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SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE • OCTOBER 10, 1942



Rubber Cultivation

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Do You Know?

Glass plaques are replacing war metals for memorials and commemorative tablets.

Protein supplement food grown for animals will approximate 7,500,000 tons or 111 pounds per animal, in 1942-43.

Jobba, new vegetable oil, has remarkable stability under heat, freedom from color and odor, and a limpid character.

Over 5,000,000 tons per month is the present estimate of finished steel products rolling off production lines in America.

A species of *digitalis* which grows wild in Chile is believed to compare favorably with that formerly imported from European sources.

To step up egg production, poultry scientists recommend that farmers select breeding hens for persistency, the ability to lay late into the fall.

Huge felt patterns, used in paper mills, are being salvaged from discard piles by the Red Cross and converted into warm wool blankets.

War-time percolators are being made with glass "bushings" to replace hard rubber parts, and with plastic replacing aluminum for baskets and pumps.

Ball cartridges, armor piercing bullets, and tracer bullets, the three general types of small arms ammunition, each have an outer jacket of brass and a filling which is partly lead.

Question Box

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ORNITHOLOGY

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Most articles which appear in SCIENCE NEWS LETTER are based on communications to Science Service, or on papers before meetings. Where published sources are used they are referred to in the article.

Of electricity consumed in 1941, 76% went to industry, 15% to homes, and 9% to service uses.

Experimenters are testing the medicinal value of a Mexican corn fungus, *huilacoche*, as a substitute for ergot.

War requirements for military cloth have created a textile industry need for *dogwood timber*, to make shuttle blocks.

Engineering classes at 2 o'clock in the morning are a recent addition to the program of one university, for the benefit of night-shift workers.

A *photo-reflectometer*, devised to maintain a constant "brown" for brown sugar, will, according to its inventors, measure the exact amount of color in cloth, paper, paint, or any other opaque substance.

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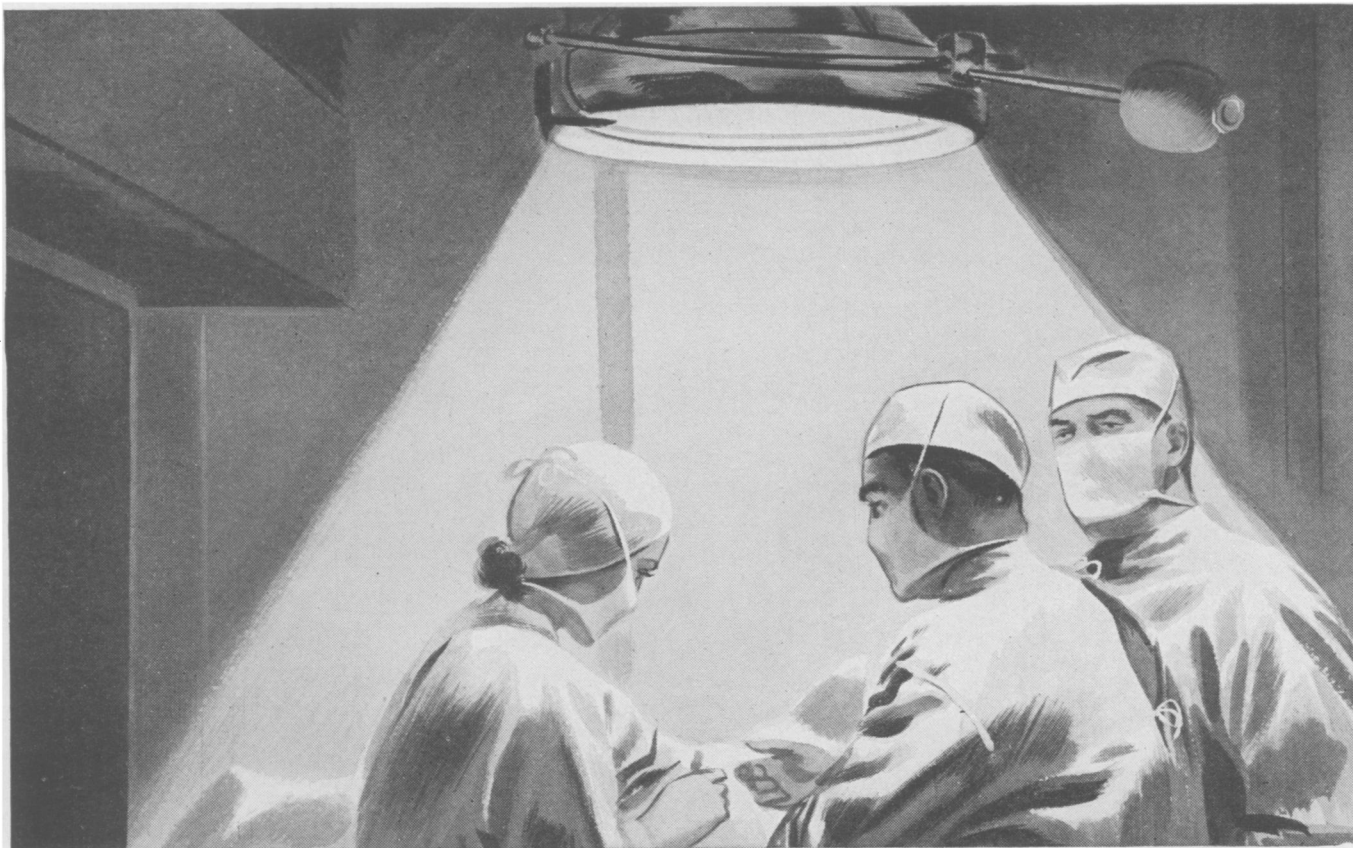
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Abandon hope . . . all Germs who enter here

