# New Machines and Gadgets

A BAYONET which closes like a juck-knife blade into a protecting slot in an extension of the rifle stock has just been patented. It can be locked in either an extended or closed position.

Science News Letter, January 22, 1944

ADJUSTABLE thumbtacks of a type recently patented can be made longer or shorter, just like the lead in a mechanical pencil, by turning a nut in the head. Screw threads on the shank control the length of the tack.

Science News Letter, January 22, 1944

RUGS and carpets may be thoroughly cleaned by the addition of a scrubbing attachment to the vacuum-type floor cleaner. This device, just patented, holds a scrubbing solution which is mechanically ejected under the revolving brushes. Science News Letter, January 22, 1944

SYNTHETIC shellac, essentially a duplicate of the natural product which is the hardened secretion of an insect found in India, is in production and will be available for civilian use after the war. It will adhere to metal as well as to wood. One of its important constituents is the corn by-product known as zein.

Science News Letter, January 22, 1944



TUBES in the radially mounted battery of collimators shown in the picture contain tiny illuminated cross threads, somewhat like those in a telescope, which look like distant stars seen by a navigator using a sextant. These "indoor heavens" are used to calibrate and test aircraft sextants before delivery to the armed

Science News Letter, January 22, 1944

DEATHER trimmings and parts of hides not generally used are processed with a new chemical compound to make a product suitable for shoe soles and other purposes. It is claimed to compare favorably with sole leather in flexibility, resiliency and moisture absorption.

Science News Letter, January 22, 1944

SPRING BLADES, and razors to hold them, are claimed to give better shaves and to have greater resiliency and rigidity than ordinary types. The doubleedged wafer type blade has a pair of longitudinal parallel springs of the same material as the blade. The razor of this patented device is designed to hold the blade firmly in place.

Science News Letter, January 22, 1944

If you want more information on the new things described here, send a three-cent stamp to SCIENCE NEWS LETTER, 1719 N St., N. W., Washington 6, D. C., and ask for Gadget Bulletin 101

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SCIENCE NEWS LETTER 1719 N St., N.W., Washington 6, D. C.

## awarded medals by the American Geographical Society? p. 61.

What methods are Chinese farmers employing to control erosion? p. 55.

## ASTRONOMY

What parts of the U.S. will be in the path of partial eclipse of the sun on Jan. 25? p. 53.

#### BIOGRAPHY

What contributions to the advancement of science were made by the late William Emerson Ritter? p. 60.

#### CHEMISTRY

By what method may tungsten be obtained directly from its ore? p. 52.
From what substance will post-war organic chemicals probably be extracted? p. 62.

#### **ECOLOGY**

In what ways does Spring make her appearances this time of year? p. 63.

#### ENGINEERING

Who has been awarded the 1943 Edison Medal? p. 57.
Why are Washington scientists opposed to building a dam across the Potomac River?

What two British scientists have been

#### GEOLOGY

Question Bo

Why are geologists puzzled by the giant mud-cracks in New Mexico? p. 56.

## MEDICINE

How may malaria affect the liver? p. 61. What disease is effectively attacked by a combination of penicillin and heparin? p. 51. What drugs can be used in some cases to make delays of appendectomy possible on board ship? p. 54. What effect do hip baths have on vision? p. 53.

#### NUTRITION

What can be used instead of water and salt in making bread in the Army? p. 53.

#### PHYSICS

What new job has been found for the photoelectric cell? p. 58. Why will physicists be needed after the war is over? p. 62.

#### **PSYCHOLOGY**

Why should a child's behavior defects be corrected early? p. 56.

#### PUBLIC HEALTH

By how much did birth and death rates increase in 1943? p. 56.

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