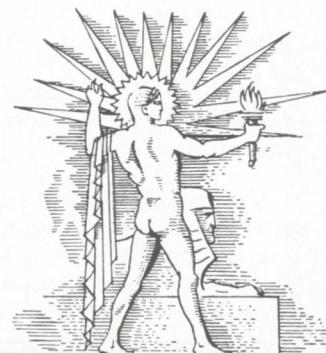
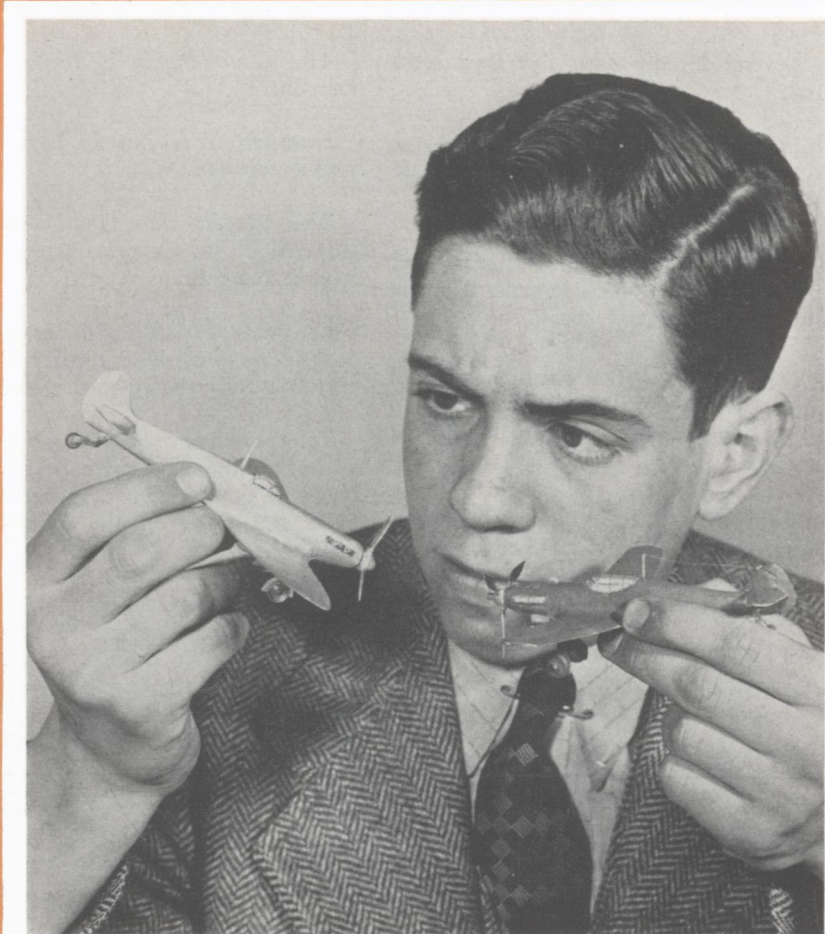


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SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE ●



February 14, 1942

Models for Uncle Sam

See Page 104

A S C I E N C E S E R V I C E P U B L I C A T I O N

Do You Know?

Buddhist monks live chiefly on soy-bean cheese.

Pink oysters result from a harmless, yeastlike fungus.

Extraction of teeth is one of the oldest forms of punishment.

Tire wear on curves is 1,200% greater than on the straightaway.

The *spitting cobra* of Africa can eject its venom eight feet or more.

There is a complete loss of *vitamin C* in foods preserved by smoking.

Most *bacteria* will not grow in a five to eight per cent solution of salt.

Growing boys, active in sports, may eat more than 4,000 *calories* per day.

Phosgene caused 80% of the poison gas fatalities of the last World War.

Romans inserted a piece of snake's skin in a *tooth cavity* to stop the ache.

It takes from three to five years for *oysters* to grow to a marketable stage.

Mold-ripening of some of the "blue-veined" *cheeses* is still a mystery, even to their makers.

If every driver would reduce his average speed by 10 miles an hour he would get about 6,300 extra miles out of his *tires*, according to a major rubber company.

QUESTIONS DISCUSSED IN THIS ISSUE

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

AERONAUTICS

How can amateur scientists aid the Navy's program of building models for airplane recognition? p. 104.

How can you fly tail first without going backwards? p. 100.

