

determining the amount of water in the soil was developed during the 1930s by George John Bouyoucos, research professor in soils science, Michigan State College. Apparatus for use with this method was developed with the cooperation of Wood and Metal Products, of Bloomfield Hills, Mich., and came into use in 1940. Apparatus: (1) Bouyoucos Model C Bridge: combines rugged, compact construction with a high degree of sensitivity, for field and laboratory use; (2) Bouyoucos Moisture Meter: a practical, scientific guide to irrigation practices; (3) Plaster Resistance Unit: buried in the soil, this sensitive element gives a measure of soil moisture when used with

the bridge or the meter; (4) Nylon Resistance Unit: two pieces of fine stainless steel screen, acting as electrodes, are separated by wrappings of nylon and contained in a perforated metal case which affords extensive exposure to the soil. Used only with the Model C bridge. After a decade of field use by large commercial outfits and laboratory use by agricultural and other scientific research organizations in many parts of the world, the Bouyoucos method of soil moisture determination is considered first in its field. As is true of any scientific apparatus, field use and laboratory experiment constantly suggest improvements.



News and Notes

Autumn Meeting, American Physiological Society

THE American Physiological Society holds two meetings annually—one each spring with the Federation of American Societies for Experimental Biology, and one each autumn more informally on a university campus. This autumn the society met Sept. 4-6 in New Orleans at Tulane University, with half a day at Louisiana State University Medical Center. The Tulane campus provided outdoor beauty, dormitory accommodations, a cafeteria, and an air-conditioned building for sessions. Arrangements were made entirely by the local committee, of which H. S. Mayer-son was chairman. Some 230 papers were presented and discussed during four half-days of sessions, usually in six simultaneous programs. There were 390 registered attendants. President E. M. Landis presided at the business sessions of the society and at the meetings of the council. Past President R. W. Gerard spoke on "Becoming an Elder Statesman" at the society dinner.

The council enlarged the standing Committee on the Use and Care of Animals. Its object is to re-emphasize the responsibilities of physiologists in procurement, in humane treatment, in training of workers with respect to animal care, and in publication of the results of the experiments. It will receive and consider suggestions concerning animal care. H. E. Essex, Mayo Foundation, Rochester, Minn., is chairman.

The Porter Fellowship of the society was redefined in terms of its usefulness for training candidates in research and in teaching. It may be either postdoctoral or predoctoral and carries a \$3000 annual stipend. Applications are received from nonmembers as well as from members. H. W. Davenport, University of Utah, is chairman of the committee.

The society is seeking varied methods of improving both formal and informal communication at its meetings. Panels, debates, and *conversazioni* are planned. F. A. Hitchcock, Ohio State University, is chairman of this committee. General problems of programming are also being explored by a committee whose chairman is A. B. Hertzman, St. Louis University School of Medicine.

The survey of physiological science (SCIENCE, 115, 3, June 20 [1952]), being made with the support of the National Science Foundation, is in full swing, with headquarters at the Washington office of the society, 2101 Constitution Ave. It has collected and organized an array of questions and is devising methods of securing sound data to answer them. It is concerned with trends, institutions, personnel, finances, education, research, and communications in physiological science. R. W. Gerard, University of Illinois, is chairman of the Central Committee, and Orr E. Reynolds is director of the first phase of the survey.

Adherence to the International Union of Physiological Science, now in process of organization, has been voted by the society. Mechanisms of adherence and specific proposals to the International Union of Physiological Science are being considered. M. B. Vis-scher, University of Minnesota, is chairman of the American delegates.

The president-elect, E. F. Adolph, University of Rochester, will visit five institutions this fall. The area selected on the basis of invitations received includes North Carolina, Tennessee, and Kentucky. The purpose is to explore problems that face physiologists in teaching, research, and education, and incidentally to present similar discussions on a selected topic.

The society, now 65 years old, has as its objective the advancement of physiology as one of the biological sciences. At present, new avenues of interest are opening. The society publishes three journals, the *American Journal of Physiology*, *Physiological Reviews*, and the *Journal of Applied Physiology*. It depends on the voluntary work of its 1300 members and on its central office for all its organized efforts.

The spring meeting will be held April 6-10, 1953, in Chicago. The 1953 autumn meeting will be omitted, since the triennial International Congress on Physiology will meet in Montreal Aug. 31-Sept. 4, under the presidency of C. H. Best.

EDWARD F. ADOLPH

School of Medicine and Dentistry
University of Rochester

Scientists in the News

The 1952 Human Relations Award for the Society for the Advancement of Management has been presented to **Lawrence A. Appley**, president of the American Management Association. The award, a scroll and key, is given annually for outstanding accomplishment in the human relations field. **William R. Mullee**, of New York University, received the society's Gilbreth Medal for achievement in the field of motion study.

