

How near it is to the wall, how smooth is the surface on which it rides and the approach of obstacles are constant problems that the machine must solve instantly, just as humans do. Occasionally it gets mad and its habitual wheezing noise sounds more like a snarl as it "panics" and stalls while deciding what to do next.

The device, which currently has a U.S.

patent pending, is a group effort on the part of Mr. Carlton, John Chubbuck, assistant group supervisor, Leonard Scheer, James Jacks, William Whitmore, Ronald McConnell and Richard Bitner, all of the Applied Physics Laboratory.

The research is supported by the U.S. Navy Bureau of Weapons.

• Science News Letter, 85:170 March 14, 1964

INVENTION

Patents of the Week

A new projector system shows slides that have a sound track around the outside of the slide; a rotating needle plays the "record" while the slide is being shown.

➤ **AMATEUR PHOTOGRAPHERS** can soon show home slides that "talk" with a newly patented projector system.

The slides can be shown in any order since the sound track is contained on the slide itself. Each one resembles a square phonograph record in which the slide replaces the label and the hole in the middle. In this projector, the needle instead of the record goes round and round as the slide is being shown.

The U.S. Patent Office issued patents 3,122,053 and 3,122,054 for this system, intended either for use by amateur photographers or for industrial advertising purposes.

Photographers buy the record discs along with the film. After the slides are developed, a person cuts his own narrative for each slide with an inexpensive home recorder. He then pops the slide into the middle of the record.

The projector itself resembles conventional projectors in size and appearance, except for the record-playing needle.

Invented by Panayotis C. Dimitracopoulos and Constantine D. Pezaris, both of Montreal, Canada, the projector and system have been licensed for commercial production in the U.S. and Canada. It is expected to cost no more than conventional projectors.

Diaper Rinser

An invention that rinses and rids diapers of waste matter before they are put in the washing machine earned patent 3,122,011 for Walter L. Martin of Buena Park, Calif. The apparatus, which can be installed by a non-plumber, hooks up to the supply line for the toilet's water tank.

The diaper is suspended inside the device from the lid and simultaneously sprayed from both sides. The waste is drained through a tube into the toilet bowl.

Honeybee Repellent

Two clear, colorless pungent acids have been found to give honeybees "the vapors" faster than smoke, Dry Ice or pine oil, when it is time for the beekeeper to remove honey from the hives.

A cloth saturated with a diluted solution of either propionic acid or acetic acid was found to clear a heavy colony of bees from the hive within minutes. The non-toxic vapors do not contaminate the honey, and

the beekeeper does not have to wear protective clothing.

Jonathan W. White Jr., Ambler, Pa., Alan W. Woodrow, Tucson, Ariz., and Clayton L. Farrar and Floyd E. Moeller, both of Madison, Wis., assigned rights to patent 3,122,473 to the U.S. Department of Agriculture, which has the right to issue royalty-free sublicenses.

Collapsible Boat

A lightweight, collapsible boat capable of supporting an outboard motor and towing water skiers earned patent 3,121,887 for Patrick A. Baretta of Oklahoma City, Okla. The boat folds up into a small package that can be carried in a car, eliminating the need for a trailer and an extra storage garage.

The framework of the boat is covered with a flexible, waterproof skin and provided with inflatable compartments that keep the boat afloat if the skin is ruptured. It is manufactured by Packageable Boat Co., also of Oklahoma City.

Cardiac Catheter System

Dr. William Parry Murphy Jr. of Miami, received patent 3,122,136 for a mechanism that simplifies the measurement of body pressure while doctors study the inside of a beating heart with a catheter. He assigned rights to Cordis Corporation, also of Miami. The air-driven mechanism replaces the classical method of measuring with columns of water.

Other Significant Patents

The same technique that enables boats to lift their hulls up out of the water and "fly" at high speeds on underwater "wings" (hydrofoils) has been applied to water skis by Joseph F. Rumsey Jr. of Oklahoma City. He earned patent 3,121,890 for his skis, which lessen the amount of water drag and enable a skier to be lifted and towed at relatively low speeds.

Short rotating reels mounted over the edge of a poultry feeding or watering trough that prevent chickens from roosting on the edge won patent 3,122,131 for Howard C. Warren of North Manchester, Ind. Rights to the patent were assigned to the Warner Brooder Corp., also of N. Manchester.

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With artificial satellites already launched and space travel almost a reality, astronomy has become today's fastest growing hobby. Exploring the skies with a telescope is a relaxing diversion for father and son alike. UNITRON's handbook contains full-page illustrated articles on astronomy, observing, telescopes and accessories. It is of interest to both beginners and advanced amateurs.

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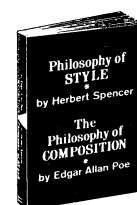
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