

# • New Machines and Gadgets •

⚙️ **CONCEALED** headlights on automobiles may become common after the war. A device, just patented, permits a driver to operate from the dashboard shutters which mask and unmask the headlights.

*Science News Letter, December 4, 1943*

⚙️ **BOMB-SHAPED** boxes of wood have been successfully used to drop equipment from airplanes without using parachutes. The contents, sometimes including delicate instruments, are packed deep in excelsior. Boxes weighing from 100 to 200 pounds when filled, dropped 2,000 feet from planes moving 200 miles an hour, delivered their contents with an average breakage of only 0.5%.

*Science News Letter, December 4, 1943*

⚙️ **PEDESTRIAN** safety in darkness is assisted by two buttons on the back and two on the breast, worn suspended by straps over the shoulders. A reflecting button warns automobile drivers and a luminous button warns others of the wearer's approach. The device has been patented.

*Science News Letter, December 4, 1943*



⚙️ **SAFETY** devices, not jam tarts, are being prepared by the girls in the accompanying photograph. They are painting devices that protect airport lights and other equipment against short circuits. The tiny disks are glued to both sides of asbestos washers. An over-charge

of electricity fuses them into one and the charge is conducted out of the circuit before it causes damage.

*Science News Letter, December 4, 1943*

⚙️ **AN ELECTRIC** razor with a removable conical head, which rolls instead of sliding over the face when shaving, has been recently patented. Perforations in the head permit the ends of the hairs to enter where they are cut off by moving blades.

*Science News Letter, December 4, 1943*

⚙️ **JAM-RIVETING** is the term applied to riveting with a new hand tool which has a hinged yoke held behind the rivet. The vibrator, or hammer, is operated by compressed air or other power as in ordinary riveting hammers. One model has an adjustable depth timer.

*Science News Letter, December 4, 1943*

⚙️ **FLOORS** may be made impervious to acid, water, oil and grease by use of a new floor preparation. The material can be applied to new floors as an overlay on concrete, brick, wood or stone. Or it can be used on existing floors to repair and resurface areas needing attention. Floors thus treated are claimed to be durable and smooth.

*Science News Letter, December 4, 1943*

## Question Box

### AERONAUTICS

What are veteran Army airplanes being used for? p. 365.

### AGRICULTURE

Why are crop losses due to heavy rains unnecessary? p. 360.

### ARCHITECTURE

How will the plumbing and wiring of future homes probably be different from those of today? p. 360.

### ASTRONOMY

What woman astronomer was given a prize? p. 361.

### CHEMISTRY

What may replace scarce porpoise jaw oil? p. 361.

### CONSERVATION

What are anti-Christmas greens? p. 366.  
What has the lack of sufficient fuel brought about in Great Britain? p. 357.

### ENGINEERING

How can whistle signals be made visible? p. 365.

What machine will probably use high octane gas after the war? p. 361.

Which is the most electrical U. S. battleship? p. 359.

### EVOLUTION-SOCIOLOGY

Why shouldn't we try to force the process of change as civilization progresses? p. 365.

### MEDICINE

How can aluminum help silicosis patients? p. 358.

How is molasses speeding penicillin production? p. 362.

What are the results of a year's use of the two fast treatments of syphilis? p. 356.

What bronchial disease has sulfadiazine been found to help? p. 361.

What is the story behind the home-production method of making penicillin? p. 364.

Who is the "human guinea pig" that received a medal? p. 360.

### NUTRITION

What is the death rate of persons with malnutrition diseases? p. 366.

What makes a good cottage cheese substitute? p. 360.

Why do soldiers need lots of vitamin C? p. 358.

### OPTICS

What new device is designed to aid football officials? p. 361.

What visual illusion is caused by the double role of the eye muscles? p. 360.

### PHOTOGRAPHY

How can aerial photographs be located exactly? p. 355.

### PHYSICS

How does a newly developed microscope give an image in full color? p. 355.

How have X-ray tests of the smallest quantum of energy been reconciled with theory? p. 356.

Where published sources are used they are cited.

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