

Forest as a large diversified farm, the main products of which are timber and forage crops. With a net area of 1,135,764 acres, this forest contains some two billion feet of standing timber, and provides grazing annually for 200,000 head of sheep. It has 600 miles of fishing streams, 150 miles of roads and 1,200 miles of trails.

The annual crop of timber is represented by the total annual growth of all the trees in the forest. In any one year the crop is taken only from a part of the forest. Operations are confined to the cutting of ripe or mature trees, and the weeding out of those that are overmature, diseased or defective. This leaves a stand of thrifty immature trees in a condition favorable for increased growth. Timber production is thus continuous. Although the annual growth of timber now amounts to about 20,000,000 board feet, present local demand for lumber has not warranted harvesting the full annual crop, and most of the accumulation is being "stored on the stump."

Deer, elk, mountain sheep, bears, mountain lions, bobcats, blue and willow grouse, ptarmigan, ducks and many other kinds of game and wild life range on the forest. It is the policy of the Forest Service in handling the grazing of domestic livestock to reserve adequate range for the wild animals in parts of the forest which can not be used efficiently for domestic stock. Hunting is allowed under Colorado State game laws, but elk and mountain sheep are protected the year round.

Watershed protection is one of the primary considerations in the administration of the Rio Grande. The welfare of a large territory in southwestern United States and northern Mexico is dependent upon the waters of the Rio Grande, and protection from fire, overgrazing and destructive logging is necessary to maintain adequate watershed cover.

Within the forest is the Wheeler National Monument, a grotesquely eroded geological feature, set aside by presidential proclamation and named in honor of George Wheeler, United States engineer. The monument is reached by a trip of 12 miles from Creede, Colorado, over a Forest Service trail.

A descriptive booklet, "The Rio Grande National Forest, Colorado," has just been published by the Department of Agriculture, from which copies may be obtained.

#### REFUGES FOR MIGRATORY BIRDS

THE protection of migratory birds by the establishment of refuges in all the states and Alaska is proposed in a bill introduced by Representative Andresen, Republican, of Minnesota, and unanimously passed by the House on February 9. A similar measure, sponsored by Senator Norbeck, Republican, of South Dakota, has passed the Senate.

The house bill provides for an appropriation of \$75,000 for the first year, \$200,000 for the second year, \$600,000 for the third year and \$1,000,000 annually for the next seven years to bear the cost of land and water areas on which 125 bird refuges would be erected. The senate bill differs in that it provides an annual appropriation for an indefinite period.

The two bills will be harmonized in conference and the completed measure submitted to President Coolidge, who is said to be in sympathy with the proposed legislation. One of the purposes of the bills is to meet more effectively the obligations of the United States under the migratory bird treaty with Great Britain by lessening the dangers threatening migratory game birds from drainage and other causes.

The Andresen bill provides for the creation of a commission for the purchase and establishment of bird sanctuaries in which the states are to have representation. State approval must be had before any area is set aside within its borders for this purpose. Jurisdiction in civil and criminal cases is expressly reserved to the states, and the bill provides that in carrying out the law there shall be no interference with their game laws.

The commission will be composed of the secretary of agriculture as chairman, the secretary of commerce, the secretary of the interior, two members of the senate, to be named by the vice-president, and two members of the house, to be designated by the speaker. The governor of each state will pass on all matters arising under the law affecting his state.

#### AWARD OF THE LAMME MEDAL

THE Lamme Medal Committee of the American Institute of Electrical Engineers has awarded the first (1928) Lamme medal to Mr. Allan Bertram Field "for the mathematical and experimental investigation of eddy current losses in large slot-wound conductors in electrical machinery." Arrangements for the presentation of the medal will be announced later.

The Lamme medal was founded as a result of a bequest in the will of the late Benjamin G. Lamme, chief engineer of the Westinghouse Electric and Manufacturing Company, who died on July 8, 1924, to provide for the award by the institute of a gold medal (together with a bronze replica thereof) annually to a member of the American Institute of Electrical Engineers, "who has shown meritorious achievement in the development of electrical apparatus or machinery" and for the award of two such medals in some years if the accumulation from the funds warrants.

Mr. Lamme made similar bequests to the Society for the Promotion of Engineering Education and the Ohio State University, providing in the former for

the annual award of a medal "for accomplishment in technical teaching or actual advancement of the art of technical training," and in the latter for the award every five years of a medal to a graduate of the Ohio State University in any branch of engineering for meritorious achievement in engineering or the technical arts. The three organizations have adopted a common obverse for their medals and each has prepared a suitable reverse.

