical Physics, which is incorporated within the Department of Physics, R. T. Birge, Chairman. John H. Lawrence, M.D., is head of the new division, and Joseph G. Hamilton, M.D., another member of the Medical School, is associated with him, as are Hardin B. Jones, Ph.D. (Physiology) and Cornelius A. Tobias, Ph.D. (Physics). Close liaison will be maintained with the Medical School and the Radiation Laboratory, as well as with the Department of Physics.

The division is housed in a new three-story laboratory a few hundred feet away from the 60-inch cyclotron building on the Berkeley campus. This laboratory, a gift of Mr. William H. Donner, is named after him, the Donner Laboratory of Medical Physics.

The fall semester, which began in October of 1945, marked the offering of one upper-division course entitled Medical Physics. This course gives an introduction to nuclear and radiation physics, electronics, biological effects of radiations, and an introduction to the tracer technique. Four additional upper-division courses are planned for the spring semester: an introduction to medical physics, photobiology, laboratory course in medical physics, and medical-physical aspects of aviation.

Two degrees are planned: a Ph.D. in Medical Physics for students who have earned the M.D. and a Ph.D. in Biophysics for others. These degrees will require the completion of a minimum number of

courses in the fields of physics, chemistry, physiology, mathematics, and medicine, to give a well-balanced basic medical physics background, and completion of a certain amount of original research in the laboratory.

In addition to the teaching functions, the division has an ambitious program of research outlined in the field of medical physics. For this purpose the 60-inch cyclotron and an RCA electron microscope are available in the group, together with the facilities of the Radiation Laboratory, the Physics Department, and the Medical School, both in Berkeley and San Francisco.

The University of Pennsylvania has created the new office of Director of Inter-American Activities and has appointed Dr. W. Rex Crawford to that post, it has been announced by Dr. George W. McClelland, president of the University.

Dr. Crawford, who will continue to serve also as professor of sociology at the University, recently returned to this country from Brazil, where he spent two years as cultural relations attaché at the American Embassy in Rio de Janeiro. In 1941 he was exchange professor at the University of Chile, in Santiago, under the provisions of the Buenos Aires Convention, and in 1942 he directed the Inter-American Training Center in Philadelphia for the Office of the Coordinator of Inter-American Affairs.

According to Dr. McClelland, the new directorship was established because of the University of Pennsylvania's long-continued interest in inter-American cultural relations, students from South America having been enrolled at the University as early as 1828.

An Institute of Atomic Research has been established at Iowa State College under the direction of Dr. Frank H. Spedding, professor of physical chemistry and director in charge of atomic research. The general purpose of the Institute will be to carry on investigations of possible application of atomic energy to the various fields of activity of the college: agriculture, engineering, science, veterinary medicine, and home economics. For the present, research also will be continued with certain other projects started during the war period. The work of the Institute will be closely correlated with the general research of the Division of Science under Dean H. V. Gaskill. Two new appointments have been made: Dr. L. Jackson Haslett, assistant professor of physics, began work on 1 January, and Dr. John F. Carlson, associate professor of physics, will join the staff on 1 April. Iowa State College will work in close cooperation with the University of Iowa, which is establishing an Institute of Nuclear Research.

The University of Rochester has established a neuropsychiatric clinic at the School of Medicine and Dentistry, which has been made possible through a gift of $2,153,954 from Mrs. Helen Rivas, of Leroy. This is in addition to the building fund for the new structure, the cost of which is tentatively estimated at about $600,000. Construction of the clinic is expected to start early in 1946, and it is hoped that the building will be completed within a year. It will face Crittenden Boulevard adjacent to Strong Memorial Hospital, and will be connected with the hospital by a corridor. It will be five stories high and will contain physical and occupational therapy and recreational facilities for patients, with ample laboratory space for research and investigation.

Ten American universities have been offered fellowship awards in a five-year program for postgraduate studies in food and nutrition financed by Standard Brands, Inc. The annual grants will be awarded to college graduates with high scholastic records who wish to continue their studies for postgraduate degrees in biochemistry, organic chemistry, microbiology, and chemical engineering. The universities to which the grant has been offered are: Cornell University in bacteriology; Harvard University, Indiana University, and Princeton University in organic chemistry; the Massachusetts Institute of Technology in chemical engineering, biology, or food technology; the University of Pittsburgh and the University of Wisconsin in biochemistry; and Rutgers University, Yale University, and Stanford University in microbiology. Selection of the fellows will be made by each university where the fellowship is awarded, entirely free from any influence by Standard Brands. Neither will there be any restrictions or specifications imposed on the students by the company.

