

The important advances being made with radioactive carbon as an isotopic tracer were described during the second half-day session. These experiments show that carbon dioxide is taken up not only in the light but also in the dark. Intensive efforts with carbon 14 as a radioactive tracer are being directed toward determining the composition of the first photosynthetic product. It appears to be a substance containing both carboxyl and hydroxyl groups which is soluble in hot alcohol and insoluble in benzene. Possible mechanisms were discussed, including reaction cycles by means of which the radioactive carbon is distributed among various organic acids and products.

The energy efficiency with which the light is used in photosynthesis was discussed on the third half-day.

Warburg's manometric technique leading to a quantum efficiency of 0.25 molecule of  $\text{CO}_2$  consumed per quantum of light absorbed was criticized, and yields of about 0.1 molecule per quantum were described. Different measurements based on manometric technique, on calorimetry, on the dropping mercury electrode for oxygen analysis, and on the platinum electrode for oxygen analysis were carried out independently in different laboratories, and all gave quantum efficiencies in the neighborhood of 0.1 molecule per quantum.

The impression was gained that rapid progress in our understanding of the mechanism of photosynthesis will now be made along the lines discussed at the symposium. (FARRINGTON DANIELS, *Vice-President.*)

## NEWS and Notes

**Presentation of the 1947 AAAS-George Westinghouse Science Writing Awards** was made at a dinner on December 27 during the meetings of the AAAS in Chicago. The two \$1,000 awards were made to George Keaney, staff writer on the *New York World-Telegram*, in the newspaper division, and to Steven M. Spencer, associate editor of the *Saturday Evening Post*, in the magazine division. Honorable mention in the magazine writing contest was given jointly to Lorus J. and Margery J. Milne for their article in the June 1947 issue of *Natural History*. (See *Science*, November 28, 1947, p. 513.) Citations were also presented to the publications in which the winning entries appeared. Pictured on this week's cover are those who participated in the ceremonies: *left to right*, Lee B. Wood, executive editor of the *New York World-Telegram*, also representing Mr. Keaney, who was unable to attend; Mr. Spencer; Harlow Shapley, toastmaster; Mrs. and Mr. Milne, who also received the citation in behalf of *Natural History*; and Robert Fuoss,

managing editor of the *Saturday Evening Post*.

Guest speaker at the dinner was George D. Stoddard, president of the University of Illinois. His subject was "Science Aids Civilization."

### About People

**Robert E. Marshak**, associate professor of physics, University of Rochester, and chairman of the Federation of American Scientists, has been appointed a member of the School of Mathematics, Institute for Advanced Study, Princeton, New Jersey, for the spring semester. Dr. Marshak will be in residence at the Institute from February 15 to April 15.

**J. Russell Bright**, associate professor of chemistry, Wayne University, has been made acting chairman, Department of Chemistry, following the resignation of **Neil E. Gordon** from the chairmanship. Dr. Gordon will continue as professor in the department and as director of the Kresge-Hooker Scientific Library and the University's chemistry lecture series.

**William R. Grove**, professor of psychology and director, Division of Psychological Services, University of Pittsburgh, has been appointed psychologist and director, Child Service Study, Phoenix Public Schools. **Carroll A. Whitmer**, formerly with the Pittsburgh Public Schools, will succeed Dr. Grove at the University of Pittsburgh.

**Alfred Washington Drinkard, Jr.**, director, Virginia Agricultural Experiment Station for 30 years, and assistant director for the past year, will retire February 1.

**Jack Matthews**, formerly of Purdue University, has been appointed director, Speech and Hearing Clinic, Departments of Psychology and Speech, University of Pittsburgh.

**H. B. Mann**, of Atlanta, Georgia, formerly Southern manager of the American Potash Institute, has been appointed vice-president of the Institute. Dr. Mann assumed his new duties January 1 at the Institute's headquarters, 1155 16th Street, N. W., Washington, D. C.

**William G. Pollard**, acting executive director, Oak Ridge Institute of Nuclear Studies, since February, 1947, and formerly professor of physics, University of Tennessee, has been made executive director of the Institute.

