

year before. Individual plantings jumped from 28,475 to 33,467 acres, a gain of 17 per cent.

Last year's totals showed important progress and interest in renewing forest resources and putting idle lands to growing timber crops, although planting has never yet kept pace with losses through wasteful cutting, forest fires and erosion.

Michigan led all the states in acreage reforested for 1930, with a grand total of 38,302 acres planted by all public and private agencies. Of this area, the Forest Service planted 8,452 acres and the state 26,617 acres.

Forest planting in New York by various state, municipal and private agencies reached 24,250 acres. Pennsylvania planted 18,048 acres to public and private forest.

Planting in Delaware, Maryland and New Jersey aggregated 1,672 acres. New England reports show a total of 11,614 acres planted. The South Atlantic States planted 5,556 acres, Georgia leading with 2,542. Gulf States set out 7,869 acres, Louisiana's share being 6,556.

In Ohio, private and public agencies planted 2,633 acres, largely farm woodlands. Beginnings were made in several Central States with reforestation used especially as a check to erosion of farm lands. Part of Wisconsin's plantings of 6,086 acres were for watershed and farm.

THE GUATEMALA EXPEDITION

DESPITE a severe rainy season, tangled jungle trails and the illness of one of the party, the University of Michigan expedition into the interior of Guatemala has returned with an unusually large number of important specimens. Members of the party included Professor Harley H. Bartlett, botanist; Dr. Josselyn Van Tyne, ornithologist, and Dr. Adolph Murie, mammalogist, they having undertaken the biological phase of a broad survey by the Carnegie Institution.

Meeting with Carnegie archeologists at Belize, British Honduras, on January 26, the party planned to proceed at once to the old Maya city of Uaxactun, but were turned back by news that heavy winter rains had made jungle trails impassable. While waiting for the trails to become passable, the "Pine Ridge" area was visited. This involved a trip of three days and nights of travel in small boats up a shallow winding river. Sharply demarked from surrounding jungle, this "pine ridge" appears much as if a strip of northern Michigan's open pine woods had been transplanted in the tropics.

Finally the jungle trails were reported "passable for mules," and the party returned to their base at El Cayo. But "passable for mules" proved almost impassable for men, and the sixty-five miles inland

required four days of the hardest kind of travel and the simple "bush" camp at Uaxactun looked luxurious when finally reached.

In these jungles 1,900 years ago the Mayas began the building of their great stone cities. They have now become a tangled jungle almost unknown to white men and specimens, exceptional both in quantity and in quality, were secured.

Due to the large amount of material and limited accommodations, the party broke up, Professor Bartlett going out first with his extensive botanical collection. On arriving at El Cayo, the mule train was to unload and return for Drs. Van Tyne and Murie, before the rains should set in making travel impossible. Unfortunately at this point Dr. Van Tyne was taken with a sudden and severe attack of jungle fever. Dr. Murie, however, and Mr. Monroe Amsden, of the Carnegie party, finally brought him and all the collections safely back to civilization.

The classification of the specimens will be carried out at the museum. It is probable that a second visit to this region will be made next year.

APPROPRIATIONS FOR GRANTS-IN-AID BY THE NATIONAL RESEARCH COUNCIL

At its meeting in May the National Research Council's Committee on Grants-in-Aid made grants for the support of research as follows:

To S. J. Barnett, professor of physics, University of California at Los Angeles, magnetization by rotary fields; Harry E. Farnsworth, associate professor of physics, Brown University, electron diffraction and refraction by metal crystals; R. C. Gibbs, chairman of the committee on ruled gratings of the American Physical Society, professor of physics, Cornell University, improvement of facilities for the manufacture of diffraction gratings; Ernest O. Lawrence, professor of physics, University of California at Berkeley, the production of high velocity hydrogen ions without the use of high voltages; Arthur E. Ruark, professor of physics, University of Pittsburgh, measurement of wave-lengths and line-widths in the spectra of Gamma rays; Karl S. Van Dyke, professor of physics, Wesleyan University, the piezo-electric effect in quartz and Rochelle salt.

Wilber E. Harvey, instructor, Lehigh University, the combined effects of corrosion and fatigue upon welds.

Frank T. Gucker, Jr., assistant professor of chemistry, Northwestern University, the thermo-chemistry of solutions and the dielectric constant of the solvent.

