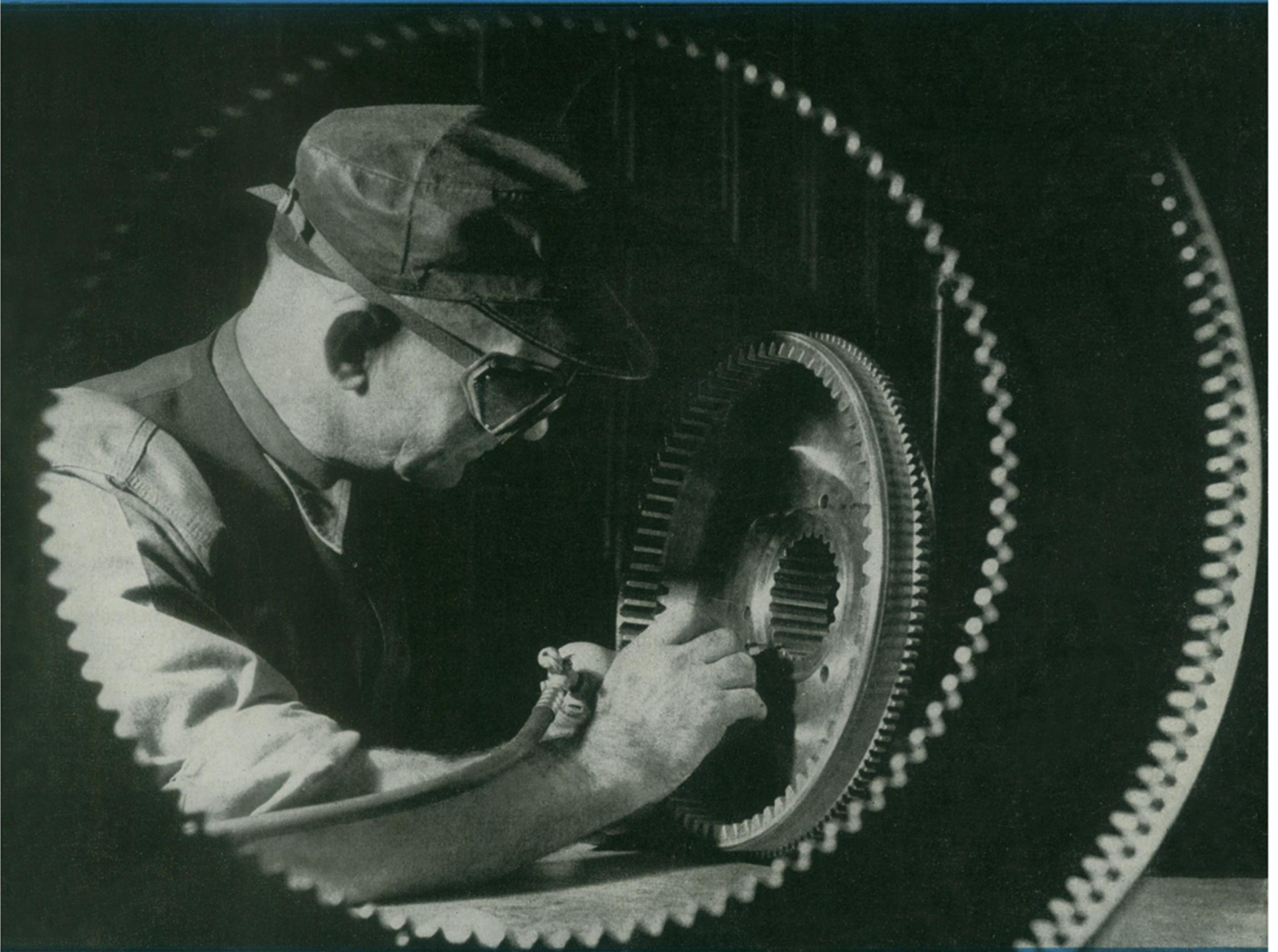


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SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE • OCTOBER 9, 1943



In Gear

See Page 233

A SCIENCE SERVICE PUBLICATION

Do You Know?

Lime phosphates constitute 6/7 of the solids in human bones.

Pea pods and vines, byproducts of canning, are valuable cattle food.

Canning powders and other chemical preservatives should not be used by home canners, warns the U. S. Department of Agriculture; they constitute a health hazard.

