

• New Ideas and Gadgets •

For sources of more information on new things described, send a self-addressed stamped envelope to SCIENCE SERVICE, 1719 N St., N.W., Washington 6, D. C., and ask for Gadget Bulletin 1200. To receive this Gadget Bulletin without special request each week, remit \$1.50 for one year's subscription.

☛ **SOLAR SYSTEM MOBILE** can be used for teaching basic astronomy on the primary and secondary school level. The mobile, which can be hung in classroom, library or home, represents the sun and planets and hangs from steel rods, the longest of which is three feet. The planets rotate around the sun with the movement of the air. An illustrated brochure is included.

• Science News Letter, 83:384 June 15, 1963

☛ **CLIP SHEARS** designed for the small shop and handyman fill the need between tin snips and power shears. Less than 3 by 5 by 15 inches in overall size, the shears are rugged enough for production work. They cut metal sheets, plastics, cardboard or screens without distorting the material, leaving no burrs or rough edges.

• Science News Letter, 83:384 June 15, 1963

☛ **AUTOMATIC LETTER OPENER**, a labor-saving device for home or office, slits letters quickly and easily. Battery-operated and cordless, the opener cuts envelopes close to the edge with a recessed cutter blade that is automatically sharpened as it is used. Less than five inches square at the base, it can be readily moved from place to place.

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☛ **BLOWOUT-PROOF TIRE**, shown in photograph, eliminates hazards of blowouts



and dangers of roadside tire changes. Actually a double tire, it is constructed with a honeycomb inner tread, guaranteeing puncture and blowout protection. A built-in signal tells the motorist when tire service is needed. Contour shoulder construction is said to give 30% better wear and improved cornering.

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☛ **CONSTANT TEMPERATURE HEATER** permits interchangeable module blocks to be inserted into a recessed chamber or well for controlled heating. Temperatures are adjustable from room temperature to 130 degrees Centigrade. Designed for incubation and inactivation of cultures, enzyme reaction, melting and boiling points and many other uses, the unit uses a low density heater and adjustable thermostat.

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☛ **PERSONAL COMBINATION LOCK** made for use on wooden doors and drawers with thicknesses of from five-eighths to seven-eighths of an inch can be installed by the do-it-yourselfer. To open, the five buttons of the lock are pressed in the combination order established and the knob turned. The combination can be changed to any one of 1,030 possibilities without tools or dismantling.

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☛ **RETOUCHING KIT** contains liquid colors for retouching, spotting and correcting color prints made with Polaroid Land cameras, transparencies, lantern slides, film, and nearly all glossy and matte surfaces. The colors can be applied with brush, pen or cotton swab. Included in the kit are eight half-ounce bottles of color, as well as brush and instructions.

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• Doctors Are Reading •

Flying Made Safer

► **WHEN A PLANE** crashes, it is the physician's responsibility to autopsy the dead and examine the survivors with a view to making flying safer, a report in the *Journal of the American Medical Association*, 184:701, 1963, states.

Medical investigation was inadequate in the 4,565 nonmilitary, noncommercial accidents in this country in 1961, a group of U. S. Air Force medical officers reported. These are called "general aviation" accidents, and there may be only a single investigator from the Federal Aviation Agency or the Civil Aeronautics Board at the scene.

Commercial and military aviation disasters, on the contrary, are almost always investigated by military flight surgeons and pathologists, often with the aid of civilian pathologists. A Human Factors Group studies all possible sources of error by the crew, as well as features of aircraft design or protective passenger restraints that may have contributed to injury. The total number of deaths attributed to aviation accidents in 1961 was 1,581, nearly half in general aviation. General aviation chalked up 437 fatal accidents, 4,128 non-fatal accidents.

The use of protective helmets resulted from autopsy of a 1908 aircraft victim—Lt. Thomas Selfridge of the U.S. Army, flying with one of the Wright Brothers, died from a preventable fractured skull, the sole fatal injury. Studies of early jet transport accidents led to strengthening the cabin wall, and in a recent study of a crash by a supersonic Air Force bomber where death occurred after high-speed ejection, it was decided that a new device was imperative for protection of crew members from wind blast.

Reporting were Maj. Gen. Oliver K. Niess, Surgeon General USAF, and USAF officers, Col. Frank M. Townsend, Col. E. C. Lentz, Capt. W. Harley Davidson and Capt. Richard M. Chubb.

Measles Vaccine Tests Continue

Field tests for measles vaccines continue, although two types are approved for license and are being used in doctors' offices. So far, only Merck Sharp & Dohme (live virus vaccine) and Chas. Pfizer & Co. (killed virus vaccine) have been approved. The *JAMA*, 184:673, 721, 1963, reports two field studies and carries an editorial estimate of measles vaccine. Eli Lilly and Company, Lederle Laboratories and Pitman-Moore Company supplied vaccines for the studies reported by the following investigators:

Drs. Samuel Karelitz, Benjamin C. Berliner, Michael Orange, Saree Penbarkkul, Angela Ramos and Pensri Muenboon, all of the department of pediatrics, Long Island Jewish Hospital, New Hyde Park, N. Y., who reported work with both killed and weakened live virus vaccines.

Drs. Samuel L. and Morten B. Andelman, with Dr. Jack Zackler of Chicago, and Dr. Anton Schwartz of Indianapolis, who used vaccine and placebo, a substance that has no effect, supplied by Pitman-Moore Company, Indianapolis.

"Cracking" the Joints

"Cracking" knuckles are evidence of nervous tension, Dr. Albert B. Ferguson Jr., Pittsburgh, Pa., says in the questions and answers section of *JAMA*, 184:736, 1963.

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