ASTRONOMY

What triple feature will be seen in the March 2 evening skies? p. 101.

When will Mexico have its big telescope dedicated? p. 111.

BOTANY

How can you contribute experimentally to the field of plant breeding? p. 106.

MEDICINE

What new agency will help ration the nation's physicians? p. 101.

METALLURGY

What metal may be used as a substitute for tin? p. 102.

PHYSIOLOGY

How frequently is it safe to give your blood for a blood bank? p. 99.

PSYCHIATRY

Why do war neuroses yield readily to speed-up treatments? p. 99.

Several Hindu tribes dye their *teeth* red.

American hemp, grown in Kentucky, is being tested by the Army as a substitute for manila for rope.

The *orchard oriole* chooses grasses all nearly the same length in order to make the nest pliable and strong.

Advertising was a common practice among the ancient Greeks, according to D. A. Amyx, University of California lecturer.

International badminton champions Hugh Forgie and Ken Davidson recently demonstrated trick shots for CBS *television*.

It has been estimated that 75% of the children of the early part of the eighteenth century died before they reached the age of five.

The *Giant Panda* is related to the raccoon.

Hummingbirds can fly backward as well as forward.

The *Appalachian Trail*, stretching from Maine to Georgia, is the world's longest footpath.

Cowbirds do not build nests but lay eggs in nests of other birds which unwittingly raise the cowbird young.

Forerunner of modern *bicycles* was an 1816 Draisine—the rider rested his elbows on the handlebar, moved his feet back and forth on the ground as if walking.

An X-ray of Gainsborough's famous painting "*Blue Boy*" at the Henry E. Huntington Art Library, San Marino, Calif., revealed the lower half of a man's head, front face; the artist apparently began another portrait, then quit.

SCIENCE NEWS LETTER

Vol. 41 FEBRUARY 14, 1942 No. 7

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

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Cable address: Scienserve, Washington.

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.

Advertising rates on application. Member Audit Bureau of Circulation.

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"TO PROVIDE FOR THE COMMON DEFENSE, TO PROMOTE THE GENERAL WELFARE"



Reykjavik off the port bow!

TONIGHT, somewhere at sea, a man stands on the bridge of a freighter with the life line of a nation in his hands.

He is straining his eyes for sight of one of those islands which are our country's first line of defense. To these islands must be transported huge quantities of munitions and food. And the only answer is ships, ships, and more ships.

How is America meeting this tremendous responsibility? You'll get a fair idea at such great factories as the Westinghouse plant where the machinery to drive many of those supply ships is being built, or at the huge Westinghouse-operated Maritime Commission plant which is now being erected alongside it.

**The "know how" that works
24 hours a day**

There, in these factories is a dramatic example of how Westinghouse "know how" is doing a job for National Defense.

What is this "know how"? It is the ability to get things done in the best possible way—learned in building products for the general welfare and now used in building materials for the common defense.

The same skill and ingenuity that are building those turbines for the merchant fleet, not long ago built more efficient electric refrigerators and washing machines. Again, the research skill that

developed intricate new radio equipment has found ways of utilizing that equipment in important defense work.

At 17 Westinghouse Divisions, and in the plants of more than 300 sub-contractors, our energies are almost exclusively turned to the creation of \$400,000,000 worth of defense materials. It's our way of speeding the day when our "know how" will be serving you again—in the home, the farm, and the factory.

Westinghouse

For the Common Defense

Armor-piercing shot
Seadrome lighting equipment
for planes

Bomb fuses
Navy ship turbines and
gears

Naval Ordnance
Airplane generators
Lighting equipment

For the General Welfare

Street Lighting
Electric Irons

Generators
Electric Refrigerators

Motors and Controls
Stokers

These lists mention only some of the many thousands of Westinghouse products.

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Look inside these HOMES and SCHOOLS

"Last December we subscribed to your series of THINGS of science, and have enjoyed and profited by it many times since. Our five children are likewise gleaming knowledge I feel sure they would have missed otherwise."—Mr. and Mrs. H. C. Harding, Akron, Ohio.

"Everyone in the family gets a kick out of each month's package."—James J. Doheny, 4247 West End Avenue, Chicago, Illinois.

"The monthly units have been received right along regularly and have greatly impressed my grandson, as well as being a great help to him in his school work."—John H. Hosch, Gainesville, Georgia.

