the fields of mechanical engineering, refrigeration and heating and ventilation.

APPROPRIATIONS OF THE CARNEGIE CORPORATION

APPROPRIATIONS amounting to $5,256,000 to colleges, universities and other educational organizations were made by Carnegie Corporation during its fiscal year ending September 30, 1932, according to the report of President Frederick P. Keppel. These grants were for a wide variety of specific purposes within the fields of library service, adult education, the arts, scientific and educational research and publication.

Library activities received $873,000, one quarter of which was for purchase of books in twenty-one four year liberal arts colleges, scattered in fifteen states. Two colleges—Lafayette and Wesleyan—received $150,000 each for endowment of the college librarianship.

Three other institutions received endowment grants for various purposes: Stanford University, for the Food Research Institute, supported for a decade by the corporation and now turned over to the university, $750,000; Upper Canada College, $150,000, and Atlanta University, for endowment of a professorship in the school of business, $100,000.

The list of gifts devoted to scientific research includes subsidies for investigations of cosmic rays, both by Professor Millikan and by Professor Compton, on leukemia, solar radiation, cortin, vitamins, velocity of light, and in metallurgy; to educational research looking toward the improvement of instruction in colleges and universities, cooperation between secondary schools and colleges, appraisal of techniques of educational guidance, internal administration of colleges, effect on character of different types of education, economic factors in the practice of medicine, mental disorders, the psychology of later maturity, and the like. These account for $656,000.

Adult education, for which the largest grant was $150,000 to the American Association for Adult Education, received a total of $368,500. *The Journal of Adult Education,* now accepted as a standard publication, was aided by a subsidy of $15,000; the American Foundation for the Blind, for experiments in phonographic reproduction of books, $10,000; the University of Minnesota, for study of re-education of the unemployed, $25,000, and the Workers Education Bureau of America, for its program, $12,000.

In the list of institutions receiving aid for development of their fine arts programs are found: The University of Alberta, $30,000; Brown University, for a cooperative arts program with the community, $15,000. For its summer courses for arts teachers, the American Institute of Architects received $15,000; the Museum of the City of New York, $52,500; the New York Botanical Garden, $12,000; the American Federation of Arts, $30,000, and the College Art Association, for various activities, $55,000.

The corporation administers under its charter two funds: a major one, the income of which is to be spent in the United States; the other of $10,000,000, of which the income is applicable in the British Dominions and Colonies. From the latter fund, grants were made in South Africa, Australia, New Zealand, Canada and other places, for purposes similar to those prevailing under the larger funds.

FOREIGN GUESTS AT THE CENTURY OF PROGRESS MEETING OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

THERE have been printed in SCIENCE (July 24 and August 21, 1931) articles by Colonel John S. Sewell, director of exhibits, describing the plans for the basic sciences at the Chicago Centennial Exposition and for invitations of foreign guests to attend the meeting of the American Association for the Advancement of Science and its affiliated societies to be held in June. The committee on foreign guests appointed at the Cleveland meeting of the association selected, with the cooperation of the sections of the association, the divisions of the National Research Council and the national scientific societies, a distinguished group of scientific men, representing the different sciences and the different nations to whom invitations were sent signed by Mr. Rufus Dawes, president of the exposition, and Professor John J. Abel, president of the association. A joint meeting of officers of the Century of Progress and the committee of the association was held in Chicago on November 12, and it was reported that acceptances had been received as follows:

MATHEMATICS

Leopold Fejér, Budapest
Tullio Levi-Civita, Rome

PHYSICS AND METEOROLOGY

J. Bjerknes, Bergen
Niels Bohr, Copenhagen
Enrico Fermi, Rome
A. Sommerfeld, Munich

CHEMISTRY

F. W. Aston, Cambridge
George Barger, Edinburgh
Robert Robinson, Oxford
P. Karrer, Zurich
T. Svedberg, Upsala
J. N. Brønsted, Copenhagen

