

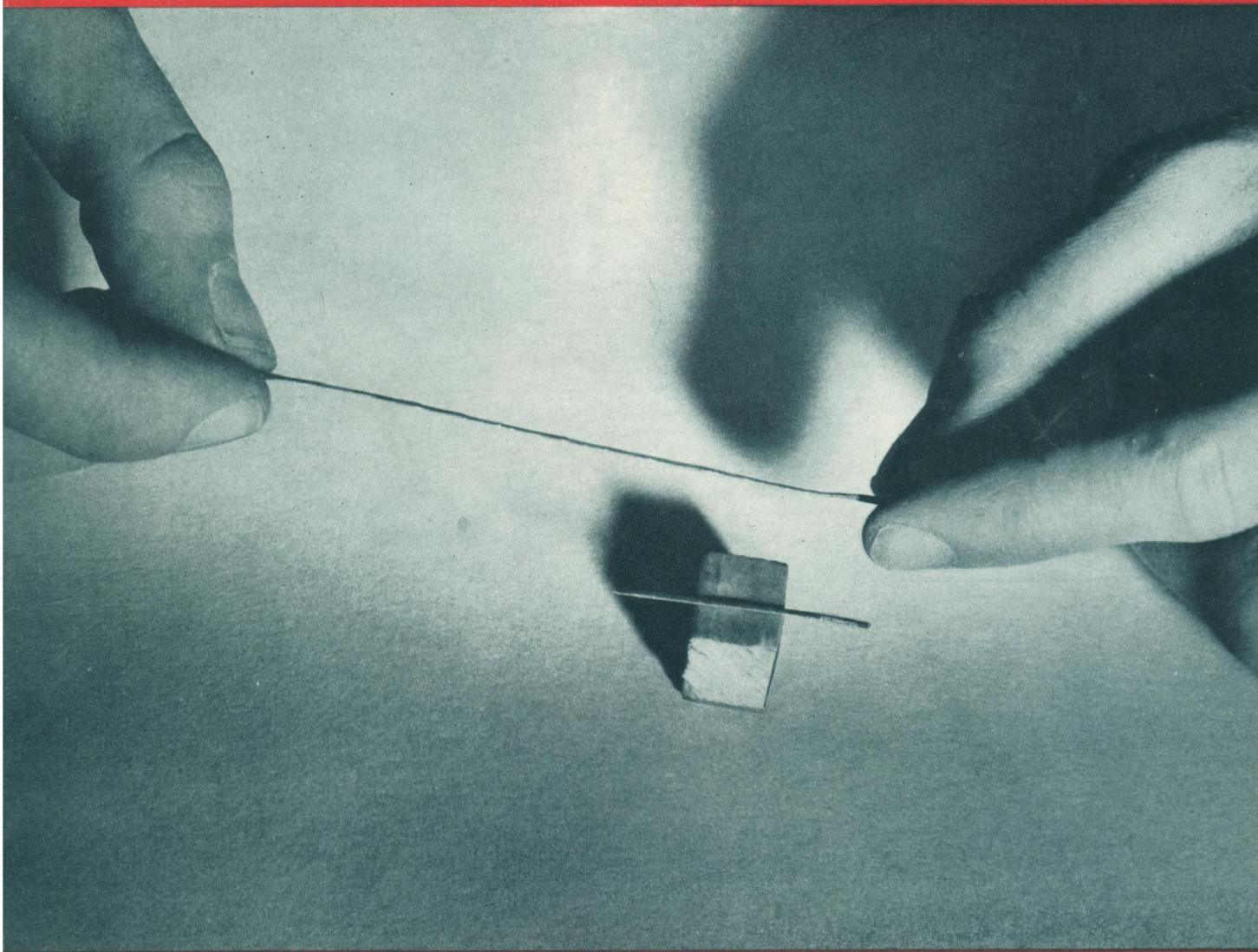
15¢

DECEMBER 10, 1949

# SCIENCE NEWS LETTER

®

THE WEEKLY SUMMARY OF CURRENT SCIENCE



**Trick Metals**

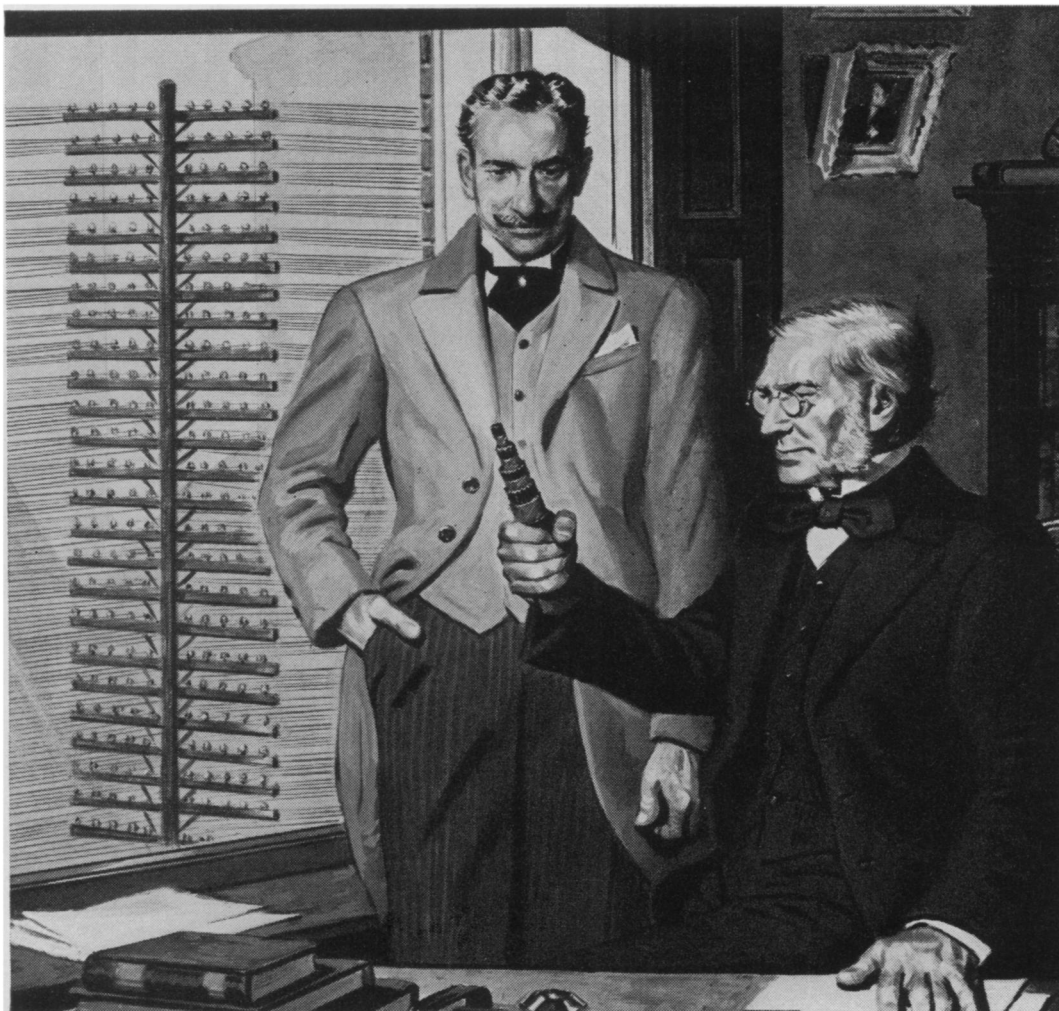
See Page 378

A SCIENCE SERVICE PUBLICATION

\$5.50 A YEAR

VOL. 56 NO. 24 PAGES 369-384





## They Packed a Pole Line Into a Pipe

Back in the eighties, telephone executives faced a dilemma. The public demanded more telephone service. But too often, overloaded telephone poles just couldn't carry the extra wires needed, and in cities there was no room for extra poles. Could wires be packed away in cables underground?

Yes, but in those days wires in cables were only fair conductors of voice vibrations, good only for very short distances. Gradually cables were improved; soon

every city call could travel underground; by the early 1900's even cities far apart could be linked by cable.

Then Bell scientists went on to devise ways to get more service out of the wires. They evolved carrier systems which transmit 3, 12, or even 15 voices over a pair of long distance wires. A coaxial cable can carry 1800 conversations or six television pictures. This is another product of the centralized research that means still better service for you in the future.



**BELL TELEPHONE LABORATORIES** EXPLORING AND INVENTING, DEVISING  
AND PERFECTING, FOR CONTINUED IMPROVEMENTS AND ECONOMIES IN TELEPHONE SERVICE

# WAR SURPLUS OPTICAL BARGAINS

## ASSEMBLE YOUR OWN BINOCULARS



Complete Optics!  
Complete Metal Parts  
SAVE More Than 1/2 Regular Cost

### GOVERNMENT'S 7 x 50 BINOCULARS (American Made—not Japanese)

Here's an unusual opportunity to secure a fine set of Binoculars at a substantial saving of money. Offered here are complete sets of Optics and Metal parts for the 7 x 50 Binoculars. These components are new and all ready for assembly. Full instructions supplied. **METAL PARTS**—Set includes all Metal Parts—completely finished—for assembly of 7 x 50 Binoculars. No machining required. A sturdy Binocular Carrying Case is optional with each set of Metal Parts.