**Marston Taylor Bogert**, professor emeritus of chemistry, Columbia University, and former president, American Chemical Society, has been appointed senior scientific adviser, Evans Research and Development Corporation.

**John C. Crowell**, who recently received the Ph.D. degree in geology from the University of California, Los Angeles, has been appointed instructor in geology at that University.

**R. Ruggles Gates**, emeritus professor of botany, University of London, and research fellow in biology, Harvard University, has recently lectured at various Midwestern universities on the evolution of man, human genetics, and the nature of species. The universities visited include Iowa State College, State University of Iowa, University of Illinois, University of Minnesota, University of Wisconsin, and Michigan State College.

**William Haber** has been appointed chairman, Division of Social Sciences, University of Michigan, for a three-year term (1947-1950), succeeding **James K. Pollock**, whose term has expired.

**Hans Molitor**, director, Merck Institute for Therapeutic Research, who is making a trip through Central America to study Indian and Mayan drugs, will make a report to the University of Texas Medical Branch near the end of this month, and on January 26 will give a special lecture on "The Pharmacology of Antibiotics" at the Medical Branch.

**Joseph B. Koepfli**, chemist, California Institute of Technology, has been appointed a member of the Mission on Science and Technology to England, which is headed by Earl A. Evans, Jr., chairman, Department of Biochemistry, University of Chicago (*Science*, November 28, p. 518). Dr. Koepfli will be attached to the U. S. Embassy in London as a senior scientist for a period of one year.

**Jerry W. Carter, Jr.**, director, Wichita Guidance Center, Wichita, Kansas, has been appointed to the position of scientist (R), U. S. Public Health Service, and will be assigned around February 1 to the Mental Hygiene Division, Washington, D. C. **Joseph E. Brewer**, assistant director, Wichita Guidance Center, has been made acting director.

**David B. Tyler** joined the staff of the Department of Embryology, Carnegie Institution of Washington, Wolfe and Madison Streets, Baltimore, Maryland, on December 1.

**Jacob Rappaport**, recently assistant professor of plant physiology, Univer-

sity of Ghent, Belgium, has been appointed plant physiologist at the Smith College Genetics Experiment Station. He will aid in research on the physiological aspects of ovular tumors, being supported by a grant from the American Cancer Society.

**Arthur C. Bates**, formerly of Bell Telephone Laboratories and the Studebaker Corporation of America, has been appointed professor, Department of Mechanical Engineering, Lehigh University.

## Colleges and Universities

**Eight Cornell University graduate students** will soon begin a nationwide survey of current methods of conservation education and science teaching, under the direction of E. Laurence Palmer, professor of science and nature education at Cornell. A representative of the group will visit every state to gather data from elementary and high schools, junior colleges, outdoor laboratories, wildlife sanctuaries, and national parks. This study, which is expected to be completed by the end of 1948, and which is intended to uncover the best practices of conservation and science teaching in the country, is a continuation of similar surveys which have been conducted by Dr. Palmer since 1925 with the support of the American Nature Association and the Wildlife Management Institute. Dr. Palmer indicated that the group is seeking the cooperation of individuals or groups interested in the project, and would welcome information and suggestions for aiding the study.

**The Postgraduate Division, University of Texas Medical Branch**, under the direction of T. G. Blocker, Jr., announces that a basic science course for general practitioners and physicians desiring refresher work in the basic sciences will be held in Galveston the week of February 23-28, 1948. The course will cover recent advances in the preclinical sciences. Special speakers will include John Lawrence, professor of medicine, University of California Medical Center, San Francisco; Stuart Mudd, professor of bacteriology, University of Pennsylvania Medical School, Phila-

delphia; Carl Moore, professor of medicine, Washington University Medical School, St. Louis; George W. McCoy, professor emeritus of preventive medicine, Louisiana State University Medical School, New Orleans; former Surgeon General (USPHS) Henry Winans, clinical professor of medicine, Southwestern Medical School, Dallas; M. S. Levy, Houston; and W. W. Powell, of Temple. A special feature of the course, which is to be under the direction of Donald Duncan, professor of anatomy, University of Texas Medical Branch, will be discussions relating to the clinical uses of radioactive isotopes.

