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INVENTION

Patents of the Week

A sunflower-like magnetic ring device rotates as it follows the sun's rays and can be used to open and shut venetian blinds automatically—By Elizabeth Hall

➤ A **SUNFLOWER-LIKE** device, which follows the sun, automatically opens and shuts venetian blinds.

The U.S. Patent Office issued patent 3,121,265 for this device, which can also be used to focus the full intensity of the sun's rays on a solar energy converter or to measure heat radiation on high speed aircraft and reentry vehicles.

The device consists of a soft iron ring with a permanent rotating magnet in the center, the inventor, Siegfried R. Hoh of Kinnelon, N. J., told SCIENCE SERVICE. As the portion of the ring exposed to the sun gets hot, that section loses its magnetism and the magnet rotates perpendicularly away from it.

When one of these devices is attached to a set of venetian blinds, the rotation of the magnet moves the slats in such a way that air and indirect light enter. However, the sun's direct rays are deflected. If there is no sun at all, the blinds automatically remain open.

Mr. Hoh, who holds three or four patents in other fields, said he hopes to license the patent after further experimentation.

Air Cushion Train

A wheel-less train that slides over the rails on a thin film of air earned patent 3,121,401 for Everett H. Fields, Taylor, Mich., who assigned rights to Ford Motor Company, Dearborn, Mich. Because there is no friction between train and rail, the train would reach speeds of several hundred miles an hour.

As originally proposed four years ago by Ford, the "Levacar" would carry from 20 to perhaps 75 passengers in journeys of 200 to 1,000 miles. Special rails would be laid alongside the existing rails for the high-speed train, powered by gas turbines or pure turbojets.

The patent describes the special rails supported by pillars that would be needed and the air pressure levitation device that keeps a thin film of air flowing beneath the train. A bellows-like structure through which the air flows to the levitation device within the railroad car provides the initial spring to get started.

Automatic Landing Lights

A pilot wishing to land at a small airport in the middle of the night can turn on the field's landing lights by pressing a button in his plane. A predetermined set of frequency signals including the airport's particular code, is transmitted from the aircraft and picked up by a radio receiver at the airport. A light control unit responds to the signals by turning on the landing lights and turn-

ing them off again after the plane has landed.

Lester F. Lemm, Westminster, Calif., and Harry W. Beeson, Fullerton, Calif., received U.S. patent 3,121,857 for their automatic landing light device.

Bumperette

A device that guards a car bumper against damage from other cars riding over or under the bumper earned patent 3,121,582 for David L. Gass, Chicago, Ill.

The bumperette is made of steel or aluminum and has an irregular-shaped back portion of hard resilient rubber that will fit on any car bumper, regardless of its contour.

Other Significant Patents

A bottle cap that can be removed by normal thumb pressure—patent 3,121,506 to Donald J. Brockhage, Oakland, Calif.

A method of processing X-ray films and other radiographs so that small cancers and abscesses of the liver and surrounding organs show up—patent 3,121,792 to Georg S. Mittelstaedt, Brooklyn, N. Y.

A method of producing carbonated beverages that preserves the natural flavor of fruit and vegetables juices—patent 3,120,441 to Jose C. Asturias, Albuquerque, N. Mex.

A bellows-like hand pump for transferring gasoline and other liquids from one tank or container to another—patent 3,120,192 to ventriloquist Paul Winchell of White-stone, N. Y.

• Science News Letter, 85:158 March 7, 1964

GEOLOGY

Top Tip of Sea Mountain Found South of Panama

➤ **THE NORTHERN TIP** of an undersea mountain ridge has been charted in the Pacific Ocean just south of Panama.

It may be the top edge of a vast underwater ridge that extends several thousand miles off the coast of South America and ends near the south tip of Chile, in the South Pacific Ocean.

Part of this ridge may be as broad as the mid-Atlantic Ridge in the North Atlantic Ocean, reported scientists H. W. Menard and S. M. Smith, both of the Scripps Institute of Oceanography at the University of California, San Diego; and T. E. Chase of the Bureau of Commercial Fisheries, U.S. Department of Commerce.

The underwater ridge is called the Galapagos Rise, after the Galapagos islands.

It is broken into segments by east-west fracture zones and parts of it have earthquakes, they reported in Deep-Sea Research, 11:1, 1964.

• Science News Letter, 85:158 March 7, 1964