cago); Coolidge (Schenectady, N. Y.); Ducceschi (Padova); Otto Glasser (Cleveland); Gola (Padova); Gurwitsch (Leningrad); Haskins (Schenectady, N. Y.); Magrou (Paris); Marinesco (Bucharest); Nadson (Leningrad); Nemenow (Leningrad); Palmieri (Bologna); Perussia (Milano); Pincussen (Berlin); Pugno-Vanoni (Padova); Rahn (Ithaca, N. Y.); Raman (Bangalore, India); Reche (Leipzig); Roffo (Buenos Aires); Rossi Bruno (Padova); Swend Lomholt (Copenhagen); Stempell (Münster); R. W. Wood (Baltimore).

Detailed information can be obtained from The International Society of Radio-Biology, care of Dr. Giocondo Protti, Venice, Italy, Canal Grance—S. Gregorio 173.

## THE FEDERAL FOREST HOLDINGS IN THE EAST

PURCHASE of large areas and initiation of a policy of rapid expansion of Federal forest holdings in the eastern half of the United States signalize the year 1933, according to the annual report of the National Forest Reservation Commission.

The report shows that 667,314 acres of forest land were approved by the commission for purchase, and 163,042 actually acquired by the government in the fiscal year 1933. Approximately 2,000,000 additional acres have been approved for purchase since July 1 and, under terms of the contracts, Forest Service protection and management have already been extended to cover much of this area. Thousands of Civilian Conservation Corps and Public Works Administration workers have been employed on the new purchase units.

Forest land purchases by the Federal Government during the last fiscal year took place in 37 units in 20 states east of the Great Plains. Most of the 438 tracts approved were small acreages, ranging from 50 to 1,000 acres. The average price was \$1.83 per acre. The average cost of lands actually acquired was \$4.10 per acre compared to an average of \$4.55 per acre for all land bought in previous years. These purchases brought the national forest lands acquired or approved by purchase in the east and south up to 5,386,936, of which 4,532,698 acres had been fully acquired. Acreage approved in 1933 exceeded that of any previous year.

Congress provided only \$180,278 for federal forest land purchase for 1933, and a cessation of the acquisition program seemed inescapable. Late in the year, however, an executive order of the President, allotting \$20,000,000 for the purchase of additional lands, will allow six to eight million additional acres to be added. It is now expected that purchasing will progress at the rate of half a million acres per month.

These purchases will nevertheless fall far short of meeting a critical situation, according to the report.

There are approximately 163,000,000 acres of land in the eastern forest zones where serious soil erosion is combined with major watershed influence. The longestablished program of national forests east of the Great Plains, where the objectives of watershed protection and timber production are so important, eventually should embrace, it is said, at least ten times the acreage now in federal ownership.

The gross area of all the national forests and national forest purchase units in the eastern half of the country existing at the end of the fiscal year was 16,589,387 acres, of which about 54 per cent. were in government ownership or being acquired. These figures do not take into account new purchases approved and new units formed since July 1.

Net appropriations for purchase of forest lands in the east from 1910 to 1933 amount to \$25,216,139. The \$20,000,000 allotted by executive order after the end of the fiscal year brings the total amount up to \$45,216,139.

The year marked the first purchases in Kentucky, in the newly-formed Cumberland unit. First purchases were also made for the Evangeline unit in Louisiana. During the current fiscal year, new purchase units have been established in Illinois and Missouri.

Members of the National Forest Reservation Commission are the Secretaries of War, Interior and Agriculture; Senators Keyes, of New Hampshire, and George, of Georgia, and Representatives Doxey, of Mississippi, and Woodruff, of Michigan. John E. Burch, of the U. S. Forest Service, is secretary.

## EXHIBITS IN PHYSICAL ANTHROPOLOGY AT THE FIELD MUSEUM

A SERIES of exhibits illustrating various phases of race biology or physical anthropology is being added to Chauncey Keep Memorial Hall of the Field Museum, Chicago. The first five cases of this series have now been completed and installed in the hall.

One of the new exhibits shows the various criteria employed by anthropologists to compare and distinguish racial characteristics. Examples of roundheaded and long-headed skulls are included in it, together with a map indicating the distribution of types of head form. Charts show cranial forms, age changes and racial differences in skulls, differences in the outlines and proportions of the body due to race and sex, variations in the shape of eyes, nose, chin and lips, and age changes in teeth. Distribution of races according to skin color and types of hair is shown on maps. Samples of hair from the various groups, several types of ears and the disarticulated skeleton of a new-born child complete the contents of the case.

In another case, casts made from living subjects, accompanied by photographs, illustrate differences in