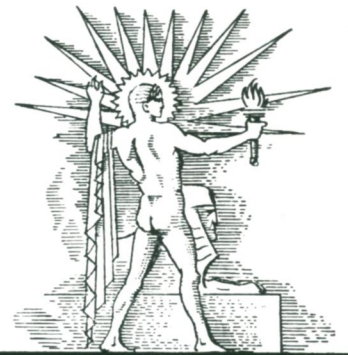
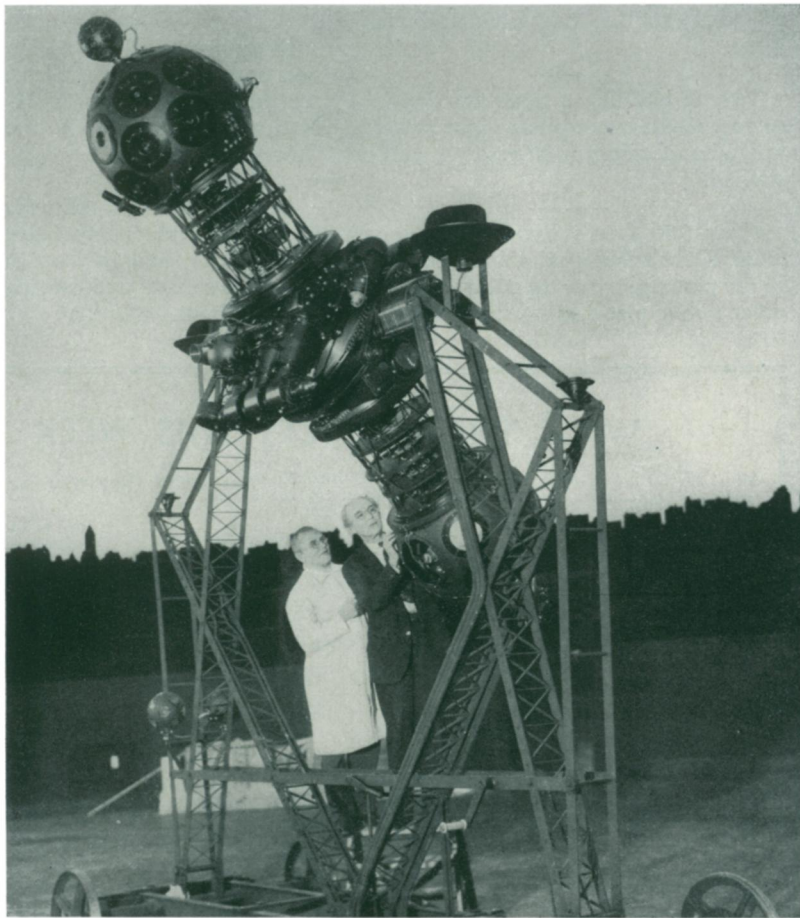


PRICE
15¢

SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE ●



SEPTEMBER 21, 1935

Bringing Stars Indoors
See Page 184

A

SCIENCE SERVICE PUBLICATION

SCIENCE NEWS LETTER

VOL. XXVIII



No. 754

The Weekly **Summary of**
Current Science

Published Every Saturday by

SCIENCE SERVICE

THE INSTITUTION FOR THE POPULARIZATION OF SCIENCE organized 1921 as a non-profit corporation, with trustees nominated by the National Academy of Sciences, the National Research Council, the American Association for the Advancement 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 subscribers please add 50 cents a year, foreign subscribers 75 cents a year to regular subscription rate to cover postage.

Members of the American Association for the Advancement of Science have the privilege of subscribing to 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, 2101 Constitution Ave., Washington, D. C., at least two weeks before change is to become effective.

Copyright, 1935, by Science Service, Inc. Reproduction 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, 2101 Constitution Ave., Washington, D. C.

Address all communications to Washington, D. C. Cable address: Scienservc, 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 trademark, U. S. and Canadian Patent Offices. Advertising rates furnished on application.

