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# SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE • AUGUST 14, 1943



Active Earth

See Page 101

A SCIENCE SERVICE PUBLICATION

## Do You Know?

An all-metal, self-bailing *life-raft* has been adopted by the Maritime Commission.

*Muelheim*, situated on both banks of the Ruhr, represents a concentration of anthracite mining, steel manufacturing and shipping interests.

For maximum efficiency of feed utilization, about one-third of the total *proteins* in the diet of hogs, chickens, and turkeys should come from animal sources, nutritionists report.

The army "duck" is partner of the "jeep"; it is an *amphibian truck* that can operate on land or water, some 30 feet in length and 8 in width with a capacity of approximately 35 men.

Extensive *magnesium* rock deposits, discovered recently north of Lima, Peru, may be mined and processed with electricity from the new hydroelectric plant under construction by Peru in the Canyon del Pato.

Two new *sandless glasses* for optical purposes have been developed: one is made from boric acid, zinc oxide, and aluminum hydroxide or beryllium oxide; the other uses cadmium oxide instead of zinc oxide.

Eight important *medicinal* and *insecticidal plants* are being introduced into Mexico to replace Far-East products; they will produce red squill for rats; rotenone and pyrethrum for insects; and belladonna, senna, peppermint (for menthol), henbane and stramonium.

## Question Box

### Page numbers of Questions discussed in this issue:

#### AERONAUTICS

How good are Japanese pilots? p. 105.  
What kind of device has just been perfected for keeping ice off the wings of war-planes? p. 99.

#### AGRICULTURE

What effect did grazing under the trees have on maple syrup yield? p. 105.

#### ANATOMY

How was it discovered that a dog can have two brains? p. 99.

#### BIOLOGY

How can tumor causing bacteria be made harmless and then potent again? p. 100.

#### CHEMISTRY—PHYSIOLOGY

What ingredients in liquor make the drinker drunker? p. 111.

#### HISTOLOGY

How was muscle tissue sliced thin enough for study under the electron microscope? p. 108.

#### INVENTION

How can fruit jars be sealed without rubber jar rings? p. 104.

#### MEDICINE

How can prostigmine be used in the treatment of infantile paralysis? p. 106.  
How much does it cost to be born in a hospital? p. 105.

*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.*

In what way does nylon help in blood transfusions? p. 105.

What evidence is there that appendicitis may be an allergy? p. 106.

Why should the amounts of plasma given for burn shock be increased? p. 110.

#### MILITARY SCIENCE

What invention makes it possible for instructors to see whether recruits squeeze the trigger as they should? p. 104.

#### NUTRITION

What new uses have been found for sweet potatoes? p. 108.

#### PHYSIOLOGY

What happens when men get no other liquid but fish juice? p. 110.

#### PUBLIC HEALTH

How much has the automobile accident rate gone down? p. 104.

What fellowships are available through the U. S. Public Health Service? p. 104.

Why are the hay fever weeds worse this year? p. 102.

#### SEISMOLOGY

How have earth shocks been associated with the eruption of Mexico's new volcano? p. 101.

Carbon disulfide, kerosene or cheap gasoline will kill *ants* in nests on lawns and in gardens.

*Dogs* resist cold weather because they do not sweat, but cool off by panting; horses in their thick winter coats may sweat and catch pneumonia.

*Tomatoes* on vines lying on the ground may be protected from rotting by a light hay mulch.

More than 300,000,000 pounds of *fish* and shellfish are landed annually at East Coast ports from Rhode Island to Virginia.

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# Whirlwind's BROTHER

**I**T'S a 2-to-1 bet that your home electricity is born in a man-made hurricane five times as ferocious as any Nature ever cooked up. Engineers call it a steam turbine-generator.

A steam turbine is a kind of cross between a mammoth windmill and a giant's spinning top. It takes steam hot enough to heat the pipes a dull red, and squeezes the energy out of it until, 1/30 of a second later, all that's left is water too cool to bathe the baby in. The turbine turns a generator which passes this energy on to you as electricity—so you can use it to cook an egg, or freeze ice cubes, or make bombs to blast the Axis.

This machine isn't the sort

of job that a manual training class would turn out! Just one part, small enough to hold in your hand, may handle more power than a dozen trucks. And the steam takes the turbine rotor for such a dizzy ride that if it were turned loose on the Atlantic seaboard, it would roll to San Francisco in four hours!

