Australia. Reserve funds made it possible to award more junior fellowships than are ordinarily given each year, and the election of twelve new junior fellows brought the total number of those elected since the beginning of the trust in 1910 to exactly 200. A fresh edition has been printed this year of the Green Book, which summarizes briefly the after-careers of each fellow and their present position in research.

The following elections were made:

Senior Fellowship (value £700 a year).—David Ezra Green, to continue his research on the rôle of vitamin B_1 in the oxidation of pyruvic acid, and to study a new flavin-protein compound in milk (Institute of Biochemistry, University of Cambridge).

Fourth-Year Fellowship (value £500 a year).—Myer Head Salaman, to continue his research on vaccinia and animal pox viruses (Lister Institute of Preventive Medicine, London).

Junior Fellowships (normal value £400 a year).—Geoffrey Bourne, biochemist, Commonwealth Advisory Council on Nutrition, Sydney, N.S.W., 1937, the significance of vitamin C in the endocrine system (department of human anatomy, University of Oxford); Andrew Lawrence Chute, experimental studies in metabolism of the brain (department of physiology, University College, London); Robert Oswald Lennard Curry, the physiology of speech disorders by photographic study of laryngeal movements (University College, London); James Frederick Danielli, the permeability of normal and denervated muscle to metabolic products and to drugs (Institute of Biochemistry, University of Cambridge); John George Dewan, "insulin shock" treatment of schizophrenia by experimental studies of brain metabolism (Institute of Biochemistry, University of Cambridge); Catherine Olding Hebb, the effect of thoracic sympathectomy on the activities of the lung (department of physiology, University of Edinburgh); Bernhard Katz, electric excitation and transmission of impulses in nerve and muscle of animals (department of biophysics, University College, London); Jonas Henrik Kellgren, painful conditions of the limbs and back (department of clinical research, University College Hospital, London); John James Duncan King, dental caries and parodontal disease (Medical School, University of Sheffield); Hermann Lehmann, blood sugar in animals and iron metabolism in plants (Institute of Biochemistry, University of Cambridge); Walter John O'Connor, effect of strophanthin on the oxygen consumption of the heart (laboratory of pharmacology, University of Cambridge); Harold Scarborough, mode of destruction of vitamin C in the human body (clinical and chemical laboratories, Royal Infirmary, Edinburgh).

THE INDUSTRIAL RESEARCH INSTITUTE

CURRENT industrial research problems and progress being made in the laboratories in behalf of business were reviewed at the fall meeting of the Industrial Research Institute on September 23 and 24 at Rye, N. Y.

Maurice Holland is acting executive of the institute, which is an affiliate of the National Research Council. The membership is made up of research executives of American industries, who are attempting to put American industrial research on a more efficient business basis through surveys and other cooperative effort.

The program included reports on the progress of surveys now being conducted by the institute on the construction and control of research budgets, problems of personnel, organization and committee recommendations. Robert B. Colgate, of New York, vice-president in charge of research for the Colgate-Palmolive-Peet Company and chairman of the executive board of the institute, presided.

The institute was organized last May after a factual survey among leading scientific research men prominent in their respective fields of industry demonstrated both the need and the desire for a cooperative agency where common problems of laboratory organization, administration and direction could be discussed and attacked. Its headquarters are at the offices of the Division of Engineering and Industrial Research of the National Research Council at 29 West 39th Street, New York.

The executive committee of the institute held a discussion of future plans as well as reviews, preliminary reports and recommendations. The members of the executive committee are: H. W. Graham, general metallurgist, Jones and Laughlin Steel Corporation, Pittsburgh, who is *vice-chairman;* O. A. Pickett, research director, Hercules Powder Company, Wilmington, Del.; Donald Bradner, director of research and development, Champion Paper and Fibre Company, Hamilton, Ohio; H. Earl Hoover, vice-president, The Hoover Company, Chicago; J. M. Wells, vice-president, American Optical Company, Southbridge, Mass., and G. E. Hopkins, technical director, Bigelow-Sanford Carpet Company, Thompsonville, Conn.

