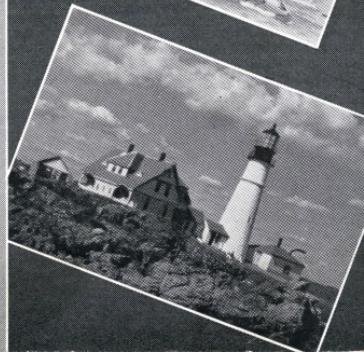
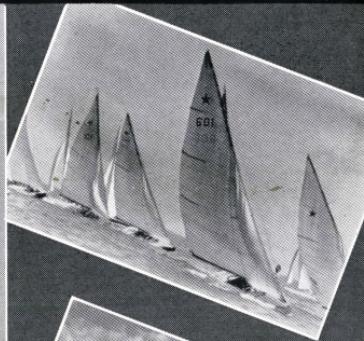
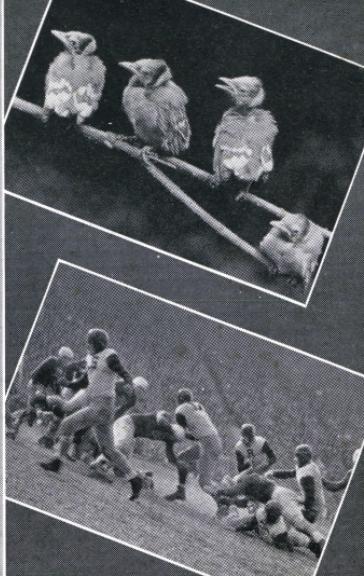
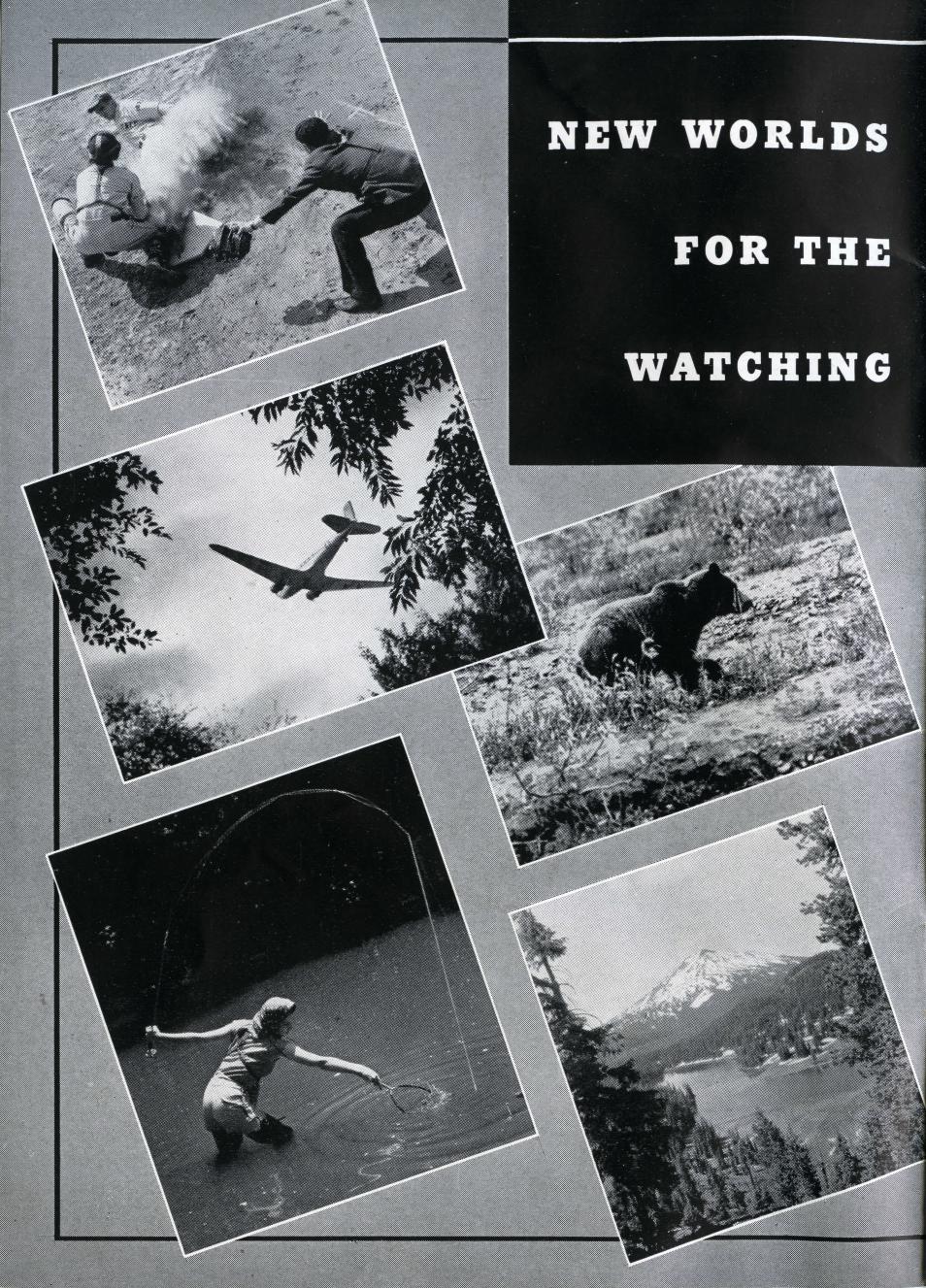