F. Clark Cahill has been made chief engineer of the Engineering and Production Division of Airborne Instruments Laboratory, Inc. An electrical engineer, Mr. Cahill formerly served in the division as supervisor of the Radar Section.

Carlyle G. Caldwell has been elected an assistant vice president of National Starch Products Inc. He joined National's research staff in 1940 and has been research director since 1948.

Joseph H. Camin, formerly of Ohio State University and South Dakota State College, has joined the staff of the Chicago Academy of Sciences as curator of invertebrates. His field of research is the taxonomy and biology of mites.

Ralph I. Dunlap, of Longmeadow, Mass., has been appointed assistant director of research for Monsanto Chemical Company's Plastics Division, Springfield. Dr. Dunlap joined the division in 1943 as a research chemist.

R. Adams Dutcher, professor emeritus, Pennsylvania State College, has been appointed special lecturer and consultant in nutrition at the University of Florida.

Fred T. Foard, Public Health Service medical director and chief, Branch of Health, Bureau of Indian Affairs, retired on Oct. 31, after 36 years of service. Dr. Foard will become director of the Division of Epidemiology, North Carolina State Department of Health.

T. Keith Glennan, for more than two years a member of the Atomic Energy Commission, has resigned because commitments to the Case Institute of Technology at Cleveland have made it necessary for him to return. Dr. Glennan's term was to have expired June 30, 1955. He came to the commission from the presidency of Case Institute in August 1950.

Crawford H. Greenewalt, president of E. I. du Pont de Nemours & Co., received the gold medal of the Society of Chemical Industry for "conspicuous service to applied chemistry." Robert C. Swain, Cyanamid Company, presented the award, and Harry B. McClure, vice president of Carbide and Chemicals Corporation, presided at the award meeting.

C. Lee Huyck, director of the Division of Pharmacy, Howard College, Birmingham, Ala., is now professor of industrial pharmacy at the St. Louis College of Pharmacy and Allied Sciences.

Ewart R. H. Jones, Sir Samuel Hall professor of chemistry at the University of Manchester, has been appointed Arthur D. Little visiting professor of chemistry at MIT. Professor Jones was named reader in organic chemistry at the University of London and assistant professor at the Imperial College in 1946 and was invited to the chair of chemistry at the University of Manchester in 1947. The professorship that Dr. Jones holds at MIT has been established out of a bequest of funds left to the Institute by the late Arthur Dehon Little, a graduate of MIT in 1885.

New chairman of the U. S. National Commission for Unesco is **Walter H. C. Laves**. He succeeds **Luther H. Evans**, Librarian of Congress. Mr. Laves served as deputy director general of Unesco in Paris 1947-50. He is vice president of the privately endowed Governmental Affairs Institute, Washington, D. C., and consultant to the U. N. Technical Assistance Board. The following vice-chairmen were elected: Robert C. Angell, Helen Bragdon, and Stanley H. Rittenberg. New members elected to the executive committee were Gordon R. Clapp, Marc Connelly, Charles E. Odegaard, George N. Shuster, and Henry R. Hope.

Rafael Lorente de No, neuroanatomist, has been appointed chief of the Laboratory of Neuroanatomical Sciences at the National Institutes of Health. He will head a laboratory composed of groups working on cytoarchitecture, functional neuroanatomy, developmental neurology, and chemical morphology. Dr. Lorente de No will leave his post as Member at the Rockefeller Institute for Medical Research to assume his new duties on Feb. 2.

R. A. McCance, professor of experimental medicine at Cambridge University, England, will visit the Army Medical Service Graduate School, Washington, D. C., on Dec. 15 for a conference on the effects of undernutrition on the composition of the body.

James H. McMillen has joined the staff of the National Science Foundation as a member of the physics staff of the Division of Mathematical, Physical and Engineering Sciences. Dr. McMillen was chief of the Hyperballistics Division, Naval Ordnance Laboratory.

Amos Pucklajohn Maxwell has joined the faculty of the State College of Washington as reference librarian in the Science Division of the Holland Library.

Frank R. Milliken has joined the Kennecott Copper Corporation as a vice president and will assume supervision of its mining operations in this country and in Chile. Mr. Milliken was an experimental engineer with the Utah Copper Company, a Kennecott sub-

sidiary, and later joined the National Lead Company in 1941, serving as plant manager of its MacIntyre development, and most recently as assistant manager of its Titanium Division and member of its Mining Committee.

