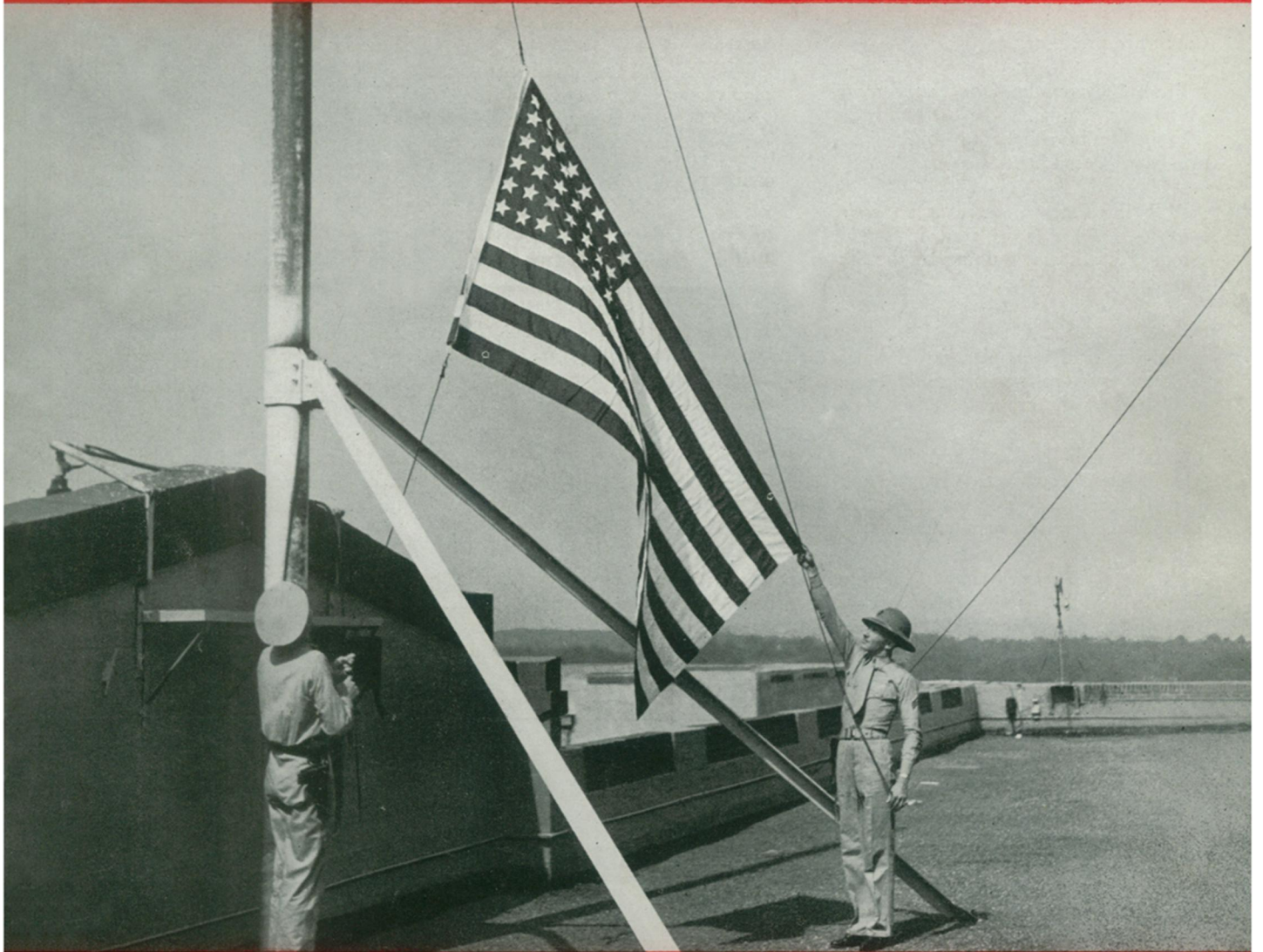


15¢

# SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE

• JULY 3, 1943



Flag Over Science

See Page 15

A SCIENCE SERVICE PUBLICATION

## Do You Know?

*Zinc production* in Oklahoma, Kansas and Missouri was not seriously affected by the recent floods.

Over 20,000 acres of *scenic lands* were recently added to Olympic National Park, Washington, by presidential proclamation.

*Wine-grape seeds* contain from 10% to 17% oil; a process for extracting it has been developed by a University of California professor.

From 100 pounds of *milkweed seeds*, 21 pounds of oil may be extracted; the oil, chemically similar to soybean oil, can be made edible.

A Flying Fortress, fitted as an *aerial classroom*, has been placed in service for specialized pilot training by the Second Army Air Force.