THE WORLD'S  
BEFORE YOUR  
EYES WITH...

**WOLLENSAK**





NEW WORLDS  
FOR THE  
WATCHING

*with*

# WOLLENSAK OPTICAL INSTRUMENTS

For more than 40 years the name of Wollensak has meant to experts and professionals a uniformly high excellence in optical products. Note, for one example, the large number of internationally famous camera manufacturers who equip their cameras with Wollensak lenses exclusively.

World-wide growth of Wollensak sales volume has permitted the gradual inclusion of more and more refinements. Every Wollensak product gives you a quality which, dollar for dollar, we do not believe can be duplicated anywhere—Choose a Wollensak and buy with confidence.

Every item in this catalog is guaranteed to satisfy your every expectation, or you may return it for full refund.



*Catalog No. 17*

**WOLLENSAK OPTICAL COMPANY, ROCHESTER, N. Y.**

# POINTERS

## ON SELLING

### DISTANCE GLASSES



There are four general types of distance glasses—telescopes, field glasses, binoculars and telescopic spectacles (the Allscope). All four types have certain advantages. You should choose the *type* of glass best fitted for the use you intend to give it.



**THE ALLSCOPE.** The Allscope is really a field or opera glass that is mounted on a spectacle type of frame for convenience in holding the instrument to the face. *Proper uses:* Theatre, outdoor and indoor sports, nature

study. *Advantages:* Both hands free, fits in pocket, inexpensive—

See page 9.

### THE FIELD GLASS OR OPERA GLASS

A Galilean type of field glass which is really two telescopes joined into one unit for direct vision through the optical system. *Proper uses:* Nature study, theatre, boxing, etc. *Ad-*

*vantages:* Good magnification, light weight, easy to focus.

Inexpensive, they have a smaller field of view than a similar-power binocular

and are non-stereoscopic. Better for viewing

single objects than groups of objects. See page 8.



**THE PRISM BINOCULAR.** The objective lenses in a glass of this construction are set wider apart than the eyes themselves. By the aid of the prisms which reflect the path of light to the pupil of the eye, this wide separation creates a wider field of view and produces a stereoscopic effect that is not obtainable with the ordinary Galilean type of field glass. *Proper uses:* All outdoor sports, including large groups; viewing distant scenes on land or water. *Advantages:* Wider field of view and brighter lighting than a field glass; much better perspective; sharper detail; power equal to comparable telescope without great bulk or length; ample magnification for virtually every need. These advantages more than justify its higher cost and slightly greater weight than a Field Glass. Thus your glass for general purposes should be the modern 8 x 30 Wollensak prism binocular. See pages 6 and 7.



**THE TELESCOPE.** A collapsible single-tube instrument for use with one eye only. *Proper uses:* For viewing almost any distant object on land, sea or in the sky. *Advantages:* Very low cost for any given power and quality; usable in powers far beyond the comfortable range of field glasses and binoculars (such as 10 magnifications up to 68 or more). In powers of 10 to 20 magnifications, a rest or support is often needed; in higher powers, virtually always. See pages 10-15.

