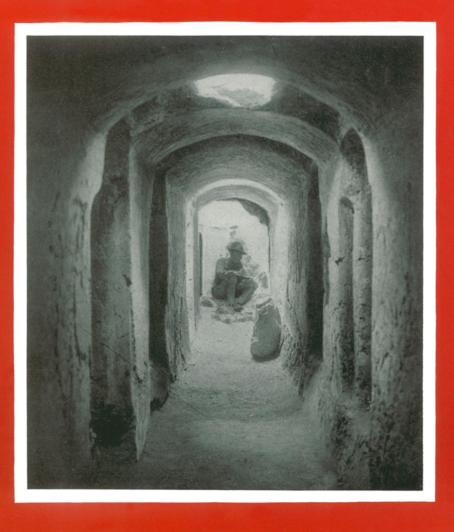
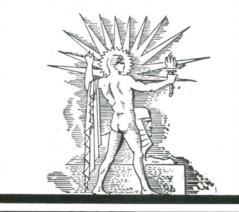
# SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE .





JANUARY 21, 1933



Where the Seven Sleepers Slept

See Page 41

SCIENCE SERVICE PUBLICATION

## SCIENCE NEWS LETTER

VOL XXIII

The Weekly Summary of



Current Science

Published by

## SCIENCE SERVICE

The Institution for the Popularization of Science organized under the auspices of the National Academy of Sciences, the National Research Council and the American Association for the Advancement of Science.

Edited by Watson Davis

Subscription rates—\$5.00 a year postpaid; 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 old as well as new address.

Advertising rates furnished on application.

### Board of Trustees of Science Service

Board of Trustees of Science Service

Honorary President, William E. Ritter, University of California. Representing the American Association for the Advancement of Science, J. McKeen Cattell, President, Editor, Science, Garrison, N. Y.; Burton E. Livingston, Johns Hopkins University, Baltimore, Md.; Raymond Pearl, Director, Institute for Biological Research, Johns Hopkins University Baltimore, Md. Representing the National Academy of Sciences, W. H. Howell, Vice-President and Chairman of Executive Committee, National Research Council, Washington, D. C.; R. A. Millikan, Director, Norman Bridge Laboratory of Physics, California Institute of Technology, Pasadena, Calif.; David White, Senior Geologist, U. S. Geological Survey. Representing National Research Council, Vernon Kellogg Secretary Emeritus, National Research Council, Vernon Kellogg Secretary Emeritus, National Research Council, Washington, D. C.; C. G. Abbot, Secretary, Smithsonian Institution, Washington, D. C.; Harrison E. Howe, Editor of Industrial and Engineering Chemistry. Representing Journalistic Profession, John H. Finley, Associate Editor, New York Times; Mark Sullivan, Writer, Washington, D. C.; Marlen E. Pew Editor of Editor and Publisher, New York City. Representing E. W. Scripps Estate, Harry L. Smithton, Treasurer, Cincinnati, Ohio; Robert P. Scripps, Scripps-Howard Newspapers, West Chester, Ohio; Thomas L. Sidlo, Cleveland, Ohio.

#### Staff of Science Service

Managing Editor, Watson Davis; Staff writers: Frank Thone, Emily C. Davis, Jane Stafford, Marjorie Van de Water, J. W. Young; Librarian, Minna Gill; Sales and Advertising Manager, Hallie Jenkins.

Manager, Hallie Jenkins.

Copyright 1933, by Science Service, Inc. Republication of any portion of the SCIENCE News Letter is strictly prohibited since it is distributed for personal, school, club or library usonly. Newspapers, magazines and other publications are invited to avail themselves of the numerous syndicate services issued by Science Service, details and samples of which will gladly be sent on request.

Members of the American Association for the Advancement of Science have the privilege of subscribing to the SCIENCE NEWS LETTER at the reduced price of \$3 per year. Application for this privilege should be accompanied by privilege card obtained from the Permanent Secretary, A. A. S.. Smithsonian Institution Building, Washington, D C.

