

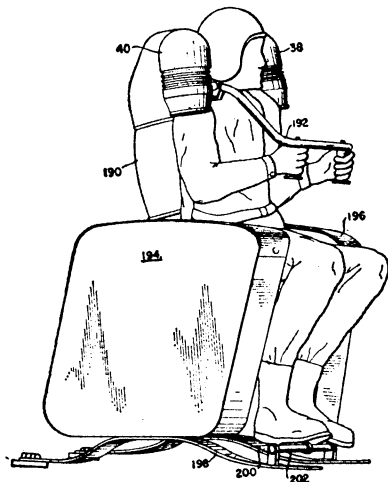
current patents

AERONAUTICS

Flying armchair

A flying-platform device that may ultimately allow a person seated in an armchair to fly and supervise operations such as fighting forest fires has been patented by Wendell F. Moore of Youngstown, N.Y., and Edward G. Ganczak of Snyder, N.Y.

The device improves on others of its kind, says the patent, because a rider can step in and out. It is not harnessed to him, and he can walk away without having to carry a tank of propellant on his back.



A spokesman for Bell Aerospace Corporation of Niagara Falls, N.Y., to which the rights have been assigned, says there are no present plans to manufacture the system, which can be designed in stand-up as well as sit-down versions. It is a development of research on jet flying belts, and may form the next step after perfection of back packs, which the company wants to do first.

Patent 3,381,917

CALIBRATION

Testing the micrometeorite detector

Among the experiments most frequently carried on satellites and space probes are detectors to count the number and speed of impinging micrometeorites—interplanetary grit the size of sand grains. Such detectors usually consist of a sheet of plastic or similar material attached to a transducer that produces an electrical pulse whenever the sheet is struck.

Before such detectors are flown, they must be calibrated. Luc Secretan of Riverdale, Md., has patented an improved device for doing this. The detector is placed below a dropper that can drop beads of known weight at a predetermined rate. The dropper is mounted so that it can be moved in a horizontal spiral. Thus the location on the sheet where the pellets strike can be varied, and, since the rate at which the beads are let go can be changed, the number of impacts per square centimeter in a second can be varied at will.

Rights to the device have been assigned to the National Aeronautics and Space Administration.

Patent 3,381,517

AGRICULTURE

Captive helicopter sprayer

A captive helicopter that may be used to spray fields with fertilizers or weed killers has been patented by Nikolaus Laing of Aldingen, Germany. Crop spraying has been done with winged aircraft, but their high minimum speeds are troublesome. Manned helicopters are expensive.

Laing's helicopter is attached by a hose and control cable to a tank truck whose reservoir contains the material to be sprayed. While the truck remains at the side of the field, the helicopter flies over and sprays. Control and a continuous supply of material are maintained from the truck.

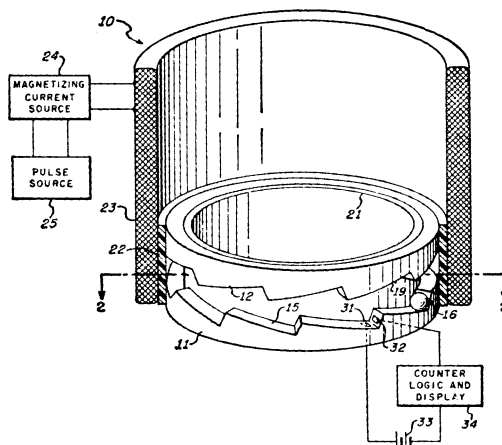
Patent 3,381,922

COMPUTERS

Magnetomechanical counter

A counting device that uses a magnetic ball and a set of sawteeth has been patented by John M. Lester of Garden City, N.Y. The device consists of an upper and lower cylinder whose facing ends are cut into sawteeth. At the start of the count a small ball of magnetic material rests in the trough between two of the lower teeth.

A magnetic field lifts the ball until it strikes the slope of an upper sawtooth—the teeth are made of nonmag-



netic material so the ball doesn't stick but is dragged along the slope as long as the field is on. The dragging carries the ball past the peak of a lower tooth, and when the field is turned off the ball drops into the next trough.

Magnetic field pulses—caused ultimately by whatever occurrence needs to be counted—can thus carry the ball all the way around the cylinder. Electronic sensors record each circuit.

The device will be useful, says the patent, in computing equipment where slow counting rates can be tolerated and where shock, vibration and acceleration are a minimum. Sperry Rand Corporation, to which the rights have been assigned, has as yet no plans to use the device.

Patent 3,382,349

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