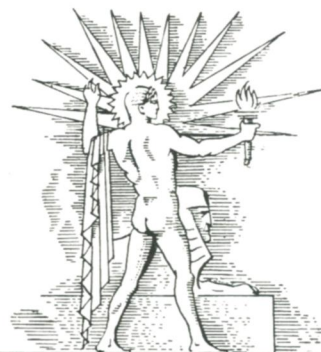
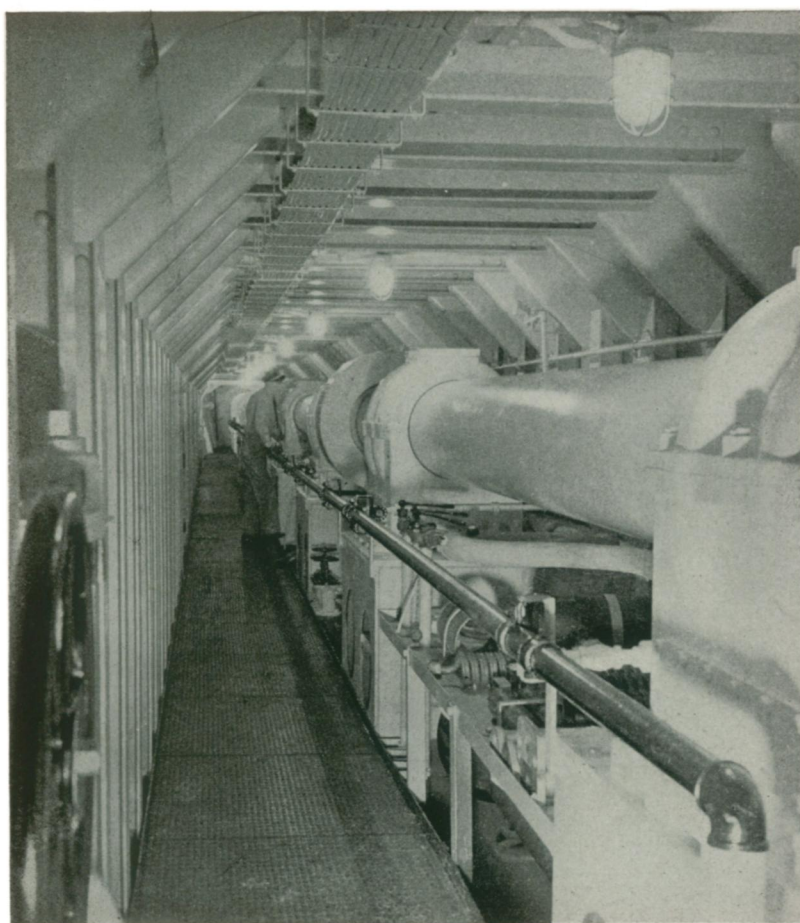


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SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE •



December 7, 1940

Drive

See Page 358

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?

The United States possesses the largest known *oil* reserves in all history.

A self-heating *aviator's suit* of rubber is being turned out for the Army Air Corps.

About 350 compounds of *synthetic rubber* for various industrial purposes have been perfected.

Radium and other radioactive substances are excluded from U. S. mails, but may be carried by express with due protection.

A way of removing *chewing gum* from clothing: rub the spot with ice until the gum can be rolled into a ball and scraped off.

Calcite, or Iceland spar, a valuable optical mineral heretofore imported, has been found in the mountains near Santa Fe, N. M.

In recent months, 12,500 baby *terrapin* have been distributed in coastal areas from Maryland to Georgia by the U. S. Fish and Wildlife Service.

The *standard gauge* of our railroads—four feet, eight and one-half inches—goes back to the clearance width established for Roman chariots.

A mother *coyote* moves her home frequently to protect her young, and in a den with many holes she will put one pup in each hole to prevent the whole family from being attacked at once.

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.

AGRICULTURE

What new cash crop has resulted from conservation measures? p. 360.

ASTRONOMY

Why is it unlikely that stars sweep up hydrogen to keep themselves shining? p. 355.

CHEMISTRY

Why do nylon stockings hold their shape? p. 359.

How much would 100-octane gasoline save to the user? p. 360.

How can paint be made to kill germs? p. 361.

How do scientists detect invisible light which cannot be photographed? p. 361.

ENGINEERING

What is HTS used for? p. 360.

FORESTRY

How much money is saved by use of parachute forest fire fighters? p. 361.

MEDICINE

Where is the most modern of hospital buildings located? p. 357.

What sort of instrument will indicate in advance whether crossed eyes can be straightened? p. 360.

What deficiency disease affects cats, too? p. 361.

METEOROLOGY

How can clouds be forecast before they appear? p. 358.

Where was the origin of Texas' big storm? p. 364.

OCEANOGRAPHY

For what purpose are Russians constructing a bathysphere? p. 361.

OPTICS

What secrets about the use of color were known to the ancients and lost to modern artists? p. 358.

PALEONTOLOGY

What new important find has been made in Siberia? p. 361.

PHOTOGRAPHY

How do different developers change the appearance of the emulsion grain? p. 355.

