

Photographic
Lenses
and
Shutters

Wollensak Optical Company
Rochester, N. Y.

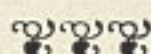
Photographic
Lenses and Shutters
and other
Optical Products

1928

WOLLENSAK
OPTICAL COMPANY
Rochester, New York U.S.A.



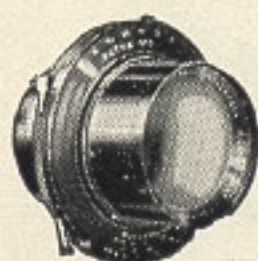
For Better Photographs



WITH consistent earnestness and ambition to meet the new day demands in photography, we have developed a line of photographic lenses that is complete for every need. The skillful precision and care that enter into the manufacturing of each lens permits us to offer unsurpassable quality. Only high grade artisans, best materials and the finest optical glass procurable enter into the making of Wollensak lenses.

For nearly thirty years Wollensak lenses have occupied a conspicuous position in the field and are in constant use by the better photographers throughout the world who manifest keen delight and complete satisfaction.

As the quality in a lens contributes greatly to the distinctiveness of the finished photograph, intelligent care should be used in selecting a lens that is best suited for the purpose. As specialists in photographic lenses and shutters, we solicit the opportunity of making recommendations and serving your requirements.



VELOSTIGMAT

Series Ia f6.3—f7.7

THREE fine anastigmats in one. Both the long-focus single elements may be used alone, and they, like the doublet, are fully corrected anastigmats. The triple-convertible feature is of infinite value in obtaining tele-photo effects, better perspective, or a larger image from a given point of view.

The commercial photographer or advanced amateur who wants the maximum of convenience and versatility, will find the Series Ia a mighty fine investment, for in buying it he obtains three perfect anastigmats for little more than the price of one.

No.	Size	Equiv. Focus Inch	Front Focus Inch	Rear Focus Inch	Speed f.	In Barrel	In Betax
1	3 $\frac{1}{4}$ x 4 $\frac{1}{4}$	4 $\frac{3}{4}$	8 $\frac{1}{4}$	8 $\frac{1}{4}$	6.3	\$43.50	\$45.50
1a	3 $\frac{1}{4}$ x 4 $\frac{1}{4}$	5 $\frac{1}{8}$	10	8 $\frac{1}{4}$	6.8	47.50	49.50
2	4 x 5	5 $\frac{3}{4}$	10	10	6.3	50.00	54.00
2a	4 x 5	5 $\frac{3}{4}$	12 $\frac{3}{4}$	8 $\frac{1}{4}$	7.7	52.50	56.50
2b	4 x 5	6 $\frac{1}{2}$	12 $\frac{3}{4}$	10	6.8	55.00	59.00
3	5 x 7	7	15 $\frac{1}{2}$	10	7.7	63.50	70.50
3a	5 x 7	7 $\frac{1}{4}$	12 $\frac{3}{4}$	12 $\frac{3}{4}$	6.3	61.50	68.50
3b	5 x 8	8 $\frac{1}{4}$	15 $\frac{1}{2}$	12 $\frac{3}{4}$	6.8	72.00	78.00
3c	5 x 8	8 $\frac{3}{4}$	20	12 $\frac{3}{4}$	7.7	77.50	83.50
4	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	9	15 $\frac{1}{2}$	15 $\frac{1}{2}$	6.3	75.00	81.00
4a	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	10	20	15 $\frac{1}{2}$	6.8	95.00	101.00
4b	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	11	25 $\frac{1}{2}$	15 $\frac{1}{2}$	7.7	105.00	111.00
5	8 x 10	11 $\frac{1}{2}$	20	20	6.3	110.00	116.00
5a	8 x 10	13	25 $\frac{1}{2}$	20	6.8	120.00	126.00
6	10 x 12	14	31	20	7.7	145.00	151.00
6a	10 x 12	14 $\frac{3}{4}$	25 $\frac{1}{2}$	25 $\frac{1}{2}$	6.3	160.00	169.00
7	11 x 14	16 $\frac{1}{4}$	31	25 $\frac{1}{2}$	6.8	170.00	179.00
7a	11 x 14	17 $\frac{1}{2}$	31	31	6.8	185.00	194.00

(Continued on page 17)

The all-round high speed anastigmat



VELOSTIGMAT

Series II f4.5

FOR general-purpose work in the studio, for use in home portraiture, for speed work with the reflecting type of camera, the Series II is pre-eminent.