Today's turbine-generators turn out, from one ton of coal, more electricity than three tons used to give. That saved America millions of tons last year, plus precious man-hours in mining and transportation—all because G-E engineers, along with boiler and power-plant designers and engineers of electric service companies, have been improving turbines

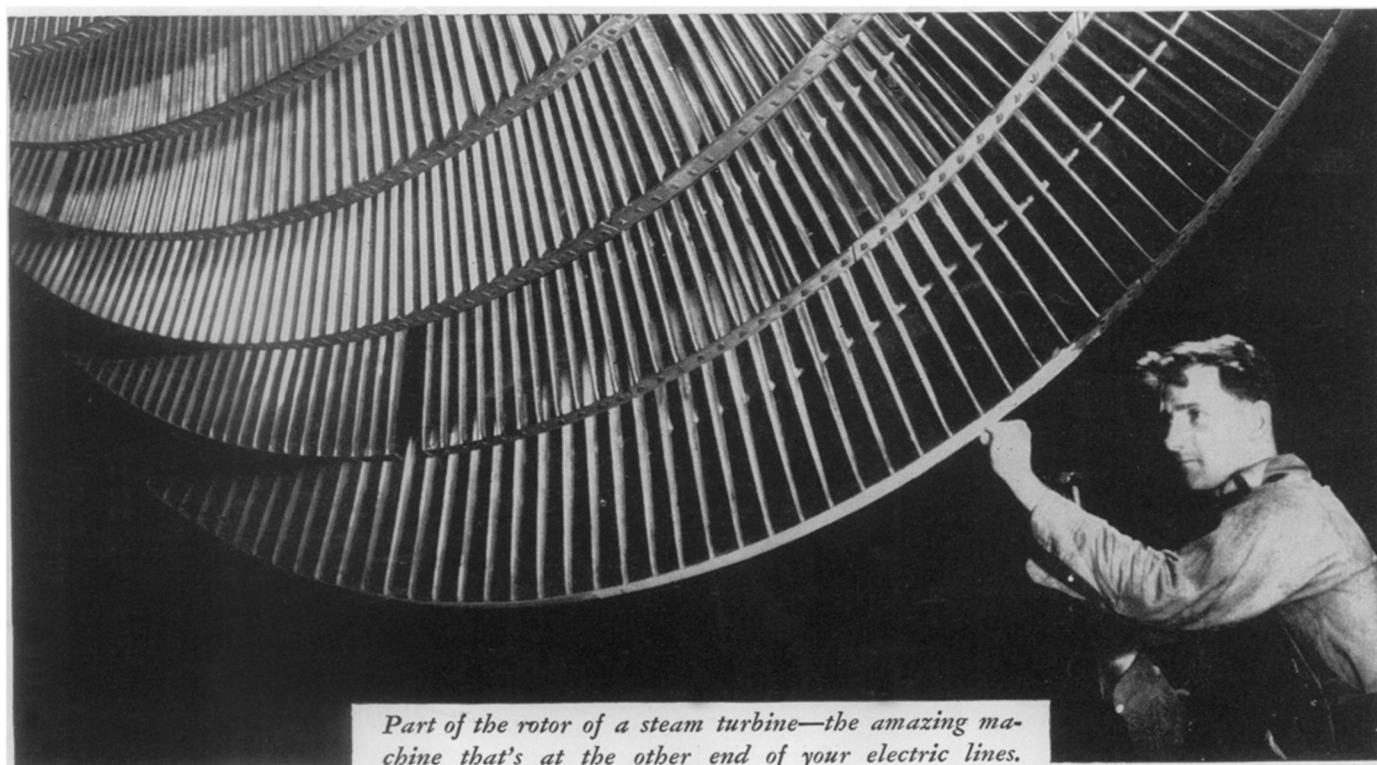
for more than forty years.

More important yet, they have given us a wonderfully efficient machine to drive our ships of war—drive them faster and farther than those of our enemies.

War cannot destroy the ingenuity and experience that created the modern turbine—in fact, it stimulates them. And they will help to create for us better and richer lives in the peaceful years to come. *General Electric Co., Schenectady, N. Y.*

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