

• New Machines and Gadgets •

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⚙️ **SELF-STERILIZING nylon**, for use in toothbrushes, combs, teething rings and other solid objects, is impregnated with an aryl mercuric compound in the presence of nitric acid. This recently patented process makes the article in which used a long-life bacteria-killer.

Science News Letter, July 15, 1950

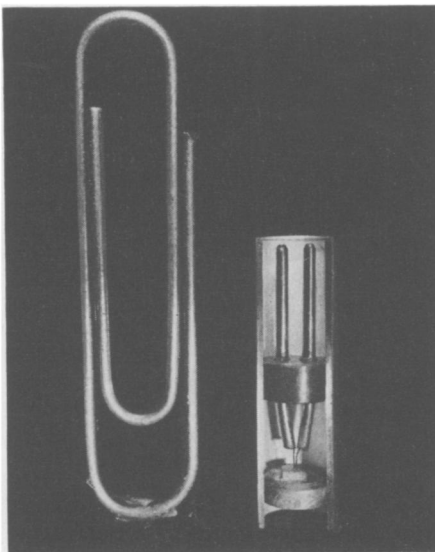
⚙️ **POWERED GRINDER** for the laboratory revolves the mortar or grinding bowl, electrically while a weighted arm holds the pestle grinder and swings it back and forth in the bowl. It handles laboratory solids faster and more efficiently than the hand mortar-and-pestle method.

Science News Letter, July 15, 1950

⚙️ **FIRE ALARM system**, for industrial installations, automatically gives a local "heat" warning if the temperature exceeds a predetermined safety point and later summons the fire department if the heat surges beyond. It is a continuous line of plastic-insulated copper tubing carrying a light electric current.

Science News Letter, July 15, 1950

⚙️ **TRANSISTOR**, a tiny metal tube shown here beside a paper clip, has the ability to amplify electrical currents in much



the same way as the electronic vacuum tubes found in all radio sets. Its secret is a crystal of the element germanium.

Science News Letter, July 15, 1950

⚙️ **FREEZE-DRYING apparatus**, which uses infra-red rays as a heat source, speeding up the process at least 10 times, was developed to produce a particular drug but

has many applications. The process consists basically of a frozen solution to be dried, a vacuum tank, and a heat source.

Science News Letter, July 15, 1950

⚙️ **FLASHER LIGHTS**, for use at night on private and executive planes, come in a complete kit for easy installation and meet the new governmental requirements for flashing lights during darkness. The device has only one moving part, and operates on 12- or 24-volt electric systems.

Science News Letter, July 15, 1950

⚙️ **COTTON SEED CLEANER**, to remove trash and other foreign matter from the seed during ginning, consists of two cylinders, one within the other, the cotton to be cleaned passing between them. Jets of air, entering through openings in the outer cylinder, blast foreign material from the cotton locks.

Science News Letter, July 15, 1950

⚙️ **CEPHALOMETER** is a type of X-ray apparatus devised to make scientifically accurate "pictures" of the exterior and interior head and face. With it, scientists hope to be able to detect early, and correct, dental and facial irregularities which lead to disfiguring growths.

Science News Letter, July 15, 1950

Do You Know?

The leading cause of fatal injuries in coal mines is falling roofs.

New Zealand stands first among the nations of the world in the average age to which its population lives.

Iceland's golden plover is quiet and almost invisible on its nest in the mossy tundra but is a noisy conspicuous bird when on the wing.

True gold will not dissolve in diluted nitric acid but "fool's gold" will; the latter is iron pyrite but it looks like gold and has fooled many.

A chemical amino compound called ortho biphenyl biguanide, added to soap in the making, prevents the product from rancidity and discoloration.

Compound 1080, chemically sodium fluoroacetate, is an excellent poison for rats but can not be safely used except by experts because it is a dangerous poison to man and other animals.

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