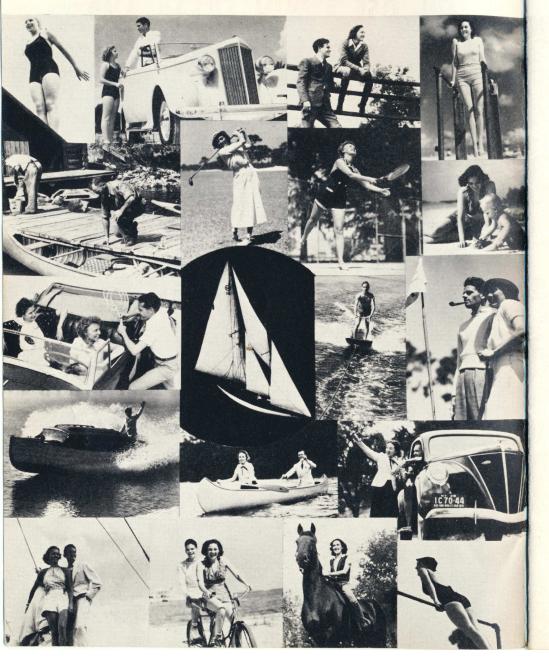


TAKE A GLASS ON YOUR TRIP . . .



CHOOSE A WOLLENSAK AND BUY WITH CONFIDENCE

EVERY item in this Catalog is guaranteed to satisfy your expectation, and to please you fully, or you may return it for full refund.

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

Worldwide growth of Wollensak sales volume has permitted the gradual inclusion of more and more refinements, until today every Wollensak product provides a quality which, dollar for dollar, we do not believe can be duplicated anywhere.



CATALOG NO. 16

WOLLENSAK OPTICAL COMPANY

ROCHESTER, N. Y., U. S. A.

HOW TO SELECT A DISTANCE GLASS

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 that you intend to give it.



THE ALLSCOPE (page 9) is practically a pair of low power telescopes mounted on a spectacle type of frame. *Proper uses:* Theatre, baseball, football, outdoor and indoor sports in general; nature study. *Advantages:* Leaves both hands free; easy to carry in pocket; inexpensive. Magnification, while not high

enough for unusually long distances, is generously ample for its stated uses.

THE FIELD GLASS or OPERA GLASS

(pages 8, 10) is a pair of small telescopes joined into a unit. *Proper uses:* Nature study, theatre, boxing, etc.; you see major portion of stage or arena; an inexpensive substitute for binoculars. *Advantages:* Good magnification;



light weight; easy to focus. Being inexpensive, these have a smaller field of view than a binocular of similar power, and are non-stereoscopic, hence better for viewing a single object than an entire group of objects at one time.

NOTE: All Wollensak magnifications are based on diameters—the accepted scientific method. Thus, a Wollensak magnification of ten diameters is equal to a magnification of 100 areas. The "area" method is sometimes quoted on cheap instruments to make them appear, improperly, more powerful than they really are. Also, all Wollensak instruments are guaranteed to give the full power (magnification) indicated by their power rating.

HOW TO SELECT A DISTANCE GLASS (CONT'D)



THE PRISM BINOCULAR (pages 6, 7) has its objective (largest) lenses set wider apart than the eyes themselves; prisms direct the light rays into the pupils. If possible, your glass for general use should be a binocular. *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; public respect universally given to the user of a binocular. These advantages more than justify its higher cost and slightly greater weight than a Field Glass.

THE TELESCOPE (pages 11 to 15) is 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 indeed 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.

Understand the above facts, and you will be able to select intelligently the type of glass best fitted to the use that you have in mind.

. 5 .

. 4 .

THE WOLLENSAK BINOCULAR



distant scenes of the utmost charm hour after hour. A binocular is the instantly recognized mark of the experienced traveler. And until you have a good binocular of your own, you will never realize how much pleasure previously escaped you.

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, are characteristics of the costly lens system



built into the Wollensak. Designed for ease and speed in handling, the Wollensak with its modern, streamlined shoulders snuggles comfortably into the palm of the hand.