"I subscribed to THINGS of science for my son, Kimball, some time ago. He likes this

service very much and when I asked him what he wanted as a gift, he said, 'THINGS of science!'" —C. L. Williams, 119 West 40th Street, New York, N. Y.

"It may be interesting to you that I keep the THINGS which you send me, for a week or so, and then present them to our high school at Thiensville, where they arouse the greatest interest."—J. O. Carbys, Thiensville, Wisconsin.

"You have a grand educational service and our little family has a special session together every time THINGS arrives."—Robt. R. Helmerichs, 730 Stinson Blvd., Minneapolis, Minnesota.

"I am a member of the local Board of Education, and after looking the THINGS of science over, I turn them over to the High School. where

I feel they will do more good than anywhere else. The Principal of the school and the Science Teacher are much interested in them as well as myself."—Major A. B. Cox, Cherry Valley, New York.

"I wish to tell you some of the ways in which THINGS has come to my assistance during 1941. The meteor set aroused great interest at Girl Scout camp when we were studying the skies; the fingerprint set and the plastic magnifying glass interested our microscope club; I was just teaching insect pests when that unit arrived, and I was glad to find a boll weevil and a Japanese beetle, neither of which we find in our region; the synthetic materials made fine exhibits at a talk before a Womens' Club; the fossils will be invaluable when we reach that subject in Biology."—Virginia D. Wallis, 612 Bridge Street, Johnsonburg, Pa.

They have found the answer to these three wishes:

How can I get a sample of *this* new substance? or
What does *that* new product feel like? or
My son asked me about this discovery, and I want to make it more real to him—can you send me a *demonstration unit*?

FOR YEARS, we of the staff of Science Service, the non-profit institution for the dissemination of scientific knowledge, have received requests like these three above.

In the past we had no way to meet the requests, but all during 1941 we were introducing *the new way*: through THINGS of science. The people whose letters are quoted above know what it is to get each month, a packet, a big envelope, or a mailing carton of scientific objects—THINGS of science.

Would you like to have samples of new and unusual substances, materials of many kinds during the coming months?

If so, we invite you to join our new group. To each member we will each month dispatch a *unit of scientific material*, unusual, intriguing, surprising. With each unit we will supply a brief, clear explanation of its contents.

Since this is a non-profit organization, THINGS does not attempt to make money, so the membership charge for six months has been set at \$2. You are invited to become a member. We recommend that you send us the following application form *immediately* because when the available new memberships are all taken up, the roster will have to be closed.

To *Things* of science _____ Date _____
Science Service Building
1719 N Street, N.W., Washington, D. C.

I hereby apply for Membership in the science group organized to receive THINGS of science, one unit to be dispatched to me each month, all postage charges prepaid, for six months, \$2
for one year, \$4
 \$_____ is enclosed OR Send bill.

Name _____
Please Write Plainly

Mailing Address _____

City & State _____

Some units being planned for the Members:

CALCITE

This unit will contain a valuable specimen of Calcite or Iceland Spar, from America's only mine for this material important in defense. This is a real prize! With it members can perform experiments in optics. These experiments can be performed without buying additional equipment. Calcite has the property of double refraction—one line on a piece of paper looks double when viewed through it.

INDICATORS

Experimenters require a variety of substances to indicate the presence of acids or alkalis. For example, litmus paper. There are many other indicators most useful in medicine and chemistry, including nitrazine, phenolphthalein, etc. Included with specimens of such indicators will be our explanation which tells about many tests and experiments members can try.

TASTE

What does paraethoxyphenolthiocarbamide taste like? And other substances, with simple or complicated names—what do they taste like, and what do your own reactions mean? Members who want to know what kind of taste buds they inherited will especially enjoy this unit. A full explanation will accompany the materials, describing interesting experiments and the conclusions which may be drawn.

AND . . .

Other THINGS units are being planned, on such subjects as Detergents, Synthetic Flavors, Concentrated Foods, Soils, Mathematics, Fluorescence, Milk Products, Transparent Packaging, for example. The Staff is gathering materials a full year ahead, so in spite of conditions of scarcity, members enrolling now can be assured of receiving their monthly units for the entire time.

MESSAGE TO SCHOOLS

In addition to a clear explanation of the material in each unit of THINGS, we supply a museum-style legend card of bristol board for use in a laboratory display cabinet.