
News and Notes

About People

Leo Szilard was appointed professor of biophysics and of social sciences, University of Chicago. He will spend one-half of his time in the University's new Institute for Radiobiology and Biophysics, and the other half with the Division of Social Sciences.

Dr. Szilard worked with Fermi in the early days of chain reaction at Columbia and at Chicago, where the first chain reaction was demonstrated 2 December 1942. Born in Budapest in 1898, Dr. Szilard received his Ph.D. from the University of Berlin in 1922 and served on its faculty from 1925 to 1933. He became an American citizen in 1943.

Frederick Wyatt, chief psychologist at McLean Hospital, Waverley, Massachusetts, has been appointed research associate in the Department of Social Relations, Harvard University. He will supervise a training and orientation course for students of clinical psychology at McLean Hospital.

O. H. Maughan, formerly director of research, Farm Credit Administration, Spokane, Washington, assumed his new duties as professor and head of the Department of Agricultural Economics, College of Agriculture, and chairman of the Division of Agricultural Economics, Agricultural Experiment Stations, State College of Washington, Pullman, on 1 June.

W. C. Gorham, lecturer at Union College, Schenectady, New York, has been appointed tutor at St. John's College, Annapolis, Maryland, where he will be in charge of the biological laboratories.

E. W. Thompson, who has been manager of the Louisville neoprene synthetic rubber plant, which the Du Pont Company built and is operating for the Government, has been appointed production manager of the Rubber Chemicals Division of the Company. He assumed his new position on 1 October and will be succeeded as manager by E. F. Ridlon, who has been assistant manager of the Louisville plant.

Pierce Brodtkorb has been appointed assistant professor of biology at the University of Florida.

Wolcott B. Dunham has resigned from the Squibb Institute for Medical Research to become doctor, senior grade, for assignment as research biologist at the Kennedy Veterans Administration Hospital, Memphis, Tennessee.

Hugh G. Gauch, formerly assistant professor of plant physiology at Michigan State College, became associate professor of plant physiology in the Department of Botany, University of Maryland, on 1 September.

Maj. George W. Hunter, III, formerly on the faculty at Wesleyan University, is now stationed at the Army Medical School, Washington, D. C., where he is serving as chief of the Division of Parasitology. He recently received his commission in the Regular Army as a major in the Pharmacy Corps. In 1945 Maj. Hunter served as Executive Officer with the Commission on Schistosomiasis which went to the Philippines that spring. He is the recipient of both the Bronze Star and the Army Commendation ribbon.

C. M. Louttit, recently of The Ohio State University, has been appointed dean of Sampson College, Sampson, New York, one of the three emergency colleges for veterans created by New York State this year.

William B. Herms, for 38 years a member of the faculty of the University of California, retired on 22 September. Dr. Herms was head of the Division of Entomology and Parasitology for 23 years. He is a past-president of the Entomological Society of America and of the American Association of Economic Entomology.

A. Williams Postel has recently resigned from the Department of Earth Sciences, University of Pennsylvania, to join the staff of the Division of Metaliferous Geology, U. S. Geological Survey.

W. M. Firor, Johns Hopkins Hospital, in continuing to direct research in cellular physiology being supported by funds provided by Sharp and Dohme, Inc. Special emphasis is being given to the alteration of normal into malignant cells in tissue culture.

Delos D. Wickens, formerly at the University of Wisconsin, has been appointed associate professor of psychology at The Ohio State University.

Donald T. Ries, formerly naturalist at the Starved Rock State Park, Illinois, and recently released from active duty with the Sanitary Corps, AUS, has been appointed assistant professor of biology, Illinois State Normal University, Normal, Illinois.

W. R. Horney, who recently completed work on his doctorate at Yale University, has been added to the staff of the Department of Geology, University of Nebraska.

Donald B. MacMillan has returned from his 24th Arctic Expedition, bringing back some 60 specimens of birds for the Colorado Museum of Natural History. He is now planning his 25th trip, a cruise with geologists, botanists, anthropologists, and ornithologists along the Labrador, Baffin Land, and Greenland coasts

up to within 11° of the Pole. His veteran schooner, Bowdoin, which has now covered 125,000 miles in arctic work, will sail from Boothbay Harbor, Maine, on 20 June 1947, returning on or about 10 September.