**Note:** All Wollensak magnifications are based on *diameters*—the accepted scientific method. Thus a Wollensak magnification of ten *diameters* equals 100 *areas* magnification. Sometimes, the “area” method is quoted on cheap instruments to make them appear more powerful than they really are. All Wollensak instruments are guaranteed to give full indicated magnifying power.



For vacations, travel, hunting and fishing trips, boating, motoring and all outdoor activities, nothing adds so much enjoyment as a good binocular. And until you have a good binocular of your own, you will never realize how much you have been missing.

The beautiful Wollensak Prism Binocular is guaranteed full 8 power, the highest power practical to use without support. A large, clear field of view and stereoscopic depth that makes objects stand out in relief, in true perspective and striking detail—these are characteristics of the costly lens system built into the Wollensak. Designed for ease and speed in handling, the modern Wollensak with its modern streamlined shoulders snuggles comfort-



*Stiff Sole Leather Carrying Case  
With Shoulder Strap and Hand Strap*

# The WOLLENSAK PRISM BINOCULAR *Eight Power*

ably into the palm of the hand. Of great light gathering power, the objective lenses produce brilliant images and provide good vision in dusk or haze. The achromatic lenses are free of blurring "rainbow" fringes.

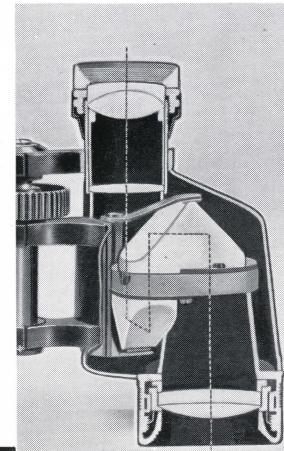
The center hinge enables you to bring the Wollensak's two exit pupils exactly in front of your own two pupils. The right eyepiece mount is adjustable individually to compensate for any variation in sight, thus assuring sharpest possible vision to both eyes. For easy focusing, the Wollensak Prism Binocular has a generous size

knurled focusing wheel that is quickly operated by one finger. The Wollensak Binocular is 100% American made. Therefore, in buying a Wollensak *all* the price you pay goes into optical excellence and dependable service. You cannot judge a glass by looking *at* it; look *through* it. Look *through* a Wollensak, and any other glass of comparable price. You will find the Wollensak absolutely unapproachable for clear, sharp, brilliant vision.

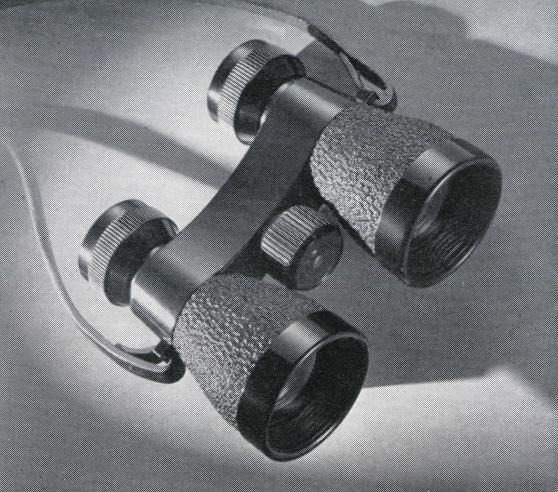
**Specifications:** Magnification, 8 power; diam. of objectives, 30 mm.; eyepiece, 17 mm.; exit pupil, 3.5 mm.; relative brightness, 12.3; angular field 7° 44'; field of view at 1000 yards, 135 yards; eye width (pupillary adjustment), 48 mm. to 72 mm.; length closed, 4 1/4"; extended 4 5/8"; weight, 18 oz.

Special, Flat Eyepiece Cups for eye-glass wearers. Rubber Eyepiece Cups exclude wind and sidelight.

*Cutaway view of Wollensak Prism Binocular showing path of light through optical system and rigid mounting of prisms for permanent alignment.*



# The RAMBLER FOR SPORTS AND BIRD STUDY



While no field glass can take the place of the Wollensak Prism Binocular, you will find the Rambler a highly desirable companion during your rambles in nature study, at all outdoor sports, like football, baseball, racing, motoring, boating, and at indoor events like boxing, theatre and the like.

The Rambler magnifies objects four diameters; boxers 60 feet away, for example, seem only 15 feet distant. Its unusually large object lenses yield a brilliant image; fine optics provide an exceptionally wide field of view. No shifting of the glass to follow ordinary movements of the object.



