News and Notes

About People

Edward B. Stephenson, Office of Research and Inventions, Navy Department, has been presented the Meritorious Civilian Service Award for his outstanding service to the Navy within the Sound Division.

E. Newton Harvey, Department of Biology, Princeton University, has returned from Brazil, where he gave a series of lectures on biophysics, during April and May, at the Instituto Biofisico of the Medical School of the University of Brazil, Rio de Janeiro. Dr. Harvey spoke on bioluminescence, the cell surface, decompression sickness, the nerve impulse, brain waves, and the mechanism of wounding.

Saul B. Arenson, professor of inorganic chemistry at the University of Cincinnati, has resigned his position and will move to California. For the past 20 years he has been secretary-treasurer of the University of Cincinnati Chapter of Sigma Xi.

Karl Spencer Lashley, of the Yerkes Laboratories of Primate Biology, Orange Park, Florida, has been awarded a Daniel Giraud Elliot medal by the National Academy of Sciences for his paper, "Studies of cerebral function in learning," published in the *Journal of Comparative Neurology.*

William Reiner-Deutsch has joined the staff of Industrial Testing Laboratories, New York City, as microbiologist. Dr. Reiner-Deutsch has recently been released from active duty as a lieutenant colonel in the Sanitary Corps after having served over three and a half years with general hospitals here and overseas.

Thomas P. May, Office of Research and Inventions, Navy Department, has received the Meritorious Civilian Service Award, in part for his contributions in the development of rain-repellent and defogging compounds for airplane cowling and optical instruments.

John F. Lontz has rejoined the Experimental Station staff of E. I. du Pont de Nemours & Company, Wilmington, Delaware, as research chemist. Dr. Lontz has been released from active duty after having served as a lieutenant colonel in the Chemical Warfare Service in Europe.

B. S. Schweigert, Department of Biochemistry, University of Wisconsin, has been appointed nutritionist of the Texas Agricultural Experiment Station. The appointment became effective 1 June.

Thomas Francis, Jr., of the University of Michigan, discussed "The Conquest of Influenza" in the fourth annual A. C. Helmholz lectureship at the University of Wisconsin Medical School on 20 June. This lectureship was endowed in 1941 by the four children of Mr. and Mrs. A. C. Helmholz of Milwaukee. Previous lecturers have been Anton J. Carlson, Harry Goldblatt, and T. Duckett Jones.

Washington Buño, professor of histology and embryology in the Faculty of Medicine of the University of Montevideo, has been appointed to a Guggenheim fellowship and is now in Baltimore for work in the Department of Embryology, Carnegie Institution of Washington.

Frank F. Grout has resigned as director of the Minnesota Geological Survey to devote full time to teaching and completion of field and research problems. George M. Schwartz has been appointed to succeed Prof. Grout.

Howard Canning Taylor, Jr., has been appointed professor of obstetrics and gynecology in the College of Physicians and Surgeons and director of the Obstetrical and Gynecology Service of the Presbyterian Hospital, New York City. Dr. Taylor succeeds Benjamin P. Watson, who remains in private practice and continues his affiliation with the Sloane Hospital of the Medical Center after retiring on 1 July.

Clyde E. Williams, director of Battelle Memorial Institute, Columbus, Ohio, was awarded the Doctor of Science degree from the University of Utah at its 77th annual commencement exercises on 4 June. Mr. Williams was in charge of all the Government's metallurgical research during the war.

James Lewis Howe, professor emeritus of chemistry, received the Doctor of Science degree from Washington and Lee University on 1 June.

Capt. Albert Paul Krueger, MC(S), USNR, Commanding Officer, Naval Medical Research Unit No. 1 (Berkeley, California), will return to the University of California as chairman of the Department of Bacteriology after five and a half years of active duty in the Navy.

Hans Popper has returned from active duty in the Army Medical Corps to his former position as research director of the Hektoen Institute for Medical Research, Chicago. He has also resumed his duties as director of the Department of Pathology, Cook County Hospital.

Leo L. Beranek, John Simon Guggenheim fellow jointly at the Massachusetts Institute of Technology and Harvard University, was awarded the degree of Doctor of Science on 3 June 1946 by Cornell College, Iowa, where he was graduated in 1936.

