

# • Top Patents of The Year •

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Notable and interesting inventions patented during the year include:

A bonding process for putting a protective coating of aluminum on steel by use of a fine iron coating on the steel deposited electrolytically as a bonding agent.

A method of navigation and orientation by picking up very short radio waves emitted by the sun and other stars which can be received in any weather.

Improved chemical process for extracting industrially useful sugars from wood.

Synthesis gas made by partial combustion of coal or lignite in underground seams and piped to the surface for use.

Wool made non-shrinking by exposing it to sonic vibrations intense enough to cook an egg, thus coagulating the wool proteins.

A way to freeze eggs without breaking the shells by removal of a little of the moisture inside the shell; this preserves the eggs for later table use in fresh egg condition.

A radio device which will be ejected from an airplane about to crash and will automatically and periodically broadcast distress signals.

An improved process for producing phosphate fertilizer by charging a vertical smelting furnace with mixture of phosphate and silica and absorbing the fluorine with water vapor produced during combustion of the fuel.

A process for concentrating uranium out of its ores by heating the lower oxide of uranium in the presence of oxygen under pressure.

An air-conditioning system for mines which cools and dries the air and returns it as near as possible to the working face.

A process for preparing vitamin K in forms that will keep longer without deterioration.

Use of flame instead of steel blades for thinning out cotton plants by machine.

A low-temperature process for totally converting coal into oil under moderate pressure.

Use of short-length radio waves focussed by mirror-back oscillators to make the basis of nitrate fertilizers and other chemicals out of air and other gas mixtures.

A high-pressure, high-temperature turbine run by hot air instead of combustion and thus not so much subject to corrosion.

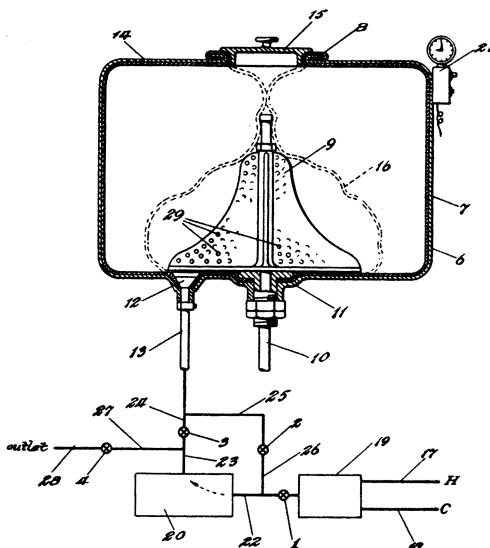
Device for making it possible to telephone by means of a pair of flashlights, incorporating in one ordinary powerful flashlight a telephone transmitter with circuit hookup to cause the lamp current to fluctuate in tune with the spoken message, and in the other a lens, for focussing, amplifying hookup and telephone receiver.

Design for jet-propelled airplane which would have propellant gases streak in a solid sheet from the trailing edges of their wings.

Design for a steam turbine in which steam jets from a central disk-shaped stator are delivered into a ring-shaped body of water whirled around in a rotating casing.

A machine for harvesting vegetables such as celery, broccoli and cauliflower, making use of an inverted u-shaped frame, side-mounted on a tractor, with two rotating cutting bands, one just under root level, the other to shear off excess tops.

Production of nickel, either pure or in ferromagnetic form, from low-grade ores by a process for separating out the magnesia.



A washing machine that uses air pressure to squeeze the water out of the clothes while still in the washer.

Method for sending radio-frequency energy along pipes such as city water pipes or gas pipes or along railroad rails.

Revival of Langley's aerodynamic idea in the design of a flying boat having two pairs of wings mounted in tandem with multiple engines mounted on the leading edge of the trailing pair.

Control apparatus for a coin-operated type-

writer in public places, which limits the use of the typewriter to a certain period of time after coin is inserted.

A method for producing a concentrated olive essence from olive pits which can be used to convert less esteemed food oils into imitation olive oil.

A tea concentrate made by steeping the leaves at boiling-water temperature and condensing the aromatic steam distillate.

Method for discharging static charges on vehicles on the highway by means of a flexible upright-projecting metal rod that makes contact with passing cars.

A jet-propulsion unit for use in water instead of air and using fuel that is "burned" by reaction with water.

Prompting of television actors by directed, short-range, short-wave radio.

Method for separating fresh corn from cob without injury by bursting the cob into fragments, each carrying a separate grain.

Explosive bursts releasing clouds of bright varicolored smoke for use in daytime fireworks or for determining accuracy of artillery fire.

A machine for automatically heating pre-packaged hot-dogs.

A hybrid aircraft with ordinary airplane wings and two larger-than-ordinary pusher propellers, variable in both pitch and speed, which can be swung through 90-degree arcs to push vertically, helicopter-wise, for take-off, landing, and hovering, or to push horizontally when the plane is in flight.

Method for making insecticide sprays stick to plants by giving each particle an electrostatic charge induced by ejecting the spray at velocity greater than that of sound.

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