

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 is 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.

Stock No. 70,205Q ----- \$9.50 Ppd.

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, counts, compares, 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.

NOW! WATER THAT CLIMBS UP HILL

Amaze your friends—loads of fun—perfect for Science Fair. Water actually flows up side of glass & siphons freely into other container. To stop flow—cut with scissors—watch it snap back. Secret's in special additive with long molecular structure—req. only 1/2 tsp. to glass. Friction reducing additive has all kinds of industrial, agricultural, experimental uses—a pinch even makes fish slide thru water faster. 3-oz. can enough for 84 pints of water. Instr.

Stock No. 41,086Q ----- \$2.00 Ppd.

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Go Treasure Hunting on the Bottom

Great Ideal Fascinating fun and sometimes tremendously profitable! Tie a line to our 5-lb. Magnet—drop it overboard in bay, lake, river or ocean. Trawl it along the bottom—your "treasure" haul can be outboard motors, anchors, fishing tackle, all kinds of metal valuables. 5-lb. Magnet is war surplus—Alnico V Type. Govt. cost \$50. Lifts over 150 lbs. on land—much greater weights under water.



Stock No. 70,571Q—5lb. Magnet ----- \$12.50 Ppd.
Stock No. 70,570Q—3 1/2-lb. size ----- \$ 8.75 Ppd.

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LETTERS

to the editor

Where credit is due

Sir:

The contents of your article entitled "Chromatography Promises Diagnosis before Symptoms" (SN: 4/6 p. 329) was correct in presenting the facts about the research, however, it did not give due credit to appropriate researchers. The idea of applying gas chromatography techniques for the detection of microbial activity in animal bodies was mine. The work which you reported was and is being done in the Department of Agronomy and Virus Research Institute, Cornell University, Ithaca. It is done here by me in collaboration with Dr. L. E. Carmichael and Dr. Martin Alexander. The research is supported by U.S. Air Force Office of Scientific Research under subcontract to the Electronics Laboratory, General Electric Company, Syracuse, N. Y.

*Brij M. Mitraka, Ph.D.
Research Associate
New York State College
of Agriculture
Cornell University
Ithaca, N.Y.*

Carotene

Sir:

RE: "More Colorful Carrots" (SN: 3/30 p. 313): Carotene is converted to Vitamin A, not Vitamin C. There are reported cases of carotenemia due to food fads and excessive intakes with pathological changes as well as non-pathological yellow skin in babies who do not excrete Vitamin A well.

*Jack L. Field, M.D.
Fort Worth, Texas*

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.

ADVENTURE IN NEWFOUNDLAND. 16mm, color, sound, 16 min. Tommy, a 10-year-old boy accompanies his uncle and a government ornithologist on a bird-banding expedition in a sanctuary containing gulls, puffins, murres, kittiwakes and other sea birds. Audience: elementary. Purchase \$180 from Universal Education and Visual Arts, 221 Park Ave., New York, N.Y. 10003.

APOLLO 5 MISSION—MSC-68-461. 16mm, color, sound, 17 min. Portrays the successful test of the lunar module, the spacecraft in which man will make his first landing on the moon. Lunar Module One is boosted into space by the Saturn IB launch vehicle, is tracked by stations around the world, and since it was not designed to return to earth, finally tumbles through the atmosphere until it is destroyed. Audience: general. Free loan from National Aeronautics and Space Administration, Manned Spacecraft Center, AP2, Houston, Texas 77058.

EARTH SCIENCE: MINERALS AND ROCKS. 16mm, color or b&w, sound, 17 min. A description of the nature and characteristics of minerals and rocks and the importance of these attributes for identification and classification. Time-lapse photographs of growing crystals depict the way crystals form minerals in the earth. Various rocks are shown to show that they are composed of combinations of minerals. Audience: junior, senior high. Purchase color \$210 or b&w \$105; rental color \$7.15 or b&w \$4.40; from Indiana University, Audio-Visual Center, Bloomington, Ind. 47401.

FULL WAVE RECTIFIER POWER SUPPLY (WITH PI-SECTION FILTER). Super-8mm regular-8mm, color, silent, cartridge. Shows in animation all of the electron currents which flow in this type of circuit during normal operation. One complete cycle lasts about 20 seconds. Voltage and current waveforms are generated in synchronism with the movements of the various currents. Audience: technical schools, high schools, junior college, colleges. Purchase Super-8mm \$17 or regular-8mm \$15 from Animated Electronic Films, P. O. Box 2036, Eads Station, Arlington, Va. 22202.

GEOLOGY OF THE GRAND CANYON COUNTRY. 16mm, color, sound, 17 min. Beyond the sweeping beauty of the Grand Canyon lies a rich geological history. The Government preserve, which was once beneath the sea, is studied in this film. The results of erosion and deposition as well as volcanic and seismic activities are shown. Fossils and remnants from past eras and periods tell stories of early life in the canyon and its successive development. Audience: elementary, junior high. Purchase \$185 from Bailey Films, 6509 De Longpre Ave. Hollywood, Calif. 90028.

WALKABOUT. 16mm, color, sound, 20 min. The Australian aborigine and his life (companion film to "Tjurunda"). Audience: general. Rental \$5.00 or purchase \$170.00 from Films Officer, Australian News and Information Bureau, 636 Fifth Ave., New York, N.Y. 10020 or Western States, Press and Information Officer, Australian Consulate-General, 350 Post St., San Francisco, Calif. 94108.

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.