The Division also announces a postgraduate course in physical medicine and rehabilitation to be held March 1-5 under the direction of Wilbur Selle, professor of physiology and director of the Laboratory of Medical Physics. This course is designed for the general practitioner and specialist interested in the more effective use of physical medicine. Speakers will include Frank H. Krusen, director of physical medicine, Mayo Clinic, and chairman of the Baruch Committee for Physical Medicine; Richard Kovacs, New York Polyclinic Medical School, New York; Robert L. Bennett, Georgia Warm Springs Foundation; Donald A. Covalt, New York University; John H. Kuitert, Fitzsimons General Hospital, Denver; A. B. C. Knudsen, Veterans Administration, Washington, D. C.; and Henry D. Bouman, University of Wisconsin Medical School, Madison.

**The Illustration Studios of the Chicago Professional Colleges**, University of Illinois, have planned a non-technical, scientific cancer exhibit for educating the general public. The exhibit will be completely installed at the Museum of Science and Industry in Chicago in about two years and will occupy a space there approximately 60 feet by 40 feet. The exhibit is being developed at the request of the American Cancer Society to aid in furthering its growing public education program. The display will cover a description of cancer, its causes, misconceptions regarding it, methods by which it spreads, methods of treatment, early diagnosis, cancer research, and

current events regarding cancer. A feature of the exhibit will be the inclusion of an information center where current information will be made available, and where discussion groups can meet and films be shown.

## Industrial Laboratories

**Ernest F. W. Alexanderson**, consulting engineer, General Engineering and Consulting Laboratory, General Electric Company, retired January 1 after 45 years of service. Dr. Alexanderson, inventor of the alternator (a high-frequency machine operating at high speeds for continuous wave transmission at high power), was honored with a testimonial dinner at which David C. Prince, vice-president in charge of the General Engineering and Consulting Laboratory, was toastmaster.

**Five Bausch & Lomb Science Scholarships** of \$1,500 each are again offered for the fifth year to outstanding high school and preparatory students throughout the country. April 1 is the final date for application for the 1948 scholarships. The finalists will be guests of the Bausch & Lomb Optical Company and the University of Rochester in the spring, when they will be given final tests and interviews to determine the winners. Each winner is expected to follow an undergraduate course with major emphasis on one or more sciences, according to an individual program submitted by the student and approved by the University of Rochester's Scholarship Committee.

**David H. Dawson**, director of sales, Pigments Department, Du Pont Company, was awarded the honorary degree of Doctor of Engineering by Drexel Institute of Technology at its Founder's Day convocation in December.

**The \$500 Schering Award for 1947** went to Paul J. Kopsch, Richmond Hill, Long Island, New York, a senior medical student, Long Island College of Medicine, for his paper on "The Clinical Use of Androgens in the Female." Second prize of \$300 went to Robert C. Foreman, Western Reserve Medical School, Cleveland, Ohio, while

the third prize of \$200 was awarded to Bernard L. Rosenberg, a recent graduate of Georgetown University Medical School, Washington, D. C. The awards are presented annually by the Schering Corporation, Bloomfield and Union, New Jersey, for the best manuscripts prepared on a designated phase of endocrinology.

## Meetings

**E. V. L. Brown**, Rush clinical professor emeritus of ophthalmology, University of Illinois College of Medicine, will speak on "Edward L. Holmes: Pioneer Chicago Eye Doctor" at a joint meeting of the Institute of Medicine of Chicago, the Chicago Ophthalmological Society, and the Society of Medical History of Chicago at the Palmer House on Friday evening, January 30. The lecture is the first presentation under the gift of the Rudolph Wieser Holmes and Maria Baxter Holmes Fund in memorial to Edward Lorenzo Holmes.

**The Optical Society of America** will hold its winter meeting at the Hotel Pennsylvania, New York City, March 4-6. Members wishing to present papers should submit their abstracts, limited to 200 words, on the required form by noon, February 2. Members will receive the printed program after February 21. The meetings will be open to all interested persons. Nonmembers desiring programs may secure copies from Arthur C. Hardy, secretary of the Society, who is located at Massachusetts Institute of Technology.