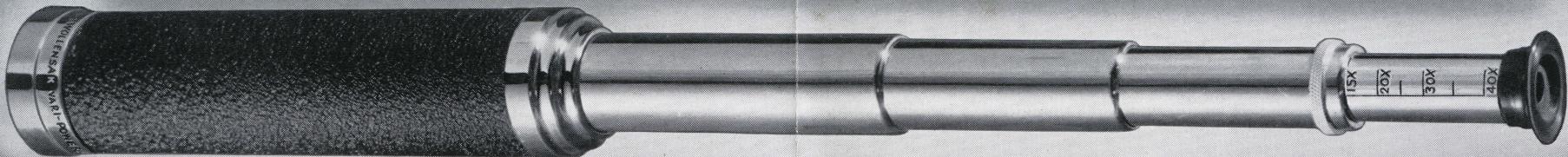
**Specifications:** Magnification, 4 power; diam. of objectives, 33 mm.; field of view, 85 yards at 1000 yards; interpupillary distance, 63 mm.; height collapsed,  $3\frac{3}{8}$ "; extended,  $3\frac{9}{16}$ "; width,  $4\frac{3}{16}$ "; weight, 8 oz. Finished in rich black lacquer and vulcanized rubber covering of deep Morocco grain. Center screw focusing. Supplied with neck strap and genuine heavy sole leather case.

# FOR SPORTS . . . THE ALLSCOPE

Carry your Allscope to every sporting event. Have it in your pocket wherever you go. While remaining in your seat you can be close to first base or the goal posts, in the air with a ski jumper, or the top floor with the rescuing firemen. Seeing every exciting move magnified and clear—events that the ordinary spectator never sees at all. With an Allscope your hands are always free.

The temples are flexible for easy fitting over the ears. You readily adjust the nosepiece and pupillary distance to fit your own preferences. For comfort, the weight is light. It is inexpensive, easy to carry. Made in two models. Model A, 2 power; and Model B,  $3\frac{1}{4}$  power, each with genuine leather case.





# THE WOLLENSAK VARI-POWER

## SEVERAL TELESCOPES IN ONE

Everyday, there are occasions when you wish you had a Wollensak Vari-Power Telescope—out hunting, motoring, fishing, camping, yacht racing, traveling.

Among manufacturers of moderately priced telescopes today, *Wollensak of America* stands out as the leader in quality. This fact is indisputably recognized in the optical world.

All Wollensak Vari-Power Telescopes appear like the illustration crossing these two pages. The five models vary in size, power and in number of draw-tubes.

In the following table, 5x20 means that the lowest power is 5, the highest 20. You can get other powers between 5 and 20 by drawing the graduated power (smallest) tube in or out.

Power	Diameter Objective Lens	Length Extended	Length Closed	No. of Draw Tubes†	Width of View at 1000 yds.	Weight
5x20	7/8"	19 1/4"	7 1/2"	2	\$50' to †180'	11 oz.
10x30	1 1/4"	20 1/4"	8 1/4"	2	\$44' to †100'	16 oz.
15x40*	1 15/16"	26 3/4"	8 3/2"	3	\$31' to †79'	20 oz.
20x50	1 1/8"	31 1/2"	9"	4	\$25' to †66'	31 oz.

\*Pictured above.

Case of cavalry-saddle tan cowhide included.

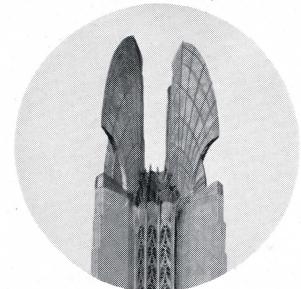
†Not including power tube.

§Using maximum power.      †Using minimum power.

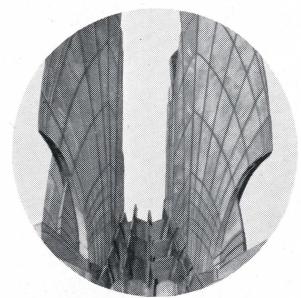
Only a Wollensak  
Has these Six  
Essential Features



View seen with the naked eye



As seen with 10 power telescope



As seen with 20 power telescope



As customary with the standard type, these Achromatic Telescopes afford one magnification. They have a wide field of view with crispy sharpness, free from objectionable color fringes and distortion usually found in cheaper telescopes.

