this and other scientific fields from becoming more widely known.

Those who have had the good fortune to visit Sir John, either at his beautiful home in the Georgetown Botanical Gardens, or at his spacious, well-equipped laboratory, will recall with pleasure his cordial manner and delightful personality. The museum of "Mares' Nests," which he kept in his office, will never be forgotten by any one who has seen that famous collection of disappointed hopes. His rugged independence of opinion, his caustic comments upon false pretenses and his outspoken contempt for every kind of sham, although mistaken by some as indicative of pessimism, were only the evidences of his deep sincerity and love for truth. In later years he was blamed for an apparent unwillingness to share the growing responsibilities and burdens of his many-sided position with others, but his attitude in the matter was natural. Unassisted he had built up and coordinated the varied scientific activities of the colony into a single unit, and the relinquishment of any part of this work was to him almost like the disowning of a child. Owing to physical debilities Sir John was nevertheless upon the point of withdrawing from active work in order to spend the remaining years with his daughter in England, when his life was cut short only a few weeks before the date of retirement.

In addition to his duties as director of the department of science and agriculture and government geologist, Professor Harrison, at the time of his death, was chairman of the board of agriculture, chairman of the Sugar Planters Experiment Stations Committee, and a member of the Executive Council of the Colony. He maintained an active interest in American science, having visited the United States on various occasions and being a member of the American Association for the Advancement of Science, of the American Chemical Society and of the American Geological Society. He was the recipient of many honors, having received the order of C. M. G. in 1901 and the knighthood in 1921.

For variety, scope and economic value the thirty-seven years of Sir John Harrison's scientific work in British Guiana are without a parallel. There is no one man who can fill his position. Versatile, all-round investigators of his type are now no longer produced. The world of science is much poorer with his passing.

BUREAU OF CHEMISTRY C. A. BROWNE

SCIENTIFIC EVENTS

COOPERATION BETWEEN THE UNITED STATES AND GREAT BRITAIN IN MINE SAFETY RESEARCH

UNDER the program of cooperative research between the United States Bureau of Mines and the British Safety in Mines Research Board, Dr. H. F. Coward, an English investigator, well known for his researches on the ignition of gases and the propagation of gaseous explosions, is working at the Pittsburgh, Pa., mining experiment station of the Bureau of Mines, on a number of scientific problems connected with ignition and explosion of gases. G. W. Jones, E. J. Meiter, M. D. Hersey and H. P. Greenwald, of the Bureau of Mines Technical staff, have been assigned to work with Dr. Coward on the following problems:

The limits of inflammability of methane in air to which certain diluent gases have been added;
The ignition of gases by minimum flames;
The measurement of the pressure developed by gaseous explosions;
The propagation of flame in mixtures of gas and air.

Good progress has been made with each research, and the results will be embodied in joint publications of the Bureau of Mines and the Safety in Mines Research Board, according to the annual report recently made by Dr. R. V. Wheeler, in charge of the British mine safety research work and George S. Rice, chief mining engineer of the Bureau of Mines.

In exchange for Dr. Coward's services, Dr. R. Thiessen, of the Pittsburgh experiment station, has been in Sheffield, England, for some time assisting the Safety in Mines Research Board in its researches on the spontaneous combustion of coal and the inflammability of coal dust. Dr. Theissen was selected for this assignment because of his wide knowledge of the constitution of coal, to the study of which he has devoted many years while associated with the Bureau of Mines.

Arrangements have also been made, under the cooperative agreement, for the exchange of information on two particular groups of researches in which the experimental difficulties are great and the necessity for obtaining accurate information is pressing. These researches deal with the inflammability of coal dust and with the measurement of the degree of fineness of dust particles. The corresponding members of the two staffs are F. M. Bouton and A. Allison, of the U. S. Bureau of Mines, and E. F. Greig and A. L. Godbert, of the British Board.

As a result of a series of conferences held at the Pittsburgh experiment station, the following-named problems are being studied by the British and American organizations, simultaneously or by one or the other of the organizations separately, with a full exchange of information between the investigators concerned:

The composition of coal as affecting its inflammability.
The effect of the fineness of coal dust on its inflammability.

