

Current Patents

ULTRASONICS

Plastic Sealer Patented

A method of sealing plastic sheets by means of high-frequency sound energy was patented last week by Seymour Linsley and Joseph Di Meglio and assigned to Branson Instruments Inc.

The device—Patent No. 3,294,616—has the advantage of applying the sealing energy continuously to the plastic surfaces to be sealed, rather than being applied intermittently as in previous ultrasonic sealers. It has been used to seal an inner plastic liner through a three-ply kraft paper sack.

Ultrasonic sealing devices are used on plastics which do not join well with heat, such as Mylar and some of the polypropylenes. The process is also being applied to the welding of rigid plastic materials.

ELECTRONICS

New Semiconductor Patent Issued

A method of producing zinc oxide semiconductor material for transistor applications was patented last week by William D. Kingerly and Reid A. Mickelsen, and assigned to the Atomic Energy Commission, which supported the research. The patent is No. 3,294, 660.

The novel material can be used to operate at higher

temperatures than the conventional germanium and silicon semiconductors. Because of a greater energy gap between the valence band and the conduction band, current leakage within the material is decreased.

AUTO ENGINEERING

Transistor Ignition System

An electronic ignition system with a stabilizing circuit to control internal current was patented last week by Michael S. Fisher and Frederick S. Kamp and assigned to the Radio Corp. of America.

The device, one of a series being developed in recent years, is designed to increase the timing accuracy of automobile engines, and with it the usable horsepower. The patent is No. 3,295,014.

Heat Battery

A battery which produces electricity from heat energy was patented last week under Patent No. 3,294,585, by Seymour Senderoff of the Union Carbide Corp., and assigned to that company.

The cell produces current as a result of a difference in temperature between two inputs of heated gas. The two gas inputs operate at temperatures of 500 and 900 degrees centigrade.

New Ideas and Gadgets

New Ideas and Gadgets is an editorial service to readers; more information on items can be secured from the manufacturers.

Star Finder

Anyone with a good telescope can quickly and accurately locate and identify various stars, planets and constellations, usually found only by observatories with complicated instruments, using the convenient astronomical device. Helpful to professional as well as amateur stargazers, the simply constructed star finder gives sidereal time as well as standard time, and is easily adjusted to longitude and latitude. An instruction manual is included.

Accu Star Inc., P.O. Box 4712, Detroit, Mich. 48219

Models for Chemistry

Three classroom-size models of atomic and molecular orbitals are designed to represent the geometry of hundreds of different chemical compounds available in separate units. The sets consist of models of atomic-molecular orbitals, chemical bonding and "d" atomic orbitals, all scaled to 5.6 inches per angstrom.

Dyna Slide Co., 1566 Sherman Ave., Evanston, Ill. 60201

Bath Lift

Helpless persons can be safely lifted in and out of a bathtub with the easy-to-operate 500-pound capacity lift. The unit which consists of a seat with arms for gripping and a sturdy back works with water pressure and requires no electricity. Made of noncorrosive materials it comes in colors to match most fixtures.

International Ideas, 15840 Ventura Blvd., Encino, Calif.

Rust Preventive and Remover

Problems with rust are reduced with the rust preventive and remover that combines chemically with undamaged as well as corroded metal surfaces to form a rust inhibiting coating. Suitable for use on instruments, machinery, fences, marine equipment and other metal structures, it is applied with a brush and requires no rubbing or scraping, is odorless and nonflammable.

Western Reserve Labs. Inc., 1438 St. Clair Ave., Cleveland 14, Ohio

Cordless Screwdriver Drill

Especially useful in automotive and general appliances fields, particularly where corded tools are hard to maneuver, are the two completely portable shockproof tools, the cordless screwdriver and cordless drill. They help increase efficiency in assembly-line work because of their flexibility and ease of handling. Battery is separate.

Black & Decker Mfg. Co., Towson, Md. 21204

Brake Lining Gauge

Quick and accurate inspection can be made of the brake lining with the gauge that shows the thickness of linings directly on its dial. The gauge is 12 inches long and comes with interchangeable dial plates for standard 3/16- and 1/4-inch thicknesses. Other sizes are available at an additional charge. Instructions are included.

Allen Gauge & Tool Co., Dept., 130, 421 N. Braddock Ave., Pittsburgh, Pa. 15221