Chrome plated draw tubes mounted in felt assure permanently smooth action for quick, accurate focusing. Supplied with leather case, the Wollensak Standard Telescope is available in six sizes.

Power	Diameter of Objective	Length Extended	Length Closed	Draw Tubes	Field of View at 1000 Yds.	Weight
10 X	$7\frac{7}{8}$ "	$14\frac{3}{4}$ "	$5\frac{5}{8}$ "	3	33 yds.	7 oz.
15 X	$11\frac{1}{4}$ "	$18\frac{5}{8}$ "	$6\frac{1}{2}$ "	3	25 yds.	12 oz.
20 X	$1\frac{7}{8}$ "	$24\frac{5}{8}$ "	$8\frac{1}{2}$ "	3	21 yds.	17 oz.
25 X	$1\frac{11}{16}$ "	$30\frac{3}{8}$ "	$9\frac{1}{2}$ "	4	17 yds.	26 oz.
35 X	$1\frac{15}{16}$ "	$38\frac{1}{2}$ "	$10\frac{7}{8}$ "	4	15 yds.	40 oz.
45 X	$2\frac{1}{4}$ "	$46\frac{5}{8}$ "	$12\frac{1}{2}$ "	4	13 yds.	65 oz.

Celestial eyepiece for 45 X Telescope increases magnification to 68 X.

## WOLLENSAK

# EXPLORER

### 8 POWER

An inexpensive but powerful little achromatic telescope popular everywhere on hiking, camping, fishing and hunting trips. Ideal for examining inaccessible peaks, ledges, rock formations or botanical growths; picking camp sites. For getting close-ups of strange birds, or spotting one's game at a distance while hunting or fishing.

Furnished in genuine leather case. Diameter Objective Lens,  $1\frac{3}{16}$  inches; field of view at 1000 yards, 50 yards. Length,  $4\frac{3}{4}$  inches; open,  $9\frac{1}{4}$  inches; weight, 6 oz. Genuine vulcanized fibre body of deep Morocco grain and chrome-plated draw tubes.



## POCKESCOPE SENIOR

A handy little six power telescope not much larger than a jack knife. It is easily carried in the pocket and always ready for the unexpected emergency.

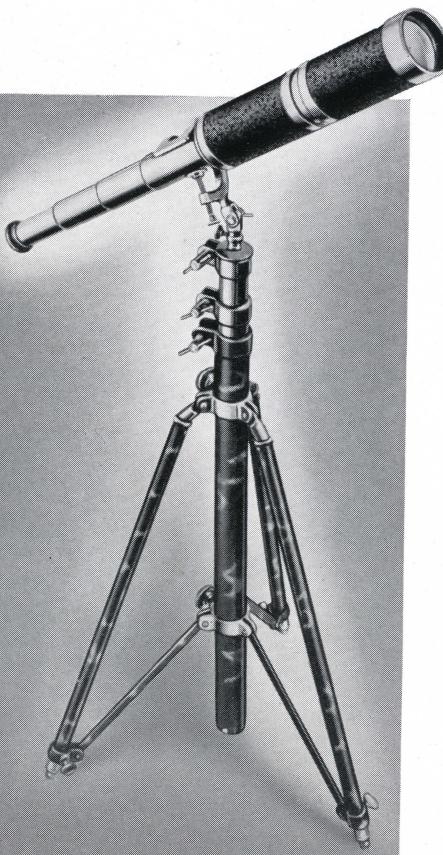
Achromatic objective lens, one inch diameter. Black crystal lacquered barrel and chrome plated draw tube. Furnished in genuine leather case. The Senior Pockescope is 6 power,  $3\frac{1}{4}$  inches long;  $3\frac{9}{16}$  inches when extended.



