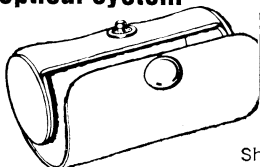


more than just a telescope more than just a microscope

emoskop

a complete
vestpocket
optical system



Shown actual size

We went to Wetzlar, Germany (world capital of fine optics) to find such perfection at such a price. Remove the EMOSKOP from its fitted leather case and it is a 30x microscope. A twist of the wrist converts it to a 3x telescope (ideal for theater, field or sky) or a unique 3x telescope-loupe. Another change and you have your choice of 5x, 10x or 15x magnifying glasses. The perfect vest-pocket companion for exacting professionals and scientists and all those who wish to observe anything closely and clearly. A most discreet opera glass. If you make a fetish of quality, the EMOSKOP will do you proud. Coated lenses, fully achromatic, absolutely flat field. Modern Photography Magazine calls the EMOSKOP "... the only magnifier worthy of the name."

☐ Send me the EMOSKOP. I enclose \$15.95 (\$14.95 plus \$1 postage and insurance). Calif. residents add 5% tax. Refund within 10 days if not delighted. SN-0510

Name _____

Address _____

Zip _____

584 Washington,
San Francisco 94111
Phone (415) 981-5688

haverhill's

Share the Thrills of Exploring Outer Space



All DYNASCOPES, including this superb RV-6, 6-inch available on easy terms!

Now it's easy to join the thousands of serious amateurs who have discovered the excitement of exploring our mysterious universe. Your enjoyment begins right from the start, yet the challenges and rewards go on for years! And it's a hobby that can be shared at modest cost.

**Choose from a Full Range Of
DYNASCOPES® 4" Starting at \$49.95**

Picking a telescope to fit your needs and your pocketbook is simple when you select a DYNASCOPE — the same instruments used by more than 150 schools, colleges and observatories. Prices begin as low as \$49.95, and your satisfaction is guaranteed by a full-refund warranty.

**FASCINATING GUIDE
YOURS FREE!**

Read these valuable facts before buying any telescope. Mail coupon or postcard for your complimentary copy of this helpful guide.

Criterion Manufacturing Co.
331 Church St., Hartford, Conn. 06101

© TM Registered U.S. Pat. Office



CRITERION MANUFACTURING CO., Dept. NL-40
331 Church St., Hartford, Conn. 06101

Please send your free Telescope Guide.

Name _____

Address _____

City _____ State _____

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.

INERTIAL MASS AND THE LAWS OF MOTION. 16mm, color or b&w, sound, 13½ min. Presents an operational definition of inertial mass based on interaction between two or more bodies. Beginning with boxcars in a railroad switching yard, it moves into a hypothetical situation in intergalactic space to show how boxcars, uninfluenced by external gravitational forces, would accelerate toward each other. This situation forms the basis for an operational definition which, when applied to model boxcars on an air track simulating gravity-free conditions, leads to two of Newton's laws of motion. Audience: senior high, college physics. Purchase color \$162.50 or b&w \$81.25 from Coronet Films, 65 E. South Water St., Chicago, Ill. 60601.

MATTER AND ENERGY (2nd edition). 16mm, color or b&w, sound, 13½ min. Slow-motion photography and specially constructed models help clarify the kinetic-molecular theory. Explains how this theory forms the basis for the concepts of physical science, such as elements and compounds and states of matter. Students learn how some of the more common forms of energy are related to each other and to the concept of matter. Introduces such concepts as plasma as a fourth state of matter, and "anti-matter," atoms with positive electrons and negative nuclei. Audience: junior, senior high. Purchase color \$162.50 or b&w \$81.25 from Coronet Films, 65 E. South Water St., Chicago, Ill. 60601.

MEASURING IN ASTRONOMY: HOW BIG, HOW FAR. 16mm, color, sound, 11½ min. Many distances, like the distance around the earth, are impossible to measure directly. Yet almost 2,000 years ago, a man named Erastosthenes was able to measure the size of the earth by using his knowledge of geometry. Today, surveyors use their knowledge of the properties of triangles to measure indirectly the distance between points on the earth's surface. The same method—triangulation—can also be used to find the distance to nearby objects in space. Audience: junior, senior high. Purchase \$135 from Film Associates, 11559 Santa Monica Boulevard, Los Angeles, Cal. 90025.

THE MICROSCOPIC PLANTS. 16mm, color, sound, 30 min. Explains the nature of different modes of life of microscopic algae in fresh water and in the sea. Also explains the importance of microscopic algae in the process of harnessing the sun's energy for use by all of the earth's living things. Examples shown include: Euglena, Pernaema, Pandorina, Volvox, Pediatrum, and Spyrogira. Audience: Senior high, college. Purchase \$375 or rental \$16 from McGraw-Hill Films, Dept. DF, 330 West 42nd St., New York, N.Y. 10036. (Part of Living Biology Series produced by Yeshiva University.)

PERSONAL ADJUSTMENT TRAINING IN A SHELTERED WORKSHOP. 16mm, b&w, sound, 28 min. The theories, practices and techniques used by sheltered workshops in providing therapy for troubled and handicapped people are shown in science with trainees active in such a workshop. A portion is devoted to the case study of one girl finding adjustment through training and a renewed social outlook. The workshop is seen as an outlet for many agencies to aid such persons—a place where doctors, nurses, psychologists and social workers are present to help. Audience: general. Purchase \$50 or rental \$7.25 from Field Services, Indiana University, Audio-Visual Center, Bloomington, Ind. 47401.