GEOLOGY AND GEOGRAPHY

Albrecht Penck, Berlin
J. J. Sederholm, Helsingfors

ZOOLOGY, PHYSIOLOGY AND ANATOMY

A. V. Hill, London
R. Goldschmidt, Berlin
August Krogh, Copenhagen
Joseph Barcroft, Cambridge
Filippo Bottazzi, Naples

BOTANY

Ludwig Diels, Berlin

PSYCHOLOGY

Emilio Mira, Barcelona
Henri Pieron, Paris
Charles E. Spearman, London

SOCIAL SCIENCES

G. A. Bagge, Sweden
Albrecht Mendelssohn Bartholdy, Hamburg
Henry Clay, Manchester

ENGINEERING

A. P. M. Fleming, Cheshire, England

MEDICAL SCIENCES

Ludwig Aschoff, Freiburg
C. U. A. Kappers, Amsterdam
C. Levaditi, Paris
Cl. Regaud, Paris

AGRICULTURE

Otto Appel, Berlin-Dahlem
Jean Dufrénoy, Brive, France
Sir Daniel Hall, London

SCIENTIFIC NOTES AND NEWS

THE medals of the Royal Society have been awarded as follows: Royal Medals to Professor R. Robinson, for his work in organic chemistry and to Professor E. Mellanby, for his work on dietary factors, especially in connection with rickets; the Copley Medal to Dr. G. E. Hale, foreign member of the Royal Society, for his work on the magnetic field of the sun; the Rumford Medal to Professor F. Haber, for his work in the application of thermodynamics to chemical reactions; the Davy Medal to Professor R. Willstätter, for his researches in organic chemistry; the Darwin Medal to Dr. C. E. Correns, for his researches in genetics; the Buchanan Medal to Professor T. Madsen, for his work on immunity, especially in relation to diphtheria antitoxin, and the Hughes Medal to Dr. J. Chadwick, for his researches on radioactivity.

THE following are recommended by the president and council for election to the council of the Royal Society at the anniversary meeting on November 30: Sir Frederick Hopkins, *president;* Sir Henry Lyons, *treasurer;* Sir Henry Dale and Sir Frank Smith, *secretaries;* Lord Rayleigh, *foreign secretary. Other members of council:* Dr. J. A. Arkwright, Professor W. L. Bragg, Professor C. H. Desch, Dr. G. M. B. Dobson, Mr. A. C. G. Egerton, Dr. J. Gray, Professor A. V. Hill, Professor A. Hutchinson, Professor J. E. Littlewood, Professor E. Mellanby, Professor R. Robinson, Dr. N. V. Sidgwick, Professor A. G. Tansley, Professor D'A. W. Thompson, Dr. W. Trotter and Mr. G. U. Yule.

IN connection with the recent award of a Nobel Prize to Sir Charles Sherrington and Professor E. D. Adrian, *Nature* states that since the foundation of the Nobel Trust in 1901, seventy-six prizes for physics, chemistry and physiology and medicine have been awarded, of which fifteen have gone to scientific men working in Great Britain. The latter are distributed as follows: *Physics:* Lord Rayleigh, 1904; Professor, now Sir, J. J. Thomson, 1906; Professor, now Sir, William Bragg, jointly with Professor W. L. Bragg, 1915; Professor C. G. Barkla, 1917; Professor C. T. R. Wilson, 1927, jointly with Professor A. H. Compton, University of Chicago; Professor O. W. Richardson, 1928. *Chemistry:* Sir William Ramsay, 1904; Professor Ernest, now Lord, Rutherford, 1908; Professor Frederick Soddy, 1921; Dr. Francis W. Aston, 1922; Professor Arthur Harden, 1929, jointly with Professor von Euler. *Physiology and Medicine:* Sir Ronald Ross, 1902; Professor Archibald V. Hill, 1922, jointly with Professor Otto Meyerhof; Sir Frederick Gowland Hopkins, 1929, jointly with Dr. Eijkman; Sir Charles Sherrington and Professor E. D. Adrian, 1932.

AT the University of Chicago, Professors E. H. Moore and H. E. Slaught have retired from active service in the department of mathematics, with the title of professor emeritus. Both have been in the university since it opened its doors in the autumn of 1892. Professor Moore was acting head of the department from 1892 to 1896, and head from 1896 until 1931, when he gave up his administrative duties. He was one of the founders of the Chicago Section of the American Mathematical Society and one of the first editors of its *Transactions*. He has been president of the society and of the American Association for the Advancement of Science, and for many years an associate editor of the *Proceedings* of the National Academy of Sciences. Professor Slaught was a fellow in mathematics at the University of Chicago from 1892 to 1894, and was one of the first group of graduate students who received the Ph.D. degree in mathematics from the university. From 1894 on he has been a member of the staff of the department of mathematics. He was a central figure in the found-