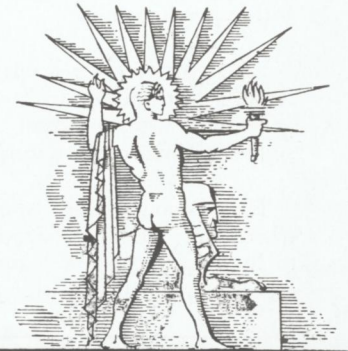


PRICE  
15¢

# SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE ●



June 6, 1942

Can Be Seen 12 Miles

See Page 358

A SCIENCE SERVICE PUBLICATION

## Do You Know?

Man is the only really *meat-eating* primate.

The *eel's* abundant scales are buried in the skin.

*Rubies* are next to diamonds in hardness among minerals.

In China the *turtle* was honored as a symbol of righteousness.

In ancient Peru, *silver* and *gold* were used to make garden spades.

There are at least 10,000,000,000 nerve cells in the *brain* of a normal human being.

*Combs* have been made of gold, silver, jade, ivory, tortoiseshell, copper, celluloid and even iron.

Ninety per cent of the *dyes* we used before the last war were imported; today America makes 95% of its own dyes.

*Pressed wood* hardboards are replacing aluminum and non-ferrous alloys in the manufacture of fan blades, gears, grilles, and motor housings.

Your *electric clock* keeps time because it is synchronized with power-station generators whose current alternates exactly 120 times every second.

The famous *wild ponies* of Sable Island, off the Nova Scotia Coast, are to be brought to the mainland to help take the place of vanishing autos.

# Question Box

## Page numbers of Questions discussed in this issue:

### AGRICULTURE

What are the advantages of a hybrid alfalfa? p. 356.

### ARCHAEOLOGY

Where did a democratic civil service exist 2,000 years ago? p. 362.

### ASTRONOMY

Why is it likely that a tenth planet exists? p. 361.

### BIOPHYSICS

What is the structure of protoplasm like? p. 364.

### BOTANY

What plants are usually to blame for early hay fever? p. 363.

### CHEMISTRY

What is the difference between sol rubber and gel rubber? p. 360.

### FORESTRY

What plant requires fungi in order to grow? p. 360.

### GENERAL SCIENCE

What are American colleges doing to help fight the war? p. 355.

*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.*

### MEDICINE

How can beef blood be used to save the lives of wounded soldiers? p. 357.

What drug has been found the cause of a gum trouble like trench mouth? p. 361.

What is the best treatment for a wound from stepping on a nail? p. 355.

### MICROBIOLOGY

How can malaria germs be kept alive? p. 367.

### PHYSICS

In what sort of weapons are Germans and Russians using rockets? p. 356.

What would be the usefulness of Prof. Bragg's new X-ray microscope? p. 357.

Why is boiling point of water at 212 degrees? p. 360.

### PHYSIOLOGY

What possibility is there of determining the sex of a baby before birth? p. 360.

Why is it unnecessary to eat extra carrots for night vision if your diet is adequate? p. 361.

### PSYCHOLOGY

Why are your eyes more sensitive to light on a dark night than in the daylight? p. 358.

Why do few Americans listen to foreign propaganda broadcasts? p. 362.

Why is it dangerous to use blue light in a blackout? p. 359.

*Iodine* is from the Greek word for violet.

The *grizzly bear* is the most ferocious animal in North America.

*Blood plasma* can be preserved by addition of 0.2% solution of one of the sulfa drugs.

All records for *milk* production in this country were broken last year, with a total flow of 117,000,000,000 pounds.

Although studied for centuries, *migration* of birds is still not understood.

*Alfalfa* roots may extend down in the earth for more than 30 feet.

Every dollar spent for the war effort requires 2¾ kilowatt-hours of *electric power*.

A carburetor for a jeep could be made from the *zinc* in a 3½-pound toy locomotive.

## SCIENCE NEWS LETTER

Vol. 41 JUNE 6, 1942 No. 23

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, 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 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. Kirchofer, 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:* Minna Gill. *Business Manager:* Alvin C. Stewart. *Sales and Advertising:* Hallie Jenkins, Austin Winant. Correspondents in principal cities and centers of research.

# Research Workers on War Problems May Find the Answer in the Following List

## Metals:

Aluminum castings corrosion protection  
Foundry cores  
Joint seals for pipes  
Aluminum drawing lubricant  
Tin stamping lubricant  
Nickel alloy stamping rust prevention  
Metal surface protection  
Drawing and stamping of nickel alloys  
Sintered bearing lubricant

## Paper:

Transparent coating  
Waterproofing liquid  
Flameproofing agent  
Translucent paper  
Wax coating

## Textiles:

Transparent coating  
Olive oil substitute  
Waterproofing liquid  
Textile lubricant  
Flameproofing agent  
Flexibilizer for cotton braid  
Dye solvent  
Textile emulsions  
"Nylon" and "Vinyon" lubricant  
Worsted and spun rayon lubricant

## Cork:

Cork preservative

## Cements:

Waterproofing agent

## Pharmaceuticals and Foods:

Edible emulsifying agent  
Non-staining ointments  
Edible fixative oil for candies  
Binder for yeast tablets  
Enteric Coating  
Polish for tablets and pills

## Adhesives:

"Cellophane" and cellulose acetate adhesive  
Tissue paper to aluminum adhesive  
Adhesive for rubber to cloth  
Thermosetting cement

## Paints, Varnishes, Colors and Pigments:

Pulp color and pigment dispersing agent  
Flatting agent for paints and varnishes  
Emulsion paints  
Lacquer and varnish plasticizer  
Soft grinding of lake colors  
Increased length of pigment lakes  
Non-mar enamels  
Water and ink resistant lacquers

## Wood:

Warpage prevention  
Flameproofing

## Leather:

Sulphonated oil substitute

## Ceramics:

Binder for ceramic insulation  
Protective coating against mechanical abuse  
Binder for vitreous enamels  
Binder for abrasive wheels  
Binder for porcelain enamel frit

## Rubber and Synthetic Rubber:

Gasoline resistant finish  
Rubber gasket lubricant  
Rubber to cloth adhesion  
Polishing of hard rubber  
Plasticizing synthetic rubber

## Plastics:

Plasticizer and lubricant  
Polishing  
Lubricant for molding

Our laboratories have developed solutions to these unique problems. The answers to these and many other problems are given in a 112 page manual of chemical formulation for numerous industries. A copy of the manual "Chemicals by Glyco" is yours for the asking. Send for it today. You may find the answer to your war-time problems.

**GLYCO PRODUCTS CO.,**  
INCORPORATED

230 King Street, Dept. 61  
Brooklyn, N. Y.