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SCIENCE NEWS LETTER

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"Hell's Back Gate"

See Page 236

A SCIENCE SERVICE PUBLICATION

Long-distance Television is twenty years old



At the 1927 demonstration, Dr. Herbert E. Ives explained the television system developed in Bell Telephone Laboratories

APRIL 7 is a notable day in communication history, for on that day in 1927 was the first demonstration of television over long distances. Large-scale images were flashed from Washington, D.C., by wire and from Whippany, N.J., by radio to a public demonstration in New York City. "It was," said a newspaper, "as if a photograph had suddenly come to life and begun to smile, talk, nod its head and look this way and that."

That was the first of many public demonstrations, each to mark an advance in the television art. In 1929 came color television, and in 1930 a two-way system between the headquarters buildings of A. T. & T. and Bell Laboratories. When the first coaxial cable

was installed in 1937, television signals for 240-line pictures were transmitted between Philadelphia and New York and three years later 441-line signals were transmitted. By May, 1941, successful experiments had been made on an 800-mile circuit.

End of the war brought a heightened tempo of development. Early in 1946 began the regular experimental use of coaxial cable for television between New York and Washington, and a few months later a microwave system for television transmission was demonstrated in California.

Transmission facilities will keep pace as a great art advances to wide public usefulness.

BELL TELEPHONE LABORATORIES



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

WAR BARGAINS in LENSES and PRISMS

ASSEMBLE YOUR OWN BINOCULARS!

Complete Optics! Complete Metal Parts!

Save More Than 1/2 Regular Cost

ARMY'S 7 X 50 BINOCULARS

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 Army's M-16 7 x 50 Binoculars (M-16 is not the waterproof model). These components are new and all ready for assembly. We supply full instructions. Limit—1 set of Metal Parts and 1 set of Optics to a customer.

METAL PARTS—Set includes all Metal Parts—completely finished—for assembly of 7 x 50 Binoculars. No machining required. Bodies have been factory hinged and covered. A sturdy Binocular Carrying Case is included with each set of Metal Parts.

Stock #824-Q—7 x 50 Metal Parts...\$35.00 Postpaid

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 #5102-Q—7 x 50 Optics.....\$25.00 Postpaid

ARMY'S 6 X 30 BINOCULARS

No Carrying Case with any Sets shown below. (None yet available in Surplus Market.) M-13A1 sets are waterproof model. M-3 sets are not waterproof. Limit—1 Set to a Customer on all Sets shown below.

COMPLETE OPTICS & METAL PARTS—Model M-13A1, 6 x 30 Binoculars. 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. Bodies factory hinged and covered. Complete assembly instructions included.

Stock #830-Q\$40.00 Postpaid,
plus \$8.00 tax—Total—\$48.00

COMPLETE OPTICS & METAL PARTS—Model M-3, 6 x 30 Binoculars. The Optics in this set are new, perfect or near-perfect. Prisms have new low reflection coating. Factory mounted Eye Piece and Objective Assemblies not coated. Metal Parts are perfect, new, ready for assembly. When finished, this will look like a regular factory job, except a name has been filed off a cover plate. No machining required. Bodies factory hinged and covered.

Stock #831-Q\$35.00 Postpaid,
plus \$7.00 tax—Total—\$42.00



NOTICE: If you buy both the Binocular Optics and the Binocular Metal Parts, your purchase becomes subject to 20% Federal Excise Tax. Be sure to add amount covering tax to your remittance or your order cannot be filled.

METAL PARTS ONLY—Model M-13A1, 6 x 30 Binoculars. No Optics. Same Metal Parts as described for Stock #830-Q.

Stock #832-Q—6 x 30 Metal Parts...\$25.00 Postpaid

METAL PARTS ONLY—Model M-3, 6 x 30 Binoculars. No Optics. Some machining on these Metal Parts required. Bodies hinged and Prism Shelf holes placed, but you must tap them. Prism Shelves have been machined. Six lead spiral focusing threads have been cut. Some less difficult components you must thread and machine yourself, but all material you need is furnished except body covering material and Optics.

