

QUESTAR –

the portable observatory in less than one cubic foot of leather case

Questar slips out of its handsome fitted leather case ready for observing. Then, just by pushing the anodized aluminum legs into their sockets you tilt the telescope into its polar equatorial position. How simple it is to align it with the earth's axis! Only a moment is needed to locate the pole star in the finder, adjust and clamp the forward leg. And Questar's mechanical perfection permits no quiver or shake.

Now you find that the effortless controls in hour angle and declination provide the smoothest following of celestial objects, and for more convenience you connect the synchronous electric drive to your house current. All this on a tabletop, where you can observe comfortably seated, completely relaxed. Should you want to photograph all that you see with Questar's superb optics, just add one of the Questar-modified 35-mm. SLR cameras to the rear of the control box. Another Questar, the Field Model, is shown below with Questar-modified Topcon camera attached.



Questar, the world's finest, most versatile small telescope, priced from \$795, is described in our newest booklet which conscribed in our newest booktet which con-tains 100 photographs by Questar owners. Send \$1 for mailing anywhere in North America. By air to rest of Western Hemi-sphere, \$2.50; Europe and North Africa, \$3.00; elsewhere, \$3.50.

TIMS 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.

ACCURACY IN MEASUREMENT. 16mm, color, sound, 9½ min. This animated film uses a box and a ruler to demonstrate that all measurement is approximate. By subdividing the units on the ruler several times, it is shown that although we can come closer to the actual width of the box, an exact measurement can never be stated. Audience: elementary. Purchase \$125 from Film Associates, 11559 Santa Monica Blvd., Los Angeles, Calif. 90025.

AFRICAN BIRDLIFE. 16mm, color, sound, 11 min. The tropical lakes and marshland streams of Central Africa provide a natural home for many wild and exotic birds. In this film the birds are seen in their natural habitat engaged in nesting and feeding activities. Although some species migrate to other lands, only in this area can one see at close range so many varieties and in such large flocks. Birds featured include the Weaver, Goliath Heron, Pygmy Cormorant, Maribou Stork and Greater Flamingo. Audience: upper elementary through adult. Purchase and rental information from Walt Disney 16mm Films, 477 Madison Ave., New York, N. Y. 10022.

AFRICAN FAUNA. 16mm, color, sound, 11 min. Equatorial Africa is the home of one of the world's greatest arrays of wild animals. The lake region and upper Nile provide an opportunity to observe the hippopotamus and African crocodile. The tree-spotted veld abounds in a great variety of antelope and other grass-eating animals, as well as the African lion, leopard, rhinoceros and African buffalo. Uganda and the Belgian Congo are noted for their elephants. Film shows animals in natural habitat. Audience: elementary through adult. Purchase information from Walt Disney Productions, Educational Film Division, 477 Madison Ave., New York, N.Y. 10022.

APOLLO MISSION HIGHLIGHTS. 16mm, colo APOLLO MISSION HIGHLIGHTS. 16mm, color, sound, 12 min. An overview of plans for the Apollo lunar landing mission. Explains briefly the techniques of the flight, how astronauts will explore the moon, and how scientists will study lunar rock samples returned to earth. Audience: general. Free loan from NASA field libraries, or loan information from National Aeronautics and Space Administration Headquarters, Code FAD-2, Washington, D. C. 20546.

PAPER POWER WHERE COTTON IS KING PAPER POWER WHERE COTTON IS KING. 16mm, color, sound, 14 min. Shows the many uses of cotton paper—easy erasibility and application in office work, and in contracts, bonds, money, blueprints, letterheads, technical papers and works of art from 16th century etchings to the Gutenberg Bible. Moving to the paper factory, film shows the entire process of producing quality-controlled paper from its shredding and pressure-cooking in a "digester" to its washing in filtered water, bleaching, drying and watermaking. Audience: general. Free loan from Stering Movies, 43 W. 61st St., New York, N. Y. 10023. (Presented by Cotton Fiber Paper Manufacturers.)

SEAS OF INFINITY. 16mm, color, sound, 14½ min. Reviews the planning, development, launching and function of the Orbiting Astronomical Observatory, a series of orbiting telescopes which are being used to study our solar system and the stars beyond. Features comments by leading scientists on the potential of this advancement in astronomy. Audience: general. Free loan from NASA field libraries or from National Aeronautics and Space Administration, Headquarters, Code FAD-2, Washington, D.C. 20546.

LETTERS

to the editor

A stable system

We wish to correct a Department of Transportation statement regarding the horizontal instabilty of magnetic suspensions in the article "Trains Without Wheels" (SN: 4/12, p. 358) the statement was meant to apply only to one type of magnetic suspension at low speeds, which had a track buried in a flat roadway under the train (SN: 12/30/67, p. 637), and which was conceived as carrying both trains and wheeled vehicles. The study proposal to the Department of Transportation involves a different type of magnetic suspension with a track extending above the roadway and is horizontally stable at all speeds. This proposal has not been rejected because of instabilities. The flat-roadway type could be made horizontally stable at all speeds by using a different track loop design; however, it would still require expensive inductors for the lift loops while the non-flat type does not.

> James Powell Gordon Danby Brookhaven National Laboratory Upton, L.I., N.Y.

Minor rectification

I appreciated the fine report on finite range gravitation (SN: 5/24, p. 512). Dietrick E. Thomsen gives a clear and concise presentation of the ideas underlying this theory. As a minor rectification, the time independent value of the graviton mass in our theory is assumed to be of the order of 10-40 times the proton mass.

Peter O. G. Freund The Enrico Fermi Institute Chicago, Ill.

Address communications to Editor, Science News, 1719 N Street, N.W. Washington, D. C. 20036

SCIENCE NEWS

Copyright © 1969 by Science Service, Inc., 1719 N Street, N.W., Washington, D.C. 20036 Republication 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.

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

Profile 202—66/-8943.
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.

608/science news/vol. 95/june 28, 1969