**The American Society for X-Ray and Electron Diffraction and the Crystallographic Society of America** will hold their first joint meeting at Yale University, April 1-3. Joint and separate technical sessions will be held, and the president of the Crystallographic Society will deliver a retiring address. Nonmembers wishing further information may obtain it from Elizabeth A. Wood, Secretary, American Society for X-Ray and Electron Diffraction, Bell Telephone Laboratories, Murray Hill, New Jersey, or from William Parrish, Secretary, Crystallographic Society of America,

Philips Laboratories, Inc., Irvington-on-Hudson, New York.

**The Syphilis Study Section, National Institute of Health**, a group of consultants organized for the purpose of promoting research in the field of venereal diseases, announces a symposium on "Recent Advances in the Study of Venereal Diseases," to be held in the Commerce Building, Washington, D. C., on April 8-9. All interested persons are invited to attend. Copies of the program will be sent at a later date upon request. Inquiries should be addressed to Dr. Frank W. Reynolds, Executive Assistant, Syphilis Study Section, Division of Research Grants and Fellowships, National Institute of Health, Bethesda 14, Maryland.

**A Symposium on Medical Subject Headings** was held in Washington, D. C., on December 12-13, 1947, under the auspices of the Army Medical Library. The symposium was built about two objectives: to explore the approaches used by medical indexers and medical librarians to the related problems of printed bibliographies and card catalogs, and to determine principles which might be acceptable to both groups in their selection of new medical terminology for bibliographic purposes.

The participating members included Magdalene Freyder, American Medical Association; Murrell C. Wellman, American Dental Association; Eileen R. Cunningham, Medical Library Association; Estelle Brodman, Columbia University Medical Library; Claudius F. Mayer, Army Medical Library; Irene M. Strieby, Lilly Research Laboratories; Janet Doe, New York Academy of Medicine; Sanford V. Larkey, Welch Medical Library; D. J. Haykin, Mortimer Taube, Sarah G. Mayer, C. W. Gull, Morris C. Leikind, and Leo E. La Montagne, Library of Congress; Mabel McLaughlin and Miriam M. Wilson, Veterans Administration; Helen W. Kaan, D. L. Ballard, and Michael J. Filippi, National Research Council; Ruth Griffin and Ruth E. Rodier, Naval Medical Center; Clara Manson, College of Physicians of Philadelphia; Mary Louise Beitzell, Social Security Administration; Doro-

thy M. Cramer, National Institute of Health; Thelma B. Dunn, National Cancer Institute; Margaret C. Schindler, Department of Agriculture; Wyllis E. Wright, Williams College; and representatives of the Army Medical Library.

Following the presentation of papers, participants discussed (1) the problem of adapting medical subject headings to changing nomenclature, i.e. new terms used in international medical literature, particularly subject headings used for periodical literature; (2) the lack of a standard list of subject headings for the medical sciences; and (3) direct or indirect headings, involving the extent of alphabetical classification desirable in a list of subject headings. As a result of the discussion a resolution was passed which urged the creation of a standard list of subject headings. During discussion of the third problem, several of those present suggested reconsideration of classed catalogs. The general principle of direct (non-classified) headings, as well as that of specificity, was reaffirmed.

At the conclusion of the session a list of principles to be used in the selection of subject headings for medical literature was adopted.

**The Philosophical Society of Washington (D.C.)** held its 1293rd meeting in the Cosmos Club Auditorium January 17. The retiring president, Fred L. Mohler, delivered an address on "Mass Spectra of Hydrocarbons."

## Elections

**The Texas Academy of Science** met in Austin, December 11-13, to discuss the conservation of natural resources. The presidential address, on "The Conservation of Man and His Resources," was given by John G. Sinclair. Chauncey D. Leake, University of Texas Medical Branch, spoke on "The History and Function of Academies." Ninety-six papers were presented in the various sections. An additional 18 were presented at the Collegiate Academy program and 24 at the Junior Academy. L. W. Blau, Humble Oil Company, Houston, is the new president, and Gladys H. Baird,

Huntsville, Texas, is secretary-treasurer. It was proposed that during 1948 a State Conservation Council be established, composed of leaders in the various fields.

