are produced in direct competition with oversea farmers. This competition is being met successfully: (*a*) by those who tend to conform to the practice of the farmers in the New World, by an extensification of methods, taking little more from the land than nature gives, and in no way seeking to force production; (*b*) by those who occupy land "good enough to eat," which can be relied upon under almost any conditions to give a full return on the capital and labor expended upon it. It is being met with less success by those on certain types of soil, who are seeking to carry on established systems of farming under economic conditions which to-day leave them no margin on their expenditure.

(3) Apart from commodities, and to a lesser extent, perhaps, of soil types and farming systems, farmers who are able to operate their holdings without recourse to hired labor on any considerable scale are meeting the conditions of the times without difficulty.

THE CHARLES LATHROP PACK FELLOWSHIPS IN FORESTRY

THE Charles Lathrop Pack Forest Education Board, founded by the Charles Lathrop Pack Forestry Trust of Washington, D. C., announces a number of fellowships in forestry for the year 1930–31. The purpose of the fellowships is to encourage men who have shown unusual intellectual and personal qualities to obtain training that will best equip them for future leadership either in the general practice of forestry, in the forest industries, in the teaching of forestry, in forest research or in the development of public forest policy.

The awards will be made to gifted men who demonstrate natural powers of intellectual and personal leadership, and who intend to make forestry their life work. The sum of $10,000 is available the first year. The awards will range from $500 to $2,500, or more in exceptional cases, and will ordinarily be restricted to men of American or Canadian citizenship. No restrictions are made as to age, educational status or practical experience, but great emphasis will be placed on character, intellect, qualities of leadership and similar qualifications.

The administration of these fellowships has been placed in the hands of the Charles Lathrop Pack Forest Education Board, which is composed of the following: *Chairman,* Henry S. Graves, dean, School of Forestry, Yale University; *Secretary,* Ward Shepard, U. S. Forest Service, Washington, D. C.; Samuel T. Dana, dean, School of Forestry and Conservation, University of Michigan; John Foley, purchasing agent, Pennsylvania Railroad, Philadelphia; Arthur Newton Pack, Princeton, New Jersey, director, Charles Lathrop Pack Forestry Trust; E. O. Siecke, director, Texas Forest Service, College Station; Ellwood Wilson, chief forester, Laurentide Division, Canada Power and Paper Corporation, Grande Mere, Quebec; Hugo Winkenwerder, dean, College of Forestry, University of Washington, Seattle; Raphael Zon, director, Lake States Forest Experiment Station, St. Paul, Minnesota.

Application forms and other information can be obtained from the secretary of the Charles Lathrop Pack Forest Education Board, 1214 Sixteenth Street, N. W., Washington, D. C. For the current year the completed applications must be in the hands of the secretary not later than April 15. The awards will be made at the next meeting of the board, which will be held in New York City on May 10.

APPROPRIATIONS FOR GRANTS-IN-AID BY THE NATIONAL RESEARCH COUNCIL

AT meetings of the National Research Council's Committee on Grants-in-Aid, held in December and February, twenty-eight appropriations were made from the special fund recently placed in the hands of the Research Council for the aid of research, chiefly through allotments to individual investigators. This committee is composed of the chairmen of the seven divisions of science and technology of the council, together with the chairman of the council, the treasurer and the permanent secretary. The grants made were as follows:

Margaret Harwood, director, Maria Mitchell Observatory, for the measurement of light of variable stars and the computation of periods of variation; Leonard B. Loeb, associate professor of physics, University of California, for a study of the mechanism of the spark discharge; A. H. Pfund, professor of physics, Johns Hopkins University, for the measurement of radiant energy from Brownian movement; Frank Schlesinger, director, Yale University Observatory, for observation of parallaxes and proper motions of bright stars in the southern hemisphere; Arthur H. Warner, instructor in physics, University of California at Los Angeles, for studies of the photoelectric effect from clean tungsten surfaces.

John B. Whitehead, professor of electrical engineering, Johns Hopkins University, for investigations on the fundamental dielectric properties of insulating oils.

William Lester Gilliland, instructor in chemistry, University of Maine, for studies of the properties of carbon monoxide; Linus Pauling, associate professor of theoretical chemistry, California Institute of Technology, for the determination of the electron distribution in various crystals.

