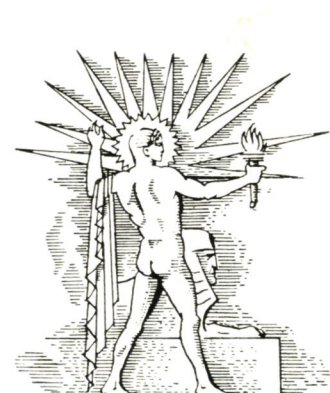


PRICE
15¢

SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE ●



August 29, 1942

Thunderbolts

See Page 132

A SCIENCE SERVICE PUBLICATION

Do You Know?

The North American *waterfowl population* last January was about 100,000,000, according to the U. S. Fish and Wildlife Service.

An *octopus* which is "setting" on its eggs will almost completely cover itself with small shells, held up by means of the suction disks on its eight arms.

Eight hundred sixty million board feet of *lumber* will go into the packaging of war materials during 1942 according to a U. S. Department of Commerce estimate.

A fully-equipped *traveling laboratory* is being manned by U. S. Department of Agriculture technicians serving as "trouble shooters" for the dried egg industry.

Asparagus plants may be male or female; male plants are heavier and yield more spears, while spears from female plants are larger individually and of better quality.

Sulfanilamide has been used to treat pneumonia in fowls, but sometimes, in spite of proper diet, hens began to lay soft-shelled eggs, and never recovered the ability to lay hard-shelled ones.

Two new strains cultivated from the *wild western dewberry*, or trailing blackberry, have as good a flavor as the wild berry and in addition are perfect-flowered, productive, bear fruit of large size, and are more resistant to leaf and cane spot.

Question Box

Page numbers of Questions discussed in this issue:

ASTRONOMY

Why is day and night actually of different lengths during the autumnal equinox? p. 138.

ELECTRICAL ENGINEERING

Where is the world's most powerful X-ray machine being built? p. 135.

ENGINEERING

Can automobile engines be successfully changed to fewer cylinders? p. 140.

INVENTION

How can jewelers write on gems? p. 136.
How has the effectiveness of machine guns been improved? p. 137.
What improvement has been made in rifle barrels? p. 141.

MEDICINE

What explosive has caused thousands of cases of illness in war plants? p. 132.
What harmful effect might the use of sulfa drugs have on military strategy? p. 140.

NAVIGATION

Why were the colors changed on Navy navigation charts? p. 132.

PHARMACY

Of what value is the production of rye smut in this country? p. 133.

PLANT PHYSIOLOGY

What chemical magic can prevent a tree from dropping fruits before they are ripe? p. 141.

PSYCHIATRY

What is the danger of war-weary soldiers falling into a stupor? p. 134.

RESOURCES

What American tree may replace our imported cork supply? p. 136.
What valuable products can be manufactured from nettles? p. 143.
Why is shark fishing "booming" in the United States? p. 131.
Will there be a shortage of wool for civilian use? p. 142.

ZOOLOGY

What was the recently reported artistic accomplishment of a London ape? p. 135.

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.

The *shrew*, tiny animal half the size of a house mouse, eats its weight in food every day.

A substitute for glycerin, vital lend-lease chemical, is *sodium lactate*, now being used in food and pharmaceutical processes.

Many astronomers believe that the *moon craters* are of volcanic origin, but much is in favor of the theory that they were caused by the impact of meteorites or planetesimals.

The *puff adder*, a short, heavy-bodied African snake, can almost double the diameter of its body by drawing in air.

Hydrogenated cotton seed oil flakes, when used to fortify *butter*, will raise its melting point, so that it resists melting at high temperatures.

To supply military demands for *rope*, the U. S. Department of Agriculture has bought and distributed 3,000 bushels of hemp seed to plant 350,000 acres; mostly in Kentucky.

SCIENCE NEWS LETTER

Vol. 42 AUGUST 29, 1942 No. 9

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N. W., Washington, D. C. North 2255. Edited by WATSON DAVIS.

Subscriptions—\$5.00 a year; two years, \$7.00 15 cents a copy. Ten or more copies to same address, 5 cents a copy. Back numbers more than six months old, 25 cents.

In requesting change of address, please give your old address as well as the new one, at least two weeks before change is to become effective.

Copyright, 1942, by Science Service, Inc. Reproduction of any portion of SCIENCE NEWS LETTER is strictly prohibited. Newspapers, magazines and other publications are invited to avail themselves of the numerous syndicate services issued by Science Service.

Cable address: Scienservc, Washington.
New York office: 310 Fifth Avenue, CHicker-
ing 4-4565.

Entered as second class matter at the post-

office at Washington, D. C., under the Act of March 3, 1879. Established in mimeographed form March 18, 1922. Title registered as trademark, U. S. and Canadian Patent Offices. Indexed in Readers' Guide to Periodical Literature, Abridged Guide, and in the Engineering Index.

The Science Observer, established by the American Institute of the City of New York, is now included in the SCIENCE NEWS LETTER.

The New York Museum of Science and Industry has elected SCIENCE NEWS LETTER as its official publication to be received by its members.

Member Audit Bureau of Circulation. Advertising Representatives: Howland and Howland, Inc., 393 7th Ave., N. Y. C., Pennsylvania 6-5566; and 360 N. Michigan Ave., Chicago, STate 4439.

SCIENCE SERVICE is the Institution for the Popularization of Science organized 1921 as a non-profit corporation.

Board of Trustees—Nominated by the American Association for the Advancement of Science: Henry B. Ward, University of Illinois; Edwin G. Conklin, American Philosophical Society; J. McKeen Cattell, Editor, Science. Nominated by the National Academy of Sciences: R. A. Millikan, California Institute of Technology; Harlow Shapley, Harvard College Observa-

tory; W. H. Lewis, Wistar Institute. Nominated by the National Research Council: Ross G. Harrison, Yale University; C. G. Abbot, Secretary, Smithsonian Institution; Harrison E. Howe, Editor, Industrial and Engineering Chemistry. Nominated by the Journalistic Profession: O. W. Riegel, Washington and Lee School of Journalism; A. H. Kirchhofer, Buffalo Evening News; Neil H. Swanson, Executive Editor, Sun Papers. Nominated by the E. W. Scripps Estate: Frank R. Ford, Evansville Press; Warren S. Thompson, Miami University, Oxford, Ohio; Harry L. Smithton, Cincinnati, Ohio.

Officers—Honorary President: William E. Ritter. President: Edwin G. Conklin. Vice-President and Chairman of Executive Committee: Harlow Shapley. Treasurer: O. W. Riegel. Secretary: Watson Davis.

Staff—Director: Watson Davis. Writers: Frank Thone, Jane Stafford, Marjorie Van de Water, Morton Mott-Smith. Science Clubs of America: Joseph H. Kraus, Margaret E. Patterson. Photography: Fremont Davis. Librarian: Page Secrest. Business Manager: Alvin S. Stewart. Sales and Advertising: Hallie Jenkins. Correspondents in principal cities and centers of research.