

## SCIENCE FAIR HEADQUARTERS

### CRYSTAL-GROWING KIT

Do a crystallography project illustrated with large beautiful crystals you grow yourself. Kit includes the book "Crystals and Crystal Growing" and a generous supply of the chemicals you need to grow large display crystals of potassium aluminum sulfate (clear), potassium chromium sulfate (purple), potassium sodium tartrate (clear), nickel sulfate hexahydrate (blue-green) or heptahydrate (green), potassium ferricyanide (red), and copper acetate (blue-green).



Stock No. 70,336Q -----\$9.50 Ppd.

### WOODEN SOLID PUZZLES

12 Different puzzles that will stimulate your ability to think and reason. Here a fascinating assortment of wood puzzles that will provide hours of pleasure. Twelve different puzzles, animals, and geometric forms to take apart and reassemble, give a chance for all the family, young and old, to test skill, patience and, best of all, to stimulate ability to think and reason.

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### GIANT WEATHER BALLOONS

Create a neighborhood sensation. Great backyard fun. Exciting beach attraction. Blow up with vacuum cleaner or auto air hose. Filled with helium (available locally) use balloons high in the sky to attract crowds, advertise store sales, announce fair openings, etc. Amateur meteorologists use balloons to measure cloud height, wind speed, temperature, pressure, humidity at various heights. Photographers can utilize for low-cost aerial photos. Heavy duty neoprene.



Stock No. 60,568Q -----8' Diam.-----\$2.00 Ppd.  
Stock No. 60,632Q -----16' Diam.-----\$7.00 Ppd.

### NEW WORKING MODEL DIGITAL COMPUTER

#### Actual Miniature Version of Giant Electronic Brains

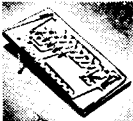
Fascinating new see-through model computer actually solves problems, teaches computer fundamentals. Adds, subtracts, multiplies, shifts, complements, carries, memorizes, sequences. Attractively colored rigid plastic parts easily assembled. 12" x 3 1/2" x 4 3/4". Incl. step-by-step assembly diagrams, 32-page instruction book covering operation, computer language (binary system) programming, problems and 15 experiments.

Stock No. 70,683Q -----\$5.98 Ppd.  
Detailed Programming Booklet For Experiments  
Stock No. 9080Q -----(50 Pages)-----\$1.00 Ppd.

### IT'S HERE—

#### BIG, NEW DIGICOMP III

If you think DIGICOMP I was something—wait 'til you use DIGICOMP III! Loads of fun, terrific challenge! Actually works like electronic digital computer but needs no power. Adds, subtracts, multiplies, divides, memorizes. 1st mechanical computer w/auto. switch action. 1st model designed for programming. Speed reduced by factor of million to 1—you can see what's happening. Demonstrates new math, computer techniques.



Stock No. 70,946Q -----(Intro. price)-----\$16.00 Ppd.

### BUILD YOUR OWN ATOMIC ENERGY LAB

Create cosmic ray showers in the cloud chamber—see atoms explode with the spintharoscope—check ionization and radioactivity of every day materials. These are just a few of the fascinating projects possible with this amazing 43 part kit. Contains everything needed to construct your personal atomic energy laboratory. Absolutely safe. Includes atomic cloud chamber, projector, illuminator, electroscope, spintharoscope. 29 page instruction booklet with suggested experiments. Ideal gift to stimulate students' scientific interest.

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## LETTERS

# to the editor

## Before the Japanese

Sir:

I have, since the late 1950's been directly involved in development of aluminum magnet wire (SN: 1/20 p. 63).

Through the efforts of many individuals in both the Rea Magnet Wire Company and its parent company, Alcoa, this development has led to a wide spread acceptance of aluminum in transformers of various types, so that at this time a high percentage of all distribution transformers is being produced with aluminum strip and foil. The Rea Magnet Wire Company, who pioneered the use of aluminum magnet strip and foil, is now the major manufacturer of aluminum magnet strip, both bare for interleaving and insulated with various types of enamels.

I hope that somehow you will find it possible to make your readers aware of the true facts, which are that the only thing the major electrical manufacturers in Japan have been successful in, is deciding to do what major electrical manufacturers in the United States have been doing for several years.

*Evert A. Mol*  
Director of Research  
Rea Magnet Wire Company, Inc.  
Fort Wayne, Ind.

$$58 \times 10^4 + 61^2$$

Sir:

The feats of William Klein of CERN (SN: 1/20 p. 72) are truly amazing.