Fundamental research benefits at Ohio State University through a grant of $100,000 from its Research Foundation. This sum, according to Dr. A. R. Olpin, secretary and executive director of the Foundation, represents a return to the University for the use of its facilities in governmental and industrial research. It is taken from the research reserve of the Foundation, accumulated through earnings from patent licensing and other sources. It is expected that all or most of it will be used in the creation of fellowships at the University. The fund will be allocated under the direction of President Bevis, with the concurrence of the director.

The University of Leeds has received a gift of 50,000 pounds from Charles Brotherton, president of the chemical engineering firm of Brotherton and Company, Yorkshire, to establish a laboratory in chemical

engineering. In addition, Mr. Brotherton made an immediate gift of 5,000 pounds for the same purpose.

Turner and Newall, Ltd., London, have provided funds for eight research fellowships in engineering, inorganic chemistry or physics, or allied sciences, these fellowships to be financed by them for a period of seven years. The fellowships are to be established at specified universities in areas in which the company has certain of its larger factories and will be known as "Turner and Newall Research Fellowships." Manchester University will have four; the University of London, two; Leeds University, one; and the University of Durham, one. The fellowships will each be worth 600 pounds a year, and the universities will accordingly receive 33,600 pounds over the seven-year period.

The Museum of Science and Industry, Rockefeller Center, New York, has opened a Navy exhibition of weapons and war equipment, with a view to informing the public of naval research and development work during the war as well as pointing to the need for continuing a "research engineering program" in the postwar period. Among the exhibits are radar devices; radio-controlled bombs; rockets; jet-propelled, radio-guided missiles; proximity fuses; and a variety of other weapons, many of which are being viewed by the public for the first time. In addition to having an opportunity to operate certain of the equipment on display, visitors may have a radar-scope view of New York as it appears to a bombardier. The relationship of the various atomic units to each other is demonstrated by a three-dimensional figure of an atom of Uranium 235, magnified 279 billion times—a feature of the exhibit.

The First Inter-American Typhus Conference met in Mexico, D.F., 7–13 October 1945, at the invitation of the Secretaría de Salubridad y Asistencia of Mexico. The Institute of Inter-American Affairs and Pan-American Sanitary Bureau collaborated with the Secretaría de Salubridad y Asistencia in calling the Conference. Representatives from Central and South America and the Caribbean Area and from the United States, particularly delegates of the Armed Forces, met with the Mexican workers on typhus for a complete week of discussion of the distribution of rickettsiae in America; the isolation and classification of rickettsiae; the epidemiology of typhus; the diagnostic methods of rickettsiae; prophylaxis of typhus; clinical, hematological, and therapeutic phases of typhus; problems of nomenclature and the control of typhus during the present war and plans for its control in the postwar period.

The recent experience with the use of typhus vaccine and the utilization of DDT and other insecticides in the prophylaxis of typhus made the calling of the Conference a timely event.

The Metropolitan Section of the American Physical Society, at its meeting in New York on 9 November 1945, passed a Resolution calling for "the immediate removal of all restrictions on the publication of scientific information. . . . Any restriction of research will not only be contrary to the tradition of science but will delay the development of scientific research in this country. Advantages which may accrue from regimenting science for military secrecy will be more than offset in the long run by the disadvantages caused by hampered communications among scientists, the difficulties of training young scientists, and the general discouragement of scientific initiative."

A corollary of the first Resolution, not reproduced here, had as its objective the immediate removal of censorship on "scientific information." It called for the formation of a board, composed largely of scientists and engineers, charged with the responsibility of distinguishing between scientific information and detailed technologies. The Society does not oppose secret technologies.

The Society has taken the position that, in the interest of world peace and our national security, our Government should "take immediate steps through the existing framework of the United Nations Organization to call a conference for the purpose of working out machinery for international control of armaments, especially those involving atomic power," and recommends that "the United Nations Organization be encouraged to set up an international commission of scientists to advise on technics through which such control might be exercised."

