

• New Machines and Gadgets •

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⚙️ **BOATER'S BLANKET**, made of light but warm acrylic fiber backed with plastic, sheds water readily and is wind-proof, mothproof and fire resistant. Excellent for use when sleeping on deck or in an open cockpit, or for camping or other outdoor activities, the blanket is less bulky than comparable wool coverings and stows in a smaller space.

Science News Letter, August 13, 1955

⚙️ **AIR SPEED INDICATOR** and insect deflector combination, a new safety device that attaches to the front of a car hood, permits a driver to check on his speed without taking his eyes from the road. The transparent plastic speedometer has large dial numbers, readable day or night under most conditions, and has no mechanical parts to get out of order.

Science News Letter, August 13, 1955

⚙️ **TEST TAPES** and records and a level indicator for use with them will detect rumble, hum, flutter and "wow" in phonographs and tape recorders. A precise method of determining the overall performance of audio systems, the test products are supplied with full information.

Science News Letter, August 13, 1955

⚙️ **CLOTHESPIN-LESS CLOTHESLINE** holds washed items firmly between two plastic-coated steel wires, tightly twisted



about each other, as shown in the photograph. A wheel-like device, with a revolving center through which the steel strands are threaded, is run along the clothesline to spread the strands so that items may be attached or removed.

Science News Letter, August 13, 1955

⚙️ **STEREOPHONIC MUSIC SYSTEM** plays two separately recorded sound tracks, both recorded on the same tape, through

ENGINEERING

Tiny Radiation Indicator Detects Fast Neutrons

➤ **FAST NEUTRONS**, the most penetrating of all atomic radiations, can be detected with an inch-long radiation indicator developed at the University of California at Los Angeles Atomic Energy Project.

Devised by Dr. Benedict Cassen, the detector is a minute wafer of germanium, a transistor, encased in a plastic capsule about an inch long.

Neutrons have no electrical charge and are, therefore, difficult to detect. They are indicated with the new device by a permanent change in the germanium crystal's electrical conductivity resulting from neutron penetration.

The electrical changes are detected by chilling the germanium crystal, then measuring its resistance.

The neutron detector may be useful in monitoring neutron "leaks" in shielding around atomic power reactors, or in detecting neutron penetration of bomb shelters. It can also be useful in research on tissue penetration by neutrons. The minute germanium wafer can be inserted at various depths in experimental animals to measure penetration.

Science News Letter, August 13, 1955

separate amplifier-loudspeaker systems. Music originating from the left side of the orchestra is reproduced through the left-hand speaker, music from the right side is reproduced through the right. Conventional tapes may also be played on the system, but without stereophonic effect.

Science News Letter, August 13, 1955

⚙️ **ROTARY SANDER** has a unique circular ring that securely holds the abrasive discs on the sander, without using cement, but permits changing the discs in seconds. The clamp-on ring design eliminates sharp sandpaper edges that mar work and cut fingers, and takes full advantage of the new sand-screen abrasives, those with grit on both sides.

Science News Letter, August 13, 1955

⚙️ **ALUMINUM PHOTOPRINTS**, reminiscent of the old tintypes, can be made by the amateur photographer using pre-sensitized aluminum sheets in the same manner as regular printing paper. The aluminum photo-plates can then be worked into coasters, ash trays or similar articles.

Science News Letter, August 13, 1955

⚙️ **DRIP COLLAR** saves floors and carpets from paint dripping down the side of the paint can. Made of plastic, the reusable collar fits tightly onto the open top of a quart can. When paint brushes are wiped on the inner rim of the collar, the paint drains through slots in the rim section back into the can.

Science News Letter, August 13, 1955

ENTOMOLOGY

Caterpillar Rivals Moth By Shredding Fabrics

➤ **IF YOU LIVE** in the West or South, watch out for a new fabric-shredding caterpillar that makes its home in fan palms, warns Roy J. Pence entomologist of the University of California at Los Angeles.

The pink, smooth-bodied caterpillars usually feed on fan palm blossoms and spin their cocoons in the fibrous growth found matted at the base of the fronds. When they multiply unhindered, however, they are apt to invade the home, seeking material from which to spin their cocoons. They may shred clothes, drapes, upholstered furniture or expensive rugs.

Control of the caterpillar by insecticides is often difficult, due to the extreme height of many of the trees they infest, Mr. Pence says. Banding the trees may prevent them from crawling down the trunks, but the slightest breeze may cause them to fall.

The best control method is to have a "palm skinner" prune out infested areas, and to treat adjacent areas with DDT.

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Questions

ASTRONAUTICS—With what does astrodynamics deal? p. 107.

BIOCHEMISTRY—What is the first product made by plants in the photosynthetic cycle? p. 101.

ENGINEERING—What is the polytonic coder? p. 102.

MEDICINE—When are stomach ulcers most troublesome? p. 108.

PUBLIC HEALTH—Where are ragweed havens found? p. 106.

RADIO ASTRONOMY—How are radio "stars" located? p. 104.

PHOTOGRAPHS: Cover, Firestone Tire and Rubber Company; p. 99, Argonne National Laboratory; p. 101, Melvin Calvin; p. 102, U. S. Department of Agriculture; p. 103, Los Alamos Scientific Laboratory; p. 106, Fremont Davis; p. 112, Eastman Chemical Products, Inc.