Samuel M. Moffett, assistant professor of chemistry, Ohio Wesleyan University, has been named to a similar capacity at Park College, Parkville, Missouri, effective in September.

R. V. Boucher, of the Department of Agricultural and Biological Chemistry, Pennsylvania State College, has accepted the chairmanship of the Committee on Feed Composition of the National Research Council.

Walter J. Breckenridge has been appointed director of the Minnesota Museum of Natural History to succeed Thomas S. Roberts. Dr. Breckenridge has been made associate professor at the University of Minnesota.

Harry Landis, formerly with the Schenley Laboratories, Lawrenceburg, Indiana, has joined the staff of the Warner Institute for Therapeutic Research as a bacteriologist in the Department of Pharmacology and Chemotherapy.

Frank Ralph Kille will become dean of Carleton College, Northfield, Minnesota, next year. Dr. Kille will continue as professor of zoology.

Philip A. Munz will occupy the position of botanist at Rancho Santa Ana Botanic Garden, Anaheim, California, after 1 August 1946.

Thorne M. Carpenter received the degree of Doctor of Science on 10 June from the Massachusetts State College.

Robert M. Muir has been appointed instructor in botany at Pomona College, Claremont, California, beginning with the year 1946–47. He is completing the work for the degree of Doctor of Philosophy in plant physiology at the University of Michigan, and has just returned from the China-Burma-India war theater, where he has served as a meteorologist in the U. S. Army Air Force.

David S. Saxon joined the Research Staff of Philips Laboratories, Inc., on 1 April, as an associate physicist and is in charge of the Section on Theoretical Physics. At present he is working on the theory of the stability of high-energy particle accelerators such as the synchrotron and frequency modulated cyclotron.

P. Maheshwari, chairman of the Department of Botany at the University of Dacca, India, spoke to the seminar group of the Department of Botany, Northwestern University, 4 June, on "Plant Research in India."

Karl Ver Steeg, College of Wooster, received the degree of Doctor of Science at the 93rd annual commencement exercises at Central College, Pella, Iowa, on 20 May. Dr. Ver Steeg was graduated from Central College in 1914 and has been head of the Department of Geology and Geography at the College of Wooster since 1923.

Kendall Emerson, Jr., formerly associated with the Rockefeller Institute and reecntly returned from service with the U. S. Naval Medical Research Unit No. 2 (Guam), has been appointed associate in medicine at the Harvard Medical School and senior associate in medicine at the Peter Bent Brigham Hospital. In addition to clinical teaching and research, Dr. Emerson will be in charge of the Chemical Laboratory and the Metabolic Division of the Hospital.

Edward M. Brooks, instructor in meteorology at Massachusetts Institute of Technology, has been appointed assistant professor of geophysics in the Institute of Geophysical Technology, Saint Louis University.

Harlan L. Tuthill, formerly with Rohm and Haas, has recently joined the research staff of Smith, Kline and French Laboratories, Philadelphia, as head of the Department of Physical Chemistry.

Albert M. Reese, since 1907 professor of zoology at West Virginia University, has been retired from active service and made professor emeritus. At a testimonial meeting held in his honor on 26 May numerous former students and associates presented him with a volume of letters addressed to him for the occasion and a fund designated as the Albert Reese, Jr., Scholarship Fund for the education of his 13-year-old son.

Alfred R. Loeblich, Jr. assumed his duties as associate curator in the Division of Invertebrate Paleontology and Paleobotany, Department of Geology, U. S. National Museum, on 31 May. Dr. Loeblich's special field at the National Museum is Lower Paleozoic stratigraphy, with emphasis on Ordovician and Silurian strata and faunas. He will also assist in caring for fossil sponges, coelenterates, and bryozoans.

Harvey Fletcher, director of physical research, Bell Telephone Laboratories, Murray Hill, New Jersey, gave the 15th Joseph Henry Lecture of the Philosophical Society of Washington on 25 May. Dr. Fletcher spoke on "The Pitch, Loudness, and Quality of Musical Tones."

