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SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE • AUGUST 12, 1944



Post-War Liner

See Page 106

A SCIENCE SERVICE PUBLICATION

KEEPING UP WITH
Electricity

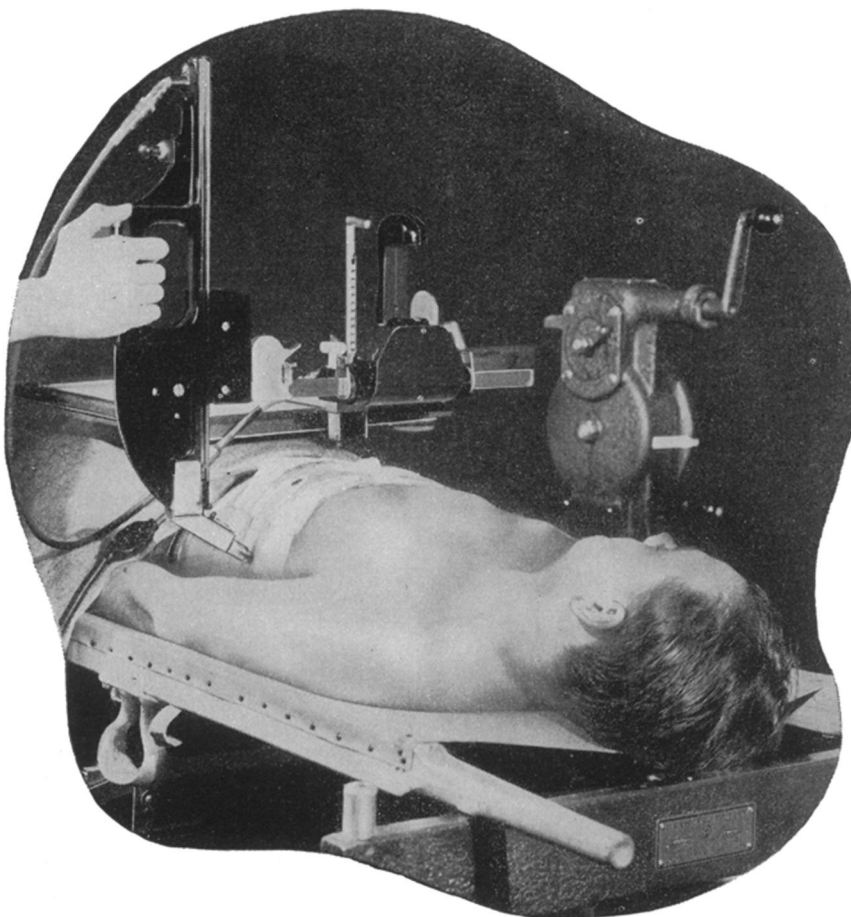
TRADITIONALLY a welder is surrounded by the haze of smoke. Now a portable Precipitron*, the electrostatic air cleaner, is used by industry to eliminate the welding smoke. The unit clears 600 cubic feet of air per minute.

COUNTING THUNDERBOLTS is the task of a new device which has been thrown into the campaign to protect power lines from damage by lightning. It consists of a saw-toothed and a straight-edged strip of metal foil between two layers of transparent plastic, and is about the size of a playing card. When lightning strikes a power line, a bit of the lightning is deflected to the foil, jumps the gap from one tooth to the straight-edge. In so doing it scorches a black spot on the plastic and also burns away that saw-tooth, so that the next discharge must travel by another path. No two teeth are the same size; each discharge picks the shortest path and thus is registered only once.

ARCHERY AND ELECTRONS are working together in that most modern of scientific instruments, the electron microscope. Quartz filaments $1/30,000$ of an inch in diameter—one-sixteenth the thickness of a human hair—are used to calibrate the magnifying power of these microscopes. Westinghouse engineers have found that a modification of the medieval cross-bow is the simplest and most efficient device for drawing out molten quartz into such a filament before it can cool or harden.

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Let us send you a free copy of the new booklet, "Books by Westinghouse Authors." Titles listed are not only in the fields of Electricity and Electronics—many of them standard texts—but also cover a wide variety of other subjects, from Astronomy to Sales Engineering. Ask for booklet SNL 84.

*Westinghouse trade mark.



Surgery by triangulation

The life of a soldier wounded by a bullet or shell fragment may depend on the speed with which the metal can be located and removed.

Today, in army field hospitals, *only one minute* is required to discover the fragment and locate it in two planes, incidentally giving the surgeon two points at which incision may be made and also the correct angles and depths beneath the skin.