*Corn* was primarily a food for man at the time of the colonization of America; now man consumes directly but a small part of the crop.

Vocational high school boys in Pennsylvania have constructed several hundred electric *chick-brooders* to relieve the shortage faced by poultry raisers.

*Victory gardeners* whose gardens were destroyed by the floods are advised to replant; but to replant with crops that can still be planted in their normal season.

## Question Box

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

#### AERONAUTICS

Where is the only nun who is an airplane pilot teaching this summer? p. 6.

#### AGRICULTURE

How can the treatment of seed potatoes relieve the potato shortage? p. 14.

#### AGRICULTURE—ENGINEERING

How many young men and women have been given engineering training? p. 7.

What is necessary for housewives to do before they try dehydrating foods? p. 7.

#### CHEMISTRY

Where are girls helping in research on war gases? p. 8.

#### CONSERVATION—NUTRITION

What would cause the food shortage to become permanent in America? p. 6.

Why is iodine a critical material? p. 6.

#### ENGINEERING

How can women in industry avoid injuries from weight lifting? p. 15.

Who has patented an amphibian pontoon bridge? p. 3.

#### GEOLOGY

How are geologists aiding the Army? p. 8.

#### INVENTION

Who has patented a harvester for sea moss? p. 8.

#### MEDICINE

How can ice aid in skin grafting? p. 5.

#### NUTRITION

What proposed rationing plan would insure that all would get essential foods? p. 12.

Where can we find a material for "meat" sandwiches without any meat? p. 3.

#### ORNITHOLOGY

Where are the greatest numbers of American eagles to be found? p. 14.

#### PHYSICS

Why is a divergent beam useful in taking X-ray photographs of crystals? p. 9.

#### PHYSICS—CHEMISTRY

How are supersonic waves used to test tires? p. 4.

How does the new static neutralizer work? p. 4.

Why do explosives need brisance? p. 5.

*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.*

American farmers grow *flax* chiefly for seed, not for fiber; linseed oil, salad oils, and linseed meal are the principal products of the seed.

*Shrub Lespedeza*, a legume of the lespedeza family, grows to six feet in height and is being increasingly used in gulleys to prevent soil erosion.

Over 650 acres of rubber-producing *goldenrod* have been planted by the U. S. Department of Agriculture in scattered areas to determine the best soil types and locations.

## Marginal Note

► SCIENCE NEWS LETTER appears in new battle dress with this issue, the first of a new volume. Long before paper economies were enforced by WPB regulations, we did many of the things that other magazines have done during the past six months. Now we remove the margins in order to use less paper and postpone the day when we shall have to say to subscription applicants: "Sorry, we'll have to put you on the waiting list." Readers should note that nothing has been sacrificed except the empty margins. The type page size is the same.

## SCIENCE NEWS LETTER

Vol. 44 JULY 3, 1943 No. 1

The weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N. W., Washington 6, D. C. North 2255. Edited by WATSON DAVIS.

Subscriptions—\$5.00 a year; two years, \$7.00; 15 cents a copy. Back numbers more than six months old, if still available 25 cents.

Copyright, 1943, 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: Scienserve, Washington.

New York office: 310 Fifth Avenue, CHickering 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 trade-

mark, 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 Observatory; W. H.