DAMAGE SUFFERED BY THE ARNOLD ARBORETUM FROM THE HURRICANE

DR. ELMER D. MERRILL, professor of botany and administrator of the botanical collection of Harvard University and supervisor of the Arnold Arboretum, writes that in the late afternoon and early evening of September 21 the Boston area experienced its worst wind storm since weather records have been maintained. This was the West Indian hurricane that proceeded northward along the New England coast. The rainfall was relatively slight in Boston, but the wind velocities at times reached approximately (87 miles actually reported) 90 miles per hour. Dr. Merrill states that a velocity of 187 miles an hour was recorded at Blue Hill Observatory—10 miles southeast of the Arboretum—and that the velocity was certainly over 100 miles an hour at the Arboretum. He states that

during twenty-two years spent in the Philippines, a region noted for its numerous destructive typhoons, he actually experienced higher wind velocities only two or three times. Naturally large property damage resulted, and literally hundreds of thousands of trees were uprooted or so badly damaged that they will have to be removed and replaced. The Arboretum suffered severely. The loss of species, however, was almost negligible, as younger plants survived. The following gives an account of the damage suffered:

The storm was intense at 5:00 P. M. and gradually increased in violence. The worst damage was done in the arboretum between about 5:30 P. M. and 6:30 P. M. A tour of the grounds at 5:30 P. M. revealed relatively slight damage; for example there were only three or four trees in the extensive pine grove back of the administration building that were down or showed signs of weakening at that time; an hour later nearly all the trees in the entire planting were prostrate. The sound of rustling leaves, breaking branches, and creaking trunks was at times almost deafening. The worst of the storm was over by 8:00 P. M.

A hurried survey made early the next morning showed that approximately 1,500 trees were either uprooted, broken off, or their tops so badly damaged that they will have to be removed. Many others were injured, but can be saved by judicious pruning. The losses include some of the oldest and largest trees in the arboretum, as well as some of the rarest ones. Some of the roads were impassable, and all paths and roads were strewn with debris, broken branches, and fallen trunks. Damage was particularly serious in certain exposed areas, notably on the slopes back of the administration building, on the southeast or exposed side of hemlock hill, where scores of century old native hemlocks fell, in the southern part of the pinetum, where many of the largest pines, firs, and spruces are prostrate, and along the southeast side of the Peters hill area, particularly in the collections of poplars and oaks.

SCIENTIFIC NOTES AND NEWS

THE American Society of Mechanical Engineers announces the election to the presidency of the society on September 27 of Professor Alexander G. Christie, of the Johns Hopkins University. He will assume office on December 9.

DR. WILLIAM S. MIDDLETON, dean of the Medical School of the University of Wisconsin, has received the award of the council of the Wisconsin State Medical Society. The inscription on the award reads in part: "A son of Pennsylvania, twenty-six years an educator of physicians and now dean of the University of Wisconsin Medical School, distinguished consultant and clinician, deviser of the council on scientific work of the State Medical Society of Wisconsin, for your accomplishments and lofty inspiration in the teaching of students and practitioners, for your quarter of a century of public service, and for your outstanding influence in the development of a high quality of medical service for the citizenry of Wisconsin."

ACCORDING to *Nature,* Dr. Hermann Fink, professor of the biochemistry and technology of fermentation in the University of Basle, has been awarded the Scheele Medal of the Stockholm Chemical Society.

H. W. DICKINSON, of London, a founder and past president of the Newcomen Society of England and for thirty years one of the heads of the Science Museum at South Kensington, was the guest of honor at a reception held at the New York Museum of Science and Industry on September 28. The gathering followed an informal dinner tendered Mr. Dickinson by the American branch of the Newcomen Society. The speakers included Dr. Frank B. Jewett, president of the museum; Charles Penrose, senior vice-president of the American branch of the Newcomen Society, and Mr. Dickinson.

DR. REINHOLD RUEDENBERG, consulting engineer of the General Electric Company, Inc., in London, has been appointed Gordon-McKay professor of electrical engineering at Harvard University, and Dr. John Everett Gordon, of Chicago, field director of the International Health Division of the Rockefeller Foundation, has been appointed professor of preventive medicine and epidemiology in the Medical School.

DR. VIKTOR FRANCIS HESS, formerly professor of experimental physics at the University of Innsbruck, who in 1936 shared a Nobel Prize for his work on cosmic rays with Dr. Carl David Anderson, of the California Institute of Technology, has joined the faculty of Fordham University.

AT Radcliffe College, Harvard University, Dr. William F. Ross, research associate of organic chemistry at the Massachusetts Institute of Technology, has been appointed resident director of the laboratories of chemistry, and Dr. M. Gene Black has been appointed director of the department of health education.

IN the College of Medicine of the University of Vermont, Dr. Harold B. Pierce has been appointed head of the department of biochemistry and acting head of the department of pharmacology, and Dr. John E. Davis has been appointed instructor in pharmacology and biochemistry.

PROFESSOR FRED E. FOSS, head of the department of civil engineering at Cooper Union, New York City,