the continent to California in his eighty-fourth year, alone, to visit his son. Besides that son, Dr. Sumner P. Brooks, of the University of California, he is survived by his second wife (Grace L. Holden); his daughter, Mrs. George Drew; three grandchildren; and three great-grandchildren.

Dr. William Penn Brooks was not a "nationally known and advertised" figure, none of his achievements sky-rocketed him to fame; but he was a patient and methodical researcher, a thorough and discerning organizer and a sincere and significant teacher. Science honors his memory.

F.S.

RECENT DEATHS AND MEMORIALS

DR. HERBERT W. MUMFORD, dean of the College of Agriculture of the University of Illinois, died on May 31 as the result of an injury suffered in an automobile accident on May 14. He was sixty-seven years old.

DR. A. E. BOYCOTT, professor emeritus of pathology at the University of London, died on May 12 at the age of sixty-one years.

MRS. MARGIE A. SMITH, widow of the late Edgar Fahs Smith, formerly professor of chemistry and provost of the University of Pennsylvania, has added $5,500 to the endowment of the Edgar Fahs Smith Memorial Library of Chemistry at the university following earlier contributions of more than $50,000 for the same purpose. The income will be used for the purchase of books, journals and prints. Since 1931 the library has been housed in specially constructed rooms in the Harrison Laboratory of Chemistry and it now embraces nearly 10,000 items.

"MOSQUITO DAY" was observed at the London School of Hygiene and Tropical Medicine by a gathering representative of scientific and medical interests and professional, industrial and colonial life who met to commemorate the work of Sir Patrick Manson and Sir Ronald Ross.

SCIENTIFIC EVENTS

THE CHEMISTRY ADVISORY COUNCIL

THE Chemistry Advisory Council, 300 Madison Avenue, New York, N. Y., as successor to the Committee on Unemployment and Relief for Chemists and Chemical Engineers (also known as the Chemists' Unemployment Committee), according to a report in *Industrial and Engineering Chemistry,* is endeavoring to study the question of unemployment of members of the chemical profession. Unemployed chemists are encouraged to register with the council and, in turn, the council will render assistance in several directions, be it advice or more tangible relief where the urgency of the case demands the latter course.

The council plans, as soon as conditions permit and the finances are available, to establish a bureau of employment to bring together employers and applicants. Meantime it maintains a registration of unemployed chemists, with rather complete case history.

In the first four months of 1938, the council has registered 97 unemployed chemists or chemical engineers, all of whom qualify under one of the three groups: registrants having a B.S. degree with two or more years' industrial experience; registrants having an M.A. degree with more than one year's industrial experience; registrants having a Ph.D. degree. The ages of these registrants fall into the following groups: 45 and above, 12; 35 to 44, 30; below 35, 47; unknown, 8. The classification according to education: Ph.D., 15; M.A. or M.S., 25; B.S., 57. The classification according to industrial experience: less than 5 years, 31; 6 to 10 years, 19; 11 to 20 years, 30; over 20 years, 17.

Four non-graduates having more than five years of industrial experience sufficient to qualify them as chemists or chemical engineers have registered. These men have all attended one or more institutions of higher education but do not possess chemical degrees.

Ninety-five persons have registered possessing: B.S. degree or its equivalent, but less than 2 years' industrial experience; master's degree with less than one year's experience; foreign degrees where the educational status can not be exactly classified.

The total registration for the four months amounts to 196, and has increased much more rapidly during the second quarter than during the first quarter.

THE SECOND EASTERN PACIFIC ZACA EXPEDITION OF THE NEW YORK ZOOLOGICAL SOCIETY

FOR a second time Templeton Crocker placed his yacht *Zaca* at the disposal of the Tropical Research Department of the New York Zoological Society. The resulting expedition, which was the twenty-sixth undertaken by the department under the direction of Dr. William Beebe, left San Diego on November 6, 1937, and remained five months in the field.

Mr. Crocker accompanied the expedition together with Maurice Willows. The physician was Dr. Eric Liljencrantz, of Stanford University. The scientific personnel, as on the first *Zaca* expedition, consisted of Dr. Beebe, *director;* John Tee-Van, *general associate;* Miss Jocelyn Crane, *technical associate,* and George Swanson, *artist;* Toshio Asaeda, *photographer and preparateur.*

Linking up with the route of the first *Zaca* trip, the natural faunal area beginning at Cedros Island on the west coast of Lower California was followed south to Panama—a zone of life which, except for the latter bay, is very slightly known. The chief object was to study as thoroughly as possible the fish, crabs and mollusks from tide-pools down to five hundred fathoms, with more emphasis placed on ecological relationships, colors and habits than on collecting. Constantly in mind, as a major problem, was the accumulation of field data of use in evaluating the relationship of corresponding Atlantic and Pacific forms.