Studio workers find that its perfectly flat field helps in photographing standing figures and groups. Home portrait photographers like its compact construction. However, for portrait work, where the best perspective is desired, it would be advisable to select a Series II Velostigmat a size larger than the plate for which it is listed.

The Series II is very versatile, and its usefulness is not confined to portrait work alone. It is admirable for copying and enlarging, and is even suitable for commercial and view work when slightly stopped down.

A diffusing device on the five largest sizes adds to its usefulness.

No.	Size	Equiv. Focus	In Barrel	In Studio	In Betax	In Optimo
0	2 $\frac{1}{4}$ x 3 $\frac{1}{4}$	3 $\frac{1}{2}$ in.	\$34.00		\$36.00	
1	3 $\frac{1}{4}$ x 4 $\frac{1}{4}$	5 in.	37.50		41.50	\$46.50
2	4 x 5	6 in.	42.00		49.00	51.00
3	5 x 7	7 $\frac{1}{4}$ in.	52.50		58.50	63.50
3A	5 x 8	8 $\frac{1}{4}$ in.	67.50		76.50	81.00
4	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	9 $\frac{1}{2}$ in.	105.00		111.00	115.50
5	8 x 10	12 in.	140.00	\$146.50	149.00	
6	10 x 12	14 in.	185.00	190.00		
7	11 x 14	16 in.	240.00	245.00		
8	14 x 17	19 $\frac{1}{2}$ in.	365.00	366.00		

An exceptionally fast Wide Angle Anastigmat



VELOSTIGMAT

Series III *f*9.5

A WIDE angle lens is an absolute necessity to the studio or photographic organization endeavoring to maintain a complete photographic service. With a lens of this type it is possible to obtain satisfactory photos of buildings in narrow streets, interiors, banquet groups, and all work in confined space with virtually no distortion.

Being a corrected anastigmat it gives excellent definition over the entire plate for which it is listed, covering an angle of 90 degrees. Stopping down is only necessary to increase depth of focus.

The exceptional speed of the Series III Velostigmat is a mighty fine asset for focusing in dimly lighted interiors, for making snapshots out of doors and for flash light work.

Finely corrected and attractively finished, the Series III Wide Angle Velostigmat constitutes a mighty fine investment for the progressive studio or commercial photographer.

No.	Plate Covered at <i>f</i> 9.5	Equivalent Focus	In Barrel	In Betax Shutter
3	5 x 7	4.3 in.	\$43.50	\$47.50
4	6½ x 8½	5.4 in.	50.00	54.00
5	8 x 10	6.25 in.	65.00	71.00
7	11 x 14	9 in.	100.00	106.00

Finely-corrected and moderately priced



VELOSTIGMAT

Series IV *f*6.3

THAT we are able to offer as fine a lens as the Series IV so reasonably is indeed a tribute to modern manufacturing methods.

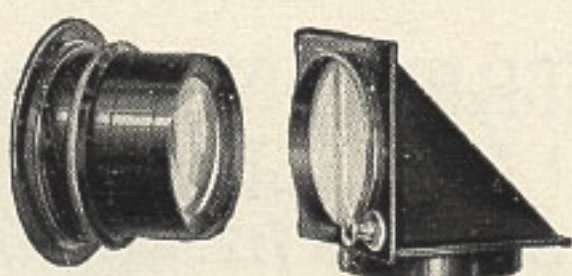
The Series IV Velostigmat is a perfectly corrected anastigmat, sharply covering the plate for which it is listed at full aperture and working at the high speed of *f*6.3. It is suitable for commercial, architectural, landscape and view work and home portraiture where the lighting is good. For copying and enlarging the Series IV Velostigmat is a consistent producer of results.

This lens in the smaller sizes can be supplied in cells or in Wollensak shutters for fitting to practically all makes of hand cameras. There is no charge for this fitting.

Where speed or convertibility is not required, this lens would make an excellent choice.

No.	Size	Equiv. Focus	In Cells	In Barrel	In Betax	In Optimo
0	2 $\frac{1}{4}$ x 3 $\frac{1}{4}$ 1 $\frac{5}{8}$ x 2 $\frac{1}{2}$	3 $\frac{1}{2}$ in.	\$12.50	\$20.50	\$22.50	
1	3 $\frac{1}{4}$ x 4 $\frac{1}{4}$ 2 $\frac{1}{2}$ x 4 $\frac{1}{4}$	5 in.	13.50	21.50	23.50	\$28.50
2	4 x 5 2 $\frac{7}{8}$ x 4 $\frac{7}{8}$	5 $\frac{3}{4}$ in.	14.50	22.50	26.50	31.50
2A	3 $\frac{1}{4}$ x 5 $\frac{1}{2}$	6 $\frac{1}{2}$ in.	15.00	23.00	27.00	32.00
3	5 x 7	7 $\frac{1}{4}$ in.		32.50	39.50	41.50
4	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	9 $\frac{1}{2}$ in.		50.00	56.00	61.00
5	8 x 10	12 in.		70.00	79.00	83.50

The lens of precision for photo engraving, copying, etc.



