

during this period of about 500 scientific papers reporting results of work supported by the committee, and a notable recent book on the relation of internal secretions to the phenomena of sex. These researches have played a very important part in the extraordinary advance in our knowledge of reproduction, particularly as regards the sex hormones, which has taken place in the last few years.

Since June, 1922, 198 fellowships in medicine have been granted by the Medical Fellowship Board of the division. The holders of these fellowships have studied in institutions in this country and abroad. According

to information obtained by direct inquiry, among 179 past fellows, 154 are now engaged in various forms of teaching and research, mostly in medical schools.

Through the division the Council's Committee on Grants-in-Aid has made 58 grants to individual investigators for research on problems of medical interest. These grants, of relatively small amounts, have supplemented provisions for research at numerous institutions. By encouragement and financial aid they have made possible the initiation or advancement of investigations in the pre-clinical as well as the clinical fields of medicine.

SCIENTIFIC EVENTS

SURVEY OF THE INDIAN OCEAN

A CORRESPONDENT of the London *Times* writes that the plans of the John Murray Expedition, which is to make a survey of the bed of the Indian Ocean, are approaching completion, and Colonel Sewell, until recently director of the Zoological Survey of India, is to settle the final details. The chief difficulty before the committee which is arranging the expedition on behalf of the trustees of the late Sir John Murray was to find a suitable vessel of the trawler type.

An essential feature of modern oceanographical exploration is echo-sounding, the depth of the ocean floor as the ship proceeds on her course being read off in the chartroom. Most available vessels proved quite unsuitable, but the difficulty has been solved by the friendly action of the Egyptian Government in proffering the loan of *The Mabahiss*, a vessel expressly built for fishery investigations. She is a trawler of about 140 feet, with her engines set well aft, built in 1929, and she is to go into dock at Alexandria in July to be fitted with echo gear. The University of Cairo is also undertaking the chemical analyses of the surface waters obtained by the expedition, and is sending two research students to help the British scientific staff in their work.

Captain Mackenzie, formerly of *The Discovery*, is to command *The Mabahiss*, and the sounding gear and all survey work is in the charge of Lieutenant-Commander Farquharson, R.N., who has been seconded by the Admiralty. The other officers and crew will be drawn from the Egyptian service. On the scientific side Colonel Sewell will be assisted by four biologists, of whom two will be mainly concerned with the physical and chemical conditions of the deeper water layers of the Indian Ocean, and two with the zoological side.

The Mabahiss will be commissioned in August, and according to present plans will go direct to the Gulf of Aden, an intensive study of the waters and depths of which will be made. Thence she will run a tra-

verse off the Arabian coast to Karachi, taking water sections and trawling at selected stations. The next cruise will be in the Gulf of Oman.

The second part of the expedition will be mainly concerned with the southern areas, where the Antarctic waters flow to the north and the Indian Ocean waters commence that flow which is farther south known as the Agulhas current. The area south of Sokotra and Cape Guardafui will probably demand particular study, for here during the south-west monsoon are strong currents and confused seas as bad as found in any ocean. Aden should be reached in May, and from thence a direct course will be set to Ghardaga, the marine station of the University of Cairo, and so to the Suez Canal and Alexandria.

The University of Cairo proposes to use *The Mabahiss* in 1934-35 for a national expedition in the Red Sea. She will employ the same methods and gear as on the Murray Expedition, so that all results will be strictly comparable.

FELLOWSHIPS OF THE CHARLES A. COFFIN FOUNDATION

FELLOWSHIPS to nine graduates of technical schools and colleges for the academic year 1933-34 were recently awarded by the Charles A. Coffin Foundation, established by the General Electric Company. The men and the institutions in which they will carry on post-graduate research work, under the terms of these fellowships, are:

Samuel N. Alexander, Oklahoma City, and Philip Nudd, Hampton, New Hampshire, at the Massachusetts Institute of Technology.

William H. Pickering, Los Angeles, and Jesse E. Hobson, Marshall, Indiana, at the California Institute of Technology.

C. Irving Bradford, Newport, New Jersey, and Earl A. Long, Charlotte, North Carolina, at the Ohio State University.

Edward G. Pickels, Richmond, Virginia, at the University of Virginia.

William J. Warren, Arcata, California, at the University of Illinois.

Milton G. White, Sacramento, at the University of California.

