

Basil Roland Record, B.Sc. Hons., Ph.D. (Birmingham). Department of scientific and industrial research award, 1937-39. Proposed research—the specific soluble substance found in the tissues in acute vaccinia infection. At the Lister Institute of Preventive Medicine, University of London.

NOMINATIONS TO THE COUNCIL OF THE AMERICAN ASSOCIATION OF MUSEUMS

NOMINATIONS to the Council of the American Association of Museums for the three-year term of 1940-43 have been made by the council as follows:

Clyde H. Burroughs, secretary of the Detroit Institute of Arts.

Frederick Trubee Davison, president of the American Museum of Natural History, New York.

Mrs. Juliana R. Force, director of the Whitney Museum of American Art, New York.

James J. A. Fortier, president of the Louisiana State Museum, New Orleans.

Chauncey J. Hamlin, president of the Buffalo Society of Natural Sciences; a former president of the American Association of Museums.

Robert T. Hatt, director of the Cranbrook Institute of Science, Bloomfield Hills.

Horace H. F. Jayne, director of the University Museum, University of Pennsylvania.

Miss Mildred E. Manter, director of the Children's Museum, Boston.

Daniel Catton Rich, director of the Art Institute of Chicago.

Francis Henry Taylor, director of the Worcester Art Museum.

The by-laws provide that any five members of the association may make other nominations in writing. Additional nominations reaching the office of the association before April 12 will be incorporated in the final ticket. The council's nominations and any additional nominations that may be put forward by members will be voted on by mail prior to the annual meeting, which begins on May 22. Council members elected will take office at the time of the annual meeting.

SYMPOSIUM ON THE THERMODYNAMICS OF HYDROCARBONS

THE American Chemical Society will hold a national symposium on "Fundamental Thermodynamics of Hydrocarbons and Their Derivatives" at its ninety-ninth meeting, which will be held in Cincinnati from April 8 to 12.

The symposium, of which Dr. Frederick D. Rossini, chief of the Section of Thermochemistry and Constitution of Petroleum of the National Bureau of Standards, Washington, D. C., will be chairman, is planned to give fresh direction to the new and revolutionary activities of the petroleum industry in the potentially

vast field of synthetic products, including plastics, artificial rubber and silk and other materials.

While the petroleum industry, with a \$2,000,000,000 investment in refineries, is now primarily concerned with the production of fuels for automobiles and airplanes, it is also believed to be at the threshold of practically limitless expansion as a manufacturer of synthetics. Chemists aim to clarify the scientific and economic problems involved in this development.

The purpose of the symposium is to bring before scientific men and technologists associated with the petroleum and other allied industries a summary of present knowledge concerning the thermodynamic properties of hydrocarbons and related compounds. With this summary available, it will be possible to know what new thermodynamic data need to be obtained in some cases because of the absence of any data at all and in others because many of the older data are not accurate enough to satisfy present-day requirements.

Speakers at the symposium will include: Professor E. Bright Wilson, Jr., of Harvard University, who won the \$1,000 American Chemical Society Award in Pure Science in 1937 for experimental work in physical chemistry; Professor John G. Aston, of Pennsylvania State College; Professor Kenneth S. Pitzer, of the University of California; Professor George S. Parks, of Stanford University, and Dr. Rossini.

The symposium will be a feature of the program of the Division of Petroleum Chemistry, of which Dr. Cary R. Wagner, of the Pure Oil Company, Chicago, is chairman.

PIONEERS ON THE AMERICAN FRONTIERS OF INDUSTRY

ON the occasion of the hundred and fiftieth anniversary of the founding of the American patent system a series of fourteen regional meetings and dinners were held throughout the country during February under the auspices of the American Manufacturers Association. At these dinners, sponsored by state industrial groups, scrolls were awarded to about five hundred local "Modern Pioneers on the American Frontiers of Industry" for "significant contributions to the creation of jobs and the improvement of the standard of living through patented inventions or discoveries."

Robert L. Lund, executive vice-president of the Lambert Pharmacal Company, was chairman of the national committee. Members of the committee on awards were:

Karl T. Compton, president, Massachusetts Institute of Technology; past president, American Association for the Advancement of Science, *chairman*.

Forest R. Moulton, permanent secretary, American Asso-

ciation for the Advancement of Science; formerly professor of astronomy, University of Chicago.

George B. Pegram, dean, Graduate Faculties of Columbia University; past president, Society for Promotion of Engineering Education.

John T. Tate, dean, College of Science, Literature and the Arts of the University of Minnesota; president, American Physical Society.

Edward R. Weidlein, director, Mellon Institute; past president, American Institute of Chemical Engineers.