Velostigmat

Process and Prisms

THE exceptional chromatic qualities of the Velostigmat Process make it ideal for four-color process work when used at smaller apertures. The precision anastigmatic corrections adapt it admirably to all line and half-tone work where extreme preciseness is desired.

Although designed for the photo engraver, this lens should also interest commercial photographers because its flat field, even illumination and perfect covering power answer the need for ideal copying, enlarging, reducing, etc.

The front lens cell is threaded to receive the Wollensak prisms which are supplied in the sizes listed below. These prisms are accurately ground and polished and made of the finest imported glass.

All Process lenses are slotted for waterhouse stops, with revolving rings to cover them when not in use.

No.	Equivalent Focus	Speed	Plates Covered for Reduction	Plates Cov'd for full Size Copy	Price	Size of Prism to fit	Price of Prism
4	10 $\frac{1}{4}$ in.	<i>f</i> 10	6 $\frac{1}{2}$ x8 $\frac{1}{2}$	10x12	\$84.50	2 in.	\$60.00
5	12 $\frac{3}{4}$ in.	<i>f</i> 10	8 x10	11x14	112.50	2 in.	60.00
6	15 $\frac{1}{2}$ in.	<i>f</i> 10	10 x12	12x15	135.00	2 $\frac{1}{2}$ in.	67.50
7	18 in.	<i>f</i> 10	12 x15	14x17	157.50	3 in.	100.00
9	25 in.	<i>f</i> 10	16 x20	20x24	225.00	3 $\frac{1}{2}$ in.	120.00
10	30 in.	<i>f</i> 16	20 x24	24x30	326.50	4 in.	175.00
.....	4 $\frac{1}{2}$ in.	250.00



EXTREME WIDE ANGLE

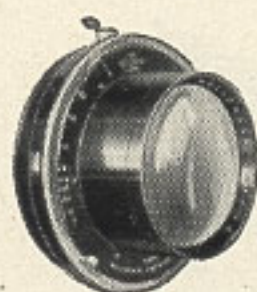
Series IIIa f12.5

ALTHOUGH comparatively new the Series IIIa Extreme Wide Angle has gained a host of friends.

Its speed, extreme angle, reserve covering power and moderate price, offer a combination of qualities that should prove of real interest to the commercial photographer. For banquet camera work where space is limited and a short focus lens required, the Series IIIa will make a strong appeal.

The Series IIIa has an angle of view of 90 degrees and gives good definition at full aperture; wiry sharpness available when the diaphragm is stopped down (which is essential for depth of focus). Because of its large circle of illumination this lens can be used on a plate a size larger than listed by stopping down the diaphragm which then affords an angle of approximately 100 degrees.

No.	Size	Larger Plates Smaller Stops	Equiv- alent Focus	In Barrel	In Betax Shutter
3	5 x 7	6½ x 8½	4⅝ in.	\$23.50	\$27.50
4	6½ x 8½	8 x 10	5⅜ in.	30.00	36.00
5	8 x 10	10 x 12	6¼ in.	33.50	39.50
6	10 x 12	11 x 14	7⅞ in.	42.00	48.00
7	11 x 14	14 x 17	9 in.	52.50	58.50
8	14 x 17	17 x 20	11 in.	65.00	74.00
9	17 x 20	20 x 24	13 in.	80.00	89.00



VARIUM

Portrait and Group f3.5--f4

FOR those who do not find a demand for extremely sharp portraits or who do not want soft focus, the Varium is a happy compromise. At full opening it produces a negative that is firm enough in quality to suit anyone, yet soft enough to eliminate considerable retouching. It is free from halation and double lines.

Group work requires a sharp cutting lens. With the diaphragm stopped to approximately f6.8, depth of focus and anastigmat quality are afforded, giving excellent definition over the entire plate.