Bernard S. Meyer, recently named editor-in-chief of the *American Journal of Botany*, succeeded E. N. Transeau on 31 August as chairman of the Department of Botany in The Ohio State University's College of Agriculture.

W. Albert Strong, formerly of the University of Illinois, has recently joined the Antibiotic Division of the Research Laboratories, The Wm. S. Merrell Company, Cincinnati, Ohio.

William W. Greulich, professor of anatomy at Stanford University and director of the Brush Foundation, is visiting the universities and medical schools in Australia and New Zealand during the autumn quarter. Dr. Greulich, who is accompanied by Mrs. Gruehlich, plans to return to this country in December.

J. Russell Bright has been made associate professor of chemistry in the College of Liberal Arts, Wayne University, Detroit, where he is to be responsible for the development of general chemistry. Dr. Bright formerly was associate director of control at Gelatin Products Corporation, Detroit.

Gilbeart H. Collings, Jr., of the medical staff of the Bethlehem Steel Corporation, Baltimore, has been appointed chief of the Industrial Hygiene Staff of the Tennessee Valley Authority. He will be located at Wilson Dam, Alabama.

Announcements

Industrial research laboratories of the United States (8th ed.) is now ready for distribution by the National Research Council. This directory has been compiled by means of an extensive questionnaire survey of several thousand industrial organizations and includes for each reporting company: name of the president, location of the laboratories and of the laboratories of subsidiary companies, names of key men in research, a brief description of research activities, information on scientific periodicals issued and the size of the library, and a statement concerning the grants for research, fellowships, and scholarships maintained at educational or other institutions. The directory is indexed with respect to personnel, geographical location, and research activities. As a new feature, the present edition contains an appendix listing 292 universities and colleges offering research service to industry, with the name of the person to whom correspondence should be addressed.

Comparison of the present volume, for which data were obtained between August 1945 and January 1946, with the 1940 edition shows that professional per-

sonnel increased 48.5 per cent, to 54,321; technical personnel, not included in the professional group, increased 110.8 per cent, to 34,563; and administrative, clerical, and maintenance personnel increased 161.3 per cent, to 44,631. The ratio of the three groups is now approximately 11:7:9 instead of the former 2:1:1. Each professional classification showed growth. The biologist and bacteriologist group showed the greatest increase, 69.4 per cent; chemists increased 34.4 per cent; engineers, 37.8 per cent; physicists, 31.0 per cent; and metallurgists, 20.9 per cent.

This directory may be obtained from the Publications Office, National Research Council, 2101 Constitution Avenue, Washington 25, D. C., at \$5.00 per copy.

A Procter and Gamble fellowship in chemistry has been established at the University of Pittsburgh for graduate study in the field of fat chemistry.

The Life Insurance Medical Research Fund awards for the current year were announced by the Board of Directors on 17 September. The awards, including nine additional fellowships and three grants-in-aid, are all in connection with research on fundamental problems of cardiovascular disease or function.

Postgraduate research fellowships were awarded as follows: Harwell G. Davis, II, Birmingham, Alabama, to work at the Medical College of Alabama; Charles V. Dowling, Jamaica, New York, to work at Western Reserve University; Jerome Gross, New York City, to work at Massachusetts Institute of Technology; Harper K. Hellems, Lewisburg, West Virginia, to work at Peter Bent Brigham Hospital, Boston; Jack J. Lewis, Los Angeles, to work at Stanford University; Harold Mankin, Bronx, New York, to work at Columbia University College of Physicians and Surgeons; George E. Murphy, Kansas City, Missouri, to work at the Rockefeller Institute for Medical Research; and Hugh Grant Skinner, New Toronto, Ontario, to work at the University of Toronto.

Student research fellowships were awarded to: Thomas C. Hall, Boston, Massachusetts, to work at Harvard Medical School; Marie Louise Nieft, Chicago, to work at the University of Southern California Medical School; and Murray Saffran, Montreal, to work at McGill University.