This is made possible by the Westinghouse Bi-Plane Marker, a device which translates the conditions shown by the fluoroscope into "guide posts" for the surgeon's knife.

Used with the Bi-Plane Marker is the Re-orientating Device, which makes certain that the position of the patient on the operating table is exactly the same as during the fluoroscopic examination.

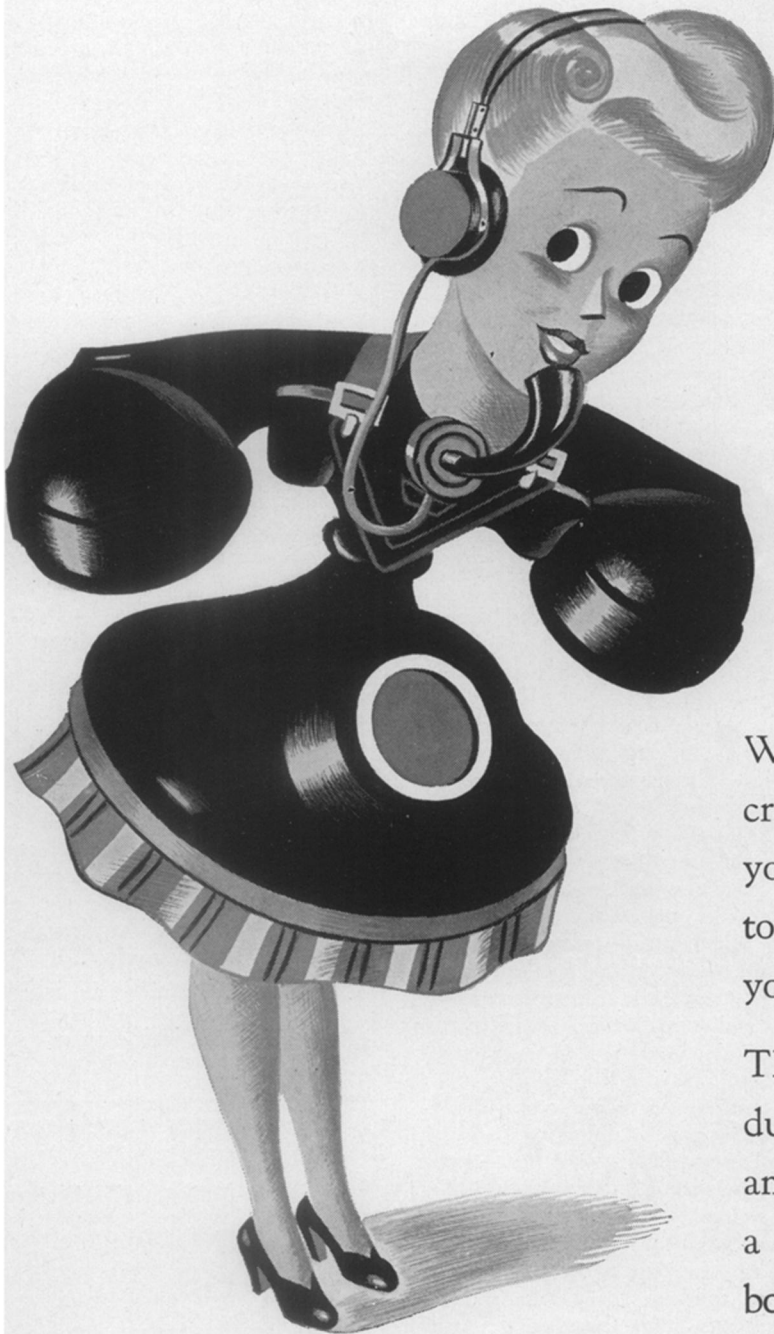
Bi-Plane Marker and Re-orientating Device were designed by Westinghouse x-ray engineers to meet requirements outlined by Colonel Alfred A. de Lorimier, Commandant of the Army School of Roentgenology, Memphis, Tennessee.

Westinghouse Electric & Manufacturing Co., Pittsburgh 30, Pa.

WESTINGHOUSE PRESENTS: *John Charles Thomas, Sunday 2:30, EWT, NBC.*
"Ted Malone," Mon. Wed. Fri. 10:15, EWT, Blue Network

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*“Thanks for
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When Long Distance lines are crowded and the operator asks you to “Please limit your call to 5 minutes” — it’s nice to hear you say, “I’ll be glad to.”

The request is usually made during rush hours on lines in and out of war-busy centers. It’s a suggestion that helps everybody get better service.

BELL TELEPHONE SYSTEM

