

Dr. S. C. Prescott, dean emeritus of science of the Massachusetts Institute of Technology at Cambridge and first president of the institute, was the recipient of the second award last year.

Announcement of the selection of Dr. Browne to receive the 1944 medal was made on February 15. The medalist is elected by a jury of nine distinguished technologists representing various divisions of the food processing industry and from as many different geographical areas. Eligibility for the award is based on preeminence in the field of food technology and on contributions to the progressive development of food manufacture and processing.

Dr. Browne's contributions to food technology began in his undergraduate years at Williams College when he began the study of carbohydrates. He received his doctorate at the University of Göttingen. Later he was successively chief of the Sugar Laboratory of the U. S. Bureau of Chemistry, chief chemist of the New York Sugar Trade Laboratory, chief of the Bureau of Chemistry and chief of chemical and technological research of the Bureau of Chemistry and Soils. The citation reads in part: "He has been an unfettered investigator who struggled to remain free of administrative burdens, finally culminating in his appointment as supervisor of chemical research. He is justly deserving of the honor of the Nicholas Appert Medal if only for his researches and contributions to sugar technology, constituting as they do to-day an imposing and vital section of the literature and technology of carbohydrates." Presentation of the award will be made to Dr. Browne by Dr. M. L. Laing, chairman of the Chicago Section.

A feature of the meeting again this year will be an industrial exhibit in the hotel. Space will be assigned for thirty exhibits, which will be free to the public.

THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

At the meeting of the Executive Committee of the American Association for the Advancement of Science on February 6, the following actions were taken:

Section committeemen for a four-year term ending December 31, 1947:

Mathematics, T. R. Hollcroft, Wells College.

Physics, Joseph C. Boyce, Massachusetts Institute of Technology, Cambridge, Mass.

Astronomy, Bart Jan Bok, 32 Scott Road, Belmont, Mass.

Geology and Geography, Carey Croneis, University of Chicago.

Zoological Sciences, Charles W. Metz, University of Pennsylvania.

Botanical Sciences, J. W. Shive, New Jersey Agricultural Experiment Station.

Anthropology, Ralph Beals, University of California at Los Angeles.

Psychology, Willard L. Valentine, 620 University Place, Evanston, Ill.

Social and Economic Sciences, Frederick C. Mills, Columbia University.

Historical and Philological Sciences, Arno B. Luckhardt, University of Chicago.

Medical Sciences, N. C. Foot, 340 East 72nd Street, New York, N. Y.

Agriculture, C. E. Kellogg, U. S. Agricultural Research Administration.

Education, S. R. Powers, Teachers College, Columbia University.

It was voted to hold the annual meeting of the association for 1944 in Cleveland, Ohio, during the week of September 11-16.

It was voted to bring to the attention of the association and of all the affiliated societies that in all programs of the September meeting emphasis be placed on the indispensability of science for the future of civilization, both in war and in peace.

Publication of the conference on hormones, presented at the Gibson Island Research Conferences in Chemistry in 1943, was authorized.

The Population Association of America and the Electron Microscope Society were accepted as associated societies of the association.

The election of Dr. Burton E. Livingston as chairman and of Dr. Roger Adams as a member of the committee and the election of vice-presidents of the sections were reported last week (SCIENCE, February 11, pp. 120-121).

SCIENTIFIC NOTES AND NEWS

DR. IRVING LANGMUIR, associate director of the General Electric Research Laboratory, has been awarded the Faraday Medal of the Institution of Electrical Engineers, London. The medal was established in 1922 and is given for world-wide services to electric science and engineering. Among those who have received the award are Oliver Heaviside, Sir J. J. Thomson, Lord Rutherford and Sir Oliver Lodge. Dr. Langmuir is the fourth American to receive this medal. In 1927 it was given to Professor Elihu Thom-

son, one of the founders of the General Electric Company; in 1935 to Dr. Frank B. Jewett, president of the Bell Telephone Laboratories, and in 1939 to Dr. William D. Coolidge, vice-president in charge of research of the General Electric Company.