The achromatic lenses are free of the "rainbow" fringes that surround and blur many objects viewed through

lower priced glasses. The objective lenses are full 30 mm diameter, of great light-gathering power, to produce brilliant images and to provide good vision in dusk or haze. Since many people see unequally out of their two eyes, the Wollensak's right eye-piece has an adjustable mount, to render sharpest possible vision to both eyes.





The center hinge enables you to bring the Wollensak's two exit pupils exactly in front of your own two pupils. For easy focusing, the Wollensak has a large knurled focusing wheel, operable by one finger.

Being 100% American made, the Wollensak has no

heavy import tax concealed in its price. In buying a Wollensak, the price you pay all goes into optical excellence and dependable service. Imported binoculars as fine as the Wollensak are quoted at practically double the Wollensak price.





You cannot judge a glass by looking at it; look through it and you will not be deceived by opera glasses of low actual power, small field of vision but made to look massive, like real binoculars. Look through a Wollensak and any other glass of comparable price, and you will find the Wollensak absolutely unapproachable in your only reason for wanting a glass at all—clear, sharp, brilliant vision.

In a modern Flexible Sole Leather Carrying Case with Shoulder Strap and Neck Strap, as shown on back cover. Stiff Sole Leather Case at slight extra cost.

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, 4½″; extended, 4½″; weight, 18 oz. Guaranteed moistureproof and dustproof in any climate.

Special, Flat Eye-Piece Caps for eye-glass wearers.

Rubber Eye-Piece Cups to exclude wind and sidelight.

FOR SPORTS AND BIRD STUDY



THE RAMBLER

WHILE no field glass can take the place of the Wollensak Binocular, you will find this new 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 distant only 15 feet. Its unusually large object lenses yield a brilliant image; fine optics provide an

exceptionally wide field of view, so you will not have to shift the glass to follow ordinary movements of the object.

Specifications: Magnification, 4 power; diam. of Objectives, 33 mm; field of view, 85 yds. at 1000 yds; interpupillary dist., 63 mm; height collapsed, 3\%"; extended, 3\%"; width, 4\%\%"; 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.



SEE EVERY PLAY WITH THE ALLSCOPE

CARRY your Allscope along and you can, while remaining in your seat, 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—moves that the

ordinary spectator never sees at all.

The temples are flexible, for easy fitting over the ears. You readily adjust the nosepiece and pupillary distance to fit your own preferences. Weight is kept light, for comfort.

Made in two models: Model A, 2 power, and Model B, 3¹/₄ power. Supplied in genuine leather case.



. 8 .

GAME OR ADVENTURE . .



INEXPENSIVE, small, lightin weight, here's a glass that cuts off five-sixths of any distance and fits the pocket in comfort. Many uses.

BIASCOPE

WHEN you top the crest of a ridge, or skirt the rim of a shady ravine, you'll enjoy your trusty little 6 power Biascope to search the shadows for a glimpse of wild life.

While the field of view is not as large or as bright as that of the Rambler, no inexpensive glass

He won't let you come near. Bring him up with your glass.

can quite take the place of the Biascope to slip into your pocket for the hunting, fishing, motoring, sailing or hiking trip.

Specifications: Magnification, 6 power; diam. of Objectives, 25 mm; field of view at 1000 yards, 52 yards; length closed, $3\frac{3}{8}$ "; extended, $3\frac{1}{2}$ "; width, $3\frac{3}{4}$ "; weight, $4\frac{1}{2}$ oz. One finger quick focusing device. Supplied in genuine leather case.

COMMAND THE MAGIC OF A



WOLLENSAK VARI-POWER TELESCOPE

Eye View

EACH Wollensak Vari-Power Telescope yields several different magnifying powers; thus the 5x20 model gives 5, 10, 15 or 20 magnifications. ONLY A WOLLENSAK has these 6 essential features:

- 1. Gives images equally sharp and clear at all powers.
- 2. Power tube graduated in steps of 5 magnifications, permitting instant automatic fixing of selected power—no guesswork.
- 3. Knurled ring on the eye-piece draw-tube; a fine grip for focusing easily and fast.
- 4. Will not loosen nor wobble at the joints; long-lasting, dust-proof, moisture-proof.