LETTERS

to the editor

Cancer statistics

I have just read with interest your news item, "Chemists and Cancer" (SN: 3/8, p. 234). It appears, from the context that the initial paragraph may be editorial comment. I am especially concerned with the first part of the first sentence of the first paragraph: "X-ray technicians have a higher incidence of death from cancer than other occupational groups;" . . . Is this statement editorial comment or was it part of Dr. Li's findings?

If the statement is true (and that means true now), I would like to know the reference. If the statement was true 20 years ago, then that should be made clear to the readers. I suspect that it was true 20 years ago, but I do not know of any valid study which supports this. Such an incidence has been shown true of American radiologists 20 years ago. It is not true of American radiologists today.

I would certainly appreciate some information on the source of the statement.

John W. Schaefflein
Hacienda Heights, Calif.

(The documentation for the statement does go back seven years, to a study by the Physicians Radiation Registry, published in the journal of the American Journal of Roentgenology for February 1962. According to the Society for Environmental Information in St. Louis, it is still true. Ed.)

Difficult but feasible

The short article "Plastics from Polutants" (SN: 3/29, p. 308), does not explain the reasoning behind the title. If the carbon monoxide and sulfur dioxide are not derived from the waste of some process, they cannot be con-

SCIENCE NEWS

Copyright © 1969 by Science Service, Inc., 1719 N Street, N.W., Washington, D.C. 20036 Reproduction of any portion of SCIENCE NEWS is strictly prohibited.

Subscription rate: 1 yr., \$7.50; 2 yrs., \$13.50; 3 yrs., \$19.50. Special trial offer: 39 weeks, \$3.97. 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.



sidered as "pollutants." The need for high pressure vessels, cobalt 60 and ethylene indicate that the creation of the plastics would require sophisticated equipment and skilled personnel, a fair-size manufacturing complex of itself.

*K. Kaneta
Seattle, Wash.*

Nature of intelligence

Recently it has seemed that biologically related models of human behavior are increasing in popularity. Your article "Nature vs. nurture in intelligence" (SN: 4/5, p. 326), reflects this trend which is also exemplified by Talcott Parson's recent attempt to resurrect the model of societal evolution, Amitai Etzioni's article in the December 1968 *AMERICAN SOCIOLOGICAL REVIEW* examines the possibility of "basic human needs," and attempts to explain aggression as an instinctive "territorial imperative."

It appears more likely that such models become popular not because of compelling scientific evidence but rather from a dissatisfaction with the seeming ineffectiveness of the social sciences. Arthur Jensen's argument, as reported in the April 5 *SCIENCE NEWS*, that I.Q. is primarily dependent on heredity may have one root in his disaffection with quasi-governmental programs, such as Headstart, which have not shown as dramatic a success as hoped.

But the applications of social science are not necessarily reflections on the science; application is also dependent on the abilities of social engineers just as physicists are not solely responsible for the collapse or success of bridges. Of course Jensen is right that "intelligence" is limited by genetic endowment, but there is abundant evidence that it is either released or smothered by the environment. Beyond this point is the fact that it is politically unrealistic to alter intelligence by tampering with genes. And, so far as I am aware, the technical knowledge is not adequate to do so efficiently.

Two important researches bearing on the question of "nature vs. nurture" should be brought to the attention of your readers to supplement the April 5 report. James Coleman's study, "Equality of educational opportunity," showed, for example, that family background affects academic success much more than the quality of the academic environment. Thus the failure of Headstart, if it has failed, may be due to a misemphasis on certain parts of environmental change. It certainly does not in any way demonstrate the determination of intelligence by heredity.

Robert Rosenthal's studies of "experimenter effects" established that
(See p. 446)



OCEANOGRAPHY

SIX WEEK SUMMER PROGRAM

HIGH SCHOOL BOYS AND GIRLS AGES 15-18

9TH ANNUAL SESSION
JUNE 29TH TO AUGUST 9TH, 1969
SCIENCE ISLAND, PORTLAND, MAINE

EDUCATIONAL

Introduction to marine biology and other sciences. Laboratory techniques, specimen gathering, research, under direction of college faculty members and counselors.

RECREATIONAL

Sailing and boating, swimming, scuba-diving, fishing, bowling, hiking, cook-outs and social activities, such as dancing and musical sessions. Athletic fields, docks and beaches.

TOTAL COST \$525 (SCHOLARSHIPS AVAILABLE)
WRITE FOR FREE BROCHURE

NATIONAL YOUTH SCIENCE FOUNDATION
P.O. Box 131, South Orange, New Jersey 07079 Phone 201-763-0310

NOW OPEN

Pack away your worries with your woollens and fly away to SIX FLAGS Over Texas. SIX FLAGS '69! All the familiar excitement plus a bunch of new ones you've never seen before! A porpoise show. A remarkable film adventure at the new Chevy Cine-sphere Theater. Speelunker Cave. Skull Island. The pulse-teasing rhythms of the lively new shows at the Crazy Horse Saloon and Southern Palace. The Petting Zoo. An erupting volcano and a Wild West shoot-out. The splashy thrills of the Log Flume. More than 80 spectacular rides, shows and attractions — all for the one-price main gate admission. Come to SIX FLAGS now and let the good times roll!

SPRING HOURS: FRIDAYS, 5-11 p.m.; SATURDAYS & SUNDAYS, 10 a.m.-10 p.m.

DAILY OPERATION BEGINS MAY 24.



SIX FLAGS®
OVER TEXAS
DALLAS/FORT WORTH TURNPIKE