## ASTRONOMICAL

# TELESCOPE

An Absorbing Hobby Ranging from Educational Fun to Profound Study



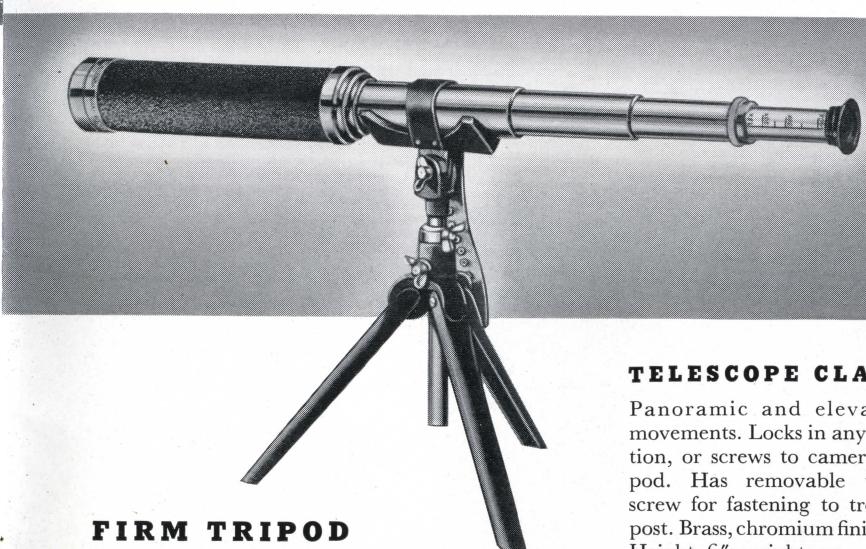
*Crater-marked surface of moon from photograph by Mt. Wilson Observatory, Carnegie Institution of Washington.*

No human experience so clearly demonstrates the marvelous order and magnitude of the universe as does a study of the heavens. This never-ending glory is displayed to laymen as well as scientists. Equip your home observatory with a Wollensak 45 power Telescope raised to 68 power with the Wollensak Celestial Eyepiece which is interchangeable with the regular eyepiece. Has sun glass for solar observation.

**TRIPOD** High-level type, adjustable in height from 41 inches to 7 feet. Measures only 25 inches when collapsed. Weight, 10 lbs. Made of rigid telescoping steel tubing with all adjustable members securely clamped to assure firm support. Oxidized copper and chromium finish.

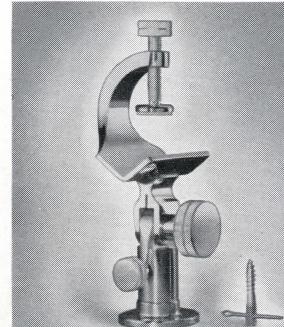
## VARI-POWER SPOTTING SCOPE

Identical in characteristics with the Vari-Power Telescopes, described on pages 10 and 11, this Wollensak Scope has magnifications varying from  $15\times$  to  $40\times$ . For ordinary use you'll probably set it at  $20\times$ . On dull days or for mirage you may prefer 15 power—more light, less "shimmy." On a 200-yard range you may use 35 or 40 power. At 20 power the Scope shows a .22 bullet hole sharply at 100 yards; with 40 power at 200 yards.



## FIRM TRIPOD

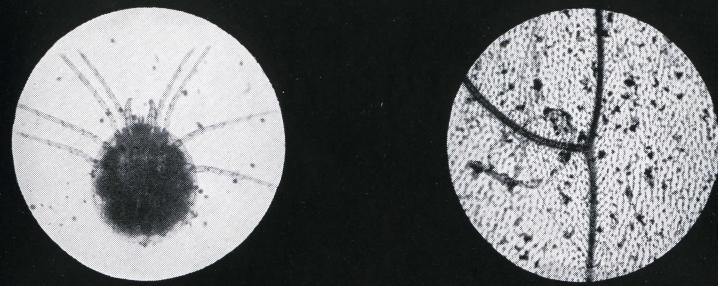
This low-level precision tripod quickly converts any good telescope of 20 power or more into a spotting scope: Its portability makes it widely used for telescopic observations. Of aluminum alloy, weighs only 21 oz. Height to 14". Ingenious strap locking device . . . Genuine leather case.



## TELESCOPE CLAMP

Panoramic and elevating movements. Locks in any position, or screws to camera tripod. Has removable wood screw for fastening to tree or post. Brass, chromium finished. Height, 6"; weight, 12 ounces.

**CRYSTAL CLEAR COLOR-FREE IMAGES  
WITH WOLLENSAK MICROSCOPES**



Magically, under your microscope, commonplace things of every day life—floating dust specks, pollen, thistle down, seeds, grasses, leaves—are revealed in startling beauty and oddity. The insect world, too, teams with strange creatures eating, struggling, breeding, dying.