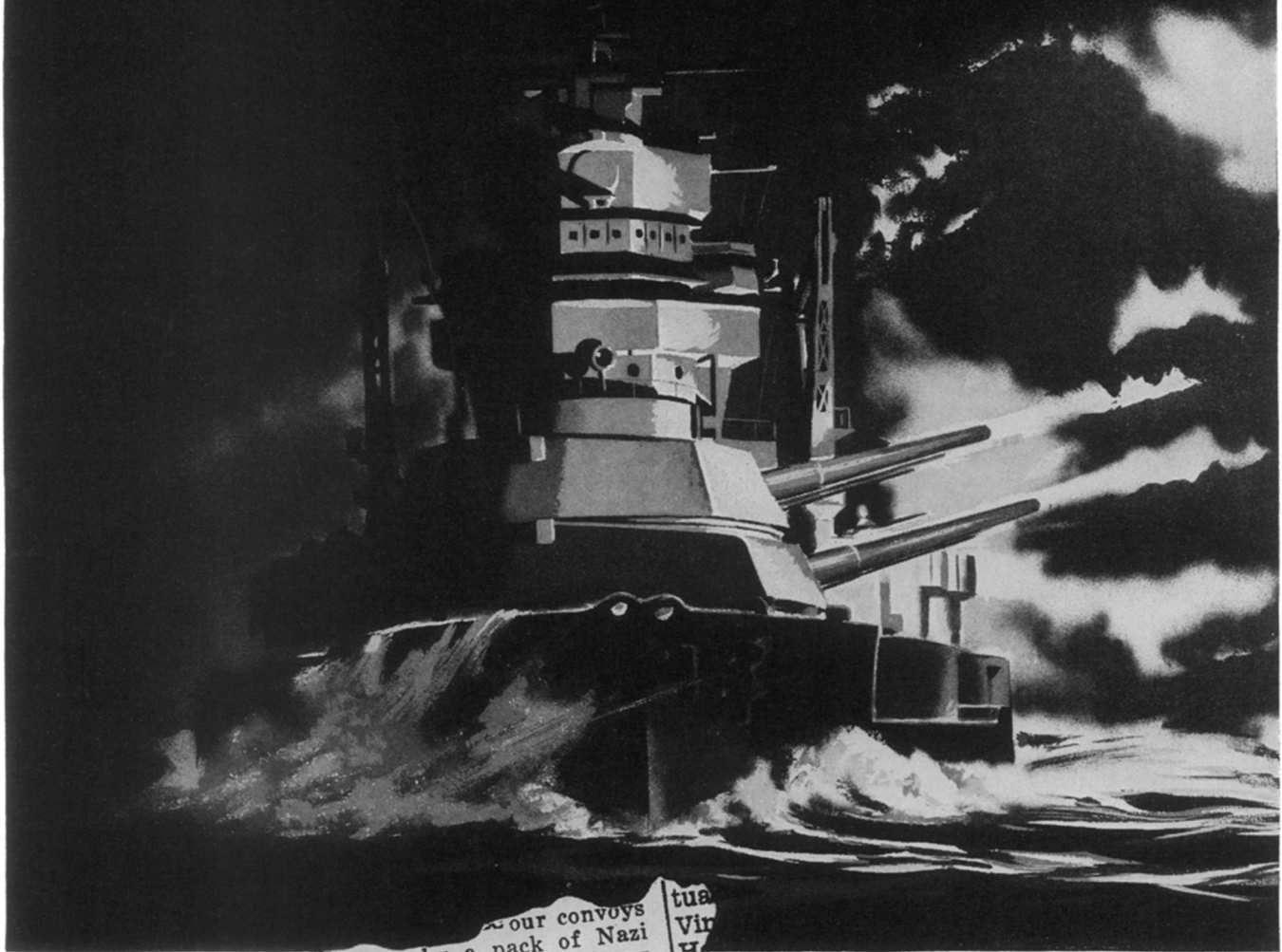
Lewis, Wistar Institute. Nominated by the National Research Council: Ross G. Harrison, Yale University; C. G. Abbot, Secretary, Smithsonian Institution; Hugh S. Taylor, Princeton University. Nominated by the Journalistic Profession: O. W. Riegel, Washington and Lee School of Journalism; A. H. Kirchhofer, 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, Glenn Sonnedecker, A. C. Monahan. Science Clubs of America: Joseph H. Kraus, Margaret E. Patterson. Photography: Fremont Davis. Librarian: Naomi Bohnsdahl. Sales and Advertising: Hallie Jenkins. Business Manager: Columbus S. Barber. Correspondents in principal cities and centers of research.



# "In the Blackness of *a Jap Battleship*"



EXTRACT from  
address by James F.  
Byrnes, Director of  
War Mobilization,  
at Spartanburg, S. C.,  
May 31, 1943,  
broadcast over the  
Blue Network.