M. R. Campbell, principal geologist, U. S. Geological Survey, the gravel deposits of the Piedmont Plateau and Atlantic coastal plain north of Virginia; C. H. Crickmay, assistant professor of geology, University of Illinois, the Jurassic deposits of Mt. Jura, California; Richard M. Field, associate professor of geology, Princeton University, the stability of the Bahama

Islands in relation to their origin, migration and alteration of the sediments which mantle their surfaces; Edwin T. Hodge, professor of geology, University of Oregon, completion of geological study of Mt. Hood region in Oregon; Frank O. Melton, associate professor of geology, University of Oklahoma, tectonics of the continental interior of North America in relation to the Appalachian orogeny; Ellen C. Semple, Clark University, preparation for publication of "Geographic Influences in the History of the Mediterranean Region."

T. Hume Bissonnette, professor of biology, Trinity College, modification and control of the sexual cycle in the European starling; George O. Burr, associate professor of botany, University of Minnesota, the rôle of fatty acids in animal metabolism; Cleveland S. Simkins, associate professor of anatomy and embryology, University of Tennessee Medical School, the human ovary from birth to sexual maturity.

Ralph E. Cleland, associate professor of biology, Goucher College, cytological and gential studies of *Oenothera*; George R. La Rue, professor of zoology, University of Michigan, distribution of the lung fluke, *Paragonimus*, in America; Charles L. Parmenter, associate professor of zoology, University of Pennsylvania,

chromosome formation in parthenogenetically produced frogs; James T. Penney, associate professor of biology, University of South Carolina, cell behavior in freshwater sponges; William Rowan, associate professor of zoology, University of Alberta, bird migration from the view-point of animal behavior; Carl G. Vinson, professor of horticulture, University of Missouri, the virus diseases of plants.

Franklin Fearing, associate professor of psychology, Northwestern University, the functions of the non-acoustic portion of the labyrinth in pigeons; Frederick S. Hulse, research assistant in anthropology, Bishop Museum, Honolulu (at present at the Peabody Museum, Harvard University), race mixture between Spanish, Indian and Negro stocks; John A. McGeoch, professor of psychology, University of Missouri, the influence of the time interval and of the point of interpolation upon degree of retroactive inhibition; Jessie W. Murray, acting director, Tioga Point Museum, investigation of aboriginal Indian sites near Athens, Pennsylvania.

VERNON KELLOGG
Permanent Secretary,
National Research Council

SCIENTIFIC NOTES AND NEWS

DR. LELAND O. HOWARD, until his retirement in 1927 chief of the Bureau of Entomology of the U. S. Department of Agriculture, Washington, D. C., has been awarded the 1931 Capper Gold Medal and the sum of \$5,000 for distinguished service to American agriculture. Last year's award was given to Professor Stephen Moulton Babcock, professor emeritus of agricultural chemistry at the University of Wisconsin.

THE University of Paris conferred on June 13 honorary degrees on Dr. Henry Fairfield Osborn, director of the American Museum of Natural History, New York, and on Dr. Walter B. Cannon, professor of physiology in the Harvard Medical School.

THE honorary doctorate of science was conferred on Dr. Howard McClenahan, secretary of the Franklin Institute, formerly professor of physics and dean of the college at Princeton University, at the recent commencement exercises of the University of Pennsylvania.

DR. KARL LANDSTEINER, a member of the Rockefeller Institute for Medical Research, New York, was recently elected a member of the Royal Danish Academy of Sciences in Copenhagen, in the class of the natural sciences and mathematics.

MME. CURIE was recently appointed an honorary member of the Sociedad Española de Física y Química in a ceremony at the University of Madrid,

where she delivered lectures on radioactivity. Mme. Curie went to Spain on the invitation of several national medical and scientific societies.

DR. HANS HORST, professor of pharmacology at the University of Vienna, has been elected a foreign member of the Royal Swedish Academy of Sciences.

SIR OLIVER LODGE celebrated his eightieth birthday on June 12.

THE American College of Radiology on June 10 awarded its gold medal to Dr. Charles C. Lauritsen, professor of physics at the California Institute of Technology, Pasadena, in recognition of his work resulting in "the first practical high voltage tube operating daily for experimental research."

M. PAUL PELSENEER was recently elected a correspondent of the Paris Academy of Sciences in the section of anatomy and zoology in the place of the late M. A. Brachet.

At the Philadelphia meeting of the American Medical Association gold medals were awarded to Dr. Jacob Furth, of the Henry Phipps Institute of the University of Pennsylvania, for experiments demonstrating that leukemia can be transmitted by a filterable virus, and to Drs. J. Parsons Schaeffer and Warren B. Davis, of Jefferson Medical College, Philadelphia, for anatomical researches on the nasal sinuses. Silver medals were awarded to Drs. Harrison S. Martland, A. V. St. George, Alexander O.