 Seen with 15 powers.
- 5. Chrome plated tubes, rust-proof and attractive.
- 6. Large tube surfaced with black leather appearing Vulcanite as used on the world's costliest binoculars, yielding superbly handsome appearance.





Same view as on preceding page, seen with 20 powers.

SEVERAL ESCOPES IN ON

TELESCOPES IN ONE

WOLLENSAK VARI-POWER

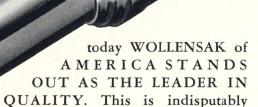
YOU are out hunting—no game in sight. To sweep the

hillsides with your eyes you set your Wollensak Vari-Power Telescope at its lowest power; that gives you a wide field of view. Ha! Your eye catches movement. A deer? Or what? Instantly you slide the eyepiece tube out for higher magnification. Now you cover less area, but every object seen appears many times larger. Yes! It is a deer—a handsome buck! Without your Wollensak Vari-Power you might never have landed him.

So in many other cases—yacht races, cattle pastures, fishing, c a m p i n g,

motoring,
travel. Occasions spring up
every day when you
wish you had a Wollensak
Vari-Power. And be sure
yours really is a Wollensak, because among manufacturers of
moderately priced telescopes

IF YOUR TELESCOPE ISN'T A
REAL WOLLENSAK, LATER ON
YOU MAY WISH IT WERE.
OWN A WOLLENSAK
FROM THE
START...



recognized in the optical world.



Same view with 40 powers.

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

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

Power	Diameter of Objective Lens	Length Extended	Length Closed	No. of Draw Tubes†	Width of View at 1,000 yds. §	Weight
5X20	7/8"	191/4"	7½"	2	50' to 180'	II OZ.
10x30	I 1/4"	201/4"	81/4"	2	44' to 100'	16 oz.
15x40*	$I_{\frac{7}{16}}''$	263/4"	81/2"	3	31' to 79'	20 OZ.
20X50	I_{16}^{11}''	311/2"	9"	4	25' to 66'	31 oz.

*Pictured above.
†Not including power tube.

Case of cavalry-saddle tan cowhide included. §Using maximum power ‡Using minimum power.

EXPLORER
8 POWER

AN inexpensive but powerful little telescope popular every-

Imagine his beady eyes upon you as you trace his movements through your 8 power Wollensak Telescope,

while fishing, or spotting one's game at a distance while still-hunting. Furnished in genuine leather case. Diameter Objective Lens, ½ inch; field of view, at 1000 yards, 50 yards. Length, 4½ inches; open, 9¼ inches; weight, 6 oz. Genuine vulcanized fibre body and nickel-plated draw tubes.

where on hiking, camping, fishing

and hunting trips. Ideal for examining inaccessible peaks, ledges,

rock-formations or botanical

growths; picking camp-sites; get-

ting closeups of strange birds

POCKESCOPE

A real little telescope no longer than a jackknife but with surprising power. Easily carried in the pocket for the unexpected emergency.

Black lacquered barrel and nickel plated draw tube. Furnished in genuine leather case.

Junior, 3 power, $2\frac{5}{8}$ inches long; $3\frac{5}{16}$ inches extended.

Senior, 6 power, $3\frac{1}{4}$ inches long; $3\frac{9}{16}$ inches extended.

WITH THE MOON AND STARS

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 layman as well as scientist. Visit our own mountainous moon, ringed Saturn, 8-mooned Jupiter, other planets.

Equip your home observatory with a Wollensak 45 power Telescope raised to 68 power with the Wollensak Celestial Eyepiece which is interchangeable with 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.

Finished in oxidized copper and chromium.

Showing Wollensak Astronomical Telescope with Tripod extended to only 4 feet of its 7 foot maximum.



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VARI-POWER SPOTTING SCOPE

A BIG ADVANTAGE TO THE AMBITIOUS MARKSMAN

THIS Wollensak Spotting Scope is identical in its characteristics with the Vari-Power Telescopes described on pages 11, 12 and 13. We suggest you read those pages.

This one Scope has magnifications varying from 15 to 40. For ordinary use you'll probably set it at 20 power. 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; and at 200 yards with 40 power.



