cil of National Defense, and manufacturers of war orders. The peace-time program has been largely discontinued. The force and the work have been centered in Washington and Madison. Every effort has been made to bring available knowledge to the attention of the organizations which have need for it and to assist in anticipating their problems."

Much of the work has concerned aircraft material. It has included also problems connected with the construction of wooden ships and of vehicles. Assistance has been given to hardwood distillation plants in order to increase the production of acetone and other products needed for munition making. A commercial demonstration has shown that costs of producing ethyl alcohol from wood waste can be materially reduced. Methods have been developed by which walnut and birch can be kiln-dried in a much reduced time with comparatively little loss. In general, the report says, "much assistance has been given on a great variety of war problems relating to forest resources and the manufacture, purchase, and most efficient use of wood and other forest products."

In spite of the many new demands upon the Service and the entrance upon military duties of a considerable number of its men, the administrative and protective work on the national forests was continued without disorganization. "Upon request of the War Department the preliminaries of recruiting and officering the Tenth Engineers (Forest) were handled. Increase of crop production in and near the forests was stimulated and the forage resource of the forests was made available for emergency use up to the limit of safety. In the latter part of the summer a fire season of extreme danger, made worse in some localities by an unusual prevalence of incendiarism, was passed through with relatively small loss of property and with no reported loss of life."

WAR ACTIVITIES OF THE GEOLOGICAL SURVEY

THE activities of the Geological Survey, Department of the Interior, during the fiscal year 1916–17 have been concentrated on investigations connected with military and industrial preparedness, as shown by the Annual Report of the director of the survey, just made public. These activities have included the preparation of special reports for the War and Navy Departments and the Council of National Defense, the making of military suveys, the printing of military maps and hydrographic charts, and the contribution of engineer officers to the Reserve Corps.

The survey's investigations of minerals that have assumed special interest because of the war have been both expanded and made more intensive. Special reports giving results already at hand, the product of years of field and office investigation, have been published for the information of the general public or prepared for the immediate use of some official commission, committee or bureau. Geologic field work has been concentrated on deposits of minerals that are essential to the successful prosecution of the war, especially those of which the domestic supply falls short of present demands. Every available oil geologist is at work in petroleum regions where geologic exploration may lead to increased production. Other geologists are engaged in a search for commercial deposits of the "war minerals"—manganese, pyrite, platinum, chromite, tungsten, antimony, potash and nitrate.

The war not only diverted practically all the activities of the topographic branch of the survey to work designed to meet the urgent needs of the war department for military surveys, but led to the commissioning of the majority of the topographers as reserve officers in the Corps of Engineers, United States Army.

A large contribution to the military service is made by the map-printing establishment of the survey. This plant has been available for both confidential and urgent work, and during the year has printed 96 editions of maps for the war department and 906 editions of charts for the navy department. Other lithographic work, some of it very complicated, was in progress at the end of the year.

During the year the survey published 203 scientific and economic reports, and at the end of the year the survey members holding ap-

pointments from the secretary numbered 934, an increase of 62.

SCIENTIFIC NOTES AND NEWS

THE American Association for the Advancement of Science begins its annual meeting at Pittsburgh on the day of issue of the present number of SCIENCE. The address of the retiring president, Dr. Charles R. Van Hise is given this evening, his subject being "Economic Effects of the World War in the United States." It is expected that the meeting of the association and of the national societies meeting at the same time will be smaller than usual, and that scientific problems of national concern at the present time will occupy most of the programs. Careful consideration was given to the desirability of holding the meeting. It was decided that the service it could render to science and the nation was far greater than any drawbacks. This was the opinion both of scientific men and of the officers of the government who were consulted.

SIR ARCHIBALD GEIKIE, who has long been a correspondent of the Paris Academy of Sciences, has now been elected an associate member of the academy.

DR. WILLIAM W. KEEN, of Philadelphia, has declined the renomination of president of the American Philosophical Society, after serving ten years in that capacity.

DR. ALEXIS CARREL, having been detained in America by official duties, the Harben lectures he was to have delivered in England at the end of this month have been postponed.

GILBERT N. LEWIS, professor of physical chemistry and dean of the college of chemistry in the University of California, has been granted leave of absence for the half year beginning January 1, 1918, to serve as major in the Ordnance Department of the U. S. Army. He is to go at once to France.

MR. CHARLES S. WILSON, state commissioner of agriculture of New York, has been reappointed to that office by the newly organized Council of Farms and Markets at Albany. His original appointment was made almost three years ago by the governor. Mr. Wilson was then professor of pomology in the State College of Agriculture at Cornell.

DR. FRANK C. HAMMOND has been appointed a member of the Philadelphia Board of Health to serve during the absence in France of Dr. Alexander C. Abbott.

A NUMBER of additional members of the University of California faculty have entered Army service, including Joel H. Hildebrand, associate professor of chemistry, now a captain in the Ordnance Department; Dr. A. L. Fisher, assistant in orthopedic surgery, now a captain in the U. S. Medical Reserve, attached to Base Hospital No. 30; and W. F. Hamilton, A. R. Kellogg, and J. B. Rogers, of the department of zoology, now in the Forestry Reserves.

F. G. TUCKER, assistant professor of physics at the State College of Washington, has been granted leave of absence to take up his duties as second lieutenant in the U. S. Coast artillery.

THE council of the Royal Meteorological Society has awarded Dr. H. R. Mill the Symons gold medal for 1918 "for distinguished work in connection with meteorological science."

THE following letter has been received by the Duke of Connaught, President of the Royal Society of Arts from Mr. Orville Wright, of Dayton, Ohio.

> I have the pleasure of acknowledging the receipt of your Royal Highness's letter and the Albert Medal of the Royal Society of Arts, which were forwarded to me through the British Ambassador at Washington. I wish to express my appreciation of the honor conferred upon me by the Royal Society of Arts as a recognition of the work of my brother Wilbur and myself towards the solution of the problem of flight. I appreciate with the utmost gratification the honor of being placed by your society among such men as those to whom this coveted medal has been awarded in years past.

PROFESSOR FREDERICK STARR, of the department of sociology and anthropology at the University of Chicago, who has been in the Orient for the past year on leave of absence, will renew his work at the university with the winter quarter, giving courses in prehistoric