A considerable part of the retina of every human eye is *color-blind*, says the Better Vision Institute; the outer edge is totally color-blind, only in the center of the retina are all colors seen.

American hens laid over 6,500,000,000 eggs in May, 1943, according to the U. S. Department of Agriculture, an increase of 13% in egg production over the preceding May.

Mexican *bean beetles*, leaf-eating insects with a special taste for beans, do the most damage in the northern states in July and August; they are controlled by special insecticides.

A mixture of two parts sodium fluosilicate, one part phenothiazine, and one part of ordinary wheat flour, is being used successfully on cattle to destroy both sucking and chewing lice.

The 1943 fall hunting season for *migratory game birds* which lasts 70 days, begins Sept. 25 in the northern zone, Oct. 15 in the intermediate zone, and Nov. 2 in the southern zone.

Question Box

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How can frost on gun turrets be prevented? p. 233.

AGRICULTURE

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How successful were the Victory Gardens this year? p. 229.

BOTANY

How does night temperature affect the blooming of plants? p. 232.

CHEMISTRY

What material added to whole milk powder makes it keep fresh twice as long? p. 227.

CHEMISTRY-MEDICINE

During what month do you have the most carotene in your blood? p. 238.

ENGINEERING

How can garnets keep men from losing their footing on deck as they pass the ammunition? p. 234.

How does the gas turbine operate? p. 230.

What advantage has magnesium for making gasoline tanks? p. 229.

What new war use has been found for movies? p. 228.

What percentage of the time do warplanes spend in the air? p. 228.

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What rescue device has been invented for entrapped submarine crews? p. 236.

ENTOMOLOGY

How do insects aid the enemy? p. 238.

INVENTION

How does an automatic welding generator operate? p. 233.

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MEDICINE

What drug has brought down the meningitis death rate in Army camps? p. 227.

What is the best blood substitute? p. 233.

What new medical aid is available for women in later middle life? p. 232.

What should be done with all uncooperative syphilis patients? p. 234.

NUTRITION-CHEMISTRY

What is necessary before white rice can be enriched? p. 232.

PHYSICS

Where is the national center for the physics profession? p. 234.

PHYSIOLOGY

How many drivers over 40 wear glasses? p. 234.

PUBLIC HEALTH

How was the nation prepared for the polio epidemic? p. 232.

One-half the industrial *alcohol* needed in the United States in the next 12 months will be produced by the beverage alcohol industry.

Eye examinations show that about one in every four working persons in their twenties have *visual defects*; at 40, approximately 50% of all workers have defective vision.

Total *food production* in the United States this year is expected to exceed last year's record production by about 5%.

Some 25,000,000 *waterfowl* of various migratory species visited Federal wildlife refuge areas in their southward journey in the fall of 1942; mallards included numbered about 11,600,000.

