

• New Machines And Gadgets •

⚙️ **INTRICATELY SHAPED** objects are quickly measured and compared by a new instrument. It is expected to prove useful for inspecting parts made by mass production which are not easily checked by ordinary gauges.

Science News Letter, July 31, 1943

⚙️ **PILOTS TRAINING** for blind flying now use a one-man blackout system. Transparent green plastic covers the cockpit windows, cutting out half the light spectrum; red colored goggles worn by the student cuts off the remainder of the light, forcing him to fly blind. The instructor, who does not wear the goggles has an unimpaired view of the student, the instruments, and outside the plane. It is said to produce safer, more effective training.

Science News Letter, July 31, 1943

⚙️ **FIBER INSULATING** boards can now be used as a base for ordinary interior wall finishes, including papering, without the use of paneled effects. This has been accomplished by substituting invisible flexible fasteners for conventional nailing. The "floating" effect obtained permits the entire wall or ceiling to expand and contract as a single unit with changes in humidity.

Science News Letter, July 31, 1943

⚙️ **SMALL BOATS** can be prevented from going aground by a device just patented. When in shoal or uncharted waters an arm is lowered to engage the sea bed or a dangerous projection. Hydraulically operated, the device gives warning in sufficient time to prevent grounding.

Science News Letter, July 31, 1943

⚙️ **MANY ZIPPERS** on the outdoor casualty suit shown in the picture permit the military surgeon to operate while the patient remains protected and warm.



The weatherproof outer fabric is thickly insulated with quilted kapok. Developed by Canadians, this suit has already seen service in North Africa for such uses as transporting emergency surgical cases by plane and for protecting the wounded from cold.

Science News Letter, July 31, 1943

⚙️ **RAYON PARACHUTES** are being used to float fragmentation bombs to earth in European operations. The parachutes are used because bombs might reach the ground and explode so quickly that the low-flying bombers could not get out of range.

Science News Letter, July 31, 1943

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 167.

ASTRONOMY

• Matter in Space Interferes With View of the Milky Way

➤ **DARK**, obscuring matter in space interferes with our view of the Milky Way in the region of the constellation of Cepheus. Although on a clear evening we may believe we have a good view of the stars, no part of the Milky Way studied by Dr. A. Marguerite Risley of Randolph-Macon Woman's College and Harvard Observatory was entirely free of absorbing material.

Just as the light, fleecy clouds and the dark thunder clouds in our atmosphere keep us from seeing the heavens clearly, so dark matter many light years out in space veils the true brilliance of the stars. Dark lanes and flares are characteristic of Cepheus north of the galactic plane. In some places dark nebulae are visible, while in others, although there is no obvious obscuration, the stars are found to be shining through a thin veil of dark material.

A total of 750 square degrees, three-fourths of the area between 20 hours, 30 minutes, and 0 hours in right ascension, and plus 45 degrees to plus 75 degrees in declination, were studied. Miss Risley reports (*Astrophysical Journal*, May), that not a single part of this field could be considered unobscured.

The survey points out, however, several comparatively clear regions where the study of the colors of the stars of known spectral type should let us know the effectiveness of the haze, and enable us to get a better idea of the star density in the direction of Cepheus.

Science News Letter, July 31, 1943

Washington, D. C., physicians in general practice have an average of 115 patients a week, 70% of whom are office patients.

Science News Letter Subscription Coupon

To Science News Letter, 1719 N St., N. W., Washington 6, D. C.

Start my subscription to SCIENCE NEWS LETTER for 1 year, \$5
 Renew 2 years, \$7

Name _____

Street Address _____

City and State _____

(No extra postage to anywhere in the world)

**B
O
O
K
S**

SCIENCE NEWS LETTER will obtain for you any American book or magazine in print. Send check or money order to cover regular retail price and we will pay postage in the United States. If price is unknown, send \$5 and the change will be returned. When publications are free, send 10c for handling. Address:

Book Department

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