

• New Machines and Gadgets •

For addresses where you can get more information on the new things described here, send a three-cent stamp to SCIENCE NEWS LETTER, 1719 N ST., Washington 6, D. C., and ask for Gadget Bulletin 630. To receive this Gadget Bulletin without special request each week, remit \$1.50 for one year's subscription.

➤ **THREAD HOLDER**, made of aluminum and covered with a transparent dust cover, will accommodate 42 spools of thread and two pairs of scissors. The unit can be obtained unfitted or completely furnished with high-quality thread and scissors.

Science News Letter, July 12, 1952

➤ **MOVIE SCREEN**, designed to be used on desks and table tops instead of on a special stand, has rubber-tipped fold-away feet to protect the furniture on which it is placed. The light-weight, portable, roll-up screen also can be hung on walls.

Science News Letter, July 12, 1952

➤ **LOADING UNIT** for trucks handles four and a half cords of lumber at once in strongly braced steel frames. Trucks equipped to use the frames pull the load of wood aboard with a winch.

Science News Letter, July 12, 1952

➤ **SALT AND PEPPER shakers** in gay colors fit into holes of a miniature camel's back to form his humps. Made of plastic, the inexpensive novelties can be given to children as individual salt and pepper sets.

Science News Letter, July 12, 1952



➤ **TOY BULLDOZER** built to scale, is one-twelfth the size of a well-known commercial make, and has a three-position, movable blade. The toy, which weighs five pounds, is shown in the photograph. It was built in response to children's requests and

is made largely of 18-gauge spot-welded steel.

Science News Letter, July 12, 1952

➤ **BRAKE-LINING UNIT**, attachable to many automotive brake shoes, is easily installed with ordinary hand tools, thus eliminating bonding or riveting. Consisting of a brake lining bonded to a metal backing-plate, the unit delivers up to twice the life of present riveted lining units.

Science News Letter, July 12, 1952

➤ **FLUORESCENT LAMP**, designed for new lighting systems, comes on quickly without external starters. Made in 40-watt sizes, the lamps light in about one second after being turned on, and will not flicker. The ballast is smaller, cheaper and quieter than ballasts used previously.

Science News Letter, July 12, 1952

➤ **MINIATURE WIRE**, in sizes ranging from 94.2 to 675.00 circular mils, has an impervious fused insulation designed to provide high dielectric strength and good heat-resisting qualities. The insulation is chemically inert and non-inflammable.

Science News Letter, July 12, 1952

• Nature Ramblings •

➤ **THE INVENTION** of the cotton gin made cotton the South's principal crop. The steel plow and the reaper hastened the shift of the grain belt from the hills of the East to the prairies of the West.

The linotype and the rotary press, by greatly cheapening printed matter and thus increasing its use, have created a crisis in forestry, with easily accessible native stands of timber being wiped out faster than new pulpwood is being grown.

In a little less obvious way, the invention of barbed wire has caused the near-disappearance of the Osage orange, a once-familiar high shrub or small tree.

When the prairie lands of the Midwest were being opened up, a century or so ago, the most easily available way of dividing field from field, and of keeping stray cattle on the road from getting into the corn, was to plant a hedge.

Neither the rail fences made of split logs from cleared land farther east, nor the stone walls of the Atlantic seaboard, were practicable on the prairies, where there were few trees and even fewer stones.

Technological Unemployment



Most practical hedge plant was the Osage orange. It is a native plant, with its center of distribution in the Ozarks and nearby regions, so it was readily available and already acclimated. It grows rapidly and branches freely if cut back, so can be induced to form a thick, stout hedge in a short time. And it is armed with most formidable thorns, discouraging to would-be animal trespassers.

Early nurserymen grew great stocks of it and sold young plants by the millions.

From the sixties to the nineties of the last century there were literally thousands of miles of Osage hedge. If you went for a buggy-ride in the country, you were almost continuously "hedged in" by the thick shrubs, trimmed waist-high, on both sides of the road.

Then somebody conceived the idea of putting steel thorns on twisted wire, and invented a machine for making the stuff. A barbed-wire fence took less space than a hedge, which of course claimed several yards of soil on either side of itself for its own nutrition. Thus a fence materially increased the tillable area of each field.

So the hedges began to decline. Farmers dug them out or hired professional crews with steam-powered machinery to root them up with giant plows. The smoke of their burning drifted over all the land.

Here and there, stretches of hedge still survive, usually neglected and allowed to grow to full height of 20 or 30 feet. But they are only fragments of what was once the wide-ranging, Midwest empire of the Osage orange.

Science News Letter, July 12, 1952