

### AMAZING NEW IMPORT TERRESTRIAL & ASTRONOMIC TELESCOPE

**83 POWER—40 POWER  
or 23 POWER  
PLUS A  
VARIABLE 25 and 60 POWER  
TERRESTRIAL TELESCOPE**

Look what you get at this Low Price PLUS a Money Back Guarantee & a 10 Day FREE Trial! You can't lose unless you miss this!

- 1—Astronomical LENSES—Three of 23X, 40X and 83X magnification. Achromatic & precision ground.
- 2—Variable Power LENS of 25 & 60X for straight through viewing. Fully corrected for Terrestrial sightings.
- 3—BODY—Steel for a lifetime of use.
- 4—LENGTH—19-1/2" 22-1/2" extended.
- 5—Objective LENS—Coated large 50mm.
- 6—Top Quality SUN FILTER
- 7—One Diagonal PRISM
- 8—4 Power x 10mm Searching Scope with cross hair reticle.
- 9—ADJUSTMENTS—Both free-swinging and universal with lock for positioning.
- 10—Hardwood TRIPOD—Two section type, 30" folded, 4-1/2 ft. extended.
- 11—Fitted Hardwood CASE for all parts.

**FREE BOOK ON STARS**—Tells you all about the stars and the constellations—Where to find them at different times—How to identify them and many other intriguing facts on astronomy.

**EXTRA 100X EYEPIECE 750 125X EYEPIECE 995**

**83 and 40 POWER ASTRONOMICAL SCOPE**

Very similar to scope above but has 83X & 40X eyepieces with a 40MM objective lens. Also has a variable eyepiece of 25-30X. Steel tube body is 26" long. Included with scope is sunglass, a pair of prisms (1 erecting), a hardwood tripod and a fitted case.

**25 POWER x 30 MM TELESCOPE & TRIPOD**

Nowhere but at PALLEY'S can you find a buy like this! Here's a scope, complete with a sturdy metal tripod, that you can have a lot of fun with. Use it to spot hits on the target, for star-gazing, interesting views at the beach, etc. Made of aluminum and chrome plated brass. Field: 62 ft. at 1000 yds. 1-3/16" dia. lens.

**AMAZING NEW DESIGN  
60 to 600 POWER—2 EYEPIECE  
SPECIAL MICROSCOPE**

**HAS 60-120-200-300-400 & 600  
POWER MAGNIFICATION WITH ILLUMINATED  
SUB-STAGE MIRROR and TRIPLE TURRET**

Now you can change magnification with a simple shift of the dual eyepiece turret. No loss of focus—No re-adjustments—Your choice of 6X or 20X eyepiece with any of the objective lenses instantly!

**INCLUDES THESE ADDED FEATURES:**

- Has triple revolving turret with 10X, 20X, & 30X precision ground and polished lenses.
- Dual eyepiece turret with 6X and 20X lenses—New Patented Sub-Stage with a built-in, battery operated light, no external light source needed—A large sub-stage mirror with revolving variable iris—All-metal precision made body, inclines through 90°—Special fitted hardwood case and glass slides. Ideal Xmas Gift!

**NEWLY DEVELOPED IMPORT**

**SPECIAL \$1695**

**AMAZING NEW DESIGN  
60 to 450 POWER MICROSCOPE**

Take advantage of our tremendous foreign purchase. Ideal for use by the Amateur, Scientist, Student.

- 1—Has Triple Revolving Turret with 10X, 20X and 30X precision ground and polished lenses.
- 2—Two interchangeable eyepieces of 6X and 15X with precision ground and polished lenses.
- 3—SIX MAGNIFICATIONS for all purposes—60X, 120X, 150X, 180X, 300X and 450X.
- 4—New Patented Sub-Stage with SELF-CONTAINED LIGHT. No external light source is needed.
- 5—Large sub-stage mirror for use with external light when desirable.
- 6—All Metal Body—precision made. Inclines through 90 degrees.
- 7—Special hardwood case and 3 glass slides included.

**FREE WITH MICROSCOPE**  
This sight piece dissecting set contains Scalpel, Tweezers, etc. Free with microscope above.

**SAVE PALLEY 100-200-300X BUY NOW  
MICROSCOPE**

Perfect GIFT for STUDENT—AMATEUR SCIENTIST

A triple revolving, objective lens turret allows selection of 100, 200 or 300 POWER magnification. Has fine, ground and polished lenses and ALL METAL construction. This instrument is NOT A TOY! Right or left hand rack & pinions make smooth, precise adjustments. Body inclines 90°.

**WAS 1295 NOW 795**

**NEW ILLUMINATED MAGNIFIER**

Provides 5 POWER magnification with brilliant illumination for precise inspection of any substance, material or specimen. The head contains a 50 MM lens and has internal calibrated scale to show relative size of subject. Body is nickel plated metal and holds 2 flashlight batteries. Head is molded bakelite. Takes a regular flashlight bulb.

**1295 VALUE ONLY 495**

**LARGEST FIRM OF ITS TYPE IN THE WORLD**

### NEW NAVY 6 POWER SCOPE

A remarkable Navy Surplus Bargain. Originally designed as an Azimuth Telescope which mounted above the Gyro Compass. Has approx. 6 POWER. Finest Quality fully coated lenses. Crosshair reticle. Adjustable eyepiece. A Sun filter and a Haze filter. New cond. Cost Gov't \$150.00

**2495**

### NEW COMBINATION 4-6 or 10X EYE LOUPE

The newest in Eye Loupes. A 2-piece, 10X precision unit with a 6X lens that screws on to a 4X base lens. Can be used as a 4X, 6X or 10X magnifier.

**125**

### 10 POWER NAVY SPYGLASS

450° VAL.