The Tennessee Academy of Science passed the following Resolution at its fifty-fourth meeting at George Peabody College for Teachers, Nashville, Tennessee, on 1 December 1945:

That the Tennessee Academy of Science vote concurrence in the ideas expressed in the letter of 24 November 1945, addressed by Isaiah Bowman and others to the President of the United States, strongly favoring the Magnuson bill and opposing the Kilgore bill; and

That members of the Academy be urged to study the letter, and compare the bills, and write their Representatives and Senators in Congress concerning their judgments; and

That members of the Academy believe wise decisions as to sponsoring scientific research and training scientific personnel are vital to our Nation's future, and should be taken promptly, boldly, and without com-

promises that would make the programs of sponsorship weak and ineffective.

Henry B. Bryans, executive vice-president and director of the Philadelphia Electric Company, was unanimously re-elected to serve a third term as president of the American Standards Association. Frederick R. Lack, vice-president and manager of the Radio Division, Western Electric Company, Inc., was elected vice-president. The other officers of the American Standards Association announced at the Annual Meeting, held at the Hotel Biltmore, New York, on 7 December are: E. C. Crittenden, assistant director of the National Bureau of Standards, as chairman of the Standards Council, and L. F. Adams, General Electric Company, as vice-chairman.

Dr. W. Albert Noyes, Jr., chairman of the Department of Chemistry at the University of Rochester, has been elected president of the American Chemical Society for 1947. Colonel Bradley Dewey, president of the Dewey and Almy Chemical Company, Cambridge, Massachusetts, is to be president of the Society for 1946. Other officers have been announced as follows: Dr. Charles A. Thomas, director at large; Dr. Charles L. Parsons, director for the Fourth District; and Dr. Samuel C. Lind, director for the Sixth District.

W. A. Pennow and R. T. Burns, Westinghouse Electric Corporation engineers, have recently developed an indicator which utilizes a tri-colored beam of light to guide a pilot attempting a landing at night. The pilot of a plane approaching the landing strip from too steep an angle sees an amber beam projecting from the indicator located on the near end of the field. If the approach is too low, a red beam warns him away. The go-ahead signal is a beam of green light, between the amber and the red, which the pilot follows in until the wheels contact the ground.

The Corporation explains that the "night eyes" are provided by an optical system containing only five basic parts. Light from a 100-watt incandescent bulb is gathered and focused on a color filter, which splits up the white light into three bands—amber, green, and red. These bands are projected through a special double convex lens which focuses the rays into sharp beams. Between this lens and the color filter is located a shutter that opens and shuts 40 times per minute to give a blinking effect to the beam, thus making it more distinguishable to the pilot. The whole mechanism is contained in a housing the size and shape of a small searchlight.

The beam is visible, under all conditions except fog, for a distance of three miles, giving the pilot ample time to get his bearings and make any corrections in his approach angle. In addition, the indicator is equipped with a dial for adjusting the angle of the beam to fit the different landing speeds of planes. With ten possible adjustments available, the indicator can accommodate itself to the landing speed of every plane now flying. It should prove most valuable at small airports and for private planes, where cost of radar- or radio-directional equipment is prohibitive.

Meetings

The Third National Conference of the Sciences, Professions, Arts, and White Collar fields will be held in the Engineering Societies Building, 29 West 39th Street, New York, Friday, 11–12 January 1946. On the program for the first day is an informal reception and registration at 7:00 P.M., followed by a public session at 8:00 P.M. A series of panel discussions at 10:00 A.M. on Saturday will cover the topics: Full Utilization of the Sciences and Professions; International Cooperation; Full Employment Opportunities; Standards of Living. The findings of the Conference will be summarized at 2:30 P.M.

This is the Third Annual Conference arranged by the *National Council of Scientific, Professional, Art, and White Collar Organizations,* which maintains offices at 1860 Broadway, New York 23, N. Y. The officers of the organization are: Dr. Kirtley F. Mather, President, Miss Olive Van Horn, Secretary, Dr. Alex Novikoff, Treasurer, Evelyn Adler, Executive-Director, and Dr. Donald Dushane, Dr. Mordecai Johnson, Dr. Philip White, and Lewis Merrill, Vice-Presidents.

The American Sociological Society will hold its next meeting at the Hollenden Hotel, Cleveland, Ohio, on 1–3 March 1946.