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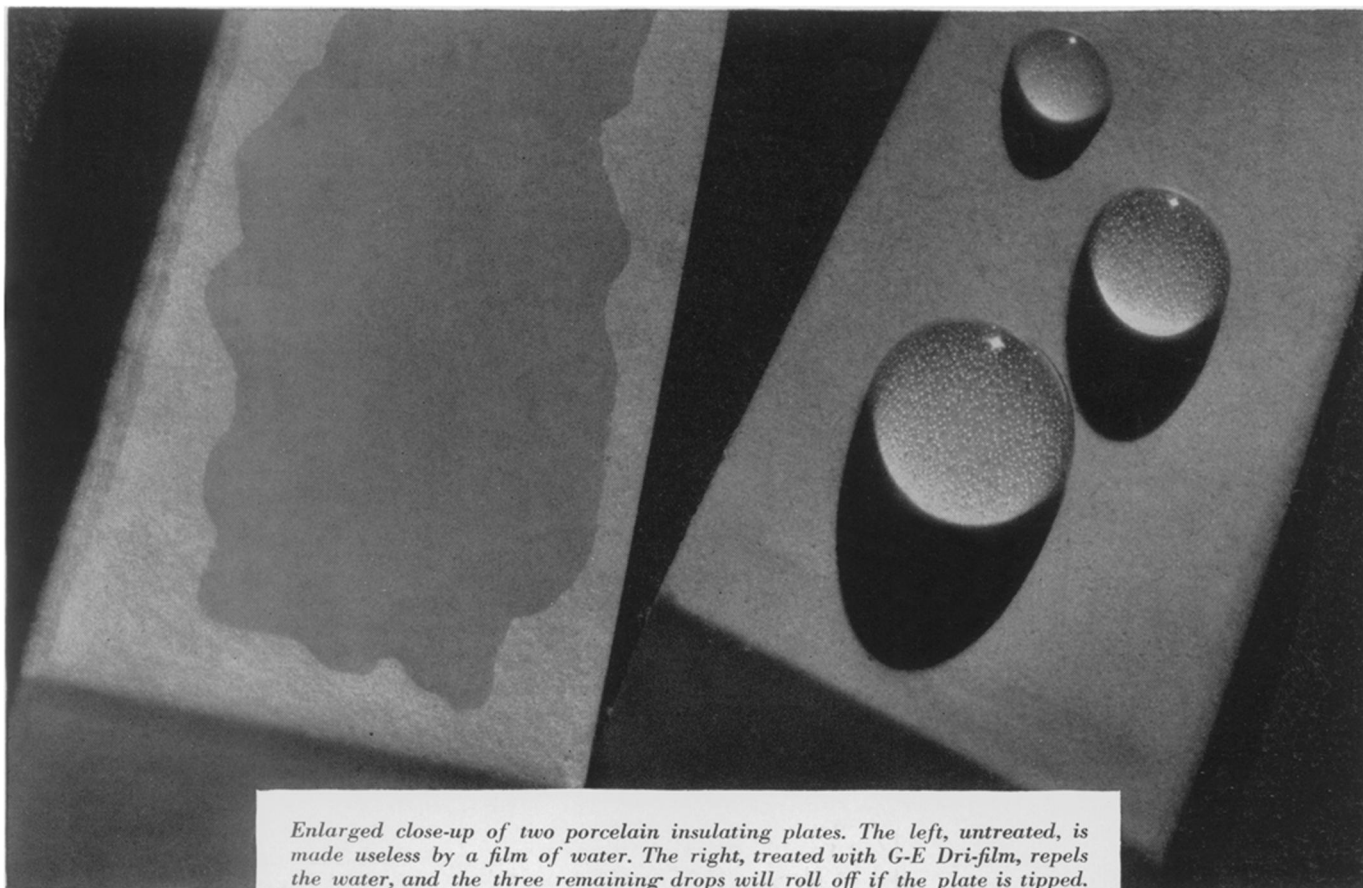
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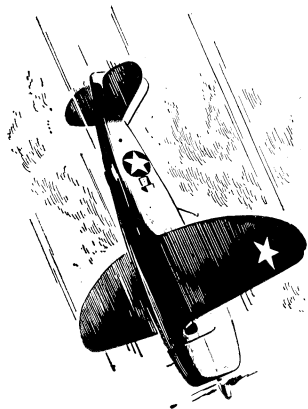
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Enlarged close-up of two porcelain insulating plates. The left, untreated, is made useless by a film of water. The right, treated with G-E Dri-film, repels the water, and the three remaining drops will roll off if the plate is tipped.

How to cure a Flying Radio's LARYNGITIS



THERE USED TO BE a lot of trouble, every time an American pilot in a dogfight dropped a radio set 20,000 feet. Not crash trouble, for in the cases we're talking about the radio was in the plane and the pilot pulled out of the dive.

But sometimes the radio lost its voice. For the sudden plunge from cold to warmer air produced condensation of moisture—like the fog that collects on your glasses when you come indoors on a winter's day. A film of moisture formed on the radio's insulators; the film let the electricity leak away; the radio quit dead! And that was bad—since a modern fighting plane depends almost as much on its radio as it does on its wings.

But not so long ago General Electric scientists found a way around this difficulty. For if a porcelain insulator is exposed, for just a few seconds, to the vapor of a com-

position called G-E Dri-film—then the whole nature of the insulator's surface is changed. It looks just the same, but moisture doesn't gather any longer in a conducting film. Instead, it collects in isolated droplets that don't bother the radio a bit. The set keeps right on talking.

Today the voices of most military radios are being safeguarded by treating their insulators with G-E Dri-film. And the research that cures a radio's laryngitis is the same kind that has licked the problems of the turbosupercharger, and has packed the driving power of a destroyer into turbines not much bigger than a couple of trunks. It's the kind of research we're counting on, tomorrow, to turn the discoveries of wartime into peacetime products we can all use. *General Electric Company, Schenectady, N. Y.*

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