



Christmas Botany

► ON the secular side Christmas is gifts and good cheer, family reunions and good companions, snow, lights, bells and Kris Kringle. And it is also the trees and plants with which we bedeck the festival.

These trees and plants form a special Christmas herbarium. In first place, of course, is the tree itself. Most of our Christmas trees are spruce. There are several kinds of spruce but they can all be told from the other evergreens by their needles.

Spruce needles are short and quite stiff, and each one stands up on a sort of little pedestal by itself.

Fir trees are sometimes used. Their needles are softer than spruce, and somewhat curved. The Douglas fir is used quite extensively in the Northwest. Of course the kind of tree cut for Christmas tree depends on the available local supply. In pine country, pine trees are the prevailing type. Unlike the spruce-fur group, pine needles are borne in little clusters of from two to five.

Mistletoe is firmly entrenched among the pleasanter frivolities of the season. Custom has endowed it with a special charm and power, and though small it sells extremely well. So well in fact that florists now package it in little cellophane bags, complete, rumor has it, with pins for fastening to ladies' hats.

Botanically, mistletoe is a parasitic plant which grows not in the soil but on trees, deriving much of its sustenance from them. However much foresters, like other men, may value mistletoe at Christmas time as a subterfuge for kissing, their year 'round professional view of it is as a plant pest that saps, and sometimes dwarfs and kills the trees it feeds on.

Honored in a different way are holly and poinsettia. Of the two holly is the older as

a Christmas plant. But when this evergreen became threatened with extinction when our expanding population created an ever-increasing demand for it, a substitute was sought. Poinsettia, which had been in use as a Christmas plant in California, was readily seized upon. Both are desired for their attractive display of the season's colors.

The Yule log, while in no sense a botanical species, deserves some notice, if only for its antiquarian interest. The disappearance of the Yule log can be attributed to two things: the clearing of the great forests, and central heating. In olden times the custom was to hunt up the biggest log to be found. It was usually oak. Cut as generously as possible so it would still fit the fireplace, it was then set in place at the back of the fire to burn unattended during the days of prolonged revelry.

Great oaks are rare and fireplaces are more so. When Christmas comes, no special effort is needed to keep the house cozy. The furnace is stoked or the thermostat set just as on any other winter day. The nearest thing to the Yule log custom is an act that has become traditional on Christmas Day among folk who live in apartment houses. That is the Christmas gift to the superintendent. Experience has shown that if the donation be large enough, the house will be snug well into the New Year.

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#### MEDICINE

## More, Cheaper Cortisone

► A MERRY Christmas and happy New Year are in store for some more sufferers from arthritis and rheumatic fever and patients with other chronic ailments, including mental disorders for which cortisone shows promise as a remedy.

There will be more of the precious chemical available in 1950 and its price has been cut by one-fourth, the manufacturers, Merck and Co., Rahway, N. J., announce.

There is no promise in the announcement that there will be enough of the chemical to treat very many patients with arthritis. But the company believes its increased production in the first half of 1950 will be enough "to supply various teaching medical centers with limited quantities for research purposes."

Two important advances should result: 1. discovery of new conditions for which the drug will be useful; 2. more knowledge of how to use it safely and effectively.

The price cut goes into effect this month. The new institution or hospital price will be \$150 per gram, compared to the \$200 to \$400 per gram the chemical cost last August. In August it cost at least \$20 per day to sustain a patient with 100 milligrams of cortisone. Now a vial containing three times that amount, or 300 milligrams, will cost \$45.

After Dec. 31 the National Academy of Sciences committee on investigation of cortisone will terminate its activities and Merck and Co. will take over the allocation and distribution of the chemical. First priority will be given to various research products for which cortisone has already been supplied and some for which applications are still under consideration by the National Academy of Sciences committee.

After those research demands are met priority will be given to requirements of teaching medical institutions in the United States and Canada and to appropriate research centers under Government supervision.

Cortisone can be shipped only for use in medical research, since the U. S. Food and Drug Administration has not yet released it for general distribution.

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#### PLANT PATHOLOGY

### DDT Helping Save Elm from Extinction

► EFFORTS to save the shade-giving elm from Dutch elm disease show promising results after two years of experiments.

DDT applied with a mist blower eliminates the disease from 91% of the tree, says Dr. George H. Plumb, entomologist at

the Connecticut Agricultural Experiment Station, New Haven, Conn. The spraying was made more difficult, he says, by the fact that the trees treated stood on narrow residential streets, and special care had to be taken to keep the spray from drifting.

The American elm has been seriously threatened by Dutch elm disease and also by a disease called elm phloem necrosis which causes the leaves to fall off and the roots to die. The fight to save the elm from extinction has been fought on two fronts. One has been with chemicals like DDT to kill the disease carriers. The other, which has also met with some success, has been the attempt to breed new kinds of elms which are resistant to the disease.

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#### GENERAL SCIENCE

### Cancer, Brain Stories Win Science Writing Awards

► A NEWSPAPER series about cancer and a magazine article on the human brain won this year's George Westinghouse Science Writing awards of \$1,000 each.

Lester Grant, science reporter for the New York Herald-Tribune, and George W. Gray, of Sparkhill, N. Y., writing in the SCIENTIFIC AMERICAN, were named winners of the fourth annual contest.

The awards, administered by the American Association for the Advancement of Science, will be presented at a luncheon on Dec. 28 in New York.

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