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SCIENCE NEWS LETTER



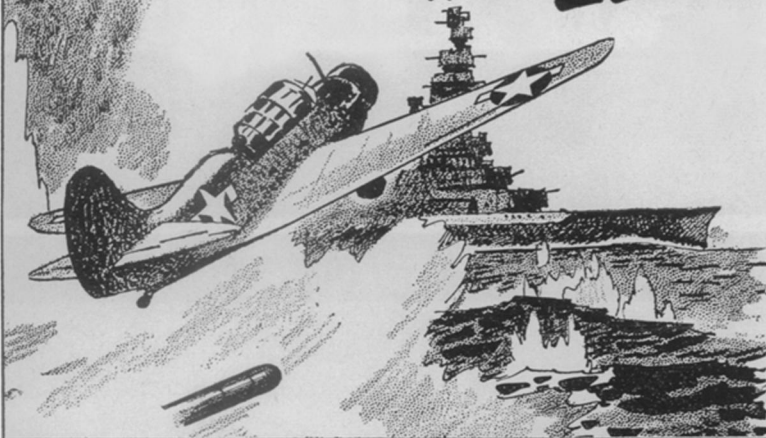
THE WEEKLY SUMMARY OF CURRENT SCIENCE • FEBRUARY 17, 1945



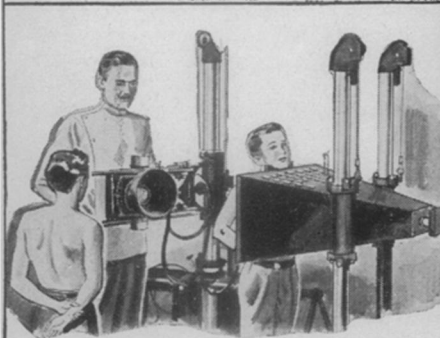
Waterspout
See Page 102

A SCIENCE SERVICE PUBLICATION

WONDER-WORKING WITH **ELECTRONS**



BOMBERS FROM THE BOTTOM OF THE SEA... There's a fabulous amount of magnesium... enough for 4,000,000 Flying Fortresses... in every cubic mile of sea water. To extract this vital metal from the ocean, vast quantities of d-c electricity are needed. An electronic device, the Westinghouse Ignitron, supplies this current by changing a-c to d-c — right at the water's edge. Ignitrons, with a combined capacity of more than 3,000,000 kilowatts, are now at work in magnesium, aluminum and chlorine plants, in electric railway systems, in mines, in many war industries.



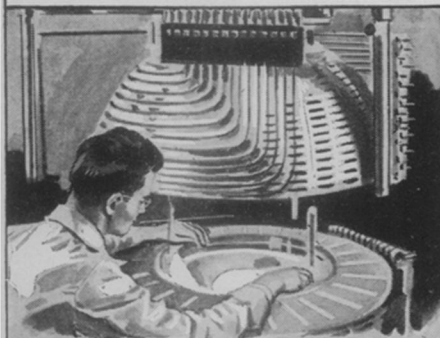
A NEW X-RAY machine, built by Westinghouse, makes possible the examination of 1000 school children daily — for symptoms of tuberculosis. X-ray pictures are taken by a 35 mm candid camera — at a cost of less than 1¢ per exposure.



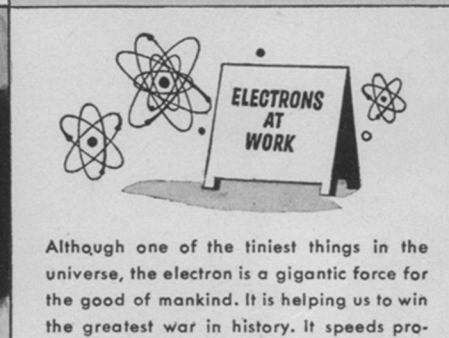
DUST TAKES A HOLIDAY... Dust-free air is absolutely essential in the assembly of optical equipment for our fighting forces. The Westinghouse Precipitron® electronic air cleaner automatically removes dust particles down to the size of 1/250,000th of an inch.



S-T-R-E-T-C-H-I-N-G THE TIN SUPPLY... Electronic high-frequency induction heating — developed by Westinghouse — helps save two-thirds of our war-scarce tin supply by flowing a protective tin coating, only 30-millionths of an inch thick, on steel strip.

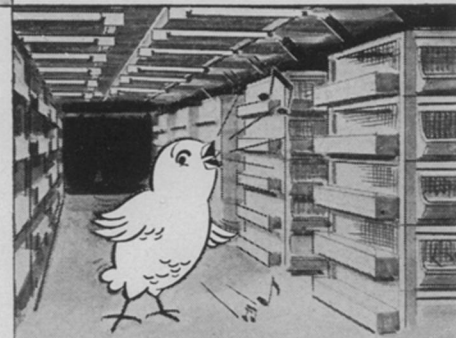


ELECTRONIC CHEMIST... The Westinghouse Mass Spectrometer analyzes intricate gas mixtures at amazing speed. In making synthetic rubber, for example, this electronic device cuts the time of chemical analysis from days to a matter of minutes.



Although one of the tiniest things in the universe, the electron is a gigantic force for the good of mankind. It is helping us to win the greatest war in history. It speeds production of goods for war and peace... brings entertainment into our homes... contributes to our health and happiness in countless ways. And wherever you find electrons at work you will find Westinghouse electronic research at the forefront!

*TRADE MARK REG. U.S. PAT. OFF.



SOMETHING TO CROW ABOUT... The Westinghouse Sterilamp, an electronic device, deals sudden death to air-borne bacteria in chick brooders — has reduced chick mortality by 50%. Sterilamps are used in restaurants, canneries, breweries, etc.

Tune in:
JOHN CHARLES THOMAS
Sunday 2:30 pm, EWT, NBC

Westinghouse
PLANTS IN 25 CITIES OFFICES EVERYWHERE

Tune in: **TED MALONE**
Mon. Tues. Wed. Evening,
Blue Network



War shortages crop up in strange materials. Mica, for instance. Once seen principally in the windows of stoves, and in boys' pockets, it is now used extensively as electrical insulation. In some products, it is almost indispensable: capacitors for radio, spark-plugs for airplane engines, insulators in electronic tubes.

With demand mounting, manufacturers were desperate. A four-man technical mission flew to

London to help ration the world's supply between the United States and Great Britain. The shortage was serious.

The War Production Board, convinced that much mica was classified too low when judged by appearance alone, asked Bell Telephone Laboratories to develop a new method of electrical tests. The Laboratories were able to do this quickly and successfully because of their

basic knowledge and experience in this field.

The new tests were made available to manufacturers in this country and abroad — the supply of usable mica was increased 60% — and a difficult situation relieved.

Skill to do this and other war jobs is at hand in Bell Laboratories because, year after year, the Laboratories have been at work for the Bell Telephone System.



BELL TELEPHONE LABORATORIES

Exploring and inventing, devising and perfecting for our Armed Forces at war and for continued improvements and economies in telephone service