vital statistics and epidemiology; (4) biochemistry and nutrition; (5) malariology and rural hygiene; and (6) maternity and child welfare and school hygiene.

Each section will be staffed by a professor, an assistant professor, and laboratory or other assistants. As the chief object of the institute is to bridge over the gulf between the results achieved by pure research and their practical application to the community, its function will be primarily instruction. The subjects for the D. P. H., Part I, will continue to be taught at the Tropical School, but the specialized subjects in public health will be taken by the staff of the institute. The examination for the D.P.H. is conducted by the University of Calcutta, with which the new institute will be affiliated in due course. It is also intended to provide short post-graduate instruction in special subjects for public health workers desiring to pursue advanced study, and it is probable that the university will institute a higher degree or doctorate in public health science, which will require a year's training at the institute in some specialized branch. Special courses in child welfare and public-health nursing may be arranged for women graduates and nurses, respectively. The institute will be coordinated with the various aspects of practical hygiene and public health all over India.

FIELD EXPEDITIONS OF THE SMITHSONIAN INSTITUTION

ACCORDING to a press release from the Smithsonian Institution field expeditions during 1930 touched upon every continent and many islands of the sea, besides visiting 23 states of the United States, according to its annual illustrated pamphlet, "Explorations and Field-work of the Smithsonian Institution in 1930," just issued. The subjects of investigation by these expeditions were as varied as the localities visited; they included the radiation of the sun, microfossils—those minute organisms of great value in determining oil zones in the earth's crust, the ancient Eskimo culture of Alaska, Indian music, the animals and plants of the interior of China, the birds of Spain, fossil horses in Idaho, silver minerals in Canada, the plants of South Africa and many other subjects. From all these expeditions, large collections have come in to the U. S. National Museum for study and in some instances for exhibition to the public.

Dr. Aleš Hrdlička devoted the summer months of 1930 to a study of the ancient and modern Eskimo population along the Kuskokwim River, the second largest in Alaska. This area has never before been visited by a physical anthropologist, and Dr. Hrdlička's work led to valuable conclusions.

In continuation of his "fossil horse round-up" in Idaho, Dr. J. W. Gidley spent the field season in working the fossil bone deposit near Hagerman, Idaho. The deposit was probably at the time it was formed a watering place for the wild animals of the region, for it contains the bones of hundreds of animals, mostly belonging to an extinct species of horse. This deposit is considered one of the important paleontological discoveries of recent years, for it contains abundant remains of the rare extinct horse, *Plesippus,* an animal intermediate between the present-day horse and the three-toed horse of more ancient time. Sufficient material was collected to restore three or four complete skeletons.

Lieutenant Henry C. Kellers, U.S.N., was detailed to act as Smithsonian representative on the U. S. Naval Observatory Eclipse Expedition to Niuafou Island of the Tonga Archipelago, in the South Seas. This island is commonly known as "Tin-can Island," for so rocky and precipitous is the shore that mail can only be delivered from the mail steamer by enclosing it in a sealed can and throwing the can overboard, where it is picked up by native swimmers and towed to shore. Dr. Kellers, with the aid of the natives, succeeded in collecting many of the unusual life forms of the island, over 7,000 specimens being sent back to the National Museum.

Twenty-nine separate expeditions of 1930 are described in the Smithsonian's publication. All are described in the words of the field-workers themselves and all are illustrated by photographs taken in the field.

MEETING OF THE NATIONAL ADVISORY HEALTH COUNCIL

THE field and laboratory investigations being conducted by the U. S. Public Health Service were surveyed, according to the New York *Herald-Tribune,* on April 10, and generally approved by the National Advisory Health Council, a body consisting of internationally known authorities in various fields of scientific endeavor related to the work of the Public Health Service established recently under an act passed a year ago. It organized in executive session on April 9 and had its first meeting with members of the government staff.

Carrying out its function of talking over the research problems of government investigators and advising them, the members of the council heard members of the field force of the health service and of the staff of its national institute of health. The council replaces on an extended scale the old advisory board, which performed similar functions for the hygienic laboratory before it was made the nucleus of the national institute.