Samuel Morford, clinical psychologist with The Personnel Laboratory, New York City, has been appointed director of Psychological Services (Canada) and will take over his new duties at the laboratory's Toronto office on Dec. 10.

Charles M. Mottley has been appointed to succeed **S. D. Cornell** as director of the Planning Division of the Department of Defense Research and Development Board. Dr. Cornell, who has been with the board since 1946, and has been director of the Planning Division since 1949, has accepted a position as executive officer of the National Academy of Sciences and the National Research Council.

William O. Pool has been promoted from senior research chemist to the newly established position of research associate at Don Baxter, Inc., Glendale, Calif.

David E. Price has been appointed to the newly created post of assistant surgeon general of the Public Health Service. Dr. Price has been associate director of the National Institutes of Health for the past two years. **C. J. Van Slyke** has been appointed associate director to succeed Dr. Price, and **James Watt** has been assigned to Dr. Van Slyke's post as director of the National Heart Institute.

Lawrence M. Rohrbaugh has been appointed chairman of the Department of Plant Sciences at the University of Oklahoma, replacing **Howard W. Larsh**. Dr. Larsh has been granted a leave of absence in order to conduct research on *Histoplasma capsulatum* and other mycotic pathogens at the Communicable Disease Center, U. S. Public Health Service, Kansas City, Kan.

Robert B. Sleight is president of the newly organized Applied Psychology Corporation, 1129 Vermont Ave., N.W., Washington, D. C. He was formerly with the Psychological Laboratory of the Institute for Cooperative Research, The Johns Hopkins University.

Robert W. Sperry, assistant professor of anatomy at the University of Chicago, has joined the combined research program of the National Institute of Neurological Diseases and Blindness and the National Institute of Mental Health, U. S. Public Health Service. Dr. Sperry, who is well known for his research on developmental organization of the nervous system, has been appointed chief of the Section on Developmental Neurology in the Laboratory of Anatomical Sciences.

Julian C. Stanley, associate professor of educational psychology at George Peabody College for Teachers since June 1949, has been appointed associate pro-

fessor of education at the University of Wisconsin, effective June 1953. Currently he is president of the Tennessee Psychological Association, chairman of the Psychology Section of the Tennessee Academy of Science, trustee of Test Research Service, and research adviser to the American Institute for Research.

Herbert E. Stokinger has been appointed chief toxicologist in the Division of Occupational Health, U. S. Public Health Service, replacing **L. T. Fairhall**, who is now affiliated with Yale University. As head of the Toxicology Section of the Occupational Health Field Headquarters in Cincinnati, Dr. Stokinger is in charge of laboratory investigations in toxicology for the division.

Otto Struve will give the Albert A. Michelson Memorial Lecture at the China Lake Branch of Scientific Research Society of America on Dec. 15. This commemorates the birth of Dr. Michelson on Dec. 19, 1852.

Education

The **University of Buffalo** will give a graduate course in chemical marketing in its 1952-53 evening sessions. Jointly sponsored by the departments of Chemistry and Marketing, the course will be given by Frank P. Greenspan, of the Research and Development Department of Buffalo Electro-Chemical Company, Inc.

A **Corrosion Short Course** will be given Feb. 2-6 at the University of California, Berkeley, by the Extension Department and the departments of Mechanical Engineering, Mineral Technology, and Chemical Engineering, in cooperation with the National Association of Corrosion Engineers. More than a dozen speakers, representing industrial and governmental laboratories and academic institutions will discuss basic corrosion science theory, application of corrosion mitigation measures, and the role of the corrosion engineer in industry. **W. F. Seyer**, of the University of California, Los Angeles; **N. Hackerman**, of the University of Texas; **A. Wachter**, of Shell Development Company; **Mark F. Adams**, of Washington State Institute of Technology; and **I. Cornet**, of the University of California, Berkeley, will act as chairmen of the various sessions.

The **State University of Iowa** is planning the establishment of an Iowa Institute of Gerontology as a research center to study social, medical, biological, psychological, and economic problems of the aged.

A series of three two-week courses in **Radiological Health Protection**, including technical laboratory procedures, will be presented tuition-free in Cincinnati, beginning Jan. 9. Each succeeding course is dependent upon information gained in the preceding weeks, but a student's previous training and experience may permit him to enter the second or third program directly. For full information, write Chief, Radiological Health Training Section, Environmental Health Center, 1014 Broadway, Cincinnati 2.

Grants and Fellowships

Recent AAAS Research Grants, awarded through state academies of science, included the following: Arkansas Academy of Science, for the work of P. M. Johnston and John A. Sealander; Kentucky Academy, in support of the work of Mary Wharton; New Hampshire, for A. L. King; North Dakota, for George C. Wheeler; Pennsylvania, for R. W. Stone and Clarence K. Williamson; South Dakota for R. J. Greb; and West Virginia Academy of Science for research by Madeleine Feil and Dorothy Fisher.