**The Association of American Geographers**, at its 44th annual meeting in Charlottesville, Virginia, December 29-31, elected the following officers for 1948: Richard Joel Russell, Louisiana State University, president; Clifford M. Zierer, University of California, Los Angeles, vice-president; John Kerr Rose, Library of Congress, councilor for three years; Charles B. Hitchcock, American Geographical Society of New York, treasurer; and Chauncy D. Harris, University of Chicago, secretary. At the annual banquet, Charles F. Brooks, Blue Hill Meteorological Observatory, delivered the presidential address on "Climatic Record: Its Content, Limitations, and Geographic Value."

**The American Society of Protozoologists** was organized in Chicago on December 29, 1947, during the meetings of the AAAS. At a meeting of interested protozoologists L. E. Noland, of the Zoology Department, University of Wisconsin, was elected temporary chairman. A constitution was adopted for temporary use, and the following officers were elected: Ross F. Nigrelli, New York Aquarium, president; Banner Bill Morgan, College of Agriculture, University of Wisconsin, vice-president; Theodore Louis Jahn, Department of Zoology, University of Iowa, secretary-treasurer. The Executive Committee consists of Dwight L. Hopkins, University of Illinois, Navy Pier, Chicago; R. R. Kudo, University of Illinois, Urbana; John L. Mohr, University of Southern California, Los Angeles; Kenneth L. Osterud, University of Minnesota, Minneapolis; and Robert M. Stabler, Colorado College, Colorado Springs.

The object of the Society shall be "the association of workers in the field of protozoology for the presentation and discussion of new or important facts and problems in that science and for the adoption of such measures as shall tend to the advancement of protozoology." The possibility of publishing a journal was discussed

and will be given further consideration in the future. Affiliation with the AAAS and with the American Institute of Biology will also be considered.

All protozoologists who wish to join the Society or who wish further information are invited to write to the secretary. New members who join before the next meeting will be considered as charter members of the Society and may participate in formulating the permanent constitution.

**The Catholic Round Table of Science**, at its annual meeting in Chicago, December 30, in conjunction with the AAAS meetings, elected Rev. John R. Cortelyou, assistant professor of zoology, DePaul University, Chicago, its new permanent secretary, to succeed Rev. Anselm Keefe, St. Norbert's College, West De Pere, Wisconsin, who has resigned after 19 years of service. Joseph E. Semrad, professor of zoology, DePaul University, was named head of a special committee to recommend new policies in line with organizational expansion. The Catholic Round Table of Science was organized in 1928 to stimulate scientific research in Catholic institutions in order to bring more Catholic workers into the fields of such research.

**The Phycological Society of America** held its first annual meeting, December 28 and 31, in conjunction with the AAAS meetings in Chicago. Sixteen papers were presented in a half-day program. At the business session, a constitution was adopted and the following officers elected for the coming year: William Randolph Taylor, president; L. H. Tiffany, vice-president; G. W. Prescott, secretary-treasurer (re-election); and I. F. Lewis, member of the Executive Committee.

Membership in the Society, which was organized in December of 1946 to promote the interests of phycology in this country and abroad, is open to individuals, institutions, and industrial concerns interested in phycology or phycological research. Membership now totals 152, 32 of whom reside in foreign countries. The Society publishes a *News Bulletin* which is issued quarterly.

**The American Chemical Society** has elected Emil Ott, director of research, Hercules Powder Company, Wilmington, Delaware, to the Board of Directors for a three-year term, succeeding Edward R. Weidlein, director, Mellon Institute for Industrial Research. Dr. Ott will act as regional director for the Third District, which embraces Pennsylvania, Ohio, and Delaware. Ernest H. Volwiler, executive vice-president, Abbott Laboratories, North Chicago, Illinois, was re-elected for a four-year term as a director-at-large, and Charles A. Kraus, professor emeritus, Brown University, and a past president of the Society, was renamed regional director for the First District, consisting of New England and Canada.

**The Botanical Society of Washington**, at its December meeting, elected the following officers for 1948: president, Freeman Weiss; vice-president, Lee M. Hutchins; recording secretary, Katharina Bollenbacher; corresponding secretary, Anna E. Jenkins; treasurer, Wilbur D. McClellan; counselors, E. L. LeClerg and H. A. Borthwick; archivist, John A. Stevenson. Roland Bamford was nominated as representative to the Washington Academy of Sciences.