Here's a real optical bargain. Manufactured by Wollensak for the U.S. Navy, Bureau of Ships. A 10 POWER 'Officer of the Deck' Spyglass. Has top quality, fully coated, precision ground lenses. Adjustable eyepiece. Overall lght., 22 3/4". Comes in a hardwood case with brass hinges and locks.

**2275**

SPYGLASS—Same as above but ALL NEW—2995

### SAVE ON GOV'T SURPLUS LENSES

#### NEW EASTMAN 178MM AERO EKTAR f/2.5 CAMERA LENS WITH 7" FOCAL LGTH.

Originally designed for use on the K-21 and K-24 Aerial Cameras. A genuine EASTMAN AERO EKTAR, 178mm lens. Has f-stops from 2.5 to 16. Focal length is 7". This amazing lens is NEW—in original con. Guaranteed perfect condition. Excellent for Color or Black & White. Exceptionally fine for night work or in poor light conditions. Comes with 2 filters—1 Polarized for haze, etc., and one yellow. Also included is a filter adapter, a lens heater for high altitudes and a lens dust cap. Can be adapted to 35mm or Speed Graphic Cameras as a telephoto lens.

**6950**

**SPEED GRAPHIC ADAPTERS for above lens—**  
Includes Lens Board, Extension Tube and Bed Support.

2-1/4 x 3-1/4" **2175** 3-1/4 x 4-1/4" **1875**  
4 x 5" **1425**

**35 MM ADAPTERS FOR ABOVE LENS—**  
Complete—no other parts to buy. Will focus from 8 ft. to infinity—setting marked on the mount.

LEICA—CONTAX \$8.50—EXACTA... **8950**

CONTAX 2A... \$109.50 HASSALBAD... \$139.50

#### NEW 9" NAVY PROJECTOR LENS

Originally used as a Motion Picture Projector Lens. Contains the very finest coated, optical lens in a precision machined, stainless steel barrel. Has a 9" focal length. Lens diameter is 1 1/2". Ideal for use on a 35mm Slide Projector or for larger 2 1/4" x 2 1/4" to 4" x 5" transparencies.

**1595**

#### MICROSCOPE SUB-STAGE CONDENSER

Made by Bausch & Lomb. Contains two precision, optical lenses that alone are worth much more than this low price. Objective lens is an Abbe 1.25 N.A. Has an iris diaphragm. Adaptable to use in photomicrography or as reduction lens.

**4500 VAL. ONLY 1250**

#### 10" f/4.5 EYEMAX TELEPHOTO LENS

Made by Bell & Howell for the Eymo Camera but easily adapted to any single-lens camera with a 25mm (or larger) lens diameter. Has f-stops from 4.5 to 22. Focal length is 10" (254mm). Makes a terrific telephoto lens for all cameras up to 5" x 7" size. Overall length 10". Comes with built-in sunshade. ALL NEW! Guaranteed perfect!

**6750**

#### 4 SPEED BARBECUE and HOBBY MOTOR

A rugged, precision built electric motor—uses 110 Volt, 60 cycle current. Originally built for the Navy—NOW converted for YOU! Has four take-off shafts for different speeds of 5, 25, 150 and 4000 RPM. A \$35.00 Value

**895**

**ORDER FROM THIS AD—Pay by Money Order or Check. P.O.s accepted from well rated D&B firms. 1/2 deposit with all C.O.D.s. Prices are F.O.B. our warehouse in Los Angeles, California**

**Palley's** 2263 E. VERNON AVE. DEPT. N-1 LOS ANGELES 58, CALIF.

## OCEANOGRAPHY

Whole Sky Pictured  
Using Special Camera

See Front Cover

➤ A SPECIAL CAMERA that photographs the entire sky, the horizon and the sea or land surface to 30 degrees below the horizon reflected in a spherical mirror has been developed by Dr. William S. von Arx of the Woods Hole Oceanographic Institution, Woods Hole, Mass.

A still view taken with the camera is shown in the photograph on the cover of this week's SCIENCE NEWS LETTER. Besides the entire sky, the Light House on Nobska Point, Woods Hole, Mass., and the waters of Vineyard Sound and Woods Hole harbor on both sides of the point are visible.

The reflecting field compressor is a parabolic mirror 16 inches in diameter, mounted with vertex upward. The camera is a modified K-100, 16 mm time-lapse camera, triggered automatically at sunrise to expose one frame each minute until sunset, when it switches off automatically.

The photographic weather station, installed on the bridge of the Institution's R. V. Crawford, uses about 100 feet of film per week. Also photographed simultaneously with the state of the sky and the sea are instruments recording the temperature and humidity of the air, barometric pressure, time and the ship's heading. From these records, scientists can determine the cloudiness of the sky, the state of the sea, then correlate this information with other scientific data.

Recent research work with the instrument was performed under contract with the U. S. Weather Bureau and the Office of Naval Research for the National Hurricane Research Program.

Science News Letter, January 19, 1957

## AGRICULTURE

Curtains for Brooders  
Halve Operating Costs

➤ PUTTING SIDE CURTAINS on chick brooders heated by infrared light cuts operating costs in half, scientists at the U.S. Department of Agriculture and at Purdue University Agricultural Experiment Station have found.

The saving is about two cents a chick, John G. Taylor and Ernest A. Johnson, who conducted the experiments at Lafayette, Ind., reported.

No great differences in gains and feed-efficiencies between chicks reared in brooders with and without curtains were found in tests during the normal 11-week brooding period. However, brooders without side curtains used almost 93% more electrical energy than those with curtains.

White vinyl plastic, clear vinyl plastic and aluminum sheeting, they found, were equally effective in reducing operating costs.

Science News Letter, January 19, 1957