In order to become familiar with American practice, Mr. Field joined the General Electric Company in 1902 and spent more than a year in the testing department in Schenectady, afterwards being engaged in transformer design. He then was employed by the Bullock Electric Manufacturing Company, the Allis Chalmers Company and the Westinghouse Electric and Manufacturing Company. He was consulting engineer and professor of mechanical engineering at the University of Manchester, England, from 1914 to 1917, and during the next three years was with Vickers, Ltd., London. Since 1920 he has been consulting engineer of the Metropolitan-Vickers Electrical Company, Ltd., Manchester, England.

Mr. Field is the author of a number of important papers on electrical machinery which have appeared in the *Transactions* of the American Institute of Electrical Engineers and other engineering publications.

### SCIENTIFIC NOTES AND NEWS

DR. FREDERIC A. LUCAS, director of the American Museum of Natural History from 1911 until 1923 and since honorary director, died on January 9, at the age of seventy-six years.

THOMAS A. EDISON celebrated his eighty-second birthday on February 11 at Fort Myers, Florida. There were present Mr. and Mrs. Herbert Hoover, Mr. Henry Ford, Mr. Harry S. Firestone and other friends. In the evening Mr. Edison made a speech which was broadcast from twenty-four stations.

DR. WILLIAM H. WELCH will give the principal address at the fifty-third commemoration day exercises of the Johns Hopkins University on February 22.

THE non-resident lecturer in chemistry at Cornell University under the George Fisher Baker Foundation for the period from February 12 to June 1, 1929, is Dr. F. M. Jaeger, professor of chemistry in the University of Groningen, Holland. Professor Jaeger's introductory public lecture was delivered in the Baker laboratory on the evening of February 12 on: "The Present and Future State of Our Natural Resources." His regular lectures during the term will deal with two main topics: (1) "The Relations between Geo-

metrical and Some Physico-Chemical Properties of Atomic Systems" and (2) "Methods, Results and Problems of High-Temperature Precision Measurements."

PROFESSOR G. H. PARKER, director of the Harvard Zoological Laboratory, has been made a corresponding member of the Société de Biologie, Paris.

DR. W. J. HUMPHREYS, of the U. S. Weather Bureau, has been elected a corresponding member of the Meteorological Society of Hungary.

THE gold medal of the Royal Astronomical Society, London, has been awarded to Professor Ejnar Hertzsprung, of Leyden Observatory, for his work in stellar astronomy.

DR. BERNARD NOCHT, of the University of Hamburg, has been elected a corresponding member of the Royal Society of Medicine, London, in the section for tropical diseases.

THE Geological Society, London, has made annual awards as follows: The Wollaston medal to Professor F. J. Becke, of Vienna, in recognition of the value of his researches in petrology; the Murchison medal to Dr. C. A. Matley, in recognition of the value of his researches on stratigraphical geology in various parts of the British Empire; the Lyell medal to Dr. A. Morley Davies, in recognition of the value of his researches in invertebrate paleontology; the Bigsby medal to Professor P. G. H. Boswell, for his valuable researches in sedimentary petrology and stratigraphy; the Wollaston Donation Fund to Dr. R. Campbell, in recognition of the value of his researches in Scottish petrology and stratigraphy; the Murchison Geological Fund to Mr. L. R. Cox, for his valuable researches in invertebrate paleontology, especially in connection with the Lamellibranchiata; a Lyell Geological Fund to Mr. C. Edmonds, in recognition of the value of his researches on the Lower Carboniferous rocks of the Whitehaven district; a second Lyell Geological Fund to Dr. E. O. Teale, for his contributions to the geology of Victoria and of Africa.

DR. A. HOYT TAYLOR, chief of the United States Naval Radio Research Laboratory at Bellevue, D. C., was installed as president of the Institute of Radio Engineers on February 6 at the institute headquarters in the Engineering Societies Building, to succeed Dr. Ralph Bown. Alexander Meissner, head of the Telefunken Research Laboratory in Germany, is the new vice-president.

THE *Journal* of the American Medical Association reports that Dr. Sigismund S. Goldwater has announced his resignation as director of Mount Sinai Hospital, New York City. He will hereafter be