Member Audit Bureau of Circulations.

Board of Trustees of Science Service

Honorary President William E. Ritter, University of California. *Honorary Vice-President*, Vernon Kellogg, National Research Council. 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.; Henry B. Ward, permanent secretary, A.A.A.S. 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.; Harlow Shapley, Director, Harvard College Observatory, Cambridge, Mass. Representing National Research Council, Ludvig Hektoen, John McCormick Institute for Infectious Diseases, Chicago, Ill.; 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 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

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?

Indians valued a well-made bow as equal in trade to a horse and blanket.

A finger nail grows one twenty-fifth of an inch in ten days and a toe nail only half as fast, according to experiment.

The University of California has a number of students of Chinese extraction who are studying the Chinese language.

Although the gladiolus was known to the Greeks and Romans, the types now cultivated are less than a hundred years old.

Milan, Italy, has made experiments with an assortment of paving materials, including rubber, cast iron, and sandstone.

Italy is building a large aviation laboratory where stratosphere flight and other angles of aeronautical research will be studied.

Over 900 fawns have been shipped from Kaibab National Forest, Arizona, in the past eight years to parks, zoos, and other public places in 34 states.

Normal blood temperature of most reptiles stays about one degree above the surrounding air.

Cattle breeding and grain growing in the highlands of the Pamirs are being studied by a Soviet expedition.

The Navajo Indian reservation is larger than the State of West Virginia, and has a population of nearly 50,000 fullblood Indians.

Weighing the population of a termite mound nest in Australia, a scientist calculated that the colony held 1,561,400 workers, 201,000 soldiers, and 44,100 nymphs.

Sooty and noddy terns, not known to nest anywhere else in the United States are protected in the new Fort Jefferson National Monument in Florida's Dry Tortugas Keys.

In early Christian centuries, Egyptians divided the hours into halves, quarters, and eighths; and modern division into 60 minutes made of 60 seconds is no older than about 1000 A.D.

WITH THE SCIENCES THIS WEEK

Most articles are based on communications to Science Service or papers before meetings, but where published sources are used they are referred to in the article.

ASTRONOMY

How long will it be before all the stars in the galaxy have flashed up into novae? p. 182.

How soon will New York have its own planetarium open to the public? p. 184.

In what region of the sky are most asteroids found? p. 180.

Who has contributed new evidence of the age of the universe? p. 189.

BIOLOGY

In any biological struggle for existence, what age suffers most? p. 191.

BOTANY

How has the X-ray added to the beauty of the lily? p. 179.

CHEMISTRY

Is the dream of the alchemist about to come true? p. 182.

What value has heavy neon to experimenters on nuclear disintegration? p. 179.

CONSERVATION

What is the nene? p. 181.

ELECTRICITY

What nation provides the batteries which make the Malayan countryside appear a land of human fireflies? p. 182.

ENTOMOLOGY

What biological accident produced ants with legs longer on one side than on the other? p. 188.

GENERAL SCIENCE

What three languages now provide the tongue of science? p. 180.

GEOLOGY

Where is the first known of all the world's geysers? p. 185.

MEDICINE

How does aquatic exercise aid the sufferer from arthritis? p. 191.

What is the effect of treating one type of mental disease with electrically induced fever? p. 180.

PHYSICS

What changes are being made in Prof. Lawrence's atom-smashing apparatus? p. 183.

PLANT PATHOLOGY

How rapidly do new varieties of plant-disease fungi come into being? p. 185.

In what way does an epidemic of tree disease affect British sport? p. 179.

PSYCHOLOGY

Can alcohol cause loss of intelligence as well as a psychosis? p. 184.

How can absent-mindedness be prevented? p. 186.

PUBLIC HEALTH

Has the spreading pneumonic plague infected men? p. 190.

How has the depression affected the health of the children of the chronically poor? p. 185.

SEISMOLOGY

How have scientists learned of the structure of the semi-plastic material beneath the earth's crust? p. 188.

How many earthquakes occur during a single year? p. 184.