The Atomic Energy Commission is offering eight fellowships in industrial medicine for 1953-54. Awards are for one year's academic training at approved institutions that can provide special training facilities in the health problems associated with the atomic energy program. In-plant training will be given the second year in medical departments of major AEC plants and laboratories. Stipends are \$3600 and \$6000. Applications must be submitted by Jan. 1 to Henry A. Blair, University of Rochester, Rochester, N. Y.

The New England Textile Foundation is accepting applications from high school graduates for four-year scholarships worth \$2000 each. Candidates may be selected from any area, but winners will study at Bradford Durfee Technical Institute, Lowell Textile Institute, New Bedford Textile Institute, or the Textile School of Rhode Island School of Design. For full information address George T. Metcalf, 68 S. Main St., Providence 3, R. I.

In the Laboratories

Du Pont will start construction early next year of a plant on the Scioto River, south of Circleville, Ohio, for the manufacture of Mylar polyester film, a new product that, in its transparent form, looks like cellophane. Studies of Mylar indicate that it will be useful in electrical insulation and for various kinds of tape. Full development awaits completion of the Circleville plant.

Ethyl Corporation has reorganized its Research and Engineering Department so that it will consist of three major divisions, two of which are new—the Production Application Division, under Richard K. Scales, and the Automotive Products Research Division, under Wheeler G. Lovell. The Chemical Research and Development Division, under George Kirby, will continue to function essentially unchanged. J. B. Macauley is director of research for Ethyl.

Fisher Scientific Company has appointed Richard C. Schleck director of the Reagent Chemicals Division, Pittsburgh. Clifford A. Flanders, now director of chemical production, will coordinate all chemical manufacture, packaging, and distribution in the U. S. and Canada, from the New York office.

Hunter Associates Laboratory has been formed by

Richard S. Hunter, formerly chief optical engineer with the Henry A. Gardner Laboratory. Associated with Mr. Hunter will be Marshall Powell, of the Gardner Laboratory, and James D. Ferguson, Jr., a mechanical engineer formerly with Aviation Corporation. The new organization will be located at 5421 Brier Ridge Road, Falls Church, Va.

Lever Brothers Company opened its new Research Center at Edgewater, N. J., Nov. 18, in ceremonies commemorating its research golden anniversary. J. R. Killian, Jr., made the principal address, at a luncheon following inspection of the laboratories. The five operating departments of the center are headed by L. B. Parsons, director of the Research and Development Division.

Libbey-Owens-Ford Glass Company has acquired the properties and assets of the Corrugulux Corp., of Houston. As the Corrugulux Division, it will be under the general direction of G. P. MacNichol, Jr., and will be headed by Joseph S. Finger, president and founder of Corrugulux.

Arthur D. Little, Inc., has appointed Bernard Vonnegut, of the G-E Research Laboratory, to its Physical Chemistry Group, where he will do research on nucleation phenomena. Robert C. Hockett, former scientific director of the Sugar Research Foundation, has also joined the Little organization.

The Matheson Company, Inc., of East Rutherford, N. J., has purchased control of Coleman & Bell Company, of Norwood, Ohio. William H. Bell will temporarily continue as head of Matheson Coleman & Bell until a new president is appointed, after which he will remain with the company in an advisory and executive capacity. Laboratories and chemical personnel of Matheson will eventually be transferred to Norwood.

The W. L. Maxson Corporation has elected S. Merrill Skeist vice president in charge of the Contracts Division. Other appointments in the division include John W. Bjorkman, executive assistant to the vice president and manager, Planning Department; J. Labarre Comer, Administrative Department; William P. McNally, manager, Air Force Contracts Department; John J. Ryan, manager, Navy Contracts Department; and Albert J. Colton, manager, Army Contracts Department.

The Wm. S. Merrell Company has opened a new research laboratory in Cincinnati especially designed for the safe study of tuberculosis and other diseases caused by microorganisms. F. Joseph Murray is head of the new laboratory.

The Upjohn Company has elected Donald S. Gilmore chairman of the board and managing director to succeed L. N. Upjohn, who will retire on Jan. 1. E. G. Upjohn, an executive vice president, was elected president. Other changes in the Upjohn organization include the appointment of D. I. Weisblat as assistant

director of research; Robert H. Levin as head of the Chemistry Department, and H. F. Hailman as director of the Department of Clinical Investigation.