Stock #833-Q—6 x 30 Metal Parts...\$12.00 Postpaid

OPTICS FOR 6 x 30 BINOCULARS (No Metal Parts.) Slight seconds. Cemented but not coated.

Stock #5123-Q\$10.00 Postpaid

SAME OPTICS AS ABOVE (6 x 30), but coated.

Stock #5124-Q\$12.75 Postpaid

If you buy both the Binocular Optics and the Binocular Metal Parts, your purchase becomes subject to 20% Federal Excise Tax. Be sure to add amount covering tax to your remittance or your order cannot be filled.

Optics and Metal Parts are Available for Monoculars (1/2 a Binocular). For Complete Details, Write for Bulletin #14-Q.

ALL ITEMS Finely Ground and Polished, some Edges Slightly Chipped or Other Slight Imperfections Which We Guarantee Will Not Interfere with Their Use. Come Neatly Packed and Marked.

TO KEEP POSTED on all our new Optical Items, send 10c and your name and address to get on our regular "Flash" mailing list.

23 POWER PRISM SPOTTING TELESCOPE SET—Optics consist of perfect Achromatic Objective with dia. of 64 mm. and 20 inch F.L. (not a War Surplus item), an Eye Achromat, Field Lens and Prisms from 6 x 30 Binoculars. These are slight seconds. All low reflection coated except Objective. Half a covered 6 x 30 Binocular Body, all parts for Eyepiece end and Prism Shelf section are supplied. You must furnish an extension tube and any parts needed to mount the Objective Lens.

Stock #5127-Q\$21.00 Postpaid

SCHMIDT OPTICAL SYSTEM. Black plastic body, size 3-15/16" by 5-1/2". F.L. 2.4" with amazing speed of F.O.9. Used in Navy's Infra-Red Sniperscope and Signalling Units. Govt. cost \$134. Limit—1 to a customer.

Stock #720-Q\$6.00 Postpaid

35 MM KODACHROME PROJECTING LENS SET—Consists of 2 Achromatic Lenses for projecting, plus 2 Condensing Lenses and a piece of Heat Absorbing Glass with directions.

Stock #4029-Q\$3.10 Postpaid

35 MM KODACHROME PROJECTING LENS SET—Consists of 2 Achromatic Lenses for projecting, plus a Condensing Lens and a piece of Heat Absorbing Glass with directions.

Stock #4025-Q\$1.95 Postpaid

2 1/2" DIA. ACHROMATIC TELESCOPE OBJECTIVE—F.L. 20 inches (Not a war surplus item). The Govt. used very few long focus Objective Lenses so we had these made for you. First class lens suitable for Spotting Scopes, Terrestrial Telescopes, etc. Not coated.

Stock #6197-Q\$10.00 Postpaid

BATTERY COMMANDER'S PERISCOPE With Tripod—6 Power Instrument. Excellent condition. Length 27 1/2 inches—diam. 1 1/2 inches. Cost U. S. Govt. approximately \$175.00.

Stock #717-Q\$20.00 F. O. B. Audubon

AIR FORCES GUNSIGHT

With Polarizing Variable Density Attachment—



Can be used as Slide Viewer, or take it apart and you can get polarizing variable Density Attachment, Mangin Concave Mirror, Reflector Plate, Metal Reticule, Window, Lamp Housing, Ring and Bead Sight. The Polarizing attachment alone is worth many times the price of entire unit. Consists of 2 Polarizing Filters mounted with small handle which rotates one around the other. May be used in Photography, Research, Experiments, as Light Dimmer, etc.