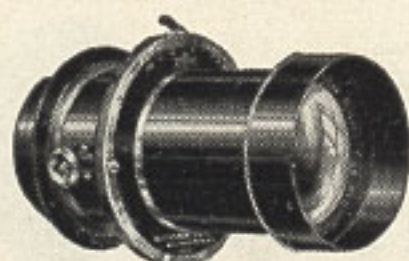
The Varium is made in the long focal lengths that render large images without necessarily working too close to the subject, giving a pleasing perspective and true-to-life quality.

For child photography the Varium is an admirable selection. The ultra rapid speed permits fast exposures in the studio or home.

Equipped with 9x9 or 10x10 front board and lens hood.

No.	Size	Diaphragm Focus	Speed	In Studio
4	6½x 8½	14 in.	f 3.5	\$140.00
5	8 x 10	16 in.	f 3.5	150.00
7	11 x 14	19 in.	f 4	165.00

Supreme for portraiture and child photography



VITAX

Portrait *f*3.8

WHILE the Vitax is not a general-purpose studio lens like the Series II, it is particularly suited to portrait work and child photography.

In making child portraits and baby pictures speed of lens is all-important. The Vitax works at *f*3.8—a practical speed for a portrait lens. With this rapidity, snapshot exposures in the studio are entirely practical.

Vitax portraits, particularly large heads and busts, have a rounded, standing-out quality that is life-like and beautiful. This effect is due in part to the improved Petzval formula of the lens. Of value, too, to the portrait photographer is the diffusing device which gives a slight softness when desired.

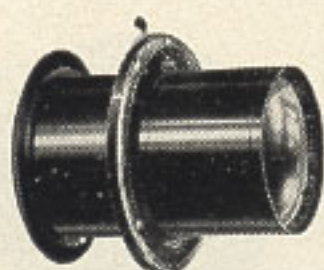
If your light is poor, your negatives under-timed; if you desire a nicer quality in your portraits; if you want certain success in photographing the youngsters—consider the Vitax Portrait *f*3.8.

No.	Focus	Lens Diam.	Speed	In Barrel	In Studio Shutter
3	10 in.	3 in.	<i>f</i> 3.8	\$105.00	\$110.00
4	13½ in.	3½ in.	<i>f</i> 3.8	135.00	140.00
5	16 in.	4⅛ in.	<i>f</i> 3.8	185.00	186.00
7	20 in.	4⅛ in.	<i>f</i> 5	200.00	201.00

VITAX EXTENSION LENS

to be used with 16" focus, increasing focus to 20", \$57.50

The most popular and practical soft-focus lens



VERITO

Diffused Focus f4

A PIONEER among soft focus lenses, the Verito has contributed greatly to the advancement of pictorial phase of photography.

Any degree of softness or sharpness may be obtained by simply changing the diaphragm. Definition is not destroyed, but pleasingly subdued so that retouching is practically eliminated. The long-focus rear element may be used alone. In enlarging, too, it gives beautiful results. The Verito improves on acquaintance, and the longer you use it, the more delighted you will be with its infinite possibilities.

There is a Verito to fit practically every studio, view, Graflex, hand and movie camera.

No.	Size	Equiv. Focus	Rear Focus	In Barrel	In Studio	In Betax
*A	3¼x 4¼	5 in.	10 in.	\$22.50		\$24.50
*B	4 x 5	6½ in.	14 in.	25.00		29.00
1	3¼x 4¼	6⅞ in.	10 in.	28.50		34.50
2	4 x 5	7¼ in.	11 in.	32.50		41.50
3	5 x 7	8¾ in.	14 in.	42.50		53.00
4	6½x 8½	11½ in.	20 in.	60.00	\$65.00	
5	8 x 10	14½ in.	24 in.	85.00	90.00	
7	11 x 14	18 in.	30 in.	110.00	111.00	

* Size A and B, f6—all others f4.

Veritos of special speed 5" focus or shorter in Barrel \$25.00

CINE-VERITO—Information on request.

VERITO EXTENSION LENS

to be used with 18" focus, increasing focus to 22¼".
\$20.00.

VOLTAS f8

WHERE high speed and fine corrections are not essential, the inexpensive Voltas will adequately serve the purpose. It is an all-round lens, particularly adapted to landscape, view and commercial work. While fair detail is rendered at full opening, the Voltas must be stopped down in order to insure sharp definition to the extreme corners of the plate. The Voltas is convertible, the single elements may be used alone with smaller stops.

