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SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE • SEPTEMBER 4, 1943



Women at War

See Page 152

A SCIENCE SERVICE PUBLICATION

Do You Know?

Small workshops in England produce about 40% of her total war production.

Salt from seawater will soon be produced commercially in New Zealand by solar evaporation.

Cuban and Puerto Rican molasses may soon reach American ports *dehydrated* and packaged in paper bags.

A plant to make *battery carbon* for dry cells, capacity a million pounds a year, has just been completed at Pampa, Texas, near the Panhandle petroleum fields.

Over 8,500,000 *hunting licenses* were purchased by American sportsmen in the 1941-42 season at a cost of nearly \$14,000,000; they paid an additional \$1,500,000 for federal duck stamps.

Two 20,000 horsepower electric motors will be used in the Army's new stratosphere *wind tunnel* at Wright Field to create a 600-mile-an-hour gale to test aircraft in a temperature about 60 degrees below zero Fahrenheit.

Naval vessels use *steam turbines* connected through reduction gearing to propeller shafts; with propeller improvements, and higher steam pressure and temperature, efficiency has been increased over 25% since World War I.

Magnesium will compete strongly with *aluminum* in lightweight construction after the war as raw materials are plentiful; 15 plants are producing large amounts now for war uses both from common minerals and from seawater.

Question Box

Page numbers of Questions discussed in this issue:

AERONAUTICS

What new invention will make better spacing of airplane windows possible? p. 152.

AGRICULTURE

What South American country may soon be sending us cacao products? p. 152.

ASTRONOMY

Would a shipwrecked person, with only his watch and a few charts, be able to guide his craft to port? p. 154.

ENGINEERING

How can a high frequency current be used in riveting? p. 149.

What instrument is devised to control the flow of oil through the 20-inch pipeline? p. 151.

What new device would make the delivery of supplies from a parachute quicker and more efficient? p. 155.

What war use is being made of the coffee can-making technique? p. 153.

ENTOMOLOGY

Is the grasshopper as worthless a creature as Aesop led us to think? p. 158.

GENERAL SCIENCE

On what grounds is it being suggested that science teachers be deferred? p. 147.

To whom did the Sigma Xi awards for research go this year? p. 159.

What would the odor of rotten cabbage in a mine indicate? p. 148.

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.

HORTICULTURE

What useful hints should be remembered in preserving garden seeds? p. 150.

MEDICINE

The infected area for what disease crosses the Pan-American highway? p. 156.

What experiments have been conducted with penicillin outside the armed forces? p. 148.

What humanitarian device has just been patented? p. 153.

What improved treatment for diabetics has just been reported? p. 151.

NUTRITION

How does the vitamin content of the soybean change as it matures? p. 153.

How is the wartime scarcity in concentrated dairy feeds affecting Old Bossie's waistline? p. 150.

What new source of protein is being made available for human consumption? p. 149.

PHYSICS

How great is the voltage of the new X-ray machine? p. 147.

PUBLIC HEALTH

In what states has polio reached epidemic proportions? p. 152.

What fever has just broken out in Honolulu? p. 152.

Why is duat analysis considered important just now? p. 152.

VOLCANOLOGY

By gaining the Eolian islands, what volcanoes did the Allies acquire? p. 158.

Cotton camouflage nets treated with a new chemical finish are fire, water and weather resistant in all climates.

Chromated zinc chloride forced into *lumber* in pressure chambers increases the length of life of the lumber from three to ten fold.

War production is using over 40% of the *power* produced by the Tennessee Valley Authority.

Approximately 4,000,000 barrels of *oil* had to be pumped into the Texas end of the new "Big Inch" pipe line before any reached the Eastern seaboard.

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This one's going to hurt!

Invasion comes high—in blood and money.

Part of the cost must be paid with human life. That means deep and lasting hurt for many and many an American family.

Part of the cost must be paid in cash . . . this September. And *that's* going to hurt, too!

The 3rd War Loan Drive is here!

To pay for invasion—to get the money to keep our fighting machine going—you, and every man or woman in America, are asked to invest in at least one extra \$100 Bond in September.

\$100 EXTRA, mind you—for *everybody!*

No man or woman can hold back. No man or woman can point to his Payroll buying and say, "They don't mean me!" No man or woman can say, "I'm already lending 10% or 12% or 20%—I'm doing enough!"

Sure—it's going to hurt. It's going to take more than spare cash this time—more than just money that might have gone for fun. It's going to take money you have tucked away. It's going to take part of the money we've been living on—money that might have meant extra shoes or clothes or food! Money that might have gone for *anything* that we can get along without!

Sure—it'll be tough to dig up that extra money. But we've got to do it—and *we will.*

We'll do it partly because of the look that would come over the faces of our fighting men if we should fail. We'll do it partly because the cheapest, easiest way out of this whole rotten business is for everybody to chip in all he can and help end it quick. We'll do it partly because there's no finer, *safer* investment in the world today than a U. S. War Bond.

But mostly, we'll do it because America is right smack in the middle of the biggest, deadliest, dirtiest war in history.

And we're Americans.

Back the attack with War Bonds

This space contributed to the Third War Loan Campaign by

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