PHYSICS

What instrument will whirl atomic particles practically as fast as the speed of light? p. 355.

PHYSIOLOGY

How does heparin differ in different animal species? p. 360.

Why is surf bathing urged for soldiers? p. 362.

POPULATION

What is likely to be the maximum population of the United States? p. 356.

What difficult changes are foreseen for the United States? p. 357.

PSYCHOLOGY—SOCIOLOGY

What counts for more than social and physical surroundings in determining morale? p. 356.

PUBLIC HEALTH

What Government agency is studying gerontology? p. 356.

What is the greatest problem facing Chinese on the Burma Road? p. 359.

Locomotives have nearly half again as much *pulling power* now as in 1918.

A pelican's upper *wing bone* is as big as that of a man's upper arm, but only one-sixth as heavy.

Wisconsin has recently opened three *underground museums*, one in an old lead mine and two in caves.

The world's *biggest fish* is a whale shark.

Newest *dolls* of plastic made with latex have flexible fingers and toes and soft skin that wrinkles realistically.

If tests prove successful, *Diesel engines* for tanks will lengthen the distance a tank can strike without refueling.

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DID YOU SEE the Announcement of the new membership plan which enables you to look at, try out, feel--and OWN unusual *Things* of science?

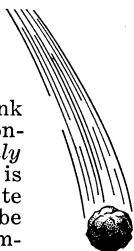
Now we can tell what happened!

Within nine days from the Announcement on September 21, 500 people joined, in three weeks, 1,000 joined—now, more than 1,500 members have joined! Here is the complete explanation:

What will Members get in the units of THINGS which start 1941?

METEORITE UNIT

Members will receive an actual chunk from the heavens, a pebble of iron-nickel meteorite—one of *Earth's only imports* from the outer space! It is certified to be an actual meteorite fragment such as can usually be viewed only in certain museums. Members will also receive some of the sand pulverized by the tremendous *impact* of one of the largest meteorites ever to hit the Earth. With these materials members will receive a stirring explanation of this unusual exhibit.



FABRICS UNIT

Members will receive a piece of *cloth spun from glass*; a tuft of fiber *made from milk* which feels like wool; a silk-like cloth made from *salt, coal, lime and air*; a sheet of paper that feels like cloth; and other new fabrics which are products of scientific experiment.

FINGERPRINT UNIT

Fingerprinting is in the news these days. One thinks of impressing an ink-smudged finger on paper—a messy business. Members will receive an *inkless fingerprinting outfit* with material good for many impressions. There will be a purse fingerprint card that may sometime be useful to you in cashing a check, and two official complete fingerprint record documents which may be registered with the Government or kept in your safety deposit box. We'll tell you *how to classify* the arches, loops, whorls and composites in yours or any fingerprints.



New —THINGS units on Taste, Plastics, Heredity, Odors, Milk, Metals, Archaeology, to name a few of the units on which the Staff of Science Service is now working.

MESSAGE TO SCHOOLS

In addition to a clear explanation of the material in each unit of THINGS, we will supply a museum-style legend card of bristol board for use in a laboratory display cabinet. Instantaneous and enthusiastic was the gratification expressed by teachers for this feature when we announced it in connection with the first series of THINGS units.

A FASCINATING PROBLEM is now being solved. For years, we of the Staff of Science Service, the non-profit institution for the dissemination of scientific knowledge, have been asked questions like these:

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 real to him—can you send me a *demonstration unit*?

In the past we had no way to meet these requests, but there have been so many of them that we have *now worked out a way*.

A new science group is being organized to receive THINGS of science. The first announcement appeared in SCIENCE NEWS LETTER eleven weeks ago. We set membership at 1,000 during 1940, restricting the offer to the United States.

In three weeks the 1,000 membership applications were received. But they *kept coming* even though we announced that the roster was closed. Applications are still coming. More than 1,500 memberships are now on record!

So, in justice to everyone and to give an additional group the opportunity to join, the Science Service Staff has conferred for the past five weeks with specialists in scientific centers. We can now announce *the increase of membership to a total of 5,000*. New membership applications will now be received until the 1941 roster, too, is closed.

To each member of this new group we will each month dispatch a *unit of scientific material*, unusual, intriguing, surprising. With each unit we supply a brief, clear explanation of its contents.

Since this is a non-profit organization, THINGS will not attempt to make money, so the membership charge has been set at \$4. Membership can now continue for a longer period than was originally thought possible. The new membership period will reach from January 1941 through December 1941, during which time each member will receive *twelve* units of THINGS, one each month.

You are invited to become a member. Because we saw how *fast* the applications came in upon our first announcement a few weeks ago, we recommend that you send us the following application form *immediately* to make sure that your application will be included among the 5,000 for which provision is *now being made*.

MAIL THIS APPLICATION

To *Things*

2101 Constitution Avenue, Washington, D. C.

I hereby apply for membership in your new science group, and enclose \$4 for the twelve units which are to be dispatched to me monthly, postage prepaid, from January 1941 through December 1941.

Signature

Mailing Address

City & State

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