Stock No. 842-Q ..... \$39.40 Postpaid  
plus \$4.80 for Case ..... Total \$44.20

**OPTICS**—Set includes all Lenses and Prisms you need for assembling 7 x 50 Binoculars. These optics are in excellent condition—perfect or near perfect and have new low reflection coating.  
Stock No. 5102-Q—7x50 Optics—\$25.00 Pstpd.  
**NOTICE:** Add 20% Federal Excise Tax to your remittance if you buy both Binocular Optics and Metal Parts.

### ARMY'S 6 x 30 BINOCULARS

**COMPLETE OPTICS & METAL PARTS**—Model M-13A1, 6x30 Binoculars (Waterproof Model). Everything you need—ready for assembly. When finished will look like a regular factory job costing \$102 to \$120. The Optics are new, in perfect or near-perfect condition. Have new low reflection coating. Metal parts are new and perfect, all completely finished. No machining required. Complete assembly instructions included.

Stock No. 830-Q ..... \$40.00 Postpaid  
plus \$8.00 tax ..... Total \$48.00

**OPTICS AND METAL PARTS** are available for Monoculars (1/2 a Binocular). For complete details, write for Bulletin Q.

**PLASTIC HOBBYISTS!**—Your chance to get a large, heavy piece of super, optical quality Plexiglas, approx. 1 3/4" thick, 7 1/2" long, 6 1/2" wide . . . weight, 4 lbs. 5 ozs. Actually a U. S. Army Plexiglas Periscope containing at least \$7.00 worth of Plexiglas. Carve it! Saw it! Mold it! Makes numerous plastic novelties.

Stock #725-Q ..... \$3.00 each Postpaid  
6 or more units ..... \$2.75 each Postpaid  
12 or more units ..... \$2.25 each Postpaid

**MOUNTED TELESCOPE EYE-PIECE**—Kellner type. Excellent astronomical and other telescopes. War Surplus. Government cost about \$18.00. Focal length 24 mms. Lens Diameter 23 mms. Unusually wide field.  
Stock No. 5189-Q ..... Price \$3.25 Postpaid

**THICK FIRST SURFACE MIRROR**—Aluminized! Low Reflection Coated! Size 3-13/16" x 3-3/16" . . . 9/16" thick. Excellent substitute for large Right Angle Prism.  
Stock #562-Q ..... \$3.50 Postpaid

## 8 POWER ELBOW TELESCOPE

Gov't Cost \$200.00  
Our Price \$27.50



Big. 2 in. diameter objective. All lenses Achromatic. Amici-prism erects the image. Four built-in filters—clear, amber, neutral and red. Slightly used condition but all guaranteed for perfect working order. Weight 5 lbs. Can be carried but a trifle bulky. Excellent for finder on Astronomical Telescope.  
Stock No. 943-Q ..... \$27.50 Postpaid

**SCISSORS TELESCOPE**—Gives 100 times greater stereoscopic power than the unaided eye. Binocular type. Big field of view. 12 power. Furnished complete with tripod mount and case. Used by Army and Navy for long distance spotting, target observation, etc. Used but good condition. Shipped f.o.b. Camden, N. J. (Weight approx. 79 lbs.).  
Stock #952-Q ..... \$95.00

**LOW POWER RIFLESCOPES and ACHROMATIC LENSES** to make your own higher power Rifle scope (2 1/2 to 7 1/2 power or over). Write for Bulletin "Q".

**TELESCOPE EYE-PIECE**—Consists of 2 Achromatic lenses F.L. 28mm, in a metal mount.  
Stock No. 5140-Q ..... \$4.50 Postpaid

## MAKE YOUR OWN ENLARGER

### MOUNTED ANASTIGMAT LENSES

Use for Projectors, Enlargers, Copying Cameras. Complete with Shutter and Diaphragm. Value about \$20. These were made for a specific camera but had longer or shorter focal length than could be used, and then the camera was discontinued. An excellent buy. **WE WILL INCLUDE FREE ILLUSTRATED BOOKLET ON HOW TO MAKE YOUR OWN ENLARGER.**

Stock No. 8004-Q Speed f/7.7, focal length approx. 127 mms. Suitable for pictures, negatives, positives up to 3 1/2 x 4 1/4" ..... \$7.50 Postpaid

Stock No. 8006-Q Speed of f/7.7, focal length approx. 100 mms. Suitable for pictures, etc. up to 2 1/4 x 3 1/4" ..... \$8.50 Postpaid

Stock #8007-Q—Speed of f/6.3, focal length approx. 100 mms. .... \$9.50 Postpaid

**CONDENSING LENSES**—Seconds, but suitable for Enlargers and Spotlights.

Stock #1061-Q—6 1/2" dia. 9" F.L. \$2.50 ea. Pstpd.

Stock #1080-Q—5 1/2" dia. 7" F.L. \$1.00 ea. Pstpd.

Stock #1084-Q—2 1/2" dia. 4" F.L. \$1.00 ea. Pstpd.