THE Medal of Honor of the American Institute of Radio Engineers was presented at the annual dinner on January 28 to Haraden Pratt, chief engineer of the Mackay Radio and Telegraph Company, "in recog-

nition of engineering contributions to the development of radio." The Morris Liebmann Memorial Prize for 1943 was presented to W. L. Barrow, professor of electrical engineering at the Massachusetts Institute of Technology, "for theoretical and experimental work done in ultra-high frequency propagation." Speakers at the dinner included Dr. Lynde P. Wheeler, the retiring president of the institute, and Professor H. M. Turner, of Yale University, the newly elected president.

THE Faculty of Medicine of the University of Toronto has awarded the Charles Mickle Fellowship for 1943 to Dr. Evarts A. Graham, Bixby professor of surgery at the School of Medicine of Washington University, St. Louis, surgeon-in-chief of the Barnes Hospital, in recognition of "his discovery of a method of testing gallbladder functions by the use of certain organic compounds and the diagnosis and treatment of carcinoma of the lung."

THE William Herbert Medal, awarded annually by the American Amaryllis Society for outstanding achievement in the field of the Amaryllidaceae, has been presented to Dr. Henry A. Jones, principal olericulturist at the station at Beltsville, Md., of the U. S. Bureau of Plant Industry, in recognition of his "important contributions to the cytology, genetics, breeding and culture of the onion, *Allium Cepa*."

A PORTRAIT of Dr. Frederic A. Woll, chairman of the department of hygiene at the College of the City of New York, presented to the college by the department, was unveiled on January 29.

DR. HELEN M. WALKER, professor of education at Teachers College, Columbia University, has been elected president for 1944 of the American Statistical Association. She succeeds E. A. Goldenweiser, director of the Federal Reserve Bank, Washington, the retiring president.

IT is reported in *The British Medical Journal* that the Medical Research Council of Ireland has awarded full-time fellowships to Dr. V. C. Barry, for investigations on the chemotherapy of tuberculosis; to Dr. Michael Flynn, on the typhoid-carrier condition; to Dr. P. A. McNally, on the chemotherapy of tuberculosis, and to Dr. Dermot Murphy, on the production of penicillin.

DR. JOHN M. FOGG, JR., associate professor of botany and dean of the College of Arts and Sciences, has been elected vice-provost of the University of Pennsylvania.

AT the University of Florida, Dean H. Harold Hume has been appointed provost for agriculture and dean of the College of Agriculture to succeed the late Dr. Wilmon Newell; Harold Mowry, associate direc-

tor, has been promoted to be director of the Agricultural Experiment Station, and A. P. Spencer to be director of the Agricultural Extension Service.

DR. ARILD E. HANSEN, professor of pediatrics at the Medical School of the University of Minnesota, has become professor of pediatrics and chairman of the department of pediatrics in the School of Medicine at Galveston of the University of Texas and director of the Child Health Program at the university of the William Buchanan Foundation of Texarkana. The Child Health Program plans the further development and expansion of the department of pediatrics, to include research and to create opportunities for practicing physicians to participate more effectively in promoting child health.

DR. C. V. NEWSON, of the University of New Mexico, has been appointed professor of mathematics and head of the department of Oberlin College. He will take up his new work on July 1.

DR. W. W. WORZELLA, associate in agronomy at Purdue University, has been made head of the department of agronomy of South Dakota State College.

DR. ELIZABETH KRAUSKOPF BUSHNELL, adjunct professor of bacteriology at the University of South Carolina, has been appointed, effective on February 1, assistant professor of bacteriology at the University of Hawaii.

DR. GEORGE B. DARLING has resigned as president and comptroller of the W. K. Kellogg Foundation in Battle Creek to accept appointment as executive secretary of the Committees on Military Medicine of the Division of Medical Sciences of the National Research Council, Washington, D. C.

MAURICE HOLLAND, for twenty years director of the engineering and industrial research division of the National Research Council, has been appointed industrial research adviser to the Armour Research Foundation of Chicago.

DEAN SAMUEL T. DANA, of the School of Forestry and Conservation of the University of Michigan, editor of the *Journal of Forestry*, has become a member of a subcommittee of the Michigan State Planning Commission, formed to recommend the development of industrial and natural resources in the Upper Peninsula; he has also been made a member of the advisory council to aid in a survey of the effects of the war on the forest resources of the United States.