FIRM TRIPOD

This low-level, precision tripod quickly converts any good telescope of 20 power or more into a spotting scope. Widely used

for telescopic observations because of its portability. Of aluminum alloy, weighs only 21 oz. Panoramic and elevating lockable adjustments. Height adjustable to 14 inches. Ingenious strap locking device holds any telescope securely in position. In genuine leather case.

Panoramic and elevating movements. Can be locked in any position or screwed to camera tripod.

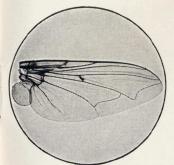
TELESCOPE CLAMP

Also furnished with removable wood screw for fastening to tree or post. Brass finished in chromium. Height, 6

inches; weight, 12 oz.

· 16 ·

EXPLORE NEW WORLDS



WOLLENSAK MICROSCOPE

MAGICALLY, when you look through your microscope, you enter a land most interesting and grotesque. There, the commonplace things of everyday life—floating dust-specks, pollen, thistledown, seeds, grasses, leaves—are revealed in startling beauty and oddity.

The insect world, too, teems with strange creatures busy eating, struggling, breeding, dying. A drop of ditch water, or a bit of pond vegetation, reveals a turmoil of battling, voracious microscopic life.

In a Wollensak, the small lens, at the lower end of the tube, gives the initial magnification of the object under examination. The image is then remagnified by the eyepiece or ocular lens at the upper end of the tube, producing a high magnification possible only in instruments with this type of optical system. While this sounds very simple, it nevertheless requires crystal-clear flawless lenses mounted with extreme precision to give a clear, well-defined color-free image.

We make sure of these highly desirable qualities in Wollensak instruments by grinding and polishing our own lenses; mounting and testing them in our own carefully designed microscope stands so that there will be no question of your satisfaction when you purchase a genuine Wollensak Microscope.

In a Wollensak, magnification is measured in the generally accepted terms of "Diameters" or "Powers" as used by scientific microscopists. For example, an object one one-hundredth of an inch in diameter, when magnified to one inch in diameter represents a magnification of 100 diameters, 100 powers, or 100×.

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As designers and manufacturers of their own instruments, lenses and all, Wollensak offers values decidedly higher than the moderate prices would seem to indicate. You'll be glad that you bought a Wollensak Microscope when your advancing problems of investigation show its exceptional range of performance and its superbly clear detailed images.



CRYSTAL CLEAR

WITH

THIS Microscope, the highest power in the Wollensak line, is sufficiently powerful for blood examination and for the general run of microscope work in industrial, college and high school laboratories. Widely used in

biological field work because of its powers and portability and excellent resolving power. Power range from $425 \times$ down to $100 \times$ with regular eyepiece, and as low as $65 \times$ with extra eyepiece. Because of its fine achromatic optics, it is capable of making sharply detailed photomicrographs, the

goal of every experienced microscopist. Microscope complete with full instructions.

425 POWER
MICROSCOPE



OUBLE, 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.

Stage I 11/16" x 21/4". Height collapsed 7".

Height fully extended 1134".

Chromium plate and black lacquer finish.

One pair of tweezers. Two plain glass slides. One prepared slide. Lacquered wood case.

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

COLOR-FREE IMAGES
WOLLENSAK MICROSCOPES



Base with microscope detached

FOR the student who wishes to carry on investigations begun in the school laboratory, this Wollensak Microscope is recommended. It has the precise optical and focusing system of the highest power model and is capable of very fine work. An extra eyepiece increases power to 225×. Detachable base permits placing microscope directly upon large objects for examination. Suitable for

photomicrographic work and furnished with complete instructions covering this absorbing field of microscopy.

150 POWER MICROSCOPE

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.

Adjustable stand, tilts to all positions.

Detachable base.

Stage $1\frac{7}{16}$ x 2".

Height collapsed 65%".

Height fully extended 111/8".

Chromium plate 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 ×. Case included.