## Deaths

**Frederick B. Isely**, 74, professor of biology at Trinity University, San Antonio, Texas, died December 30 after a brief illness.

**Thaddeus Lincoln Bolton**, 82, chairman, Department of Psychology, Temple University, for 22 years and professor emeritus since 1937, died in Temple University Hospital, Philadelphia, January 3.

**C. O. Swanson**, 78, formerly head, Department of Milling Industry, Kansas State College of Agriculture and Applied Science, Manhattan, died at his home in Manhattan, January 5, after a year's illness.

**Max Pinner**, 56, editor, *The American Review of Tuberculosis*, and formerly chief, Division of Pulmonary Diseases, Montefiore Hospital, New York, and Montefiore Sanitarium, Bed-

ford Hills, New York, died at his home in Berkeley, California, January 7.

**Vladimir Karapetoff**, 72, professor emeritus of electrical engineering, Cornell University, died on January 11. Although blind since 1943, Dr. Karapetoff had been active as a consultant and lecturer.

**Mellen W. Haskell**, 84, professor emeritus of mathematics, University of California, Berkeley, died on January 15. Dr. Haskell joined the faculty there in 1890 and retired in 1933.

**On the island of Bimini**, a British possession lying about 50 miles east of Miami, Florida, the American Museum of Natural History is establishing the Lerner Marine Laboratory, which is to be under the direction of C. M. Breder, Jr., chairman of the Museum's Department of Fishes and Aquatic Biology. The new field base, now nearing completion, is named for its founder, Michael Lerner, naturalist and a member of the Museum's board of trustees, who has donated the Laboratory to the Museum and established a maintenance fund, in which others have participated, assuring year-round opportunity for many varied projects, the first of which will be the collection and identification of native fishes, marine invertebrates, and marine plants. The base provides a library-study, a large general laboratory, a small laboratory for microscopic work, a dark room for photographic and biological operations, and a large aquarium room for research on living organisms which is served by a nonmetallic sea-water pumping system. Also included are residences for the permanent staff and visiting scientists, storage space, a powerhouse with wind and gasoline generators, large and small boats equipped for observation and collection, diving helmets, concrete pools with running sea water, batteries of small aquaria, and a laboratory water table. Two large stockades have also been constructed in the sea for study of larger marine forms; in one of these, 122 feet long, sharks and barracuda are now under observation. According to A. E. Parr, di-

rector of the Museum, this new station will be the only one of its kind permanently operated by an institution such as the Museum.

**D. Appleton-Century Company, Inc., and F. S. Crofts & Co., Inc.**, have announced the merging of the two companies under the name of Appleton-Century-Crofts, Inc. Temporarily, the new company will maintain the offices heretofore occupied by the two former companies. President of the new company is W. Morgan Shuster; Frederick S. Crofts and Dana H. Ferrin will be directors and vice-president and executive vice-president, respectively; and Allen S. Wilbur will be vice-president and director of the Educational Book Department.

**The National Registry of Rare Chemicals**, 35 West 33rd Street, Chicago 16, Illinois, announces the following wanted chemicals: 4,5-diamino-o-xylene; piperonylacetonitrile; 2-ketogluconic acid; succindialdehyde; d-threose; d-erythrose; monoperphthalic acid; heneicosane; eicosane; glucamine; 2-hexenal; tryptamine; germanium sulfide; germanium halides; 4-imidazole aldehyde; indole-3-aldehyde; decadiene-3,7; galactoflavin; pyridazone; canaline; agmatin; and galegin.

## Make Plans for—

**Symposium on the Diagnosis of Viral and Rickettsial Infections**, January 29–30, New York Academy of Medicine, New York City.

**American Physical Society**, annual meeting, January 29–31, Columbia University, New York City.

**American Society of Heating and Ventilating Engineers**, February 2–5, New York City.

**American Philosophical Society**, midwinter meetings, February 6–7, (originally scheduled for February 13–14), 104 S. 5th Street, Philadelphia, Pennsylvania.

**American Academy of Oral Pathology**, 2nd annual meeting, February 8, Hotel Stevens, Chicago.