Meetings and Elections

The **Association of Urban Universities** elected T. R. McConnell, of the University of Buffalo, president at its annual meeting in Detroit. R. W. Van Houten and David D. Henry continue as vice president and secretary-treasurer, respectively.

The **Audio Engineering Society**, meeting in New York, installed F. Sumner Hall as president, and Jerry B. Minter, Walter S. Pritchard, and Richard L. Burgess, vice presidents. C. J. LeBel and Ralph A. Schlegel were elected secretary and treasurer, respectively. The society is offering a Scholarship Award for 1953 to a student of science or engineering, to be awarded at the Audio Fair in October next year.

The **Institute of Metals**, London, has elected the following officers: president, F. C. Thompson, of the University of Manchester; vice presidents, C. J. P. Ball, of Magnesium Elektron, Ltd., and G. V. Raynor, of the University of Birmingham. S. F. Dorey, of Lloyd's, was elected senior vice president; he will be the nominee for the presidency in 1954-55. The institute will present two prizes of 20 guineas each for the best student essays relating to metallurgy, except that those dealing exclusively with extraction and ferrous metallurgy are excluded.

The **Institute of Radio Engineers** has elected James W. McRae president, succeeding Donald B. Sinclair. S. R. Kantebet, of the Government of India Overseas Communications, will succeed Harold L. Kirke as vice president. Stuart L. Bailey and B. E. Shackelford were elected directors for 1953-55.

The second annual **Symposium on Blood** will be held at Wayne University College of Medicine, Jan. 17, at which a number of outstanding investigators will present papers. A printed program will be available early in January.

A **Symposium on Fundamental Biology** will be held at Michigan State College Feb. 2-4. A series of eight lectures on "Proteins and Protein Metabolism" will be given by Henry Borsook, Erwin Chargaff, Felix Haurowitz, and Charles Heidelberger. For full details, write to Alfred Novak, of Michigan State's Department of Natural Science.

The **United States National Committee** of the International Commission on Irrigation and Drainage has elected Walter E. Blomgren chairman. Seventeen countries convened at the commission meeting in September to approve acceptance of the U. S. as a member-country. Other members elected to serve on the committee include G. T. McCarthy, A. P. Rollins, I. D. Wood, S. M. Gross, H. A. Scott, and Harold Conkling. The next international meeting of the commission is scheduled for April 1954 in Algiers.

The **World Medical Association**, in conjunction with the **Pan American Medical Confederation**, will hold its first Western Hemisphere conference in Richmond, Va., Apr. 23-25. The conference will celebrate the diamond anniversary of medical progress. Sessions will be held at the Medical College of Virginia and at the Jefferson Hotel. For further information, address the Arrangements Committee, Suite 3201, 444 Madison Ave., New York 22.

Miscellaneous

The **American Chemical Society** has established a Charles Lathrop Parsons Award, named for its retired secretary. The award will be given not oftener than once every three years to a chemist or chemical engineer chosen solely for outstanding public service. First presentation will be made to Dr. Parsons at a dinner in his honor in Washington, D. C., Dec. 6. The award will consist of an appropriate scroll and the privilege of choosing the recipient of a \$2000 graduate scholarship.

The following people visited Atlantic Region Headquarters of the **U. S. Geological Survey** during August: J. N. Bramloger, Topographic Surveys, the Netherlands; H. A. Razmara, Chef du Service Géographique de l'Armée Imperiale, Teheran; and Antonio Carlos B. Carvalho (Point IV program).

The **Loubat Prizes**, established in 1892 and given in recognition of the best works published in the English language on the history, geography, archaeology, ethnology, philology, or numismatics of North America, will be awarded by Columbia University in 1953. The competition is open to citizens of all countries, and awards are made every five years. For full information, address the secretary of Columbia University, New York 27. Deadline for entries is *Jan. 1*.

The **South African Council for Scientific and Industrial Research** recently issued its annual report for the year ended Oct. 4, 1951. The council now has a staff of 350, with approximately 120 temporary members. Its budget of £46,000 is used chiefly to subsidize the six Industrial Research Associations and the South African Institute for Medical Research, as well as a small number of research fellowships (59) and assistantships (21). Although the projects sponsored by the National Chemical Research Laboratory and the National Physical Laboratory include several that are devoted to pure science, it is natural that the emphasis should fall on applied research, and among the activities that seem to be of especial interest are researches on clay minerals and their industrial uses, on the Transvaal chromite deposits, spontaneous combustion of coal, decomposition of dolomite, and the effectiveness of superphosphates on South African soils. The report announces the appointment of a National Institute for Personnel Research, with the implication that the supply of scientific and technical personnel constitutes a problem of growing magnitude in the Union of South Africa.