Stock #908-Q\$5.00 Postpaid

Same Unit Without Polarizing Attachment

Stock #916-Q\$2.50 Postpaid

TANK PRISMS—PLAIN OR SILVERED

90-45-45 deg. 5/8" long, 2 1/4" wide, finely ground and polished

Stock No. Item Price

3004-Q—Silvered Prism (Perfect)\$2.00 Postpaid

3005-Q—Plain Prism (Perfect)\$2.00 Postpaid

3100-Q—Silvered Prism (Second)\$1.00 Postpaid

3101-Q—Plain Prism (Second)\$1.00 Postpaid

(Illustrated Book on Prisms included FREE)

SPECIALS IN LENS SETS

Set #1-Q—"Our Advertising Special"—15 lenses for \$1.60 Postpaid, plus 10-page idea booklet. For copying, **ULTRA CLOSE-UP SHOTS**, macrophotography experimental optics magnifying and for making a two power (1/16) Telephoto Lens, "Dummy Camera," Kodachrome Viewer, **DETACHABLE REFLEX VIEWFINDER** for 35 mm. cameras, stereoscopic viewer, ground glass and enlarging focusing aids, **TELESCOPES**, low power Microscopes and for many other uses.

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 set listed above . . . only \$1.00 Postpaid.

POLARIZING VARIABLE DENSITY ATTACHMENT FOR 7 x 50 BINOCULARS—An amazingly effective unit for controlling amount of light reaching your eyes. Cuts down glare in sky and overwater observations. Easily snapped on and off over the eye cups of American-made 7 x 50 Binoculars. Govt. cost, \$8.30 each.

Stock #20,000-Q\$2.00 Postpaid

SPECTROSCOPE SETS . . . These Sets contain all Lenses and Prisms you need to make a Spectroscope, plus FREE 15-page Instruction Booklet.

Stock #1500-Q—Hand Type.....\$3.45 Postpaid

Stock #1501-Q—Laboratory Type.....\$5.50 Postpaid

WE HAVE LITERALLY MILLIONS OF WAR SURPLUS LENSES AND PRISMS FOR SALE AT BARGAIN PRICES. WRITE FOR CATALOG "Q"—SENT FREE!

CONDENSING LENSES for 35 mm Projectors and Enlargers. Consists of set of 2 Lenses—diam. 2 3/8", F.L. 3" each.

Stock #1077-Q\$2.00 Postpaid

MOUNTED KELLNER TELESCOPE EYE PIECE—Perfect, coated, in Ordnance sealed boxes. F.L. 1 3/4 inches. Outside dia. of steel mount 40 mm.

Stock #6198-Q\$3.15 Postpaid

OPTICAL BENCH KIT—(Not a War Surplus Item) Everything you need, including four Lens Holders for checking Focal Lengths and setting up Lens Systems.

Stock #53-Q\$8.50 Postpaid

RAW OPTICAL GLASS . . . An exceptional opportunity to secure a large variety of Optical Pieces both Crown and Flint glass (seconds) in varying stages of processing. Many prism blanks.

Stock #703-Q—3 lbs. (min. wt.).....\$5.00 Postpaid

Stock #702-Q—1 1/2 lbs.\$1.00 Postpaid

BOMBER SIGHTING STATION—A double end Periscope Type Instrument of highest precision. Brand new and in perfect condition. 6 ft. tall, shipping wt. 360 lbs. Orig. cost \$9,850. Consists of numerous Lenses, Prisms, Mirrors, Gears, Motors, Metal Parts and Electrical Gadgets.

Stock #914-Q\$50.00 F.O.B. Oklahoma

MOUNTED PROJECTING LENS SYSTEM—F.I. 91.44 mm. (Just right for 35 mm. Projectors). Speed of F 1.9. Outside dia. of mount at one end 60 mm. Length of mount 64 mm.

Stock #4033-Q\$3.00 Postpaid

MOUNT FOR ABOVE PROJECTING LENS SYSTEM

Stock #715-Q\$1.50 Postpaid

ORDER BY SET OR STOCK NO.

SATISFACTION GUARANTEED

EDMUND SALVAGE COMPANY, P. O. Audubon, New Jersey