this resolution, certain difficulties would have to be faced. In the first place, malaria control by means of mosquito control was not primarily a medical question at all. Physicians were trained principally in the diagnosis of disease and treatment of the sick; the prevention of malaria was more a health problem, and in the tropics health officers were the exception. The second difficulty had been that the control of mosquitoes was more than anything else an entomologic question. Some mosquitoes lived in shade and some in sunshine. The destruction of shade in certain places might introduce dangerous light-loving insects and increase existing malaria. The third difficulty was that for many forms of mosquito control a knowledge of drainage was necessary, and physicians were not trained in engineering schemes. The institute had formed an industrial advisory committee which hoped to be of assistance to tropical industry in supplying expert advice which was necessary before an employer could go ahead on a scheme with confidence that the money expended would give the desired results. The institute and hospital received sick men from the tropics, and it was open to physicians to come for advice or to work on the problems in which they were interested. There would be established a unique museum illustrating all the habits of the mosquito, and information would be given to physicians as to how the insects could be controlled. Expeditions would be sent abroad from time to time to study problems on the spot along with local physicians, and to discuss with them what steps could be taken to control the disease. Ultimately, he hoped, there would be a staff of expert research officers and engineers.

THE U. S. BIOLOGICAL SURVEY

THE annual report of Paul G. Redington, chief of the Bureau of Biological Survey of the U. S. Department of Agriculture, has been issued. It points out that the development of additional refuge areas for wild life has been brought more intimately to public attention, and the sentiment throughout the country is more definitely crystallized in favor of a unified program, as it becomes generally understood that the onward march of civilization, with its farming and industrial operations, threatens, at least locally, the ultimate extinction of the various forms of wild life that were the delight of our forbears and that can not be perpetuated for future enjoyment unless provided with ample range, including feeding, breeding and resting grounds. There is urgent need for funds to enable the Biological Survey to investigate and determine the suitability of areas that are being proposed for refuge purposes.

Among the accomplishments and new lines of work undertaken in research during the year are the following:

Inauguration of studies of the relative abundance of migratory wild fowl from year to year, through systematic and repeated censuses taken by cooperators on important waterfowl concentration areas.

Authorization by congressional act of more extended research having to do with the relations of wild life to forestry—the effects of birds, mammals and other forms on forest production.

Successful crossbreeding of Alaskan reindeer with native caribou captured for the experiments, and the birth of fawns of materially increased weight.

Establishment of a Rabbit Experiment Station at Fontana, Calif., to supplement other investigations on the production of rabbits for fur and food, and progress in cooperative investigations of diseases of foxes and measures for their prevention and cure on fox farms.

Progress in research work on the food of the English sparrow, in studies of the requirements of the Wyoming elk, in the administration of other game animals and birds on reservations and in coordination of state and federal policies in wild-life administration generally. Other important measures for the welfare of life are the authorization by congress of a refuge for migratory birds in the extensive Bear River Marshes, Utah, and first steps in its administration, as an aid to conserving the wild-fowl resources of the west, and greater expedition in the work of acquiring lands for the Upper Mississippi River Wild-Life Refuge through congressional aid and through private donation of areas important to the purposes of the refuge.

Of importance to cooperative work for the control of wild-animal pests of agriculture, horticulture, forestry, stock-raising and wild game was the development, through a conference of field leaders in rodent and predatory-animal control at Ogden, Utah, of improved plans for research work and definite policies in local and general control operations. Congress has requested that there be submitted to it at the next session a plan that will operate to insure adequate control of the predatory animals throughout the country.

MEETINGS OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

TENTATIVE plans are now ready for the Knoxville meeting of the society to be held March 21, 22 and 23, 1929. The program will include papers on important engineering problems and visits to the rapidly expanding industries of the region as well as trips of scenic beauty.

The subjects of the technical program are water-power development, light-metal industries, coal carbonization, executive training and the resources of the Southern Appalachian area. As a special attraction, a trip will be provided to Kingsport, Tennessee, the miracle city of the south, which ten years ago was a bare mountain village but now has the largest plant in the world making complete books, a wood by-product plant, a glass works, textile mills and a cement plant.