The grants-in-aid, valued at \$633,591 and some of which extend over a period of two or three years, were awarded as follows: Carnegie Institution of Washington, for support of research under the supervision of George W. Corner; McGill University of Montreal, for support of research under the supervision of David W. MacKenzie; and New York University, for support of research under the supervision of Homer W. Smith.

Applications for postgraduate research fellowships for 1947 should be made before 1 January 1947 to the Scientific Director, Life Insurance Medical Research Fund, New York Academy of Medicine Building, 2 East 103rd Street, New York 29, New York. Applications for grants-in-aid of medical research for 1947 will be accepted until 31 January 1947. Nominations for student research fellowships in 1947 (which must be made by faculty members) should not be made until later in the academic year but must be received by 15 April 1947. Further information may be secured from the Scientific Director.

The Department of Mathematics, The Ohio State University, has announced several personnel changes for the fall quarter. Tibor Rado has been named chairman of the Department to succeed J. L. Synge, who has become chairman of the Department of Applied Mathematics, Carnegie Institute of Technology. Two new appointments to the staff are Marshall Hall, formerly on the staff at Yale University, as an associate professor, and Howard H. Alden, formerly of the University of Wyoming, as assistant professor. Robert G. Helsel and Earl J. Mickle have been made assistant professors. Grace M. Bareis has retired from the staff after 30 years in the Department.

The October issue of The Journal of the History of Medicine is devoted entirely to the history of anesthesia and is called the Anesthesia Centennial Number. Josiah Charles Trent's "Surgical Anesthesia, 1846-1946" serves as an introduction to the entire issue, while the paper, "Mesmerism and Surgery: A Strange Chapter in the History of Anesthesia," by George Rosen, throws new light on this long-neglected chapter in medical history. Copies may be obtained from the publisher, Henry Schuman, Inc., 20 East 70th Street, New York City 21, for \$2.50.

The Department of Chemistry, University of California, Berkeley, has announced the following staff changes. Glenn Seaborg has returned to the Department from the Metallurgical Laboratory in Chicago to resume his position as professor of chemistry. He was accompanied by some 20 men to participate in the research of the Radiation Laboratory. I. Perlman and B. B. Cunningham, of this group, have been made associate and assistant professors of chemistry, respectively, in the Radiation Laboratory. Philip W. Schutz, of Columbia University, has joined the Department as professor of chemical engineering to direct the curriculum in this subject. He will be assisted by two new instructors, Charles R. Wilke and LeRoy A. Bromley. The staff has been increased by 5 additional assistant professors: George Jura, University of Chicago; Richard E. Powell, Princeton Uni-

versity; and Robert E. Connick, Leo Brewer, and Spofford G. English, all of whom have been associated with the Manhattan Engineering District. New instructors in the Department are: Bruno H. Zimm, Jack W. Petersen, Henry Rapoport, and Estella Katzenellenbogen. Postdoctorate fellows in the Department are: Borge Bak, Marshall W. Cronyn, and Robert L. Scott.

The Cutter Lecture on Preventive Medicine will be delivered this year by Sir Lionel Whitby, Regius professor of physics, University of Cambridge, England, on 6 November at the Harvard Medical School. The lecture will be given at 5:00 P.M. in Amphitheater D. Sir Whitby's subject will be "The Hematological Effects of Irradiation."

About 600 mathematicians met at Cornell University on 20-23 August for the 52nd summer meeting of the American Mathematical Society which was held in conjunction with meetings of the Mathematical Association of America and the Institute of Mathematical Statistics. Members of the Society made up about 400 of the total attendance. Of the 111 research papers presented at the meetings, 57 were read by the authors in person, and 54 given by title.

Rules for the John J. Abel Prize in Pharmacology, awarded by Eli Lilly and Company, have been announced by the American Society for Pharmacology and Experimental Therapeutics. The award, consisting of a \$1,000 prize and a bronze medal, is made for the purpose of stimulating fundamental research in pharmacology in the United States and Canada by a young man or woman working in a college or university. An additional amount up to \$150 is available toward traveling expenses for the recipient of the prize, which is to be presented at the spring meeting of the Society in Chicago next May. The prizes will be awarded annually for a three-year period.