T. Addis, professor of medicine, Stanford University Medical School, for a study of hypertrophy and compensatory hypertrophy with respect to renal disease; C. Sidney Burwell, professor of medicine, and Glenn E. Cullen, professor of biochemistry, Vanderbilt University, for investigations on tissue changes in cardiac edema; L. R. Cerecedo, assistant professor of biochemistry, University of California, for investigations on the purine fraction of the nucleic acid molecule; E. A. Doisy, professor of biochemistry, St. Louis University School of

Medicine, for studies of the ovarian hormone; Harry Goldblatt, associate professor of pathology, Western Reserve University, for study of the growth of malignant tissue in vitro; Yandell Henderson, professor of applied physiology, Yale University, for assistance in his studies of the treatment of pneumonia by inhalation of carbon dioxide; William de B. MacNider, University of North Carolina Medical School, for study of the pharmacology and toxicology of white snake root; William C. Rose, professor of physiological chemistry, University of Illinois, for investigations on the nutritive importance of the amino acids.

E. B. Babcock, professor of genetics, University of California, toward the expenses of a collecting expedition for the study of the taxonomy, cytology and genetics of the genus *Crepis;* R. A. Brink, associate professor of genetics, University of Wisconsin, for investigation of the cytological and genetic bases of semi-sterility in maize; Ralph E. Cleland, associate professor of biology, Goucher College, for cytological and genetical studies of *Oenothera;* George M. Reed, research curator, Brooklyn Botanic Garden, for part of the expense of a trip to Japan for the study of varieties, culture and diseases of the Japanese iris.

Thomas R. Garth, professor of educational psychology, University of Denver, for a study of the incidence of color-blindness among Indians; Melville J. Herskovits, assistant professor of anthropology, Northwestern University, for study of the anthropometry and heredity of the American Negro; Arthur Randolph Kelly, assistant professor of anthropology, University of Illinois, for anthropometrical and morphological studies of the Cherokee Indians; Maurice G. Smith, associate professor and head of the department of anthropology, University of Oklahoma, for a study of the peyote cult among the Indians of Oklahoma; Roland C. Travis, Western Reserve University, for experimental investigation of the speed of reflex and voluntary eye movements.

Division of Anthropology and Psychology of the National Research Council, for part of the expenses of a preliminary study of the development of Negro children (jointly with the Social Science Research Council); Division of Anthropology and Psychology of the National Research Council, for part of the expenses of a conference on culture areas (jointly with the Social Science Research Council); Division of Chemistry and Chemical Technology of the National Research Council, for expenses of Professor Austin M. Patterson, of Antioch College, in connection with a meeting of the International Union of Pure and Applied Chemistry on the Reform of the Nomenclature of Organic Chemistry.

Of these twenty-eight grants, one was for the sum of $2,000, and two were for $1,500 each. Eight grants were made for $1,000 each, nine were for sums between $500 and $1,000, and eight for sums of $500 or less.

VERNON KELLOGG,
Permanent Secretary

THE ATLANTA MEETING OF THE AMERICAN CHEMICAL SOCIETY

CHEMISTRY'S advance in the south will be a dominant theme at the seventy-ninth meeting of the American Chemical Society, which will be held in Atlanta, Georgia, from April 7 to 11. More than 1,500 scientific men from this and other countries will attend. Five hundred papers and addresses will be presented outlining the progress in chemical science.

The opening event will be a session of the council on Monday afternoon, April 7, when plans to meet the expanding activities of the society, now, with more than 17,000 members, the largest professional organization of its kind in the world, will be discussed. The president of the society, Professor William McPherson, of the Ohio State University, will preside.

The most pressing need of organized chemistry, according to Dr. Charles L. Parsons, who will submit his annual report as secretary, is an endowment of several millions of dollars to finance the society's publications. Scientific and industrial research is developing so rapidly that the income of the society is no longer sufficient in itself to record it.

To keep American science and industry abreast of knowledge in chemistry, the society has developed a reporting system, centering at the Ohio State University, which covers the world's entire chemical literature, and the results of which are embodied in a publication called *Chemical Abstracts.* The number of periodicals from which digests are made for American use now exceeds 1,500.

At a general meeting on Tuesday morning, April 8, under the auspices of the Division of Industrial and Engineering Chemistry, which will usher in the scientific sessions, industrial chemical processes as practiced in the south will be featured.

On the same day the Division of Physical and Inorganic Chemistry, headed by Professor W. V. Evans, of Northwestern University, will hold a symposium on "Analytical Chemistry." Among the speakers and their topics are: Professor G. L. Clark, University of Illinois, "X-Ray Analysis"; C. C. Nitchie, the New Jersey Zinc Company, Palmerton, Pennsylvania, "Spectrographic Analysis"; C. W. Mason, Cornell University, "Microscopic Methods"; Professor V. K. LaMer, Columbia University, "Modern Methods of Solutions." Other speakers at this symposium will be Professor H. B. Weiser, director of the department of chemistry, Rice Institute; Professor I. M. Kolthoff, University of Minnesota; Professor N. H. Furman, Princeton University, and Professor H. H. Willard, of the University of Michigan, secretary of the division.

In a public address on Wednesday evening, April