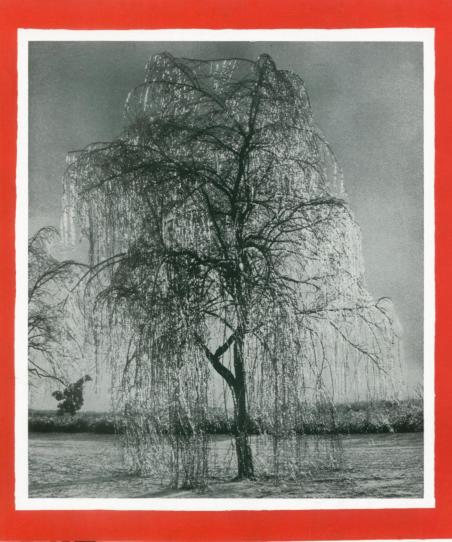
# SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE.





**DECEMBER 22, 1934** 



"O Ye Ice and Snow, Bless the Lord!" See Page 393

SCIENCE SERVICE PUBLICATION

# SCIENCE NEWS LETTER

VOL. XXVI



## The Weekly Summary of

## Current Science

Published Every Saturday by

## SCIENCE SERVICE

THE INSTITUTION FOR THE POPULARIZA-TION OF SCIENCE organized 1921 as a non-profit corporation, with trustees nominated by the National Academy of Sciences, the National Research Coun-cil, the American Association for the Advance-ment of Science, the E. W. Scripps Estate and the journalistic profession.

### 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.

Canadian and foreign subscribers please add \$1 a year to regular subscription rates to cover postage. Members of the American Association for the Advancement of Science have the privilege of subscribing to the 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. A. S., Smithsonian Institution Building, Washington, D. C.

In requesting change of address, please give your old address as well as the new one in notification to Circulation Department, SCIENCE News Letter, 21st and Constitution Ave., Washington, D. C., at least two weeks before change is to become effective.

Copyright, 1934, by Science Service, Inc. Republication of any portion of the 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.

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

Address all communications to Washington, D. C. Cable address: Scienserve, Washington, D. C. Title registered as trade-mark, U. S. and Canadian Patent Offices. 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, Johns Hopkins University, Baltimore, Md.; R. A. Millikan, Director, Norman Bridge Laboratory of Physics, California Institute of Technology, Pasadena, Calif.; David Whire, Senior Geologist, U. S. Geological Survey. Representing 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, Washington, D. C. Representing Journalistic Profession, John H. Finley, Associate Editor, New York Times; Mark Sullivan, Writer, Washington, D. C.; Marlen E. Pew, Editor of Editor, 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

Director, Watson Davis; Staff writers: Frank Thone, Emily C. Davis, Jane Stafford, Marjorie Van de Water, Robert Potter; Astronomy writer, James Stokley; London correspondent, Donald Caley. Correspondents in principal cities and centers of research, Librarian, Minna Gill; Sales and Advertising Manager, Hallie Jenkins.

# DO YOU KNOW?

Vanilla comes from the pods of a climbing orchid.

The Hebrew University in Jerusalem has on its staff 16 exiled German professors.

A white woman, Maria Estrada, took part in the Spanish Conquest of Mexico in 1521.

Chemists in Prague are testing healing mineral waters to see whether they contain "heavy water."

Rumanian scientists have found a way of isolating pure nicotine solution in concentrations of 50 to 80 per cent. from waste tobacco.

The Irish government has been giving a number of Irish unemployed jobs excavating sites containing relics of Ireland's ancient inhabitants.

Camels were not known in Africa in prehistoric times.

A grouse may eat 30 to 40 grapes at a meal, swallowing them whole, too.

In the first year of life a baby doubles in height and trebles in weight.

It is believed that lions depend more on hearing than on scent when they hunt.

A baby's milk teeth, and even parts of its second set of teeth, are formed before birth.

Death masks of their ancestors were cherished by patrician families of ancient Rome.

A German firm has been manufacturing Vitamin C in powder form for more than a year.

# WITH THE SCIENCES THIS WEEK

The most important scientific events of the year 1934 are epitomized in the Review of the Year which begins on page 388 of this week's Science News Letter. To obtain further details in connection with most of these achievements, you have only to turn to your file of the Science News Letter, Volumes XXV and XXVI. The index to Volume XXV appeared in the issue of June 30, 1934; the index to the current volume will appear next week in the issue of December 29.

## AERONAUTICS

What was achieved by the stratosphere ascent of 1934? p. 388.

What does research mean to the farmer? p.

## ARCHAEOLOGY

How did the Mayas protect the city of Becan? p. 393.

How long ago did man live in America?

## ASTRONOMY

What caused a new star to appear in the

What comet was a recent visitor? p. 392. What shape is the Milky Way galaxy? p. 390.

## BIOLOGY

What is the smallest unit of heredity that has been accurately located? p. 390.

What sort of wealth is being extracted from the sea commercially? p. 391.

## ENGINEERING

What is the largest ship to sail the seas? p. 391.

## GENERAL SCIENCE

In what country were the Nobel Prizes in science awarded this year? p. 398.

## GEOGRAPHY

How does the sea tilt the earth's crust? p. 392.

What may detract from the value of government-made maps? p. 393.

How old is the earth? p. 394.

What important hormone was isolated in pure crystalline form during 1934? p. 395.

## METEOROLOGY

How far do pilot balloons travel before they come to earth? p. 393.

What are some of the birds that are Christmas guests in the United States? p. 399.

Who demonstrated the possibility of artificial transmutation of matter? p. 396.

## PLANT PHYSIOLOGY

How can polarized light burst plant cells? p. 393.

## PSYCHOLOGY

Does response to light depend upon the "visual" area in the occipital lobes of the brain? p. 397.

How many radio sets are in use in the United States? p. 392.

## STATISTICS

What chance do newlyweds have of reaching their golden wedding anniversary? p. 392.

## TECHNOLOGY

Can rugs serve as heaters? p. 392.