SCIENTISTS HAVE LONG KNOWN that certain wave lengths in the ultraviolet spectrum are true "death rays" to the world of bacteria.

The rays in the narrow region of 2500-2600 Angstrom units . . . about 1/100,000 of an inch in length . . . were found to have the greatest bacteria-killing power.

The problem was to devise a practical and efficient device for transmitting selected ultraviolet radiations within a given bactericidal range.

The device must not generate a lot of heat. It should have long life. It should be inexpensive and easy to install and operate. Most of its radiation must be in the region of peak bactericidal effectiveness. It must produce only a limited amount of ozone.

Some years ago one of the scientists of the Westinghouse (Lamp Division) Re-

search Laboratory, which is under the direction of Dr. Harvey C. Rentschler, produced an ultraviolet generator meeting these difficult requirements.

Further research and patient effort brought about a commercial ultraviolet bactericidal lamp that emitted about 84% of its ultraviolet at 2537 Angstrom units . . . a lamp that was efficient and relatively cool during operation . . . that produced an amount of ozone sufficient to correct odors and protect areas not directly irradiated, but insufficient to cause taste change or detrimentally affect food products. This lamp was marketed under the trade mark, *Sterilamp*.*

In hospitals, the *Sterilamp** stops airborne infections from entering wounds and incisions . . . by providing a protective zone of sterile, bacteria-free air around

*Trade Mark Reg. U. S. Pat. Off.

the patient on the operating table.

When properly installed in air-conditioning systems in hospitals, schools, and nurseries, the *Sterilamp** is the most effective agent known for reducing cross-infection . . . the spread of air-borne contagious diseases.

The commercial applications of the *Sterilamp** are practically endless. It is used in the "Tenderay" process for tenderizing meat . . . and in bakeries, breweries, wineries, canneries, restaurants, biological laboratories, lavatories . . . wherever air-borne bacteria must be killed or controlled.

In the *Sterilamp**, Westinghouse "know how" has scored a notable victory over the invisible enemies of mankind. Today, Westinghouse scientists are hard at work developing weapons that will score the same kind of victory in our war against the Axis.



Westinghouse