Announcements

The Committee on Line Spectra, National Research Council, met as guests of the National Bureau of Standards in Washington, D. C., on 23 May at the invitation of E. U. Condon. Chairman H. N. Russell, Princeton University, called the Committee together to discuss in detail the compilation of a new list of atomic energy levels. This work is now being done in the Spectroscopy Section, National Bureau of Standards.

It was decided to send a questionnaire, as to the form to be adopted, to a number of workers in different fields who would find such a book useful. Those now working on spectrum analysis are invited to report their results so that unpublished material can be included.

Those attending the meeting were: J. C. Boyce, E. U. Condon, G. R. Harrison, C. J. Humphreys, C. C. Kiess, J. E. Mack, W. F. Meggers, H. N. Russell, A. G. Shenstone, and C. M. Sitterly. Two other members, I. S. Bowen and R. E. Sawyer, were unable to be present.

"Can Science Prevent War?" an address expressing the scientist's viewpoint on the prospects for world peace, was delivered by Philip A. Leighton in Claremont, California, on 1 June before a meeting of Pomona College alumni. Dr. Leighton, who is executive head of the Department of Chemistry, Stanford University, and acting dean of the School of Physical Sciences, said that while science alone could not prevent war, it could eliminate many of the basic causes of war. Citing one historical basis of conflict facing the world, he declared: "Give science the same money, the same man power now being spent making atom bombs, and I predict science can eradicate the current famine."

Dr. Leighton then outlined three points upon which he believed peace might be based. (1) Science could be applied to solve the fundamental problems underlying open conflicts. (2) The individual, scientist or layman, could do much to keep the world aware of the full meaning of another global conflict. (3) The existing international brotherhood of scientists, putting human progress above personal or political considerations, could offer a working example for extension of the same principle in political and governmental fields, particularly in some form of world government to replace the sovereign state of today.

The Franz Theodore Stone Laboratory, of the Ohio State University, has received a grant from the American Petroleum Institute for a two-year study of methods for evaluating the effects of industrial wastes on zooplankton. The project will be under the direction of Bertil G. Anderson, West Virginia University, and David C. Chandler, Franz Theodore Stone Laboratory. Two half-time research assistantships at $1,250 per year for two years have been established for graduates with a background in invertebrate zoology and physiology. The men appointed as assistants will be given academic credit for their work on the project. In addition, they may enroll in courses offered at the Laboratory and work toward advanced degrees. Inquiries may be addressed to the Franz Theodore Stone Laboratory, Put-in-Bay, Ohio.

Several scholarships and fellowships are being offered by the Institutum Divi Thomae for 1946–47. Scholarships will defray expenses of tuition and fees, with the fellowships carrying, in addition, a $1,000 stipend. Students qualified for graduate study and research in biochemistry, biology, and experimental medicine are eligible as candidates for the Master's or Doctor's degree. Inquiries should be directed to the Dean, Institutum Divi Thomae, 1842 Madison Road, Cincinnati 6, Ohio.

Geologists may compete for probational appointments leading to permanent status in the Federal service, the Civil Service Commission has announced recently. Persons appointed from the examination will serve in essential positions in such agencies as the Geological Survey (Department of the Interior) and the Bureau of Plant Industry and the Soil Conservation Service (Department of Agriculture). Most of the positions are located in Washington, D. C., and throughout the United States, but some appointments may be made to positions in the territories and possessions of the United States and in foreign countries.

The entrance salaries for geologists appointed from this examination are $2,644.80 (P-1 grade) and $3,397.20 (P-2 grade) per year. The age limit for this examination, except for persons entitled to veteran preference, is 18–62. A written test is required of all applicants. In addition to passing the written test, applicants for the P-1 grade must have successfully completed a full four-year course of study leading to a Bachelor's degree, with at least 30 semester hours study in geology; *or* they must have had 30 semester hours in geology plus appropriate experience to equal a four-year college course. Persons applying for the P-2 grade must meet the requirements for the P-1 grade and, in addition, must have had two years of professional experience in the field of geology. Further details are contained in the examination announcement, which may be obtained from first- or second-class post offices, from any of the Civil Service regional offices, or from the central office of the Civil Service Commission, Washington 25, D. C.

