• New Ideas and Gadgets •

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⚙ AEROSOL SPRAY KIT for paper chromatography and electrophoresis enables a laboratory worker to prepare aerosol reagents of any chemical desired. The easy-to-operate unit consists of a four-ounce calibrated jar, replaceable propellant unit and aerosol spray head. The reagent is simply mixed with the proper solvent and placed in the jar which is then attached to the aerosol unit. A touch of the finger produces a fine spray.

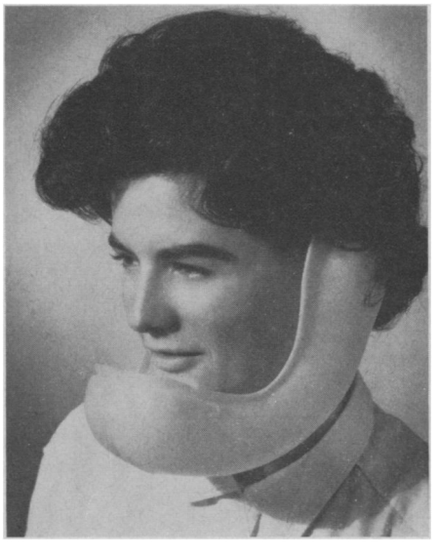
• Science News Letter, 88:112 August 14, 1965

⚙ LABORATORY DETERGENT is a quick and effective solution for removing surface film and grease from laboratory glassware and optics. The detergent decomposes biologically after draining into the sewage and is non-ionic and neutral and will not etch glass. Being liquid, it also eliminates the nasal irritation caused by some strong powdered detergents.

• Science News Letter, 88:112 August 14, 1965

⚙ THREE-SECTION AIR MATTRESS that serves as a bed or a chair seat is suitable for beach, patio or inside the home. The mattress, imported from Denmark, comes in plaid, stripes or solid colors and can be used flat or folded. When folded, a brace between two of the sections forms a back for the third section to make a comfortable chair wherever desired.

• Science News Letter, 88:112 August 14, 1965



⚙ VOICE REFLECTOR, shown in photograph, which permits a person to hear himself speak, is helpful to those who wish to improve their pronunciation, speech or to learn a new language. Shaped somewhat like an enlarged telephone receiver, the plastic device amplifies a person's voice as he speaks into it and returns it with complete fidelity of detail, exposing any errors in speech.

• Science News Letter, 88:112 August 14, 1965

⚙ SAFETY GOGGLES for industry or laboratory have a bridge design that fits most people, thus eliminating the need for adjustments and stocking problems. Their temple construction provides strength and better fit. The glasses come in green or clear and the frames in pink, smoke or cordovan. Other models designed with wrap-around side-shields are also available.

• Science News Letter, 88:112 August 14, 1965

⚙ POCKET-SIZED MAGNETIC GAME will keep children amused on long trips. The parts of the game known as "Three on a Line" are magnetic so that the playing pieces hold securely to the board, allowing the game to be played while traveling on train, boat, plane or bus. Suitable for persons of all ages from six years upwards, the magnetic game, 3½ x 4½ inches in size, comes in a plastic hinged case with full instructions.

• Science News Letter, 88:112 August 14, 1965

⚙ CAMERA LABEL HOLDER is designed to hold a film boxtop to show the current film in use in a camera. The self-adhesive holder attaches to the back of any camera. Each time the film is changed, the new box top is inserted in the holder, thus avoiding errors and waste. Before inserting the label holder, desired information such as exposure details or special developing notes can be written on the tops.

• Science News Letter, 88:112 August 14, 1965

• Doctors Are Reading •

Lincoln's Autopsy Still Unsure

➤ DOCTORS STILL do not know whether the bullet that killed President Lincoln entered from the right or left side of his head. The confusion is attributed to the fact that physicians attending his autopsy had been awake 30 hours, and did not agree.

A recently discovered handwritten autopsy report by Dr. Robert King Stone, Lincoln's personal physician, still does not make details of the wound clear. Although Dr. Stone's notes clearly state that the bullet "lodged in cerebral matter . . . on the left side," his diagram does not back up the statement. Other doctors at the time emphatically stated the wound was on the right side.

Dr. John K. Lattimer of Columbia University reviewed the Stone autopsy report in the Journal of the American Medical Association, 193:349, 1965.

The problem of conflicting testimony still awaits explanation. Interested physicians and historians can view the Stone report at Cooperstown, N.Y., where it is in the custody of the New York State Historical Association.

Smoking May Cause Bladder Cancer

Bladder cancer is a new addition to the list of diseases which may be caused by heavy and long-time cigarette smoking.

Two Seattle physicians say they do not "propose that heavy tobacco usage is the sole cause of bladder carcinoma," but statistical findings are "highly suggestive."

Of 136 Veterans Administration Hospital patients with bladder cancer, 123 were found to be either heavy or medium smokers.

Drs. Ben G. Cobb and Julian S. Ansell, who reported the study in JAMA, 193:329, 1965, said 94% of the bladder cancer patients had smoked 10 or more cigarettes a day for 30 years or more.

They suggested a possible mechanism for producing bladder cancer, which occurs in the urine. Two substances resulting from the metabolic breakdown of the amino acid tryptophane have been found in increased amounts in the urine of some bladder cancer patients.

Although it is generally accepted that the cancer-causing agent is detoxified, or made harmless, in the liver, it is not until the substance reaches the urine that the chemical reactions producing the cancer take place. This would explain why the cancer occurs in the bladder rather than in the ureter or in the kidney pelvis.

Filters Do Not Inhibit Cancer Element

The amount of polonium 210, reported previously as a cancer-causing element in cigarette smoke, is not reduced by filters, new research shows.

It is the amount of "particulate" matter, or minute separate particles, in the mainstream smoke that accounts for the differences in polonium content. The polonium apparently is attracted to the particles during the combustion process.

The number of puffs on a cigarette also determines the amount of polonium, Thomas F. Kelley of Bio-Research Consultants, Inc., Cambridge, Mass., reported in Science 149:537, 1965.

Polonium is one of the scarcest of naturally occurring radioactive elements. It is present in small amounts in tobacco as a natural contaminant of the unsmoked plant.

• Science News Letter, 88:112 August 14, 1965