The students' part in this meeting is to be emphasized. Special arrangements are being made for them by R. C. Matthews, national secretary of Tau Beta Pi, and E. P. Carpenter, chairman of the Greenville Section, American Society of Mechanical Engineers.

The committee in charge consists of C. E. Ferris, W. J. Savage, William Whaley, W. E. Biggs and J. A. Switzer. W. R. Woolrich is in charge of the program.

A feature of the semi-annual meeting in Salt Lake City, July 1–4, 1929, is the scheme of excursions in connection with it. The copper mines and smelters, the Great Salt Lake, and the canyons near the city will provide an exceedingly interesting four days. The program of papers will deal with aeronautical development, the smelting industry, low-grade copper mining and possibly the beet-sugar industry. The committee in charge is composed of N. L. Stewart, Austen Gudmundsen, F. W. McEntire, George A. Parker, Leonard Cahoon, Woodworth Anderson, Herbert Landes and W. H. Trask, Jr.

Following the transcontinental tour of 1926 and the Great Lakes tour of 1928 the society is now planning a Six-National Parks Tour. The schedule will include the six largest and most important, namely, Rocky Mountain Estes Park, Grand Canyon, Zion Canyon, Bryce Canyon, Yellowstone Park and Glacier Park. In addition, the itinerary includes the Royal Gorge, the Hanging Bridge, Colorado Springs, Glenwood Springs, Pike's Peak, Garden of the Gods, the Colorado Highway and Niagara Falls.

As the tour is now planned it will take 30 days and cover approximately 8,000 miles. Of these, 16 days will be spent in the parks, and four in Salt Lake City at the time of the spring meeting. Of the mileage, 6,000 miles will be by train and 2,000 by automobile. It will take in 16 states of the Union and the Dominion of Canada.

The tour is to be arranged on the all expense plan and will cost approximately five hundred and eighty-five dollars ($585) per person for two in a compartment or three in a drawing-room, and six hundred and ten dollars ($610) for two in a drawing-room from New York and return. This includes round-trip railroad and Pullman transportation, tours through the parks, side trips, accommodations at the first-class hotels and all necessary expenses. Any one interested and desiring further information may obtain it from the headquarters of the society, 29 West 39th Street, New York City.

THE ACTIVITIES OF THE CARNEGIE CORPORATION

GRANTS amounting to $2,000,000, and payment of more than $4,000,000 on grants voted in previous years, were made by the Carnegie Corporation of New York during the fiscal year ended September 30, 1928, according to the annual report of President Frederick P. Keppel. The list of appropriations shows that one third of the total amount voted went for the support of educational studies, scientific research and publications. The California Institute of Technology received $200,000 for endowment of the fundamental researches in physics and chemistry conducted by Professor R. A. Millikan; the President's Conference on Unemployment received $75,000 for a study of recent economic changes by the National Bureau of Economic Research, while the Carnegie Foundation for the Advancement of Teaching received $50,000 in support of a cooperative study of education in Pennsylvania. To other organizations went amounts ranging from $5,000 to $50,000 in support of studies in pyorrhea, economics of medicine, land economics, non-collegiate technical education, cooperative education in Africa and traveling fellowships.

Another one third of the total voted went for the support of general activities for the advancement and diffusion of knowledge and understanding. The Carnegie Endowment for International Peace received $150,000 for support of its program in the United States and the Institute of International Education received a large grant.

The library interests of the corporation—a long-established Carnegie interest—are being cared for largely by grants made in other years. The appropriations for last year amount to $140,000 and are chiefly for the maintenance of library schools. Adult education, which has become a lively educational activity in the United States, came in for grants totaling $102,000. Fine arts departments in colleges and universities and large arts organizations are listed for appropriations that indicate a growing interest on the part of the corporation in making arts education an essential part of the college curriculum. To the American Federation of Arts grants totalling $110,000 were made for greater opportunity for administrative development over a five-year period. In addition, art endowment grants of $50,000 each were made to Milwaukee-Downer College, the University of Rochester, Vassar College and Wesleyan University, and a system of art scholarship grants for prospective