

Moisture Loss of Trees Reduced

Chemical Fed to Soil Cuts Evaporation to Save Water

By STACY V. JONES
Special to The New York Times

WASHINGTON, Sept. 10—
The Illinois State Water Survey received a patent this week for a method of reducing the transpiration of moisture by trees and plants. The purpose is to save water.

A chemical is absorbed by the roots and discourages the

exhalation of vapor from the leaves and other parts exposed to the air. One observer familiar

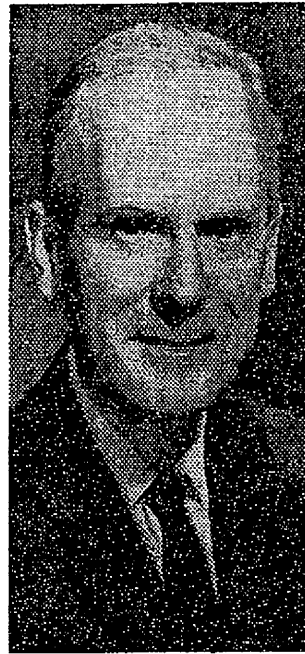
with agriculture said that the process was still in the research stage, but when fully developed might prove to be as important as fertilizer.

Wyndham J. Roberts, an engineer on the survey's staff at the University of Illinois in Urbana, obtained Patent 3,205,059. Patents have also been granted in many foreign countries.

The method is described as "substantially inhibiting" the transpiration. An increased content of fatty alcohol in water is applied to the soil at a rate between 25 and 500 pounds an acre. Fungicides or nutrients may be applied at the same time.

Mr. Roberts explains in the patent that he prefers to use two alcohols derived from beef tallow, in the proportions of about one-third hexadecanol and two-thirds octadecanol.

The chemicals may come



The New York Times
Wyndham J. Roberts

from other sources, including whale blubber.

The same two alcohols are being used by the United States Bureau of Reclamation in experiments that reduce evaporation from reservoirs.

Effective tests described in the patent have been conducted with hybrid corn in greenhouses and with grass in fields. In Wisconsin, 120,000 fir trees have been treated.

According to the patent, not only is the amount of water required for plant growth substantially reduced but the heat loss resulting from evaporation is reduced.

This means that less heat from the atmosphere is required, and plants may be

Delicate Equipment Protected by New Wire Cable Unit

grown in relatively colder climates.

Seed treated with the alcohols is said to produce plants that show lowered moisture transpiration. The chemical may be applied during, just before or just after planting.

The University of Arizona and Texas A. & M. are reported to be doing research on plant-moisture emission. The Japanese use a system similar to the Roberts method.

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Protecting Instruments

A Long Island company is finding a growing market for a twisted-wire, cable device that its engineers have nicknamed "the hair curler."

The helical isolator protects delicate cameras, telescopes and other instruments aboard ships and aircraft from shocks and vibration.

Four patents were issued this week to Aeroflex Laboratories, Inc., of Plainview for versions of the isolator. According to the company, isolators can be designed to protect equipment weighing from four ounces to 6,000 pounds.

The company regards the users of jet and reciprocating aircraft engines as important potential customers. Its all-metal shock mounts, unlike rubber isolators, are unaffected by heat and the

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Variety of Ideas Covered by Patents

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chemical action of fuels and oils.

Aeroflex engineers developed the isolator as an accessory for the company's original products, stabilized platforms to hold instruments steady aboard vessels bouncing on the sea or in the air.

An early application, for protection of wall clocks on ship bulkheads, was a sandwich of two disks of metal with four helical cable isolators.

For Lockheed C-141 aircraft, Aeroflex designed what looked like one can inside a larger can. Between the two were the spiral isolators. The larger can fitted into the instrument panel, and the smaller one slid into it.

Aeroflex reports that current sales are 75 per cent above last year's, and hopes to get a large share of the \$40 million total market for shock mounts of all kinds.

Harold C. Lawrence, Louis C. Hock and C. L. William Bailes are the inventors. The patent numbers are 3,204,897 and 3,204,911 through 3,204,913.

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Discotheque Device

A Texan was granted a patent this week on a device for dancing the twist and similar steps. Wearing a pair of platforms, the user can swivel back and forth on ball bearings.

The inventor, Claude H. Latson of Fort Worth, explains in Patent 3,204,348 that the twist largely involves standing in one place, with the weight forward, and con-

tinuously twisting the feet, individually and in unison, to produce certain novel and vigorous body movements.

He says his device may be used not only for dancing but, without music, for exercising and reducing the waistline.

The invention has a base plate that rests on the floor, and an upper plate to which the foot or shoe can be strapped. The ball bearings are between the plates. A pair, Mr. Latson says, will fit in a man's pocket or a woman's purse.

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Traffic Analysis

Equipment patented for the General Signal Corporation, Rochester, N.Y., automatically directs patrons of a parking garage through an exit that leads to the least crowded street.

Vehicle detectors analyze the traffic in lanes outside the building or parking lot and switch on a sign pointing to the least congested. If there is no choice, the signs remain dark.

Peter D. Schwarz and Richard A. Overmyer obtained Patent 3,205,479 for the company.

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Future Spacecraft

An electrical system for spacecraft of the future, invented by an engineer at the Marshall Space Flight Center, includes an engine designed to propel the vehicle by exploding a wire.

The craft pictured in Patent 3,204,889 is equipped with solar cells. The current is stored in a series of capacitors around the outer surface.

In the engine, which is

shown mounted on the craft's blunt stern, tungsten wire is fed between two electrodes. The wire, as it explodes, accelerates the particles in the resulting plasma, or charged gas.

Robert J. Schwinghamer, an aerospace engineer, assigned the patent to the National Aeronautics and Space Administration. His invention is not intended for any current project, but for interplanetary travel and other long flights.

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Firecracker Substitute

As a harmless substitute for firecrackers, a device patented this week makes a noise by puncturing toy balloons. It was invented by Joseph Green for Miner Industries, Inc., New York.

A child blows up a balloon and inserts its neck in a slot. Then he pushes down a handle which, after a delay suggesting the time it takes for a fuse to burn, springs back and pushes a pin into the balloon.

The company hopes to have the plastic exploder on the market by next July 4, at \$1, including 100 balloons. (Patent 3,204,360.)

Patent Office records rarely show whether an invention is in production. To get a copy of a patent, send the number and 25 cents to the Commissioner of Patents, Washington, D. C. (patents are 10 cents each.) To reach an inventor or assignee, if the address given is insufficient, writing in care of the Commissioner of Patents, being sure to cite the patent number.

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