

**OLYMPICS, ROCKETS  
U.N. STAMPS**

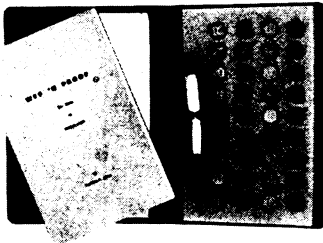
Only **10¢**

Giant Stamp Collection including: Astronauts, Satellites, Moonrockets, Boy Scout Issue, Complete UN Set, Recent Olympic and Sport Issues from many countries etc.; Plus Big Stamp Dictionary and Approvals. Everything 10¢

STAMPEX, Box 47-RNL, White Plains, N. Y.

**A YALE PROFESSOR'S  
INTRIGUING  
EDUCATIONAL  
GAME**

**WFF N'PROOF**



**A MOST UNUSUAL GIFT FOR IN-  
TELLIGENT 6 TO 60 YEAR OLDS**

Developed by Layman E. Allen in the course of research for the ALL project (Accelerated Learning of Logic) at Yale University.



• "Six-year old children (and illogical women like me) will be challenged by the first few games. Mathematicians and logical minds are fascinated with the much tougher problems."—The Daily Sentinel.

• "...a significant event in the teaching of logic. Challenging competitive games capable of teaching with unadulterated enjoyment are still a rarity."—Data Processing Digest.

• "Of 23 Burbank, Calif. junior high school students who played the 'WFF N' PROOF' game over a six-week period—an average increase of 17 points was registered in each student's I.Q. score."—Toy & Hobby World.

**only \$6.25** (incl. post.)

NO RISK COUPON

**Calhoun's** Est. 1923

800 White Bear Ave., St. Paul, Minn. 55106

Please send me \_\_\_\_\_ WFF 'N PROOF game/s at \$6.25 each, which covers all costs including postage and handling. I enclose \$ \_\_\_\_\_, and understand that if I am not completely satisfied I will return the materials in 10 days for a full refund.

Free Catalog

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

ASTRONOMY

**Polarized Radio Waves  
From Distant Source**

**See Front Cover**

► THE DISCOVERY of polarized radio waves from a distant source in the sky was made by scientists using a steerable radio telescope antenna, 120 feet in diameter, in Tyngsboro, Mass.

The unusually high degree of polarization observed, amounting to 38% of the received energy, indicates that unexpected physical conditions or processes exist in the direction of the radio source called W-3. Forces such as electric or magnetic fields cause the radio signals to line up or become polarized. In the absence of such forces the signal would oscillate equally in all directions perpendicular to the path of travel.

Evidence indicates that the emissions are produced by the OH, or hydroxyl radical, but just what it is that causes the polarization of the emission line is not yet clear.

Another mystery is that the OH emission does not come from the center of the W-3 source, but rather from a region offset from the center about one-fourth of a degree.

Drs. S. Weinreb, M. L. Meeks and J. C. Carter, all of Lincoln Laboratory, Massachusetts Institute of Technology, Lexington, and Drs. A. H. Barrett and A. E. E. Rogers of the research laboratory of electronics, MIT, Cambridge, made the observations using Lincoln Laboratory's new Haystack Microwave Research Facility, Tyngsboro, as a radio telescope.

Receiving and transmitting units mounted in interchangeable "plug-in" rooms make it possible for Haystack to operate as a radio telescope, a long-range radar or an experimental terminal for communications research. An aerial view of the facility is shown on this week's front cover.

• Science News Letter, 88:356 December 4, 1965

ASTRONOMY

**Moon's Bulge Checked  
In Annular Eclipse**

► WHETHER OR NOT the moon has a three-mile bulge around its middle is being checked by the scientists who took its picture every two seconds during the annular eclipse of the sun (Nov. 22-23).

The scientists set up an observing station in northeast Thailand to record the annular eclipse, which differs from a total eclipse in that the moon does not completely black out the solar disk. Instead, the moon is starkly silhouetted against the sun, making the sun's outer circumference visible as a nearly perfect circle.

