

INVENTION

## New Machines And Gadgets

### Novel Things for Better Living

Passengers on moving trains and airplanes may be entertained by radio programs from London, Berlin, Rome, and Moscow if short wave equipment recently tested is installed.

Clearer transparent cellulose sheeting, of the non-inflammable type cellulose acetate, is made by use of a newly patented method. A small amount of sulphuric acid is incorporated in the wood pulp from which the cellulose is obtained.

One may wonder what use a machine for picking clover tops might be. But red clover blossoms are dried and used in medicines, chiefly for treating colds. American druggists use about 20 tons of them every year, hitherto imported from abroad. Scientists who developed the machine believe that it can be adapted for harvesting 200 other medicinal plants, many of which grow wild in this country. One machine does the work of 2400 hand pickers.

A window through which you can speak, but which you cannot get through or even stick your hand, is an invention recently patented. The glass is set in an outwardly flaring metal frame, with an air space between the front and back sides of the frame. On both the front and back sides, the frame is perforated all around with small holes, but the two sets of holes are offset. You can't even pass a rat-tail file through to the other side. The window is intended for institutions where inmates may communicate with visitors or attendants on the outside but must have no direct contact with them.

Amateur photographers, who would like always to have their latest and best work framed and hanging on their walls, but find it too bothersome to take the frames all apart and paste them up again, will welcome a demountable frame that has recently won a patent. The four sides are held together by removable corner pieces so that it can be taken apart and put together again in a jiffy.

Just a lineman climbing a pole! So what? Well, the unique thing about this particular lineman is that he is less than four inches tall but in the Army. The pole he is climbing is 18 inches high. Nevertheless, he is provided with a complete set of lineman's tools, even to a tiny roll of insulating tape, accurate in every detail despite their fraction of an inch size. He is actually supported on the pole by "gaffs" or



spikes. Pole and lineman and all the equipment were made by Work Projects Administration workers on the New Jersey Arts and Crafts Project, to assist the United States Army Signal Corps in training recruits. It is only one of a number of miniature set-ups made or under construction by WPA workers. Another is a model teletype, exact duplicate of the original machine, which actually works, but at 1/1800th of the speed of the original so that the recruits can see just how it works.

A steel "igloo" built entirely of steel plates welded together houses the lunchroom of a Chicago steel plant. Its dome-shaped interior, 108 feet in diameter and 28 feet high, is unbroken by beams, trusses or posts. Windowless, it is air-conditioned. This unique structure is believed to be the first of a new breed of buildings.

*If you want more information on the new things described here, send a three-cent stamp to SCIENCE NEWS LETTER, 1719 N St., N. W., Washington, D. C., and ask for Gadget Bulletin 82.*

*Science News Letter, December 6, 1941*

*Peanut oil* is a source of glycerine for munitions.

While *cave* hunting in southwest England, students of Bristol University in 1939 discovered a huge chain of caverns with beautiful stalactite formations.

*Poison gas* was used in Spartan-Athenian fighting in the sixth century, B. C., when Spartans soaked wood in pitch and sulfur and burned it under city walls, thus freeing asphyxiating gases.



### Not Guilty

**R**ED CURRANTS can safely be grown in parts of the country where their close cousins, European black currants, wild currants, and both wild and cultivated gooseberries, have to be eradicated to keep them from spreading the infection of white pine blister rust. This is the conclusion of Walter H. Snell of the New York Department of Conservation, based on extensive field studies by himself and other foresters. (*Journal of Forestry*, October)

White pine blister rust, the most destructive disease of white pines in this country, is caused by a parasitic fungus that spends part of its life cycle on the leaves of currant and gooseberry bushes, going from them to the pines, just as mosquitoes "entertain" the parasites that later cause malaria in man.

Because of this harboring of the rust fungus, currants and gooseberries have for some years been under the ban in the white pine areas of this country. While it had been noted that red currants seemed less susceptible than other species, their destruction when within 900 feet of white pine trees had been decreed, just to play safe. Now, in Mr. Snell's opinion, it is safe to let the bushes grow, even in the close vicinity of the valuable trees.

*Science News Letter, December 6, 1941*

## ● RADIO

*Saturday, December 13, 1:30 p.m., EST*

On "Adventures in Science," with Watson Davis, director of Science Service, over Columbia Broadcasting System.

Vice-President Henry A. Wallace will give the principal address. See page 354.

Listen in each Saturday.

*Monday, December 15, 9:30 p.m., EST*

Science Clubs of America programs over WRUL, Boston, on 6.04 and 11.73 megacycles.

One in a series of regular periods over this short wave station to serve science clubs, particularly in high schools, throughout the Americas. Have your science group listen in at this time.