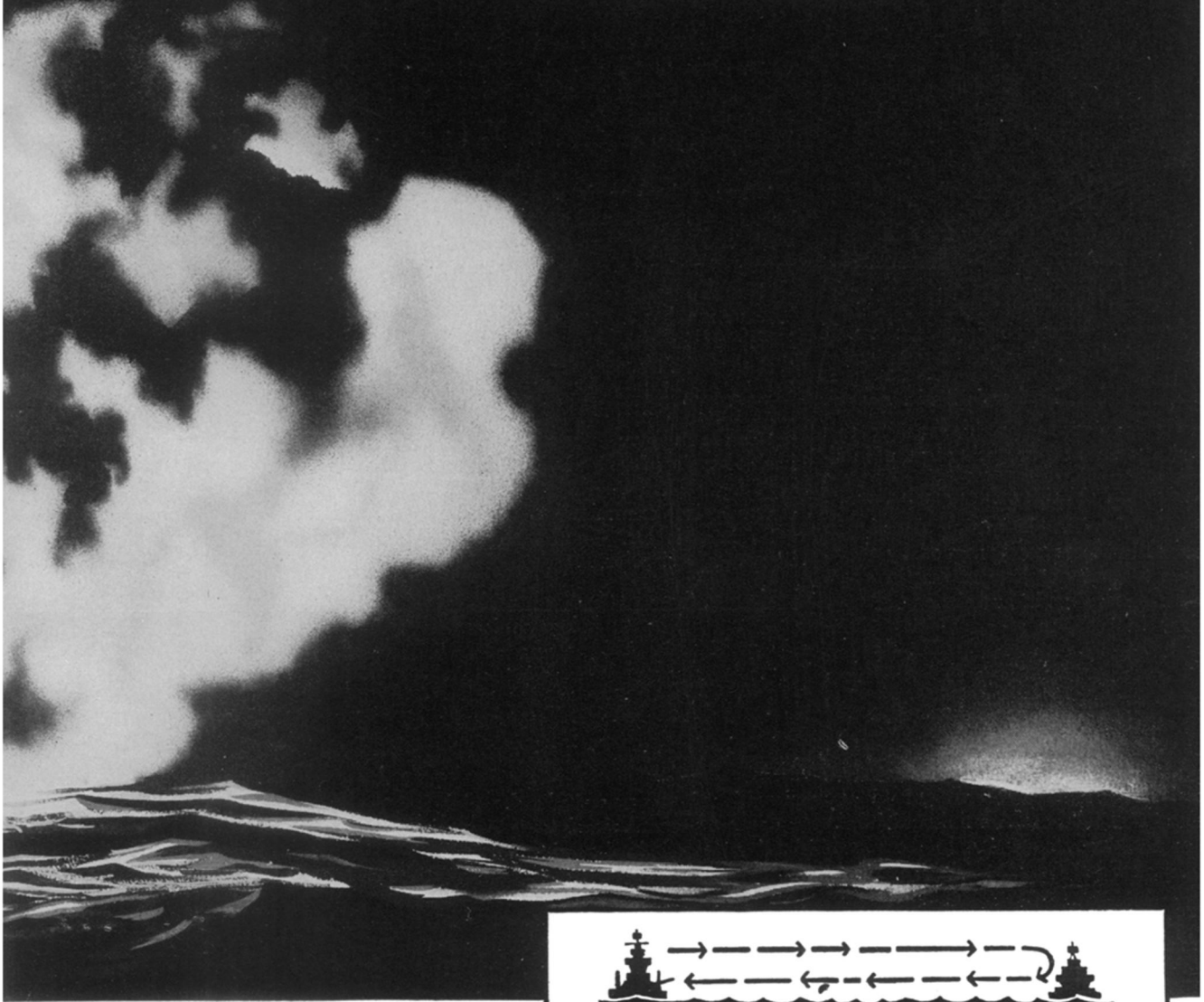
...our convoys  
was set upon by a pack of Nazi  
submarines. They got one of our  
merchant ships, but we got four  
of their submarines.  
History will some day record  
the part radio and the radar have  
played in giving us fighting su-  
periority over the Axis. But let  
me give you one instance. On the  
night of Nov. 14, off Guadalcanal  
there lay a Japanese battleship.  
It was a stormy night. Eight  
miles away was a ship of our  
fleet. With the use of the radar,  
our ship with its second salvo,  
sank the Jap battleship in the  
blackness of night, eight miles  
away. Is there any wonder that

Radar principles were first applied to avia-  
tion by RCA through equipment built and  
installed in its own plane in 1937, in connec-  
tion with a study of collision prevention.

In 1938, RCA built an experimental Radar  
installation for the U. S. Navy. As the result  
of tests, in October, 1939 the Navy placed  
with RCA its first order for service Radar  
equipment. Since then, vast strides in the  
development of Radar in RCA Laboratories

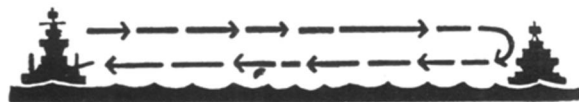
## RADIO

# Night, Eight Miles Away” *is sunk by RADAR*



have been made available to all branches of the industry producing Radar.

Radar is another achievement of the radio-electron tube and the use of ultra-high frequency waves, pioneered by RCA Laboratories. RCA looks forward to the time when its services as world headquarters for radio-electronic research can again be devoted to making the peacetime world a better place in which to live.



**HOW RADAR WORKS**—Traveling with the speed of light—186,000 miles per second—ultra-high frequency waves strike the invisible enemy vessel, bounce back, automatically establish range and distance of the target!

*For the full, fascinating story of Radar, write today for free booklet, "Radar—Wartime Miracle of Radio." Address your request to: Department AS, Radio Corporation of America, 30 Rockefeller Plaza, New York.*

**CORPORATION OF AMERICA**

**RCA BUILDING • NEW YORK CITY**