To be eligible for the award, a nominee shall not have passed his 36th birthday on 30 April of the year of the award and shall have accomplished outstanding research in the field of pharmacology and experimental therapeutics. The research will not be judged in comparison with the work of more mature and experienced workers and, in judging various researches, special consideration shall be given to the independence of thought and the originality shown.

Nominations for this award should be sent to the secretary of the Society, H. B. Haag, by any member of the Society except the members of the Award Committee. Nominations must be in the hands of the secretary on or before 5 January of the year of the award. No member may send in more than one nomination. At the time of nomination the nominee must

be actively engaged in the line of research for which the award is to be made. The nomination must be accompanied by five copies of: a biographical sketch of the nominee, including date of birth; a list of his publications, if any; and the publication or manuscript for which the award is to be given.

The Award Committee consists of: Carl F. Schmidt, chairman; H. B. Van Dyke, Louis Goodman, Torald Sollman, and Carl A. Dragstedt.

Meetings

The American Oil Chemists' Society expects to hold the largest meeting in its history from 30 October to 1 November at the Edgewater Beach Hotel, Chicago, with an estimated attendance of 600 and a total of 40 papers. Arrangements are in charge of George A. Crapple, Wilson and Company, Chicago. S. O. Sorenson, of the Archer-Daniels-Midland Company, Minneapolis, is president.

The Institute of Mathematical Statistics will hold a meeting on the mathematical aspects of "Analysis of Variance" on 1 November at Princeton University. Speakers will include: M. S. Bartlett, Cambridge University; A. Wald, Columbia University; W. G. Cochran, The University of North Carolina; and J. W. Tukey, Princeton University. The secretary-treasurer of the Institute is Paul S. Dwyer, University of Michigan.

The New York Federation of Science Teachers Associations will meet on 15 November at 8:00 P.M. in Roosevelt Hall of the American Museum of Natural History. There are to be three speakers: Clarke Williams, Brookhaven National Laboratory: "Atomic Energy and Technology"; Howard Curtis, College of Physicians and Surgeons, Columbia University: "Biological Aspects of Atomic Energy"; and Melba Phillips, Brooklyn College: "Atomic Energy and the Teacher."

Elections

The American Chemical Society announces that Gustav Egloff, director of research of the Universal Oil Products Company, Chicago, has been elected chairman of its Petroleum Division. A. N. Schanen, of the Socony-Vacuum Oil Company's General Laboratories at Paulsboro, New Jersey, was named vice-chairman, and Cary R. Wagner, consulting chemist of Bartlesville, Oklahoma, was re-elected secretary-treasurer. Stewart S. Kurtz, Jr., former chairman of the Division, and W. E. Bradley, research supervisor, Union Oil Company, Los Angeles, were chosen as

members of the Executive Committee of the Division which, with 1,300 members, is the largest of the Society's 18 professional Divisions.

George W. Vinal, chief of the Electrochemistry Section, National Bureau of Standards, has been elected president of the Weston Cell Committee of the International Union of Chemistry. The Committee, consisting of scientists from the principal nations of the world, is engaged in the scientific development and perfection of the Weston Cell as an international standard of measurement. The Committee met in July 1946 for the first time since the beginning of the war and is scheduled to meet next in July 1947 in London.

Recent Deaths

W. Carl Rufus, 70, professor emeritus of astronomy, University of Michigan, died on 21 September.

R. Max Goepf, Jr., 39, director of organic research, Atlas Powder Company, was killed in a plane crash in Newfoundland on 3 October.

Charles Butts, 83, geologist, died on 4 October. Dr. Butts retired from the U. S. Geological Survey in 1933, having served as paleontologist from 1909 to 1912 and then as geologist until his retirement.

Henry Metcalf Hobart, 77, a retired consulting engineer of the General Electric Company, died on 11 October. Mr. Hobart, former vice-president of the American Institute of Electrical Engineers, developed mercury rectifiers and was an authority on arc welding, design of dynamoelectric machinery, insulation, and standardization.

Geography at Japanese Imperial Universities

Of the five imperial universities in Japan, only two possess Departments of Geography—Kyoto and Tokyo. Each is a small department with one full professor, one assistant professor, one lecturer, and one assistant. Geography is also taught at the teachers' colleges (*bunri-daigaku*), which are likewise under government supervision. Only a few of the geographers have been educated overseas, mainly at the Sorbonne, but several have traveled abroad and attended international geological and geographical meetings. Nevertheless, they speak some English, are able to understand more, and read the language very well. This information was obtained by the undersigned while on naval duty in Japan late in 1945.