Publication Office, 1930 Clifton Ave., Baltimore. Md., Editorial and Executive Office, Constitution Ave. at 21st St., N. W., Washington, D. C.

Address all communications to Washington, D. C. Cable address: Scienserve, Washington.

Entered as second class matter October 1, 1926, at the post-office at Baltimore Md., under the act of March 3, 1879. Established in mimeographed form March 13, 1922. Title registered as trade-mark, U. S. and Canadian Patent Offices.

## DO YOU KNOW THAT

About three-fourths of the food consumed in the United States is perishable.

A new idea for campers is a method of lighting fires with a form of crude rubber.

A bank check written in the raised Braille type used by the blind was recently presented and cashed at a New York bank.

Psychologists report that boy babies and girl babies cry about equally easily, and that the age of least crying is about four months.

Heliogabalus, Roman Emperor of the third century A.D., was roundly denounced for his extravagance in buying a whole garment of silk.

It is said that in the year 1249 fruit trees were forced and for the first time made to mature fruit in midwinter, in the Netherlands.

Bodies of ten black and brown horses, each killed by a blow on the head, were found in the grave of a Scythian king of about 1000 B.C., in the Altai Mountains.

Rubber goods can be easily cut with a knife if the blade is wet; for better qualities of rubber, soapy water may be necessary.

In experimental work, apple trees planted 40 feet apart yielded 43 bushels more fruit to the acre than trees planted 30 feet apart.

A Japanese geographer states that Japan may have reached the peak of her population increase, as the rate of increase has declined since 1927.

To find out how high and how far plant disease spores travel in the air, a government plant pathologist has been gathering spores from an altitude of 18,000 feet.

Pictures of Mayan gods, some older than 600 A.D., some made in the fifteenth century, show how very little the art and religion of these Indians changed in a thousand years.

A new drought-resistant and hardy strain of Korean lespedeza has been introduced from Manchuria, and seems likely to fill an important gap in New England and other northern pastures.

## WITH THE SCIENCES THIS WEEK

ANTHROPOLOGY

What is producing dental degeneration? p.

ARCHAEOLOGY

How long does legend say the seven sleepers sleet? p. 41.

How would an airplane aerial be suspended to avoid ignition interference? p. 40.

Aviation-Photography Who will teach aerial photography at Harvard? p. 35.

BIOLOGY Why do scientists study Daphnia? p. 38.

CHEMISTRY Who won the Chandler medal for 1933? p. 46.

ENGINEERING
What is the most common fault of automobiles? p. 41.

ENTOMOLOGY Do full-grown moths eat clothes? p. 46. Why were grasshoppers kept down last spring? p. 40. The inset menace—L. O. Howard—Century, 1931, \$3.50.

EXPLORATION Name the vessel that made the first one-season voyage from Archangel to Japan. p. 37.

GEOGRAPHY Where is "Vulcan's Throne?" p. 41.

GEOPHYSICS How is a possible gold deposit located by electricity? p. 41.

MEDICINE

How may iron stored in the liver be made available for body needs? p. 36.

**PHOTOGRAPHY** 

How long an exposure must be made to take a picture with hot flat-irons? p. 35.

How did Joule heat water to determine the mechanical equivalent of heat? p. 42.
How may cosmic rays produce X-rays? p. 37.
What is happening to the back of one's head in the physicist's expanding universe? p. 37.
What is the latest atom to be smashed at Cavendish Laboracory? p. 37.
What part of total existing energy is cosmic radiation thought to be? p. 37.

Physiology

How does a severed nerve grow together? p.

How does a severed many be useful in treating surgical shock? p. 36. Glands in health and disease—Benjamin Harrow—Dutton, 1922, \$2.50.

What is one keto, one, two, three, four tetrahydro phenanthrene? p. 43.

What was the maximum death-rate for the influenza epidemic? p. 40.