In a Wollensak, the small lens at the lower end gives the initial magnification. The image is then remagnified by the eyepiece or ocular lens at the upper end. Only with an optical system of this type is such high magnification possible. Crystal-clear flawless lenses are mounted with extreme precision to give a sharp, clear, well-defined, color-free image.

To assure these desirable qualities we grind and polish our own lenses. We mount and test them in our own carefully designed microscope stands, thus insuring complete satisfaction.

In a Wollensak, magnification is measured in the generally accepted terms of "Diameters" and "Powers" as used by scientific microscopists. An object  $1/100$  of an inch magnified to one inch represents a magnification of 100 diameters, 100 powers or  $100\times$ .

Because Wollensak design and manufacture their own instruments *complete* including the lens, Wollensak Microscopes offer values decidedly higher than the modest prices indicate. The exceptional performance range and superbly clear detailed images possible with a Wollensak will become more apparent with each advancing step in your investigations.

# 425 POWER MICROSCOPE

This Microscope, the highest power in the Wollensak line, is sufficiently powerful for blood examination, biological field work, and for general run work in industrial, college and high school laboratories. Makes sharply detailed photomicrographs.

Double, achromatic objective lenses, photographically corrected.

Magnifications,  $100\times$  to  $425\times$ , graduated in steps of  $25\times$ .

Removable concave mirror.

Rack and pinion focusing.

Adjustable stand, tilts to all positions.

Detachable base.

Low Power Eyepiece can be supplied to reduce power to  $65\times$ .

Stage  $1\frac{3}{4}'' \times 2\frac{7}{16}''$ .  
Height collapsed  $7''$ .

Height fully extended  $11\frac{3}{4}''$ .

Chromium plate and black lacquer finish.

One pair of tweezers.

Two plain glass slides.

One prepared slide.

Lacquered wood case.

# 150 POWER MICROSCOPE

For the student who wishes to carry on investigations begun in the school laboratory, this Wollensak Microscope is ideal. Capable of very fine work. Suitable for photomicrographs. The same precise optics and focusing system as the higher power model.

Single, achromatic objective lens, photographically corrected.

Magnifications,  $70\times$  to  $150\times$ , graduated in steps of  $25\times$ .

Removable concave mirror.

Rack and pinion focusing.

Stand tilts to all positions.

Detachable base.

Stage  $1\frac{3}{4}'' \times 2\frac{7}{16}''$ .

Height collapsed  $7''$ .

Height fully extended  $11\frac{3}{4}''$ .

Chrome and black lacquer finish.

One pair of tweezers.

Two plain glass slides.

One prepared slide.

Lacquered wood case.

High Power Eyepiece can be supplied to increase power to  $225\times$ .

AT LEFT: Either microscope instantly detachable from base for examining surface of bulky objects.

AT RIGHT: Base with the microscope detached.



## WOLLENSAK TRIPOD

# MAGNIFIER

**DIAMETER OF LENS: 1 INCH**

A  $7\frac{1}{2}$  power, dual lens magnifier, more powerful than the ordinary magnifying glass for home, office, factory and field use. It is indispensable in many industries for close examination of fabrics, paper, gems, engraving, printing and hundreds of other products. The handiest magnifier imaginable, because of its adjustable focusing support, for small dissections, finger-print work and the examination of coins, stamps, maps and other fine detail that would escape the unaided eye.

**READING GLASSES . . .** Should be in every home and office to prevent eyestrain in fine reading. Make objects appear larger and much clearer. Fine lenses, ground and polished and mounted in chromium frame with genuine vulcanized fibre handle. An unusual and practical gift. Available in following lens diameters:  $2\frac{1}{2}$  inch; 3 inch;  $3\frac{1}{2}$  inch; 4 inch and 5 inch.

**REDUCING GLASS . . .** Every advertising department, artist, engraver, printer and lithographer should have one of these biconcave lenses to show how photos and drawings will appear in reduced size for printing reproduction. Frame and handle same as Reading Glass. Diameter lens, 3 inch.





## OTHER WOLLENSAK PRODUCTS

PHOTOGRAPHIC SHUTTERS

PHOTOGRAPHIC LENSES

PROJECTION LENSES

ENLARGING LENSES

CINÉ ACCESSORIES

CINÉ LENSES

\*

WRITE FOR SPECIAL CATALOGS