

"Agriculture needs not less science in its production, but more science in its economic life. We may usefully distinguish between productivity and production. Real efficiency increases the former but not necessarily the latter. Farmers can not have too much productivity or production power, provided they keep it under control. High productivity means low unit costs. With

efficient economic as well as efficient technical practice, farmers can make productivity their servant. It is half-science that turns research into a Frankenstein, and leads to demands for a halt in technical progress. Full science, embracing the distribution as well as the production of wealth, reconciles the conflict."

Science News Letter, August 25, 1934

FORESTRY

Forest Fire Toll Mounts, Influenced by Drought

HIGH on the list of national woes that have arisen from the drought, 6,973 desolate, fire-blackened areas record this year's destruction from forest fires.

This number, just totalled by the U. S. Forest Service, shows an increase of 2,727 individual fires over an average taken for the same period during the last three years.

The area burned is estimated at 183,000 acres, equal to nearly one third of the area of the State of Rhode Island.

Of the total number of fires 3,727, or 53 per cent., were said to be "man-caused." Some were incendiary, but officials of the Forest Service do not know just how many. The rest were the result of carelessness, springing up from burning cigarettes, neglected camp fires, or other such causes.

"Class C" fires, those that burned an area of more than ten acres each, numbered 1,326. Several of these invaded the United States from over the Canadian border, one crossing over the frontier into the Coleville Forest over a three-mile front.

Lookouts Efficient

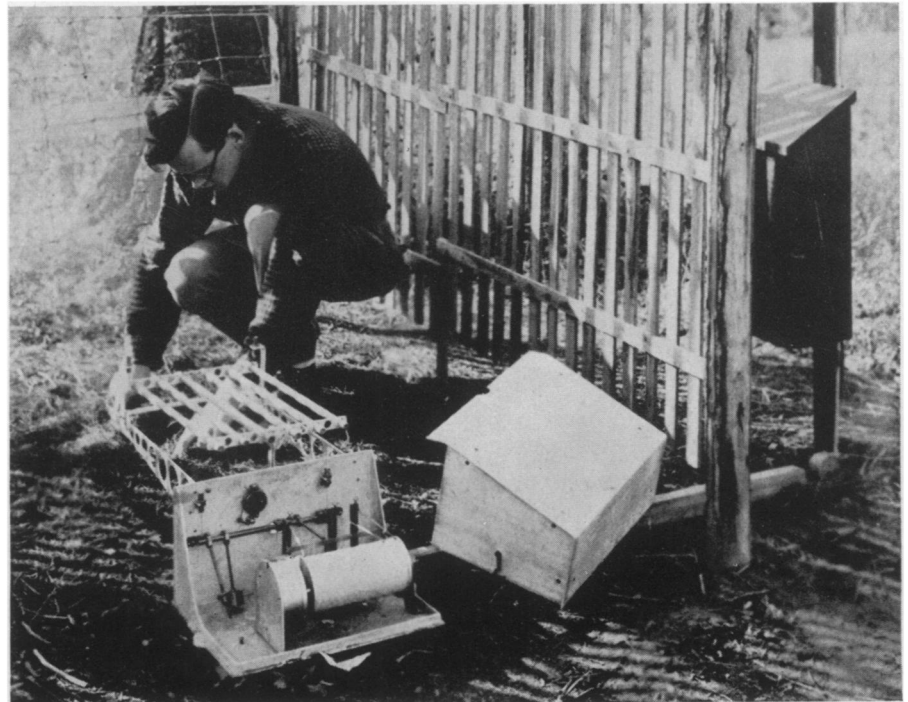
The "extra-period fires," those that lasted through noon of the day following that on which they were reported, totalled 183. This relatively small number emphasizes the efficiency of the lookouts who scan vast tracts of territory from lonely mountain tops, locating immediately and accurately the first trace of smoke in the unpopulated timberland far below.

Cross-bearings telephoned to other stations are necessary in determining the exact position of a tiny blaze which may soon develop into a roaring inferno. It is then a question of how soon men

can arrive on the scene to check the wall of flame. Armies of more than 2,000 volunteers have a number of times had to battle for days before the last spark was out.

The number of fires increases each day, especially in Washington and Oregon with their huge areas of unpeopled forest. New fires are springing up continually, many of them raging uncontrolled for several days.

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NEW FOREST FIRE HAZARD RECORDER

A forest fuel hygrograph, indicating and recording the main factors of forest hazard, has been developed at the U. S. Forest Products Laboratory, Madison, Wis., and has been tested in service at the Northern Rocky Mountain Forest and Range Experiment Station, Missoula, Mont. The instrument records the degree of dryness of forest leaf litter or duff and of the slash or branch-wood that is left after logging, as well as average wind velocities. Since its indications continuously translate atmospheric conditions into a direct gauge of the inflammability of forest materials, this hygrograph is welcomed by forestry officials.

ECONOMIC ZOOLOGY

International War Urged Against Animal Parasites

MEN OF ALL nations should take international action to fight against their nationless foes, the parasites of animals that supply us with milk, meat and clothing. Such a militant league of science was urged upon the Twelfth International Veterinary Congress by Dr. Maurice C. Hall of the U. S. Department of Agriculture.

"The spread of parasites in international trade calls for international action, as Skrjabin has pointed out," said Dr. Hall. "Such international action calls for international cooperation to prevent undue damage to international trade. . . ."

"Unfavorable conditions confronting our program of parasite control include excessive nationalism, the existence of many local governmental units, gaps in our knowledge due to insufficient research, and widespread failure to use control measures already established as of value. The magnitude of our control problems is not yet adequately esti-