CHARLES H. BRIGGS has joined the staff of the Truesdail Laboratories of Los Angeles. For forty-two years he has been manager of the Howard Wheat and Flour Testing Laboratory of Minneapolis, where he took part in introducing and perfecting some of

the chemical and physical tests applied to cereals and their products, including the protein test of wheats.

DR. LOWELL T. COGGESHALL, professor of epidemiology at the School of Public Health of the University of Michigan, has leave of absence to enable him to become medical director for the Marine Rehabilitation Program on the west coast.

DR. ROGER C. SMITH, head of the department of entomology of the Kansas State College, has been granted leave of absence to become professional allocations specialist of the War Manpower Commission for the Agricultural and Biological Sciences. He took up this work in Washington, D. C., on February 1.

DR. KIRTLEY F. MATHER, professor of geology at Harvard University, editor of the Scientific Book Club, lectured on February 17 before the Lancaster Branch of the American Association for the Advancement of Science. He spoke on "Natural Resources and World Organization."

THE address of Dr. Leland W. Parr, of the School of Medicine of the George Washington University, delivered on February 17 as retiring president of the Washington Academy of Sciences, was entitled "Aspects of the Epidemiology of Tuberculosis."

At the meeting on January 21 of the Johns Hopkins Medical History Club, Dr. G. L. Streeter spoke on "The Origin of the Three Germ-Layer Theory and Its Present Significance," and Dr. Erwin H. Ackerknecht spoke on "White Indians."

DR. B. H. WILLIER, professor of biology at the Johns Hopkins University, addressed the Alpha Mu Chapter of Beta Beta Beta at Western Maryland College on January 31. His address was entitled "The Development of Color Patterns in the Feathers of Chickens."

DAVID DIETZ, science editor of the Scripps-Howard Newspapers, addressed the scientific staff of the Good-year Research Laboratory in Akron, Ohio, on January 31. He spoke on "Science and the Future."

DR. K. C. D. HICKMAN, vice-president and director of research of the Distillation Products, Inc., Rochester, N. Y., will deliver Sigma Xi lectures on the general subject of vitamins during February and March at Swarthmore College, the University of Virginia, the Virginia Polytechnic Institute, the University of North Carolina, the University of Florida, Emory University, the Louisiana State University, the University of Illinois, Indiana University, Michigan State College, Western Reserve University and the University of Missouri.

THE Council of the American Association of Pathologists and Bacteriologists has voted that a scientific meeting of the association will not be held in the year 1944.

THE thirty-fifth annual meeting of the American Oil Chemists Society will be held in New Orleans, on May 10, 11 and 12. The Roosevelt Hotel has again been selected as headquarters for the convention and all technical sessions, committee meetings and the annual dinner will be held there. The local committee, of which Dr. George W. Irving, Jr., of the Southern Regional Research Laboratory at New Orleans, is chairman, is arranging a program of papers which will include the chemical, analytical, technological, industrial and economic phases of fats and oils. Interested guests may register. Hotel reservations should be made as soon as possible through Roy R. Bartlett, convention manager of the hotel.

THE dedication of the M. D. Anderson Hospital for Cancer Research at Houston, Texas, under the auspices of the M. D. Anderson Foundation of the University of Texas, of which Dr. E. W. Bertner is acting director, took place on February 17. The guest speakers included The Honorable Coke Stevenson, Governor of Texas; Dr. Homer P. Rainey, president of the University of Texas; Dr. Charles S. Venable, president of the State Medical Association; Dr. Bowman C. Crowell, associate director of the American College of Surgeons; Dr. Frank E. Adair, chief surgeon of the Memorial Hospital, New York, and Dr. Clarence C. Little, managing director of the American Society for the Control of Cancer. The address of welcome was made by the Honorable Otis Massey, mayor of the City of Houston.

THE fortieth anniversary of the first flight of the Wright brothers and the thirty-fifth anniversary of Russian aviation were recently celebrated by a meeting of the Scientific Council of the Ordzhonikidze Aviation Institute in Moscow.