RADIO

What continent could talk with nearly all the rest of the world during business hours? p. 35. Beginnings of telephony—F. L. Rhodes—Harper's, 1929, \$4.

These curiosity-arousing questions will be especially valuable to the teacher. Book references in italic type are not sources of information of the article, but are references for further reading. Books cited can be supplied by Librarian, Science Service, at publishers' prices, prepaid in U.S.

N THE opposite page, Science News Letter (laying aside its usual scientific dignity) shouts aloud its LOW PRICE BARGAIN OFFER TO SCHOOLS.

Thus we do our best to further the purpose of this endowed, non-profit, educational institution—The Institution for the Popularization of Science, organized under the auspices of the National Academy of Sciences,

the National Research Council and the American Association for the Advancement of Science.

Every issue of Science News Letter contains a group of curiosity-arousing questions, logically classified, with page references to articles and science items in that issue; and book references for further reading.

Some of the subjects Science News Letter watches and reports on for you.

**ETHNOLOGY** COSMOGONY **PHYSICS ENTOMOLOGY ENGINEERING** NUTRITION **OPTICS PHOTOGRAPHY** ORNITHOLOGY ZOOLOGY CHEMISTRY **ICHTHYOLOGY GEOGRAPHY** INVENTION HORTICULTURE **FORESTRY** SOCIOLOGY VOLCANOLOGY RADIOLOGY RADIO **GENETICS** HEREDITY MINING **PALEONTOLOGY PATHOLOGY** MATHEMATICS **METALLURGY EXPLORATION** ANTHROPOLOGY SEISMOLOGY **ASTRONOMY** PUBLIC HEALTH ARCHAEOLOGY **PSYCHOLOGY** GEOLOGY METEOROLOGY AVIATION MEDICINE BACTERIOLOGY **ENDOCRINOLOGY HYGIENE** BOTANY **EDUCATION** 

Every issue contains a dozen or more reviews of popular and technical scientific books, quoting names of publishers and prices, for prompt use by teachers or other readers.

Every issue is lively with interest-stimulating long, medium, and short articles and items, clearly and simply written, intelligently illustrated—material so arranged and set forth as to be of quick convenience to teacher and student alike.

Every issue is printed on good paper for proper reproduction of photographs. Not too few pages to give adequate space, or so many as to be cumbersome and impractical for classroom use—16 pages of the newest of the new, and the latest in the newly discovered ancient in science.

Science News Letter is used in classrooms the length and breadth of this country: we invite a still wider spread of its services.

# These Favorable Terms:

Ten or more copies postpaid each week to one address, 5 cents per copy per week; one copy a week free to the teacher on orders of 10 or more. Copies ordered are not returnable, on account of the extremely low price set

Pupils pay the teacher 5 cents, 6 cents or 7 cents each for their copies, the profits being used for special funds of one kind or another.

Ten-week and full-semester trials are customary, but any number of weeks may be ordered, to suit the teacher's convenience.

Cash with order is preferred as it saves bookkeeping; but credit will be allowed where this is of assistance to the teacher.

May we help you bring the ever changing fields of science into the every day lives of your pupils?

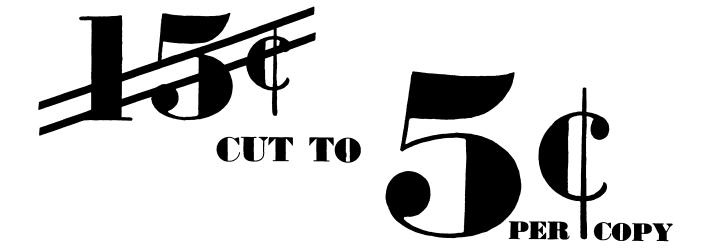
Walson Davi Editor

SCIENCE NEWS LETTER 21st and Constitution Avenue Washington, D. C.



For classroom use, Science News Letter is offered at a price cut of two-thirds

Single Copy Price:



Ten or more copies to the same address