ASVE YOUR EYES

Word has P

Word history

All ich the printed word has played in the listor; our nature, New to one, to a convergence of the printed word has played in the listor; our nature, New to one, to a convergence of the printed word has played in the listor; our nature, New to one, to a convergence of the printed word has played in the listor; our nature, New to one, to a convergence of the printed word has played in the listor; our nature, New to one, to a convergence of the printed word in which are not proposed in the printed word in which are not proposed in the printed word in the listory of the printed word in the printed wo and impor

TRIPOD MAGNIFIER . . .

A 71/2 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 eve.

> **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: 21/2 inch; 3 inch; 31/2 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.

FOR SPORTSMAN AND TRAVELER



DE LUXE STIFF SOLE LEATHER **BINOCULAR CASE**

Supplied at slight increase over Regular Flexible Sole Leather Case shown on next page



PRISM BINOCULAR
. . . CASE INCLUDED

WOLLENSAK

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Field Glasses	
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OTHER WOLLENSAK PRODUCTS

Write for Special Catalogs

PHOTOGRAPHIC SHUTTERS

PHOTOGRAPHIC LENSES

PROJECTION LENSES

ENLARGING LENSES

CINE ACCESSORIES

CINE LENSES



WOLLENSAK OPTICAL CO.

ROCHESTER, NEW YORK



POSTMASTER. — This envelope contains a catalog. If not delivered in 5 days, notify us and we will forward return postage.





Mr. Milton R. Wheeler

264 Ward Street

Watertown, N. Y.



Mollensak Optical Co.

EXECUTIVE OFFICES AND WORKS

MB

Rochester, N.Y.

September 22, 1939

Mr. Milton R. Wheeler 264 Ward Street Watertown, N. Y.

Dear Sir:

Please accept our thanks for your inquiry of September 18th, and we are enclosing catalog covering our Optical line.

In addition to the genuine merit and popular prices of these instruments, they are receiving a generous amount of advertising which will help you to dispose of a worth while quantity of them.

As the catalog gives complete information, we will not go into further detail at this time, but if there are suggestions or recommendations we can offer, we will be pleased to hear further from you.

The prices as shown are list from which we quote you a discount of 33-1/3%: terms 1% 10 days, 30 days net, f.o.b. our factory.

We look forward to the pleasure of further serving you.

Yours truly,

MC Encl.

MB

PRICE LIST

WOLLENSAK OPTICAL INSTRUMENTS

T	A	CT
P	Λ	
	~	TE

6	8x30 Prism Binocular, complete with flexible sole leather carrying case and strap DeLuxe Sole leather carrying case and strap Rubber eyepiece cups—per pair	\$39.75 6.00 .75
8	Rambler 4 Power, complete with case and neck strap	9.75
9	Model A Allscope 2 Power, complete with case Model B Allscope 31/4 Power, complete with case.	14.00 16.00
10	Biascope 6 Power, complete with case	5.00
12	Vari-Power Telescope, 5x20, complete with case. Vari-Power Telescope, 10x30, complete with case. Vari-Power Telescope, 15x40, complete with case. Vari-Power Telescope, 20x50, complete with case.	10.00 13.50 16.50 22.50
14	Explorer Telescope, 8 power with leather case Pockescope Sr., 6 power with leather case Pockescope Jr., 3 power with leather case	3.75 2.00 1.00
15	45X Telescope, complete with 68X eyepiece and tripod as listed	89.25 47.50 9.25 32.50
16	15x40 Vari-Power Spotting Scope, complete with tripod and cases	24.00 16.50
16	Telescope Clamp, with case Telescope Tripod with leather case	7.50 7.50

PRICE LIST - WOLLENSAK OPTICAL INSTRUMENTS

PAGE		
18	425X Microscope, complete with case	20.00
	Low Power eyepiece for above	3.50
19	150X Microscope, complete with case	14.50
	High Power eyepiece for above	3.50
20	Tripod Magnifier	.75
	2½" Reading Glass	2.00
	3" Reading Glass	2.25
	3½" Reading Glass	2.50
	4" Reading Glass	3.00
	5" Reading Glass	4.50
	Reducing Glass 3"	3.00

These prices apply to catalog number 16 and are subject to change without notice.

Effective September 1, 1939



WOLLENSAK OPTICAL COMPANY ROCHESTER, NEW YORK U. S. A.