Forest Service Observes Its Golden Anniversary

FIFTY years ago 1 February, the Forest Service was established in the Department of Agriculture. It inherited the functions of the old Bureau of Forestry and the administration of the Forest Reserves, now called national forests. Gifford Pinchot was named its chief.

Pinchot was not the first forester in this country, nor was the Forest Service the first federal agency to deal with forests, but he and his Forest Service were the first to propound "conservation of forest resources through wise use."

It has taken 50 years and the combined efforts of the state and federal forest services, forestry schools, and conservation-minded industries, individuals, and organizations to put across the theory that trees can be managed as a crop.

Today the Forest Service still carries on the work it inherited. It aids private landowners through cooperative programs with the state which provide for fire protection, distribution of planting stock at nominal cost, and technical-on-the-ground assistance in forest management. It also provides leadership in the control of forest insects and diseases. It administers 181 million acres of national forests. It carries on research.

One of the great achievements in forestry during the past 50 years is the progress made in putting Pinchot's sustained-yield idea into effect on privately owned lands. Today many large timber companies hire trained foresters to manage their woodlands, and some grow their own seedlings to replant burned-over and barren land. An increasing number of small landowners are getting professional advice on how to manage their forests and are planting more trees each year.

Some other accomplishments in forest conservation are (i) organized fire protection on 374 million acres, or all but 50 million acres, of forests in this country; (ii) development of new pulping processes particularly adaptable to hardwoods which have little other commercial value; (iii) production of kraft paper and newsprint from southern pine, which also has limited commercial use; (iv) construction of structural sandwich wood, which resulted in the mosquito bomber of World War II and is now used in freight cars; (v) invention of the fire-danger meter, which indicates the flammability of the forest through integration of data on humidity, wind velocity, moisture in the forest, days since the last rain, and the season of the year; with this information foresters can estimate how fast a fire is likely to spread and how hard it will be to control, plan which towers to man and how many firefighters to alert; (vi) use of air-borne parachutists to fight fires in the remote areas of the West; by getting to fires while they are small, these smokejumpers have saved thousands of dollors' worth of timber; (vii) improvement in the turpentining of longleaf and slash pine trees through application of sulfuric acid, which takes less labor, wastes less wood, and results in a higher yield of gum; (viii) rehabilitation of the Wasatch Range in Davis County, Utah, through the construction of contour trenches and revegetation on the high country; the land that had been so overgrazed that mudflows and floods almost ruined the valley below in the 1920's is now covered with grass and herbaceous growth that holds the water and has almost eliminated floods; (ix) improvement of national forest rangeland with 29,250 mi of fence, 3260 mi of driveways, 17,700 water developments, reseeding of 550,600 acres, removal of sagebrush from 8568 acres and juniper from 12,000 acres, and better management of livestock on the range.

Thus progress has been made in the conservation of forest resources. Forest conservationists in the 50 years ahead, however, will be faced with the problem of producing more wood, water, and forage from forest lands to meet the increased demands of a growing population. This necessitates better utilization of present supplies, plus planting millions of acres of rundown and burned-over potential forest land, management of millions of acres of forest, especially those in small ownerships, and adopting a system of quick detection and control of insects and diseases to prevent timber losses.

DOROTHY M. MARTIN
Forest Service, U.S. Department of Agriculture

SCIENCE, founded in 1880, is published each Friday by the American Association for the Advancement of Science at Business Press, Lancaster, Pa.
SCIENCE is indexed in the *Reader's Guide to Periodical Literature.*
All correspondence should be addressed to SCIENCE, 1515 Massachusetts Ave., NW, Washington 5, D. C. Manuscripts should be typed with double spacing and submitted in duplicate. The AAAS assumes no responsibility for the safety of manuscripts or for the opinions expressed by contributors.

Change of address: The notification should reach us four weeks in advance. If possible, please furnish an address stencil label from a recent issue. Be sure to give both old and new addresses, including postal zone numbers, if any.
Annual subscriptions: $7.50; foreign postage, outside the Pan-American Union, $1.00; Canadian postage, 50¢. Single copies 25¢. Special rates to members of the AAAS. **Cable address:** Advancesci Washington.
The AAAS also publishes THE SCIENTIFIC MONTHLY.