This annular eclipse gives scientists a chance to check up on irregularities in the moon's shape found during two similar eclipses in 1962 and 1963. The apparent bulge shown in photographs taken then could have resulted from atmospheric conditions.

The scientific team comes from the Air Force's Office of Aerospace Research and the Lockheed-California Company.

• Science News Letter, 88:356 December 4, 1965

**Questions**

**ANTHROPOLOGY**—What evidence indicates that Neanderthal man may have been far more advanced than formerly believed? p. 359.

**ARCHAEOLOGY**—How many years ago did Acheulian hunters enter the Congo basin? p. 361.

**ASTRONOMY**—What irregularity of the moon's surface, possibly the result of atmospheric conditions, was observed in photographs taken in 1962 and 1963? p. 356.

**MEDICINE**—What enzyme helps in detecting muscular dystrophy? p. 355.

**NATURE NOTE**—How far back do fossilized sea lilies date? p. 363.

**SPACE**—How many photographs of Mars did Mariner 4 send back to earth? p. 357.

**SCIENCE NEWS LETTER**

VOL. 88 DECEMBER 4, 1965 NO. 23

Edited by WATSON DAVIS

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington, D. C. 20036. North 7-2255. Cable Address: SCIENSERV.

Subscription rates: 1 yr. \$5.50; 2 yrs., \$10.00; 3 yrs., \$14.50; ten or more copies in one package to one address, 7½ cents per copy per week; single copy, 15 cents, more than six months old, 25 cents. No charge for foreign postage. Change of address: Three weeks notice is required. Please state exactly how magazine is addressed. Include zip code.

Copyright © 1965 by Science Service, Inc. Reproduction of any portion of SCIENCE NEWS LETTER is strictly prohibited. Newspapers, magazines and other publications are invited to avail themselves of the numerous syndicated services issued by Science Service. Science Service also produces and distributes THINGS of science (monthly), produces and publishes books, and conducts the National Science Youth Program. Printed in U.S.A. Second class postage paid at Washington, D. C. Established in mimeograph form March 13, 1922. Title registered as trademark, U.S. and Canadian Patent offices. Indexed in Reader's Guide to Periodical Literature, Abridged Guide, and the Engineering Index. Member of Audit Bureau of Circulation.



**SCIENCE SERVICE**

The Institution for the Popularization of Science organized 1921 as a non-profit corporation.

Board of Trustees—Nominated by the American Association for the Advancement of Science: Wallace R. Brode,\*\*\* Washington, D.C.; Bowen C. Dees, National Science Foundation; Athelstan F. Spilhaus, University of Minnesota. Nominated by the National Academy of Sciences: Harlow Shapley, Harvard College Observatory; Detlev W. Bronk, Rockefeller Institute; Henry Allen Mae, The Clark Foundation. Nominated by the National Research Council: Leonard Carmichael,\* National Geographic Society; Eric A. Walker, Pennsylvania State University; Glenn T. Seaborg, U.S. Atomic Energy Commission. Nominated by the Journalistic Profession: Gordon B. Fister, Allentown (Pa.) Call-Chronicle; Ralph B. Curry, Flint Journal; O. W. Riegel, Washington and Lee University. Nominated by the Scripps Estate: Ludwell Denny, Scripps Howard Newspapers; Edward W. Scripps II,\*\* Edward W. Scripps Trust; Edward J. Meeman, Memphis Press-Scimitar. \*President, \*\*Vice President, \*\*\*Treasurer.

Staff—Director: Watson Davis. Assistant Director: Dorothy Schriver. Writers: Elinor Betters, Jonathan Eberhart, Ann Ewing, Faye Marley, Patricia McBroom, Barbara Tufty, Judith Viorst, Ruby Yoshioka. Science Youth Division: Joseph H. Kraus, Lloyd Ulmer. Photography: Fremont Davis. Production: Marcia Nelson. Syndicate Sales: Forrest L. Snakenberg. Librarian: Margit Friedrich. Interlingua Division in New York: Alexander Gode, 80 E. 11th St., GRamercy 3-5410. Advertising Manager: Fred A. Moulton, METropolitan 8-2562, Washington, D.C.