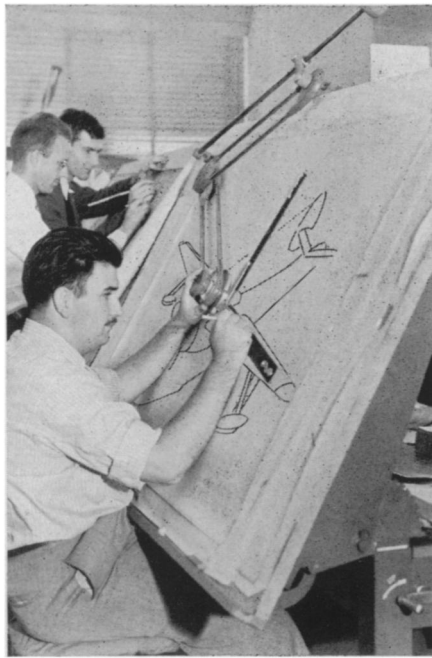


## New Machines And Gadgets

### Novel Things for Better Living

Did you ever notice that the top of a broom is shaped just like a dustpan? Then why not make the dustpan to fit over the top of the broom, with a sleeved handle to slide down the broomstick? Then you won't have to hunt all over for the dustpan when you have finished sweeping. It's right on your broom. All you have to do is to slide it off. Meanwhile it provides a firm backing for the broom while you are sweeping. But you are too late. The device has already been patented. Better luck next time!

Small disk-shaped fluorescent lamps that can be used in any sort of electric fixture in your home have now been patented. Fluorescent lamps have so far been used mostly in factories and offices because the long tubes, 18 to 48 inches, require special fixtures and may be inharmonious and harsh in some home surroundings. The small disk lamps, on the other hand, lend themselves to artistic requirements and give the more concentrated light required, for example, of a reading lamp. They can be made in sizes from 5 to 18 inches in diameter and  $\frac{3}{4}$  to 2 inches thick. The 9-inch size corresponds to a 4-foot tube which consumes 40 watts and yields 1400 lumens of light—equivalent to a 100-watt incandescent lamp. The 18-inch lamp corresponds to four such tubes. The new lamps are claimed to be fully as efficient as the old and to burn 2000 hours.



Uphill drawing, like that shown in the illustration, is not so difficult as might seem. It is, on the contrary, much easier than drawing on a flat or slightly tilted table when the drawing is large. In that case the draftsman must sprawl all the way across the table to reach the farther edge, and draftsmen have been known to lie flat on their stomachs on top of the board to reach the far corners. This drawing board is hinged to the top of a good solid table and when in the up position, the table behind the board can be used by another man, thus economizing space in a crowded drawing room.

Liquid fertilizers are more effective than dry fertilizers because they find their way at once to the roots of the plants. Dry fertilizers laid on or mixed in with the soil must first be dissolved by whatever moisture there is in the soil before they can be taken up by the plants. It is particularly necessary to dissolve phosphates before applying them because they are not as soluble in water as nitrates and other fertilizers.

Instrument dials stay white when sprayed with a new liquid coating formulated with the aid of new resins derived from melamine, now in commercial production. The coating resists the discoloring effects of light, high temperature, chemical fumes and moisture.

Better results in electroplating can be obtained by the use of wetting agents which help to make a better contact between the mold and the liquid. In rinsing plated work, these wetting agents also help to prevent spotting.

Varnish oil is now coming from the jungles of Brazil to offset the present insufficient supply of tung oil. The new oil is prepared from oiticica nuts and like tung oil it dries out, leaving a hard, elastic and durable film. And it sells for 21 cents a pound as compared with 34 cents for tung oil.

*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 80.*

*Science News Letter, November 22, 1941*

#### HORTICULTURE

### High Vitamin C Content In Tomatoes Sought

HIGHER vitamin C content in tomatoes is the goal sought in a unique series of experiments now being conducted by scientists of the U. S. Department of Agriculture. The experiments were described by Dr. E. C. Auchter, chief of the Bureau of Plant Industry, speaking on the General Electric Science Forum.

In one set of tests, tomatoes of known hereditary character are being grown in side-by-side plots at Ithaca, N. Y., on soils brought from all over the United States. The object is to compare effects produced by soil conditions under like conditions of climate. In another set, similar tomatoes are being grown on the soils in their natural locations, which gives a variety of climatic as well as of soil conditions.

Dr. Auchter also told of a new cabbage variety especially rich in vitamin C that has been developed at the Department's breeding laboratory at Charleston, S. C.

*Science News Letter, November 22, 1941*

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