

## RESOURCES

# Research on Cotton Hosiery Now Attracting Attention

## Present Production of Nylon Only About 20% of Demand For the Entire Full-Fashioned Stocking Industry

**S**HORTAGE of silk for ladies' hosiery, which was inevitable with the freezing of Japanese assets, has resulted in many inquiries by the trade concerning the U. S. Government's researches over the last few years on cotton for stockings.

This work has been done in the Research Center at Beltsville, Md., by the Textile Technology Division of the Bureau of Home Economics, U. S. Department of Agriculture. A small textile plant has been set up on the grounds, where many different designs of cotton fabric for hosiery are being made up in swatches. Also, the Division has made up 116 different styles of cotton stockings to show their appearance.

The effort has been to improve both appearance and the wearing qualities of the cotton hosiery, and at the same time add style, something which has not been done previously, said David H. Young, of the Textile Technology Division. The new stockings are an answer to the objections of the public and the manufacture that cotton hose get fuzzy, fade, wrinkle and wear poorly. The sheerest of hose cannot be made of cotton, he said, but in the service weight many designs and styles are available which compare most favorably with silk.

Much of the Division's effort now is being expended in the preparation of a Dictionary of Cotton and Lisle Hosiery. This will ultimately include about 300 designs, of which 33 have been placed on exhibit in New York at the Cotton Tex-

tile Institute and Mercerizers' Association of America, where they can be examined by manufacturers.

Mr. Young said that 85% of the machines now used in making full-fashioned hosiery can be used for cotton with only minor adjustments. Thus, it should not take long for production of these hose to start when the silk supply is curtailed.

"With cotton, nylon and strong rayon, the hosiery situation can easily be handled despite the silk shortage," he declared.

The present nylon production, he explained, is about 20% of that required for the entire full-fashioned stocking industry. This will be increased this winter with the completion of a new nylon plant in West Virginia. He expressed the belief that use of nylon in parachutes and for other defense purposes would not reduce this greatly, as there has been no let-up in the production for hosiery during recent months even though the government has bought large quantities for the other uses.

*Science News Letter, August 9, 1941*

## INVENTION

### Telephone For Use While Wearing Gas Mask Patented

**W**HILE wearing a gas mask, and without removing it, one can talk over a new type of telephone for which U. S. Patent 2,243,835 was granted. Issued to Rudolph Frank Stehlik, of Antwerp, Belgium, the rights on the

## ● RADIO

Thursday, August 14, 2:45 p.m., EST

On "Adventures in Science," with Watson Davis, director of Science Service, over Columbia Broadcasting System.

Harold Burris-Meyer, director of the Stevens Theatre, of the Stevens Institute of Technology, will discuss the control of sound in the theatre.

Listen in each Thursday.

patent are assigned to the Associated Telephone and Telegraph Company, of Chicago.

In places where there is a great deal of noise, or where it is impracticable to put the microphone to the speaker's mouth, as when he wears a gas mask, the "laryngaphone" may be used. This consists of a special transmitter held against the throat. It picks up the vibrations from the larynx through the flesh. Formerly transmitters of this kind were arranged to be fastened by strapping around the neck, and it was necessary to hold a receiver against the ear in addition.

The Stehlik invention is a hand set of the common type, with receiver and transmitter on the same handle, and is used in the usual way. But when one wants to use it as a laryngaphone, a special transmitter unit is plugged into the set, just above the usual transmitter. This automatically connects it, and disconnects the microphone. Then when talking, the receiver is held against the ear and the laryngaphone against the "Adam's apple."

*Science News Letter, August 9, 1941*

## PUBLIC HEALTH

### Automatic Chlorinator Makes Drinking Water Safe

**T**HE WORLD'S first automatic residual chlorinator, a mechanical guardian of public health which makes possible the most effective control of water sterilization, has recently been installed in an eastern city. By means of a sensitive cell which measures the electrical current in a flowing sample of water, it automatically measures and varies the dosage of chlorine, chemical agent employed in water sterilization, according to changing conditions in the water coming from the reservoir. (*Wallace and Tiernan Co., Belleville, N. J.*)

*Science News Letter, August 9, 1941*

The Army's new four-engined *bombing plane* has more horse-power than the locomotive of a fast train that pulls nearly 1,000 tons.

**SCIENCE NEWS LETTER SUBSCRIPTION COUPON**

To Science News Letter, 2101 Constitution Avenue, Washington, D. C.

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

Name \_\_\_\_\_

Street Address \_\_\_\_\_

City and State \_\_\_\_\_

(No extra postage to anywhere in the world)