The effect of the character of the atmosphere on the ignition of coal dust, Chemical composition.
Miscellaneous sources of ignition of coal dust.
The obtaining of a measure of fineness of coal dust.
The efficacy of devices for arresting an explosion after it has traveled some distance. Rock dust barriers.
The behavior of different coal dusts as regards the propagation of flame.
Propagation with wetted coal dust.
The effect of the mode of deposition of dust on the ease of propagation of flame.
Ignition of firedamp by lamp flames. Addition of helium and chlorinated hydrocarbons.
The propagation of flame in mixtures of natural gas and air. Field work in large galleries.
The propagation of flame in mixtures of natural gas and air. Laboratory work.
The effect of partial distillation of coal on its oxidation.
Heat production during oxidation.
Underground communication.
The charge-limit gas-composition curve for explosives.
The composition of the products of detonation of explosives.
The effect of confinement and the nature of the tamping of the charge-limit of explosives.
Cushioned blasting.

THE ENDOWMENT COMMITTEE OF THE ENGINEERING FOUNDATION AND ENGINEERING SOCIETIES LIBRARY

AT the meeting of Engineering Foundation in New York on May 19, Mr. W. L. Saunders, president of the United Engineering Society, announced that, in response to a request from Engineering Foundation last December and repeated suggestions from the Founder Societies of Civil, Mining, Mechanical and Electrical Engineers, United Engineering Society had appointed an endowment committee to seek increase of funds for Engineering Foundation and Engineering Societies Library.

The personnel of this committee is made up of nominees of the four societies and other members as follows:

Ex Officiis: W. L. Saunders, president, United Engineering Society, *Chairman;* L. B. Stillwell, chairman, Engineering Foundation; Sydney H. Ball, chairman, Library Board.

Nominees of American Society of Civil Engineers: Charles F. Loweth, Chicago, chief engineer, Chicago, Milwaukee & St. Paul Railway; H. deB. Parsons, New York, consulting engineer; Ralph J. Reed, Los Angeles, chief engineer, Union Oil Company.

Nominees of American Institute of Mining and Metallurgical Engineers: D. W. Brunton, Denver, chairman, Board of Consulting Engineers, Moffatt Tunnel; J. V. N. Dorr, president, The Dorr Company (metallurgical, chemical and sanitary process equipment), New York; Thomas Robins, New York, president, Robins Conveying Belt Co., member, Naval Consulting Board.

Nominees of American Society of Mechanical Engineers: J. W. Lieb, New York, vice-president and general manager, The New York Edison Company; Wynne Meredith, San Francisco, member of firm, Sanderson and Porter; E. A. Simmons, New York, president, Simmons-Boardman Publishing Company.

Nominees of American Institute of Electrical Engineers: Calvert Townley, New York, assistant to president, Westinghouse Electric and Manufacturing Company; H. A. Lardner, vice-president, J. G. White Engineering Corporation, New York; E. Wilbur Rice, Jr., Schenectady, honorary chairman, General Electric Company.

Members-at-large: Charles F. Rand, New York, past-president, American Institute of Mining and Metallurgical Engineers; James H. Perkins, New York, president, The Farmers' Loan and Trust Company, financial adviser and custodian of securities for United Engineering Society; H. Hobart Porter, New York, of Sanderson and Porter, and president, American Water Works and Electric Company.

No hectic "drive" is planned, but an organization is being created to maintain a well-considered and persistent endeavor to get larger financial resources for Engineering Foundation and Engineering Societies Library as their opportunities for service develop.

The committee has had meetings and is studying plans for its work. Further announcements will be made later.

ALFRED D. FLINN,
Secretary

NATIONAL RESEARCH FELLOWSHIPS IN THE BIOLOGICAL SCIENCES

THE Board of National Research Fellowships in the Biological Sciences, at its last meeting on May 14 and 15, made the following additional appointments and reappointments for the year 1926–27:

REAPPOINTMENTS

L. Joseph Klotz—Botany
Helen Redfield—Zoology
Lewis E. Wehmeyer—Botany

NEW APPOINTMENTS

Theodora Mead Abel—Psychology
H. B. Adelmann—Zoology
Stuart Carter Dodd—Psychology
C. C. Epling—Botany
Carroll Lane Fenton—Paleontology
Dwight L. Hopkins—Biochemistry
Eugene M. Landis—Zoology
Margaret R. Murray—Zoology
R. H. Seashore—Psychology
George Gaylord Simpson—Paleontology
E. A. Swenson—Zoology
R. C. Travis—Psychology
G. C. Vaillant—Anthropology
A. M. Wolfson—Botany
Karl E. Zener—Psychology