Frank C. Whitmore, dean, School of Chemistry and Physics of Pennsylvania State College; past president, American Chemical Society.

Those "Modern Pioneers" whose contributions were regarded by the Committee on Awards as particularly significant were honored at a final national dinner at the Waldorf Astoria Hotel, New York City, on February 27, when more than fifteen hundred representatives of industry, commerce and government were in attendance. Nineteen leading inventors and research workers judged by the committee to have made outstanding contributions to the progress of the country in the last twenty-five years were honored as national "Modern Pioneers" and were awarded silver plaques. A silver plaque was also awarded to a group of eleven research workers of the du Pont laboratories. Earlier in the evening the hundred and one local inventors selected by the committee from the New York and New Jersey area were awarded scrolls.

H. W. Prentiss, Jr., of Lancaster, Pa., president of the National Association of Manufacturers, was the principal speaker at the dinner. Other speakers were Dr. Compton, Mr. Lund and Conway P. Coe, Commissioner of Patents. Dr. Charles F. Kettering, vice-president of the General Motors Corporation, addressed the gathering by telephone from his laboratory at Coral Gables, Florida.

Those who received silver plaques are:

Dr. Edwin Howard Armstrong, professor of electrical engineering at Columbia University.

Dr. Leo Hendrik Baekeland, founder and retired president of the Bakelite Corporation of New York.

Dr. William Meriam Burton, of Pasadena, Calif., a former president of the Standard Oil Company of Indiana.

Willis Haviland Carrier, chairman of the board of the Carrier Corporation of Syracuse.

Dr. William David Coolidge, director of the research laboratory of the General Electric Company, Schenectady.

Dr. Frederick Gardner Cottrell, chemist, of Washington.

Dr. George Oliver Curme, Jr., vice-president of the Carbide and Carbon Chemicals Corporation of New York.

Dr. Lee De Forest, president of several De Forest companies, Hollywood, Calif.

John Van Nostrand Dorr, president of Dorr Company, Inc., New York.

Henry Ford, president of the Ford Motor Company, Dearborn, Mich.

Dr. Charles Franklin Kettering, president of General Motors Research Corporation and vice-president of General Motors Corporation.

Edwin Herbert Land, president of the Polaroid Corporation, Boston.

Dr. Irving Langmuir, associate director of the research laboratory of the General Electric Company.

Dr. Harry Steenbock, professor of biochemistry at the University of Wisconsin.

John B. Tytus, vice-president in charge of operations of the American Rolling Mills Company, Middletown, Ohio.

Charles Frederick Wallace, vice-president of Wallace & Tiernan Company, Inc., Belleville, N. J.

Orville Wright, of Dayton, Ohio.

Dr. Vladimir Kosma Zworykin, research engineer of R.-C.-A. Manufacturing Company, Camden, N. J.

The following Nylon group from E. I. du Pont de Nemours & Co., Wilmington, Del.: Drs. Williard E. Catlin, Donald D. Coffman, Winfield W. Heckert, Benjamin W. Howk, George D. Graves, Wilbur A. Lazier, John B. Miles, Jr., Wesley R. Peterson, Frank K. Signaigo, Edgar W. Spanagel and the late Wallace Hume Carothers.

RECENT DEATHS

ARTHUR EDWIN NORTON, since 1935 Gordon McKay professor of applied mechanics in the School of Engineering of Harvard University, died suddenly on February 24. He was in his sixty-third year.

DR. JOSHUA WILLIAM BEEDE, instructor and professor of geology at Indiana University from 1901 to 1917 and from 1928 to 1930, died on February 27 at the age of sixty-eight years. Professor Beede was geologist of the Texas Geological Survey from 1917 to 1922 and was the author of numerous papers on the Upper Paleozoic rocks of Kansas, Oklahoma and Texas.

DR. ORAN RABER, plant physiologist and conservationist in the U. S. Forest Service at New Orleans, died on February 29 at the age of forty-seven years.

MAURICE BLUMENTHAL, consulting engineer of Brooklyn, N. Y., died on February 27 at the age of fifty-two years.

PROFESSOR ALEXANDRE BESREDKA, chief of the laboratory of the Pasteur Institute, Paris, died on February 28. He was seventy years old.

Nature announces the death of Professor Aristide Busi, director of the Institute of Medical Radiology, Rome, aged sixty-five years; of W. M. Gardner, principal of Bradford Technical College from 1905 to 1921, on December 22, aged seventy-eight years; of W. H. Lovegrove, formerly conservator of forests, Kashmir, on January 25, aged seventy-two years; of Professor S. Lees, Chance professor of mechanical engineering in the University of Birmingham, aged