On the way south the expedition stopped at forty bays, large and small, and from one to ten days were spent in each. Among these were Banderas, Manzanillo, Tangola Tangola, Fonseca, Port Parker, Murcielago, Culebra, Piedra Blanca, Nicoya, Dulce, Golfito, Chiriqui and Bahia Honda. Many of the smaller bays have a geographical isolation which gives them peculiar interest, almost insular in character. The extreme difficulty of reaching the majority by land lends especial value to the opportunity of studying them for considerable lengths of time while living close in-shore on the *Zaca*. Calm weather accompanied all the activities except when passing through the limited zones disturbed by the "Tehuantepeckers" and "Papagaios."

The gradual change southward in the land flora and fauna, from absolute desert conditions in Lower California to typical, tropical rain forest such as that at Golfito, was as dramatic as it was instructive, and the shift from clear sea-water in the north to more silted bays fed by fresh-water streams provided a host of unexpected problems.

Especial attention was paid to the life-histories of the Brachyura, and elaborate notes were made on upwards of two hundred species. Over a hundred thousand individual fish were examined on the decks of the *Zaca,* representing a generous percentage of the total species in this faunal area. Twelve hundred photographs and several hundred colored paintings were obtained.

Space permits the mention of only two or three of many interesting or new forms. Young Pacific sailfish, *Istiophorus greyi,* as small as 42 and 84 millimeters, standard length, were obtained for the first time. Both came to night lights and a thousand miles apart. Intensive collecting in tide-pools and observation of their inhabitants by day and night provided interesting material. As many as seventy-one species of fish were taken in a single pool. *Dixonina* was rediscovered in the Pacific, and both adults and larvae taken nine hundred miles south of the former single record at Acapulco. New genera and species of abyssal ceratiads with attached parasitic males were trawled from a half mile depth. All the commercial tuna fishermen met with were most generous in donating desirable specimens of unusual size or species.

After refuelling at Balboa, the *Zaca* was headed south for the island of Gorgona, off the coast of Colombia, where an intensely busy and profitable week was spent. The results, in the case of both vertebrates and invertebrates, showed this little known place to be a meeting point of three distinct faunas.

The collections are now all at the laboratory of the Tropical Research Department in the New York Zoological Park where Dr. Beebe and his associates will work upon them for the rest of the year.

CORRESPONDENT

GRANTS IN AID FROM THE PERMANENT SCIENCE FUND OF THE AMERICAN ACADEMY OF ARTS AND SCIENCES

THE following grants in aid from the Permanent Science Fund of the American Academy of Arts and Sciences were announced at the meeting of the committee on April 13.

Professor Ernst C. Abbe, University of Minnesota, $500, toward expenses of a phytogeographical expedition to the coast of Hudson Bay, contingent upon an additional $2000 being secured elsewhere.

Professor C. E. Allen and Professor D. C. Cooper, University of Wisconsin, $600, for technical assistance in further histological and cytological studies of root nodules on legumes.

Orlan M. Arnold, the Rensselaer Polytechnic Institute, $300, for materials in a study of design and construction of apparatus for precise measurement of electrical characteristics of proteins, enzymes, hormones and other organic substances.

Dr. Charles T. Berry, the Johns Hopkins University, $247, toward the expenses of collecting fossil Ophiurans in a micro-paleontological problem of stratigraphy.

Professor William C. Boyd, the School of Medicine of Boston University, $600, for assistance in a study of blood groups in Egyptian mummified bone and muscle.

Frank K. Edmonson, Indiana University, $500, toward the cost of a photometer for astronomical purposes, contingent upon the remaining cost being secured elsewhere.

Professor Llewellyn T. Evans, the State University of Montana, $180, for the purchase of animals and materials to continue a study of the effect of certain hormones upon reptiles.

Professor Frank T. Gucker, Jr., Northwestern University, $650, for assistance in a study of heat capacities and heats of dilution of solutions of amino acids.

Miss Margaret Harwood, director of the Maria Mitchell Observatory, $500, for assistance in computations on photographs of the Scutum star cloud.

Professor Hans O. Haterius, College of Medicine of the Ohio State University, $200, for the purchase of