Like many another scientist who has not the help of either Mr. Klein or a computer, I too do sums in my head. With a much smaller base of known multiples and squares, I use decimals and their powers as fully as possible. For me,  $583721$  is  $58 \times 10^4 + 61^2$ .

*Wm. Cornelius Hall*  
President & Chief Scientist  
Chemtree Corporation  
Central Valley, N.Y.

# films OF THE WEEK

Listing is for readers' information of new 16mm and 8mm films on science, engineering, medicine and agriculture for professional, student and general audiences. For further information on purchase, rental or free loan, write to distributor.

**THE LIVING SUN.** 16mm, b&w, sound, 30 min. Depicts activities involved in outfitting an expedition which uses aircraft in flight as platform to observe a solar eclipse. Shows activities on board aircraft as the eclipse occurs, and presents and discusses several photographs taken on the expedition. Audience: senior high, college, adult. Purchase \$125 or rental \$5.40 from NET Film Service, Indiana University, Audio-Visual Center, Bloomington, Ind. 47401.

**MEDICINE MEN OF AFRICA: PART I.** 16mm, b&w, sound, 30 min. An English psychiatrist investigates the effectiveness of medicine men in Africa through interviews with Nigerian medicine men, their patients, and Nigerian physicians. Methods used by medicine men for diagnosis and treatment are shown. Audience: general. Purchase \$125 or rental \$5.40 from NET Film Service, Indiana University, Audio-Visual Center, Bloomington, Ind. 47401 (Co-production of National Educational Television and British Broadcasting Corporation).

**METHODS OF OBSERVING TRANSPARENT OBJECTS UNDER A MICROSCOPE.** 16mm, color, sound, 11 min. Principle of the physical mechanism of image formation in ordinary microscopy on a dark field, by phase contrast, and by interference contrast. Descriptive diagram is given of each method followed by characteristic views of typical objects. Audience: high school, college. Free loan with \$3.00 handling charge from Society for French American Cultural Services and Educational Aid, 972 Fifth Ave., New York, N.Y. 10021.

**THE MIGHTY ATOM.** 16mm, color, sound, 30 min. Surveys our efforts in the field of atomic energy and examines how these efforts will affect life in the 21st Century. Surveys accomplishments of our 20th century atomic scientists and suggests potential uses of the atom in the coming century. Free loan from Modern Talking Picture Service, 1212 Avenue of the Americas, New York, N.Y. 10036 (Part of CBS-TV 21st Century series).

**UNDERGROUND NUCLEAR WEAPONS TESTING.** 16mm, color, sound, 29 min. Explains the responsibility of the Atomic Energy Commission to test nuclear weapons and the various kinds of nuclear tests: developmental—to check out concepts of weapons design, proof tests—to confirm safety and design of weapons, checks on readiness, and tests to obtain information on effects. Audience: general. Free loan from AEC field libraries or Audio-Visual Branch, Division of Public Information, Atomic Energy Commission, Washington, D.C. 20545.

## SCIENCE NEWS

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Subscription rate: 1 yr., \$6.50; 2 yrs., \$11.50; 3 yrs., \$16.50. Special trial offer for new subscribers only: 39 weeks, \$3.43. Single copy, 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.

Printed in U.S.A. Second class postage paid at Washington, D. C. Established as Science News Letter® 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. UNSOLICITED MANUSCRIPTS will not be returned unless accompanied by a stamped, self-addressed envelope.

Published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington, D. C. 20036. North 7-2255. Cable Address: SCIENSERV.

### ADVERTISING

L. D. Young, Advertising Director, SCIENCE NEWS, 1719 N St., N.W., Washington, D. C. 20036. Phone 202-667-8945.

Advertising Representatives: SCRIPPS-HOWARD NEWSPAPERS. General Advertising Department: 200 Park Ave., New York, N.Y., TN 7-5000; 400 N. Michigan Ave., Chicago, Ill., SU 7-3355; Suite 211, Braniff Building, Dallas, Tex., PL 7-3847; 908 E. Northland Tower, Southfield, Mich., 444-4595; 6363 Wilshire Blvd., Los Angeles, Calif., OL 3-0026; Room 1522, Philadelphia National Bank Building, Philadelphia, Pa., LO 3-6275; 100 California St., San Francisco, Calif., 989-5570; Suite 417, 3384 Peachtree Rd., N.E., Atlanta, Ga. 261-1571.