Research Funds for Nutritional Science

The Williams-Waterman Fund for the Combat of Dietary Diseases, since its inception in March 1940, has made grants to 30 institutions in an aggregate approaching $500,000, according to Robert R. Williams, chairman of the Fund. The Fund had its origin in an agreement of October 1935 whereby the inventors of certain processes for the production of vitamin B_1 and its intermediates assigned their present and prospective inventions in this field to Research Corporation, New York City (see *Science*, 5 July 1946, p. 33). The agreement provided for the management of the inventions in the public interest and the devotion of the Corporation's net income from them to the support of research and like objects. Specifically, 50 per cent of the net returns flows into this special fund designated for the combat of dietary diseases.

The arrangement has proved a fortunate one. Research Corporation, founded in 1912 at the instance of Frederick G. Cottrell, was designed essentially for just such a purpose, and its policy in the management of these patents has contributed greatly to the low-cost availability of thiamine for therapeutic and food uses. Food uses took on a greatly added importance in the United States through the now nearly universal process of enrichment of white bread and flour. This process was inaugurated under the leadership of the National Research Council in May 1941 with the support of the principal national organizations of millers and bakers. Neither this event nor the magnitude of the demand for thiamine for therapeutic uses was foreseen at the time of the agreement. Indeed, no complete process of synthesis then existed. Nevertheless, the concept of the original agreement has proven surprisingly sound, and the Fund has attained substantial proportions.

Expenditures under the Fund are supervised by a Committee which at present consists of: J. W. Barker (president of Research Corporation), Howard Coonley, C. G. King, Robert E. Waterman, and R. R. Williams (chairman). Norman Jolliffe, W. H. Sebrell, and H. C. Sherman serve as scientific advisers.

The language of the agreement has been liberally construed to include within the field of the Fund studies in nutrition and metabolism, with the conviction that the advancement of fundamental knowledge in all sciences underlying the use of food is important for the combat of dietary diseases. A major emphasis, however, continues to be placed on practical measures of prophylaxis and therapy of the recognized deficiency diseases. This is in keeping with the origin of the funds which in a sense are a by-product of a long-term study of Oriental beriberi.

Consistent with the policy, extensive support has been given to fostering the enrichment of whole corn meal as a measure against the incidence of pellagra in our South, through the agency of Clemson College and under the leadership of E. J. Lease. A project for the breeding of a high-niacin corn under R. F. Dawson, of Columbia University, is also under way. Similarly, an approach to the problem of beriberi is contemplated. The chairman of the Committee is about to depart for China and the Philippines, where it is hoped projects can be set up at focal points, through local agencies, for the production and distribution of a nutritionally improved form of rice. This practice, so established, should spread gradually to other areas.

An event which has somewhat affected the operation of this Fund was the establishment of The Nutrition Foundation, Inc., in December 1941. This Foundation, supported by contributions from the food and related industries, has made grants totaling over $1,000,000 in support of research in closely kindred fields. The Nutrition Foundation places rather broader emphasis on the function and utilization of food components but less emphasis on the prophylaxis and therapy of specific nutritional diseases. There is, however, a substantial area of overlap in which conflict is avoided by frequent interchange of comment and by membership on the Williams-Waterman Committee of C. G. King, scientific director of The Nutrition Foundation, and the service of R. R. Williams on the Scientific Advisory Committee of the Foundation.

From March 1940, when funds began to accumulate, up to 1 May 1946, grants have been made in the aggregate sum of $436,529.42. Distribution of expenditures for scientific work by years is as follows: 1940, $23,029.52; 1941, $57,707.67; 1942, $74,402.23; 1943, $86,140.00; 1944, $80,715.00; 1945, $82,695.00; and 1946 (to 1 May), $31,840.00.

Institutions which have benefited number 30:

American Bureau for Medical Aid to China, University of Arkansas, University of Arizona, California Institute of Technology, University of California, University of Chicago, Clemson College, Columbia University, University of Cincinnati, Florida State Board of Health, Harvard University, The Johns Hopkins University, Massachusetts Institute of Technology, Memorial Hospital, Mount Sinai Hospital, National Research Council, New York University, Oregon State College, Peter Bent Brigham Hospital, University of Pittsburgh, Post Graduate Medical School, Princeton University, Stanford University, Texas Agricultural and Mechanical College, University of Texas, Tulane University, Union University, University of Wisconsin, Western Reserve University, and Yale University.