No.	Size	Equivalent Focus	In Barrel	In Betax Shutter
1	3 $\frac{1}{4}$ x 4 $\frac{1}{4}$	5 in.	\$11.00	\$13.00
2	4 x 5	6 $\frac{1}{2}$ in.	11.50	15.50
3	5 x 7	8 in.	13.00	17.00
4	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	10 $\frac{1}{2}$ in.	19.00	25.00
5	8 x 10	12 $\frac{1}{2}$ in.	26.00	35.00
6	10 x 12	16 in.	44.00	50.00
7	11 x 14	18 $\frac{1}{2}$ in.	48.00	57.00

WOLLENSAK RAY FILTER

THE Wollensak ray filter requires but three times normal exposure and will produce beautiful results in cloud, landscape and flower studies, as well as in commercial work.

No.	Will Fit Lens Mounts from	Price	No.	Will Fit Lens Mounts from	Price
1	1 $\frac{5}{32}$ in. to 1 $\frac{13}{32}$ in.	\$2.50	6	2 $\frac{3}{8}$ in. to 2 $\frac{5}{8}$ in.	\$4.50
2	1 $\frac{7}{16}$ " " 1 $\frac{17}{32}$ "	2.75	7	2 $\frac{11}{16}$ " " 3 "	5.25
3	1 $\frac{9}{16}$ " " 1 $\frac{25}{32}$ "	3.00	8	3 $\frac{1}{16}$ " " 3 $\frac{1}{2}$ "	6.75
4	1 $\frac{11}{16}$ " " 2 "	3.50	9	3 $\frac{3}{16}$ " " 4 $\frac{1}{8}$ "	7.50
5	2 $\frac{1}{16}$ " " 2 $\frac{5}{16}$ "	3.75	10	4 $\frac{1}{16}$ " " 4 $\frac{5}{8}$ "	9.00

Reliable Quality Shutters



BETAX GAMMAX DELTAX



FOR those who require extreme accuracy in exposures and simple sturdy construction to withstand hard usage, these improved shutters will make a strong appeal.

An outstanding feature in this new line of shutters is our gearless, pumpless retarding mechanism which is simple in construction and positive in action assuring accurate and unvarying speeds.

Metal diaphragm leaves and shutter blades are incorporated in these models which are ideal for enlarging where heat is intense.

The Betax, Gammax and Deltax shutters are automatic in operation and can be released either with the wire release, or bulb and hose, (with the aid of a bulb attachment). Finished in black lacquer with gold engravings.

*Betax Time Bulb, 1-100, 1-50, 1-25, 1-10, 1-5, 1-2
 Gammax, Time Bulb, 1-100, 1-50, 1-25, 1-10
 Deltax Time Bulb, 1-100, 1-50, 1-25

*Maximum speed of three larger Betax shutters is 1-50.

No.	Light Opening	Lens Opening	Betax	Gammax	Deltax
0	$\frac{9}{16}$ in.	$\frac{17}{32}$ in.	\$10.00	\$4.00	\$3.50
1	$\frac{3}{4}$ in.	$1\frac{1}{16}$ in.	10.00	5.00	4.50
2	1 in.	$1\frac{7}{32}$ in.	12.00	6.00	
3	$1\frac{3}{8}$ in.	$1\frac{23}{32}$ in.	15.00		
4	$1\frac{3}{4}$ in.	$2\frac{3}{8}$ in.	18.00		
5	$2\frac{1}{4}$ in.	$2\frac{23}{32}$ in.	22.50		

Prices include flange and wire release.

OPTIMO SHUTTER

THE utility of any high speed anastigmat is increased by having it fitted with a shutter that has ultra rapid exposures necessary for speed photography.

The Optimo shutter in addition to T. and B. exposures has a range of speeds varying from 1 to 1-300 second. It is a setting type of shutter, and the revolving action of the leaves affords maximum illumination and speed.

No.	Light Open'g	Lens Open'g	Price	No.	Light Open'g	Lens Open'g	Price
1	$\frac{3}{4}$ in.	$1\frac{1}{16}$ in.	15.00	2	1 in.	$1\frac{1}{2}$ in.	\$17.00
1a	$\frac{1}{2}$ in.	$1\frac{7}{8}$ in.	17.00	3	$1\frac{3}{8}$ in.	$1\frac{7}{8}$ in.	20.00
				4	$1\frac{3}{4}$ in.	$2\frac{1}{8}$ in.	22.50

Prices include flange and wire release.

STUDIO SHUTTER

HERE is an ideal studio equipment, a between-the-lens type of shutter that is practically noiseless. It has a bulb exposure only and lever at top to open for focusing.