Stock #1077-Q—2 3/4" dia. 3" F.L. \$1.00 ea. Pstpd.

Stock #1019-Q—6" dia. 16" F.L. \$2.00 ea. Pstpd.

Stock #1062-Q—6" dia. 9" F.L. \$2.00 ea. Pstpd.

Stock #1086-Q—1-11/16" dia. 3" F.L. .25 ea. Pstpd.

Stock #1103-Q—29/32" dia. 1/2" F.L. .50 ea. Pstpd.

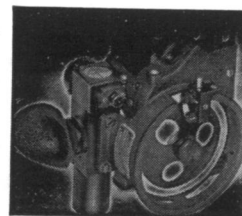
**MOUNTED PROJECTION LENS**—Speed F/1.9 . . . F.L. 15 mm. \$22.00 value for \$7.50. Low Reflection Coated. Used on 8 or 16 mm. Movie Projectors . . . or to make a Desk Viewer or Editor . . . for 16 mm. Micro-film Reader . . . for Contour Projector for very small items.  
Stock #4045-Q ..... \$7.50 Postpaid

### NEW 50-PAGE IDEA BOOK "FUN WITH CHIPPED EDGE LENSES"

Contains wide variety of projects and fully covers the fascinating uses of all lenses in sets listed above . . . only \$1.00 Postpaid.

## UNUSUAL BARGAIN BUBBLE SEXTANTS

These Army Air Forces Bubble Sextants costs the Govt. about \$125.00 each. A real bargain at our price at \$12.50! Wooden carrying case included. Also auxiliary items. Wartime used. **BUT COMPLETELY REPAIRED COL- LIMATED AND PUT IN GOOD WORK- ING ORDER.** If not satisfied that Sextant is exactly as represented, return within 10 days for refund. Full directions for use accompany each shipment.



Stock No. 924-Q ..... \$12.50 Postpaid  
Same Sextant as above, but **BRAND NEW** and with Automatic Electric Averaging Device and Illuminated Averaging Disc for nighttime use. Govt. cost \$217. Though brand new we have checked Bubble and Collimation and **GUARANTEE** perfect working order.

Stock No. 933-Q ..... \$22.50 Postpaid

**BUBBLE SEXTANT—TYPE A-8A.** Excellent condition but may be slightly used. Each has been carefully checked and collimated. Averaging device for nighttime use. Carrying Case and instruction booklet included. Gov't cost about \$325.00.

Stock #946-Q ..... \$32.50 Postpaid

## SIMPLE LENS KITS

**THE LENS CRAFTERS DELIGHT!** Fun for adults! Fun for children! Kits include plainly written, illustrated booklet showing how you can build lots of optical items. Use these lenses in photography for copy- ing, **ULTRA CLOSE-UP SHOTS**, Microphoto- graphy, for "Dummy Camera", Kodachrome Viewer, Detachable Reflex View Finder for 35 mm. cameras. Stereoscopic Viewer, ground glass and enlarging focusing aids. And for dozens of other uses in experimental optics, building **TELESCOPES**, low power Microscopes, etc.

Stock #2-Q—10 lenses ..... \$ 1.00 Postpaid  
Stock #5-Q—45 lenses ..... \$ 5.00 Postpaid  
Stock #10-Q—80 lenses ..... \$10.00 Postpaid

**LENS CLEANING TISSUE**—1st quality sheet size 11 x 7 1/2 in. Made to Govt. specifications. High wet strength. Free of abra- sives.

Stock No. 721-Q—500 sheets ..... \$1.00 Postpaid

**SLIDE PROJECTOR SETS**—Consist of all unmounted lenses you need to make the following size projectors:

Stock No. 4038-Q—2 1/4 x 2 1/4 in., \$3.35 Postpaid  
Stock No. 4039-Q—2 1/2 x 3 1/2 in., \$3.85 Postpaid  
Stock No. 4035-Q—35mm. .... \$4.85 Postpaid

### MOUNTED PROJECTING LENS SYSTEM—F.L. 91.44 mm (just right for 35-mm Projectors). Speed of F 1.9.

Outside dia. of mount at one end 60mm. Length of mount 64mm.  
Stock No. 4033-Q, \$3.00 Postpaid



**THREADED OUTSIDE MOUNT FOR FOCUSING ABOVE SYSTEM** (Not illus.)—

Stock No. 715-Q ..... \$1.00 Postpaid



## IF YOU'RE INTERESTED IN OPTICAL BARGAINS

Write for **FREE CATALOG Q**

We Have Literally Millions of War Surplus Lenses and Prisms for Sale at Bargain Prices. Numerous Types of Instruments Too!

**EDMUND SALVAGE COMPANY • BARRINGTON, NEW JERSEY**

**ORDER BY SET OR STOCK NO.**