At Kyoto Dr. Sameshige Komaki is professor and head of the department, or Institute of Geography, as it is called. His doctoral dissertation was written

on the shoreline physiography of Japan. Dr. Taro Tsujimura, reputed to be the country's leading geographer, has a similar position at Tokyo.

Courses given at Kyoto include physiography, climatology, oceanography, political geography, human geography of islands, history of geography, and occasionally regional geography. The Tokyo department offers courses in geomorphology, climatology, soils, cartography, cultural geography, and the regional geography of Asia. Regional geography of areas other than Japan and the Far East generally has been neglected both in teaching and in research. When I commented on this fact, Prof. Tsujimura sadly replied: "That was our great mistake."

The Japanese university course requires 3 years and normally follows 14 years instruction in primary, middle, and higher schools. The Tokyo Institute of Geography had a total of 20 geography majors and Kyoto had 13, but the numbers of students were reported to vary considerably from year to year. A large majority of the students are preparing to teach in the secondary schools and colleges, but some have gone into research organizations with the South Manchurian Railway, the Institute of Oriental Culture, and the Home Ministry, which has been engaged in land-planning projects. Dr. Komaki pointed out that the military and naval services did not recognize the value of geographic training and that almost all the younger geographers went into the services as regular officers. A major exception was the Institute of Oriental Culture, which specialized in political geog-

raphy and was connected with the military during the war.

The principal geographical publication is *The Geographical Review of Japan* (*Tirigaku Hyōron*), which is the organ of the Association of Japanese Geographers (membership, 270) and is published monthly. It is well illustrated with maps and photographs, and each article is abstracted in English. The Tokyo Institute takes the leading part in editing and publishing this journal. The Kyoto Institute, up through 1943, published an annual volume, *Papers in geography* (*Chiri-Bonso*), containing approximately a dozen articles on various geographical fields. This publication was sent on an exchange basis to the American Geographical Society, the National Geographic Society, and the University of Michigan. A so-called popular geographic monthly in Japan is *Chiri-gaku*, but its circulation is only about 5,000.

In the past, geographical instruction and research in Japan have been circumscribed to a high degree by the government, as was true of most other academic fields. During the war years no foreign publications were received or contacts made. Last winter the universities were closed because of the lack of any coal for heating. Despite these difficulties, research is continuing, and several geographers showed me maps of population and economic factors on which they were working. The excellence of their cartography made one wish that American geographers could use a brush and water colors in similar fashion.—*Robert C. Klove* (Washington University, St. Louis).

In the Laboratory

An Improved Helmet for Breathing Oxygen or Other Gases¹

J. E. DUNCAN, Lt., USN

Naval Medical Research Institute, Bethesda, Maryland

The value of a helmet rather than a mask for inhalation of a variety of gas mixtures has long been recognized. Masks leak frequently and become uncomfortable on long wear, chiefly because of difficulty in fitting the complex curves about the nose and eyes. In physiological experiments where accurate measurements are made, an airtight fit is essential and, if pressure is to be used within the unit, a helmet is highly desirable for the same reason.

A number of helmets for this purpose have been

¹The material in this article should be construed only as the personal opinion of the writer and not as representing the opinions of the Navy Department officially.

designed during the past seven or eight years at the Experimental Diving Unit, Navy Yard, Washington, D. C., two of which were fairly successful. Several defects still remained, chief among which was fogging of the vision plate. In order to remedy these defects, the present apparatus was developed.

The construction of the hood is very simple (Figs. 1, 2). It consists of a wire frame (A), covered with canvas to form the background on which the rubber cover (B) is cemented. A removable, transparent, oval face plate (C) is held in place by four ¼-inch 20-thread wing nuts and studs (D). A sponge-rubber pillow (E) for a head rest is built in for use in the supine position but also helps to support the helmet vertically in the upright position. In the upright position, the lower flange rests comfortably on the shoulders and also keeps the helmet in position. An