Exposures of any duration longer than one-fifth second may be had by maintaining pressure on wire release supplied.

No.	Light Open'g	Lens Open'g	Price	No.	Light Open'g	Lens Open'g	Price
1	$2\frac{1}{16}$ in.	$2\frac{1}{32}$ in.	\$15.00	4	$3\frac{1}{2}$ in.	$3\frac{2}{32}$ in.	\$22.50
2	$2\frac{1}{8}$ in.	$2\frac{1}{16}$ in.	17.50	*5	$4\frac{1}{8}$ in.	$4\frac{1}{2}$ in.	25.00
3	$2\frac{1}{4}$ in.	$3\frac{1}{32}$ in.	20.00	*With bulb and tube only			

No flanges supplied on Studio Shutters.

A better lens will make a better picture

LENS BARRELS

EQUIPPED with iris diaphragms made of metal that will withstand the heat of the enlarging lamp. No flange supplied.

No.	Light Aperture	Price	No.	Light Aperture	Price
1	$\frac{3}{4}$ in.	\$8.00	6	$1\frac{1}{8}$ in.	\$12.00
2	$\frac{7}{8}$ in.	8.00	7	$2\frac{3}{16}$ in.	13.50
3	$1\frac{1}{16}$ in.	8.00	8	$2\frac{1}{2}$ in.	15.00
4	$1\frac{9}{32}$ in.	9.00	9	$3\frac{5}{32}$ in.	20.00
5	$1\frac{1}{2}$ in.	9.00	10	$3\frac{29}{32}$ in.	24.00

ACCESSORIES

Wire releases, 12" or shorter, 60c; 20", \$1.25; 36", \$2.50.

Bulb attachments to fit every Wollensak Shutter (State size and type shutter) - - \$2.50

Bulb with 3' tubing - - - - - 1.00

Studio bulb with 4' tubing - - - - - 1.50

Special diaphragm or focus scales, per set - - - - - 1.50

Standard diaphragm or focus scales, per set - - - - - 1.00

Front boards 9x9—10x10 - - - - - 2.00

Lens hood to fit mounts $3\frac{3}{4}$ " to $5\frac{1}{2}$ " diameter - - - - - 4.50

Lens cleaning tissue—per book - - - - - .10

STANDARD FLANGES

LENS CAPS

Thread Diam.	Price	Thread Diam.	Price	Inside Diam.	Price
$\frac{15}{16}$ "	\$.50	$2\frac{1}{2}$ "	\$1.35	1" and under	\$.75
$1\frac{1}{16}$ "	.60	$2\frac{3}{4}$ "	1.50	2" " "	1.00
$1\frac{3}{16}$ "	.65	$3\frac{1}{8}$ "	1.60	3" " "	1.25
$1\frac{1}{2}$ "	.80	$3\frac{5}{8}$ "	1.75	4" " "	1.50
$1\frac{9}{16}$ "	1.00	$4\frac{1}{8}$ "	2.00	5" " "	1.75
$1\frac{11}{16}$ "	1.25	$4\frac{1}{2}$ "	2.50	Over 5"	2.00
		$5\frac{1}{8}$ "	3.50		



Pockescope

Pocket Telescope

3—4½—6 Power

WHERE extreme compactness and light weight are desired, or when price is a consideration, these inexpensive telescopes will make a strong appeal. Finished in crystallized lacquer and supplied with limp leather case.

Model	Power	Length Closed	Max. Dia.	Price
Pockescope Jr.....	3	2 ⁵ / ₈ "	¹¹ / ₁₆ "	\$1.00
Pockescope Standard...	4½	3"	¹¹ / ₁₆ "	1.50
Pockescope Sr.....	6	3¼"	1 ³ / ₁₆ "	2.00

(Continued from page 3)

Series Ia Velostigmat

THE flat field, large circle of illumination and anastigmatic corrections make this lens ideal for banquet cameras as listed. All sizes will cover larger plates at smaller stops.

No.	Size	Equiv. Focus	f Speed	Plates covered with smaller stop
3b	5 x 8	8¼"	6.8	7x11
3c	5 x 8	8¾"	7.7	7x11
4	6½ x 8½	9"	6.3	5x12
4a	6½ x 8½	10"	6.8	5x12
4b	6½ x 8½	11"	7.7	5x12
5a	8 x 10	13"	6.8	7x17
6	10 x 12	14"	7.7	8x20
6a	10 x 12	14¾"	6.3	8x20
7	11 x 14	16¼"	6.8	12x20