

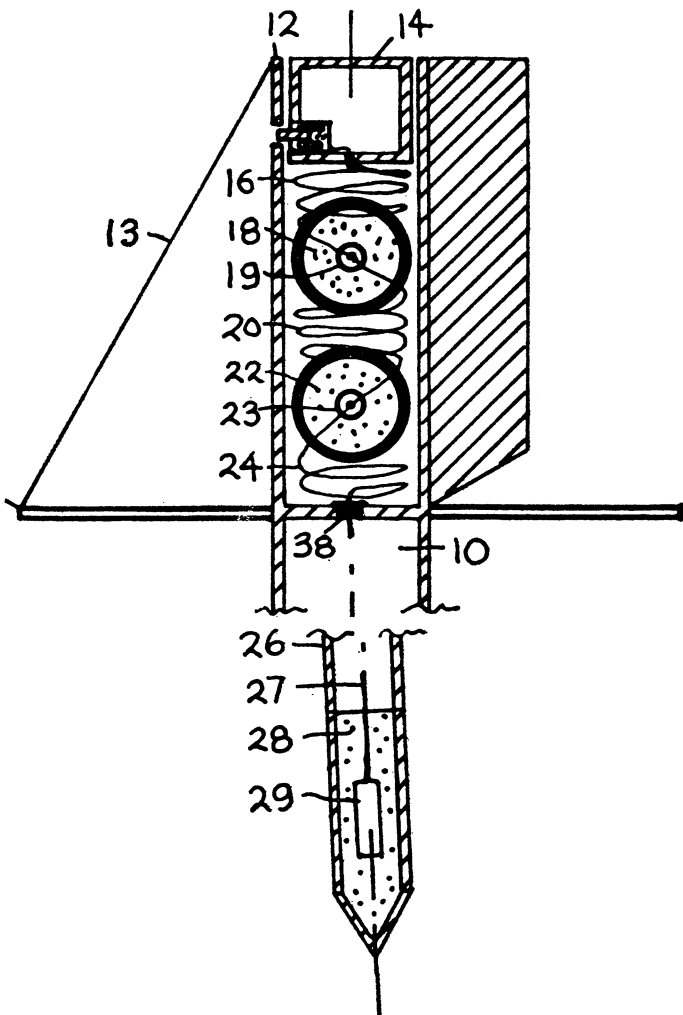
current patents

OCEANOGRAPHY

Explosive probe analyzes sea bottom

Sound waves from explosions on the ocean bottom vary depending on the type of soil. A newly patented probe uses this principle to give highly localized analysis of the sea bottom.

In an underwater explosion, the first shock wave is



followed by a series of later pressures called bubble pulses, caused by oscillations of the bubble of gas that remains after the detonation is completed.

The time period between the shock wave and the first bubble pulse depends on the medium in which the explosion takes place.

The sounding device, invented by Sidney and David Epstein and assigned to Vadys Associates, Ltd., Brooklyn, N.Y., contains three explosive charges in a probe that can be dropped from an airplane. One charge in the nose of the probe penetrates the ocean bottom; another, attached to a float, rises a few feet off the floor to explode in the water; the third settles on the bottom.

The three charges are set off in sequence, and a hydrophone measures the time periods between shock wave and bubble pulse.

Comparing the three times tells whether the bottom is silt, sand or clay.

Patent 3,373,400.

PROTECTION

Pole painter uses aerosol bombs

Flagpole painting is a dangerous occupation and labor costs are high. The usual mechanical paint sprayer involves costly and cumbersome equipment.

With this in mind, K. R. Dickau of Whittier, and R. W. Miner of Long Beach, Calif., have designed a flagpole painter that uses aerosol paint cans in a lightweight rig. A series of rollers allows the machine to move up and down the pole, pulled by the rope that usually hoists the flag. A cam and ratchet assembly operates all the nozzles on the aerosols simultaneously.

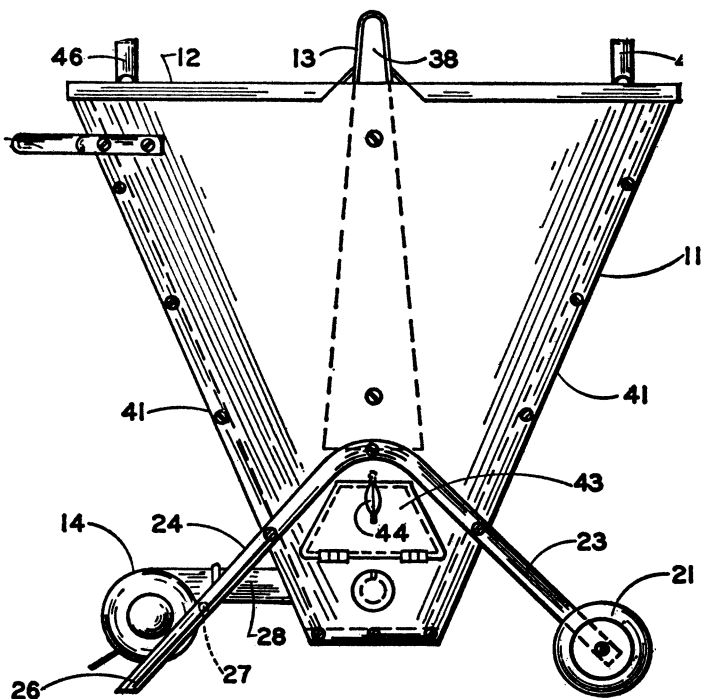
Patent 3,372,674.

GARDENING

Wet leaves burn without smoke

A yard burner that produces almost no smoke even with wet leaves won a patent last week for two Illinois inventors. The device uses an electric blower to pump in enough air so the garden trash is completely consumed.

The portable burner has slanted sides and a stack in the center made of heavy metal mesh. The blower at the



bottom feeds air through a perforated pipe to the stack. The sides of the burner are angled so that refuse to be burned won't pack up against the blower pipe and block the flow of air.

Inventors M. E. Lager of Winnetka and R. J. Miller of Chicago claim the burner can also be used for paper trash or other refuse.

Patent 3,372,656.

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