Its members include Drs. William H. Welch, of the Johns Hopkins University; Haven Emerson, of Columbia; C. E. A. Winslow, of Yale; M. P. Ravenel,

of the University of Missouri; W. H. Howell, of Johns Hopkins; Alfred Stengel, of the University of Pennsylvania; Captain C. S. Butler, U.S.N.; Colonel P. M. Ashburn, of the Army Medical Corps; Drs. John R. Mohler, of the Bureau of Animal Industry of the Department of Agriculture; George W. McCoy, director of the National Institute of Health; L. R. Thompson, assistant surgeon-general of the Public Health Service in charge of research, and Hugh S. Cumming, Surgeon General, chairman.

Cancer research, which is being conducted by the Health Service more extensively than ever before, was discussed with the council at some length. This work not only has been expanded under increased appropriations, but is to be extended further, and the government scientists asked the benefit of the council's advice in that undertaking.

Field work on leprosy, particularly in Hawaii, was also discussed, together with studies of malaria, Rocky Mountain spotted fever, which recently has invaded the east; child hygiene, industrial hygiene and sanitation, milk sanitation, stream pollution and statistical analysis of different public health problems.

Investigations discussed included work on certain phases of cancer, diphtheria prevention, meningitis, nutrition, infantile paralysis, scarlet fever, trachoma, tularemia, typhus, undulant fever, etc. Work on sociological problems, including studies of parasites and animal hosts, at the institute, and special chemical studies related to public health problems also were discussed.

RESEARCH AT THE MELLON INSTITUTE

IN his eighteenth annual report to the board of trustees of Mellon Institute, Director E. R. Weidlein has summarized the activities of the institution during the fiscal year ended February 28, 1931. The sum of $805,204 was contributed to the institute by the industrial fellowship donors in support of scientific research. The total amount of money appropriated by companies and associations to the institute for the twenty years ended February 28, 1931, was $7,554,477.

Throughout the entire fiscal year 76 industrial fellowships—22 multiple fellowships and 54 individual fellowships—were in operation. During the preceding year the number of fellowships was 71. In 1930–31, 140 industrial fellows and 49 assistants held positions on the research staff. Sixty-four industrial fellowships (17 multiple fellowships and 47 individual fellowships)—three more than on February 28, 1930—were active at the close of the fiscal year. Nine fellowships are being sustained by industrial associations. The industrial research personnel consists of 109 fellows and 31 assistants. Thirty-one fellowships have been in operation for five years or more, and of this number 18 have concluded more than ten years of work. Three and possibly four new fellowships will begin operation during the early part of the present fiscal year—just as soon as laboratory space is available.

According to the report particularly noteworthy results have come from the following fellowships: Air pollution, by-product coke, face brick, fertilizer, heat-insulation, iodine, nitrogenous resins, organic synthesis, refractories, sleep and utensil. Twelve fellowships completed their research programs, namely, chrome ore, insulating lumber, Portland cement, composite glass, yeast, inhibitor, steel treatment, rock products, roofing, fatty acids (uses), oxygen and face brick. Thirteen new fellowships were added to the institute's roll during the fiscal year, as follows: Safety fuse, plastic composition, bread, cottonseed products, hydro-engineering, abrasives, newsprint, sugar, fatty acids (synthesis), shoes, optical glass, commodity standards and tire bead.

The department of research in pure chemistry had a productive year and two fellows were added to the staff. Twenty-two investigational reports have been published since the establishment of this department in 1924. Among the subjects that are receiving research attention are the chemistry of marine plants, cherry gum, gum arabic and quince-seed mucilage, and the properties of the sugar acids.

The publications by members of the institute during the calendar year 1930 included 1 book, 5 bulletins, 45 research reports and 44 other papers. Sixteen U. S. patents and 13 foreign patents were issued to fellowship incumbents. The total contributions to the literature for the nineteen years ended January 1, 1931, have been as follows: 16 books, 101 bulletins, 573 research reports, 893 other articles, and 423 U. S. patents. These publications are listed in the institute's Bibliographic Bulletin No. 2 and its four supplements.

The commencement of the construction of the institute's new home is referred to as the most important event during the year covered by the report. Early in May, 1930, it was decided that, as the present two buildings of the institution are inadequate for the immediate and future needs of its departments and industrial fellowships, a commodious modern structure would be built at the corner of Fifth and Bellefield Avenues, Pittsburgh. The excavating work, which was started on November 5, was finished in March (97,000 cubic yards of soil being removed) and the foundation is now being constructed.

The erecting of this edifice will require about two years' time, and the completed building will furnish the institute with the means for expanding greatly