The Crystallographic Society, organized at Harvard University and Massachusetts Institute of Technology in 1939, is planning to resume its activities which were suspended during the war. The Society concerns itself with the science of crystallography and its applications to such fields as Physics, Chemistry, Metallurgy, Ceramics, and Biology, and is not restricted to the classical phases of crystallography commonly associated with mineralogy.

In 1940 this Society initiated the idea of launching a *Journal of Crystallography.* More recently, several Societies have discussed plans to replace the *Zeitschrift für Kristallographie,* no longer being published. Since there is no other journal devoted exclusively to crystallography, the Society is taking an active interest in this new development.

A meeting is tentatively planned for 21–23 March 1946 at Smith College. Those wishing to present papers are requested to send titles and brief abstracts

to Prof. M. J. Buerger, Massachusetts Institute of Technology, Cambridge 39, Massachusetts.

All those wishing to renew membership or to become members of the Society or who desire further information may write to William Parrish, Acting Secretary-Treasurer, The Crystallographic Society, Philips Laboratories, Inc., Box 39, Irvington, New York.

The American Association of Cereal Chemists will hold its 1946 annual meeting at the General Brock Hotel, Niagara Falls, Ontario, Canada. The meeting is scheduled for 13–16 May, with a preconvention registration taking place on Sunday, 12 May. Dr. Oscar Skovholt, Quality Bakers of America, is National President and will preside over the meeting. Members of the Association are urged to make their hotel reservations early. Excellent facilities are provided not only by the General Brock Hotel but also by the nearby Foxhead Inn, and by the Hotel Niagara, Niagara Falls, New York, which is within walking distance of the headquarters hotel.

Conditions Abroad

Dr. Jaroslav Drbohlav, former chief of the Division of Microbiology of the Czechoslovak State Institute of Health in Prague, Czechoslovakia, has communicated with Dr. Oscar Felsenfeld, chief research bacteriologist, Mount Sinai Medical Research Foundation of Chicago. Dr. Drbohlav is well known in America not only for his co-authorship of the first medium used for the cultivation of *E. histolytica,* but for his work at Harvard University and his studies of tularemia in Europe.

Dr. Drbohlav and his associates were cut off from the world during the six years of German occupation. Out of the six chiefs of the divisions of the State Institute of Health of Czechoslovakia, four were executed by the Germans, Drs. Drbohlav and Vaniček being the only survivors. The Institute, built with the aid of the Rockefeller Foundation, was operated by the Germans and used for the production of sera and vaccines. Dr. Drbohlav was expelled, but expects now to be reinstated. He states that the worst suffering has been "to be cut off from American and English scientific literature." He reports that the conditions in Czechoslovakia are bad. The country lacks food (mainly fats and proteins), tobacco, coffee, etc., and there is an urgent need for medicaments and materials for medical use.

Dr. Stefan Blachowski, acting president of the University of Poznań, and Polish editor for the *Psychological Abstracts,* writes to Dr. Walter S. Hunter, of Brown University, that he is where he can receive books and reprints and journals. Practically all of Dr. Blachowski's personal effects, as well as the Psychological Institute and the offices of the Polish *Psychological Quarterly,* have been destroyed. Plans are now being made to start publication of the latter journal, and work has already been begun at the University, which needs both books and apparatus.

Prof. Karol Starmach, of the Ichthyobiological Institute at Krakow, writes that after a sojourn at the German concentration camps of Dachau and Sachsenhausen he has returned to the Institute and his research on the bottom organisms of Polish rivers and streams.

Dr. Bernard E. Read, of the Henry Lester Institute for Medical Research, Shanghai, China, has recently returned to this country after two and one-half years' internment by the Japanese in Shanghai. He reports that the Institute has been returned to its Trustees with the majority of its equipment gone and all radiators and similar fittings removed. The library, however, is complete. Considerable time will be required before the Institute can function normally again. Dr. Read's present address is 18 South Buck Lane, Haverford, Pennsylvania.

Recent Deaths

Dr. Edwin W. Kemmerer, 70, retired Walker professor of international finance at Princeton University and financial adviser for fourteen governments during a period of thirty-one years, died 16 December 1945.

Major Sir Thomas Selby Lawson-Tancred, 75, British archeologist and author, died on 15 December 1945. The ninth baronet of his line, he served with the British Army in India and in the World War.