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THE *Journal* of the American Medical Association reports that funds estimated at more than eight million dollars have been left in trust by the late Mrs. Elizabeth Severance Prentiss for the advancement of medicine, health, art, music, education and religion. Thirty-seven per cent. of the assets are set aside to support the Elizabeth Severance Prentiss Foundation. The institutions that will receive trust assets reserved for the public welfare include Western Reserve University, seven per cent., Cleveland Museum of Health and Hygiene and Oberlin College, each five per cent., the Allen Memorial Medical Library, three per cent.,

and Berea College, Berea, Ky., one per cent. A separate fund will be in trust for each of these institutions. It is provided that sixty per cent. at least of all disbursements be made in the State of Ohio.

It is reported in *The Times*, London, that a new organization, the Council for the Promotion of Field Studies, was formed at a recent meeting, held at the British Museum (Natural History) South Kensington, attended by representatives of universities, scientific societies and other bodies in many parts of the country. Professor F. E. Fritsch presided, and the proposal for the establishment of the council was put forward by F. H. C. Butler, who explained that support for the scheme had been promised by the Board of Education and the Scottish Education Department as well as by a number of learned societies. He suggested that the existing facilities for the study of natural history at first hand needed to be much improved, and that the best method of doing this would be to create a certain number of hostels for field studies in appropriate localities, each under a trained warden.

ACCORDING to *Nature* at the sixth meeting of the Conference of Ministers of Education of the Allied Governments held at the offices of the Board of Education last October, it was agreed to establish an Inter-Allied Bureau to carry out the practical steps needed to restore educational services in the countries concerned. This bureau will be the executive body of

the conference. The work to be undertaken by the bureau includes the purchase and distribution of books and periodicals, the preparation of films and other visual aids and the supply of scientific equipment. These matters are at present being considered by commissions of the conference. The bureau was also asked to consider financial needs and methods of contribution by governments and the establishment of an inter-allied secretariat.

The Times, London, under date of December 16, writes: "Mr. Attlee, who was accompanied by the Chancellor of the Exchequer, Sir William Jowitt, and Lord Cherwell, received an influential deputation from the Parliamentary and Scientific Committee. The purpose of this deputation, which was led by Lord Samuel, was to urge the government to give more direct encouragement to scientific and technical training and research as an essential part of the plans for promoting industrial reconstruction after the war. E. W. Salt, chairman of the committee, specifically asked that the universities should be given an additional grant of £1,000,000 for the extension of research and training facilities; and that the Government should allot a day for a House of Commons debate on science and the future of industry." Mr. Attlee, replying, said that, although he could not anticipate the budget, he believed the Treasury was "sympathetically inclined," and that plans for science, both fundamental and applied, held a high place in the minds of all members of the Government.

DISCUSSION

THE DIRECTION OF ROTATION IN SPIRAL NEBULAE

IN SCIENCE for May 9, 1941, appeared a noteworthy abstract of a paper given before the National Academy of Sciences, under the above title, by the joint authors, Drs. Hubble and Mayall. Because of my early work on the radial velocity and the rotation of spiral nebulae I quite naturally have since been keenly interested in later observations in this field.

Their paper itself seems not to have been published and this abstract unfortunately lets the work appear something of a tour de force in science and could give the reader the impression that in astronomy we are drawing broad conclusions from narrow premises. In particular, the authors' statements that this is "... the first unambiguous determination of the direction of rotation of a spiral nebula" and that "... of the 1,000 brightest nebulae ... only one system, NGC 3190," was found suitable to decide the direction of rotation, are too enthusiastic and too sweeping in their implications.

This "first unambiguous determination" is not the first, for it only confirms the winding-spring-like rotation of spirals that was well established twenty-six years ago, at Lowell Observatory, with a more powerful spectrograph;¹ a determination based upon the observation not of one but of several selected nebulae, some of which are among the best known and most suitable in the sky; and included a particularly searching study of the great Andromeda nebula because of its supreme fitness for affording decisive evidence on the direction of spiral rotation. Moreover, this early study of rotation of spiral nebulae followed a decade of similar work of mine on the rotations of the planets which had developed effective means and methods—not yet superseded—that have been advantageous in the study of rotation in the spirals.

In his more recent extended paper in the *Astrophysical Journal* for March, 1943, Hubble includes four of my early nebulae among the first eight of his list of "Well-observed Nebulae," and confirms and ac-

¹ *Proc. Am. Phil. Soc.*, 56: 403, 1917; and *Lowell Obs. Bull.* No. 80, 1917, etc.