The following projects, the titles of which have been abbreviated, are now in progress and serve to illustrate the scope of operations under the Fund:

Niacin deficiency in children: Harry Bakwin; Characterization of *Lactobacillus gayoni* factor: Vernon Cheldelin; Breeding of a high-niacin corn: R. F. Dawson; Clinical investigations of nutritional diseases: Grace Goldsmith; Prenatal nutrition in relation to mentality of young: Ruth Harrell; Pyruvic acid cycle in anoxia: H. E. Himwich; Further studies in oxybiotin: K. Hofman; Hydrolysis of proteins and the amino acid content of vegetables and fruits: Arthur R. Kemmerer; Role of folic acid in cancer: J. C. Keresztesy; Improved staple Southern foods (whole corn enrichment): E. J. Lease; Study of the processes of calcification and ossification: F. C. McLean; Pyrimidine biosynthesis: George W. Beadle; Bacterial flora in relation to intestinal function: V. C. Myers; Work of Food and Nutrition Board: National Research Council; Biological oxidation of pyruvic acid: S. Ochoa; Dietary choline in relation to body stores of choline: P. B. Pearson; Nutritional factors involved in growth and metabolism: Edmond E. Snell; Nutritional Disease Teaching Center, Birmingham: T. D. Spies; Parenteral nutrition: F. J. Stare; Biosynthesis of amino acids: E. L. Tatum; Biochemistry of *Lactobacillus casei* factor: John Randolph Totter; Utility of glutamic acid in epilepsy: H. B. Waelsch; Public health nutrition program of Florida: Walter Wilkins; Nutritional significance of cereal enrichment: Jet C. Winters.

Grants are made only to institutions on application of qualified individuals. The Fund will welcome worthy applications within the scope of its field. Letters should be addressed to: Charles H. Schauer, Secretary of the Committee, 405 Lexington Avenue, New York 17, New York, or to the Chairman, Research Corporation, at the above address. No special application form is required, but letters of application should include a brief but clear description of the project, its potential significance, the plan of attack, and a rough budget of contemplated expenditures. The qualifications of the applicant should also be stated if not available from biographical reference books.

In the Laboratory

Built-in Jacks for Plaster Casts

JOHN STANLEY
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Anyone who makes plaster castings knows that it is often difficult to get them out of the plaster molds, especially if they have little "draft." The built-in jack described below makes it possible to lift quite deep castings with great ease and with freedom from damage to casting or mold.

The jack consists of a roundheaded stove bolt measuring about 3/16 × 1 inch, with its nut. The nut is fitted with plasticine cores, as shown in Fig. 1, B, the elongated lower core being a round rod somewhat larger than the bolt. The upper core on the nut, by means of which the assembly is stuck to the model to be reproduced, should be about 3/16 inch thick. When the mold has been poured it will look like Fig. 1, C, in section. The plasticine cores are then cleaned out, and a small piece of sheet metal from a tin can is cut to the size of the nut and dropped on top of it. This may be called the pressure plate. Soft plasticine is then forced in above the pressure plate and shaped with the finger to fit the contours of the mold. The casting is then poured. When this is set, the bolt is inserted and gently turned with a screw driver.

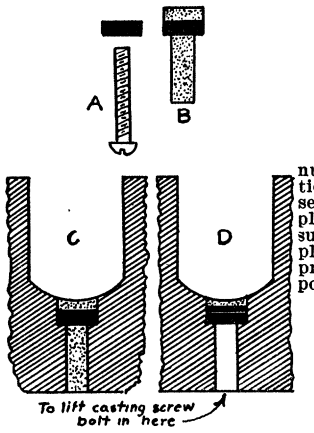

FIG. 1. A—the bolt and nut; B—the nut with plasticine cores; C—the jack assembly cast into the mold; D—plasticine cores removed, pressure plate added above nut, and plasticine filling added above pressure plate; mold ready to pour casting.