Dr. Roy Jay Holden, 75, geologist and member of the faculty of Virginia Polytechnic Institute for forty years, died on 16 December 1945 at his home on the campus.

R. D. Landrum, a widely known ceramist and a former president of the American Ceramic Society, died on 30 November 1945 in Cleveland, Ohio, after an extended illness. Mr. Landrum was 63 years of age. Mr. Landrum was associated with the Harshaw Chemical Company for a period of 21 years. In the period just prior to his death he was engaged in the sales development of synthetic optical crystals grown from fused salts, a rather recent Harshaw specialty.

Newton G. Evans, 71, professor of pathology and director of research at the College of Medical Evangelists, Los Angeles, died on 19 December 1945 after an extended illness.

Dr. Olin F. Tower, 73, professor emeritus of chemistry at Western Reserve University, died at his home in Mount Dora, Florida, on 21 December 1945.

Government Support for Research Associations in Great Britain[1]

Mr. Herbert Morrison, addressing the Conference of Industrial Research Associations on 6 November declared that we need research workers to-day as much as in 1940 and that the Government will do everything possible to encourage British industry to use scientific research. It is essential that some of the money gained to industry by relief from taxation in the new budget should be invested in research. Large concerns, he hoped, would establish or extend their own research departments, but smaller concerns should give their full support to existing research associations, for no single section of industry can do without this essential scientific partnership and remain virile. Moreover, Government support of industrial research must be backed by readiness to use its results, and firms which can not maintain fully equipped research staffs of their own should employ at least some trained scientific workers who can cooperate with the appropriate research association and help in the interpretation and application of its work.

Expenditure on research should be regarded as an essential cost and, dealing with the finances of research associations, Mr. Morrison said that with larger incomes the research associations would be able to carry out more of the expensive development work. The Government has therefore decided that in suitable cases it will make single grants to finance capital expenditure for such special purposes as buildings and re-equipment, the purchase of particularly expensive apparatus or the provision of semi-scale plant. Until a research association attains an appropriate scale, the present system of a block grant and an additional grant will continue. Eventually, the additional grant will cease, but a new block grant will be made, to continue indefinitely so long as the Department of Scientific and Industrial Research is satisfied with the activities of the association. The associations, Mr. Morrison said, can rely on the Government to proceed as rapidly as possible with the release and training of promising research workers, and all possible assistance will be given for rebuilding or extending laboratories. Sir Edward Appleton, referring to the importance of first-class research workers, pointed out that a monastic life is not stimulating to the young scientific worker, and there should be the closest contact between the research associations themselves, and with the universities and other research establishments.

[1] From *Nature.*

Dental Teaching and Research in Great Britain

It is reported in The Times, London, that dental teaching and research in Great Britain will be aided by grants from the Nuffield Foundation. One of the general aims of the trustees is to support research which promises to help people to be healthier. After promoting schemes for the advancement of child health and industrial health, they have, with Lord Nuffield's approval, turned their attention to dental health, an urgent question in view of the widespread incidence of dental disease.

On expert advice the assistance provided by the foundation is to be in three parts: First, grants amounting to 9,000 pounds a year for 10 years to four university dental schools to enable them to develop in various ways their research work on preventive dentistry; second, the provision of Nuffield Dental Fellowships designed to improve the supply of dental research workers and teachers; third, a few scholarships to enable dental students of outstanding ability to receive a more thorough scientific training.

The dental schools to which grants have been made are the Sutherland Dental School, University of Durham; the University of Leeds Dental School; the Turner Dental School of the University of Manchester and Guy's Hospital Dental School.

The Nuffield Dental Fellowships will be open to three groups of candidates—those with dental qualifications, university graduates in medicine, and thirdly, those holding a university science degree. Fellowship holders will be required to obtain such scientific or other training as may be necessary to qualify themselves to undertake teaching and fundamental research on dental health and disease.

Normally the annual value of a fellowship will be between 400 and 800 pounds. It may be awarded for one or more years, but as a rule for not longer than three years. Travelling expenses will be paid to fellows who go abroad for study.

The scholarships available for dental students are intended for candidates who, in the opinion of their dental school, would profit by receiving during their course of training additional instruction in anatomy and physiology. A scholarship will normally be tenable for only one year, but in suitable cases may be renewed for a second year. It will provide tuition fees and a subsistence allowance not exceeding 200 pounds a year.