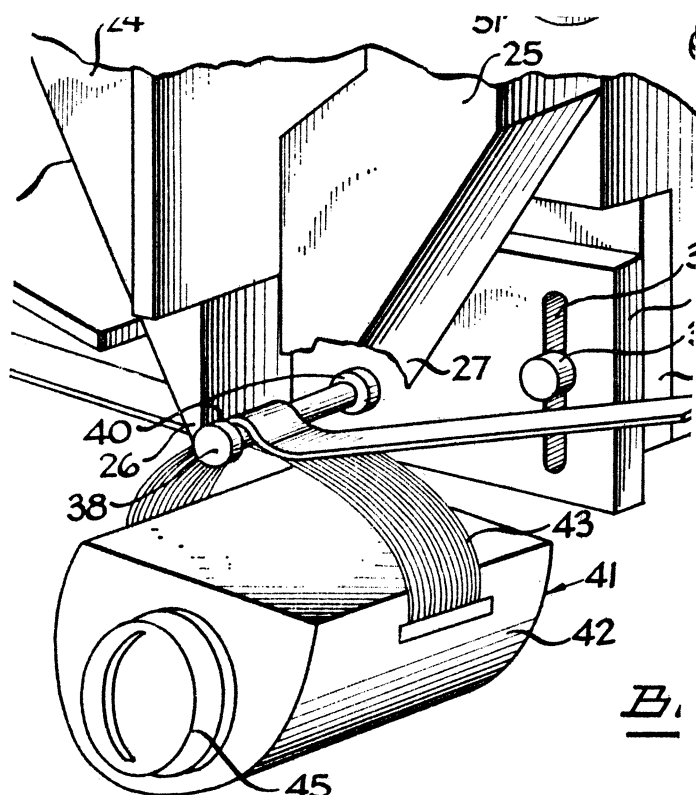


Current Patents

ELECTRICITY

Tape Noise Reducer



A device to eliminate most of the static electricity on new magnetic tape—the cause of background noise on the tape—was patented last week. Inventor Donald E. Richardson assigned patent No. 3,315,137 to IIT Research Institute of Chicago.

The device works by feeding the tape past a pair of charged electrodes, fed by equal but opposite DC voltages. After passing by the first electrode, the random static charges on the tape are lined up so that the positive charges are on one side of the tape and the negative charges are on the other. As the tape goes by the second electrode, the opposing DC voltage wipes out the charges that were put on by the first electrode, and the static charges with them.

INSTRUMENTATION

Detector Tester Patented

Infrared light detectors that put out a current proportional to the amount of light falling on them have become important in a number of military detection and control systems.

Testing the sensitivity of these detectors is difficult when the detector is small. In some cases, it is necessary to check the sensitivity of various points on the surface of the detector, and the test becomes a matter of micrometer adjustments.

A new system for testing infrared detectors that uses an optically focused light source and automatically records sensitivity at various points on the detector surface received patent No. 3,315,075 last week.

Inventors Harold K. Coulter, Philip M. Cruse and Daryl D. Errett assigned rights to the Santa Barbara Research Center, Goleta, Calif.

The test system bounces an infrared light beam off a movable convex mirror onto the detector surface. The mirror is attached to a lever so that moving the lever a good distance only causes the light beam to shift very slightly.

The output current of the detector is fed into a test circuit that also receives a signal indicating the position of the mirror. When the two signals are combined, an indication of the detector output at various points is given.

PEST CONTROL

New Chemicals Sterilize Insects

A new class of chemicals, called ureido phosphine oxides, that are useful in sterilizing houseflies and other insect pests, received patent No. 3,314,848 last week.

Inventors Rudi F. W. Ratz and Miriam J. Gruber assigned rights to the patent to Olin Mathieson Chemical Corp.

Sterilization is one of the latest techniques for combating various insect plagues. It has the advantage of acting specifically on single species without leaving chemical residues of powerful insecticides.

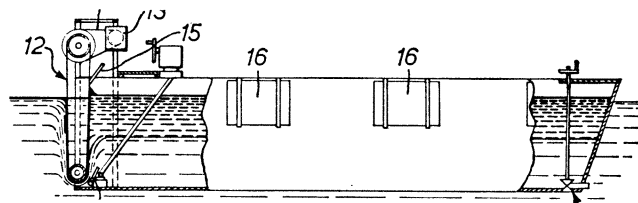
With some species, such as screwworms, radiation has been used to produce sterility (SN: 3/11). Hordes of sterile insects are released to mate with the wild population. The chemicals developed in the present patent were tested on houseflies. After being exposed, flies were able to lay eggs, but 99 percent of the eggs wouldn't hatch.

POLLUTION

Removing Waste Oil from Oceans

Accidental pollution of lakes and coastal waters by escaping oil is a serious problem, although rarely as disastrous as the 118,000 tons of oil dumped on European beaches in March when the tanker Torrey Canyon broke up.

A British inventor, Edward J. Lane, received a U.S. patent last week for an open-bottomed barge designed to remove oil slick from water. He assigned patent No. 3,314,540 to the British Petroleum Co. Ltd.



The barge is equipped with floats so that it can stay on the surface while filled with water. A rotating belt pulls the oil, and some unavoidable water, over the barge side and dumps it into the barge.

The water, being heavier, sinks beneath the oil and out the bottom of the boat. This process continues until nothing but oil is in the barge, at which point the bottom openings are closed and the barge returns to port.