The work mapped out by these fellowship recipients is in every case highly technical, and ranges from a study of the scattering of cosmic rays, to be carried on by Mr. Pickering under Dr. Robert A. Millikan, to the effects of the invisible corona on the electric properties of rubber-insulated cable, the problem which is to be attacked by Mr. Warren. The fellowship granted to Mr. Pickering is a renewal, the original having been awarded a year ago.

Such fellowships have been granted by the Charles A. Coffin Foundation annually since 1922, when the foundation was created by the board of directors of the company for the purpose of assisting deserving college graduates in post-graduate work, of recognizing the achievements of electric power and electric railway companies, and of rewarding employees of the General Electric Company who advance the efficiency of the company or contribute by meritorious work to progress in the electrical arts.

The committee which determined the awards comprised Gano Dunn, representing the National Academy of Sciences; R. A. Seaton, representing the Society for the Promotion of Engineering Education, and H. P. Charlesworth, representing the American Institute of Electrical Engineers. This committee was assisted by Dr. W. D. Coolidge, director of the General Electric Research Laboratory.

THE FOURTH CONGRESS OF THE INTERNATIONAL SOCIETY OF SUGAR CANE TECHNOLOGISTS

As the name indicates, the International Society of Sugar Cane Technologists is an organization of those investigators in the different sciences who devote their attention to the advancement of that portion of the sugar industry which depends on sugar cane. The society was formed in Honolulu in 1924, and including the meeting there it has held four congresses at intervals of about three years. The other meeting places have been Havana, Cuba, 1927; Soerabaia, Java, 1929, and San Juan, Puerto Rico, 1932. The society now has 589 members.

The proceedings of the fourth congress have now been issued. The book is imposing in size and the size of the volume does not belie the importance of the papers found between the attractive gray covers. Every branch of the cane sugar industry is undoubtedly represented, and the papers come from tropical and subtropical countries the world around. Besides general sessions, there were held meetings of the five sections, which consist of "Diseases of Sugar Cane," "Agronomics," "Varieties," "Factory Operation and

Chemical Control" and "Insect Pests." Many of the papers are illustrated.

The book is divided into two parts, "Proceedings" and "Communications to the Congress." The latter consists of the 129 papers or "bulletins" which were presented. Each has its individual pagination, which is unfortunately rather confusing, but there is a complete table of contents with headings such as "Virus Diseases," "Technique of Field Experiments," etc.

The volume is printed as a "House Document" of the Government of Puerto Rico. It is dedicated to the Commissioner of Agriculture and Commerce, the Honorable Edmundo D. Colón. It is edited by Dr. Jaime Bagué, of the Department of Agriculture and Commerce. Dr. F. W. Zerban, of the New York Sugar Trade Laboratory, was general chairman of the Puerto Rico congress, and Mr. A. H. Rosenfeld, now of the Egyptian Ministry of Agriculture, was general secretary. Mr. M. A. del Valle, of Central Constancia, was assistant secretary. The various persons responsible for this volume are to be congratulated on their excellent work.

One of the resolutions recorded in these proceedings is of general interest. This is that "sugar cane" should be spelled as two words, not as one word or as two words connected by a hyphen.—*T. E. Holloway.*

PROPOSED GRANTS FOR SCIENTIFIC RESEARCH FROM THE PUBLIC WORKS BOARD

It is reported by Science Service that a share of the \$3,300,000,000 public works fund is being sought by government bureaus in order that the harm to scientific research work from "economy" cuts may be mitigated. Secretary of Commerce Roper has announced applications for grants to the Public Works Board that include: for the Bureau of Standards, \$450,000; the Bureau of Mines, \$275,000; the Bureau of Fisheries, \$1,072,474; the Coast and Geodetic Survey, \$3,500,939, and the Bureau of Lighthouses, \$2,355,068. These funds are sought for "new projects" and if obtained it is expected that members of the scientific personnel furloughed for reasons of budget bureau "economy" slashes will be put back to work.

It is unofficially estimated that about half the 380 employees of the Bureau of Standards whose pay stopped on July 1 might be allowed to continue their work if the appropriation of \$450,000 is granted by the Public Works Board.

The Bureau of Standards was affected severely by deductions of the budget bureau from the appropriations of 1934, it being allowed only \$1,363,000 instead of the sum of \$2,000,000, approximately, which was appropriated by the Congress. The Bureau of Standards is expected to play an essential part in the public works construction program by testing the