

CATALOGUE & PRICE LIST

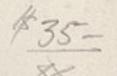
WOLLENSAK PHOTOGRAPHIC SHUTTERS & LENSES



Wollensak Optical Co.

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

ANDREW WOLLENSAK, PRESIDENT. H.C.GORTON, VICE PRES. & TREAS. J.C.WOLLENSAK, SECRETARY.





Modern Photography.

HE hard and fast line which formerly separated the photographers domain from the artists has long since disappeared and photography has established its place among the fine arts. In early days the unchangeable fidelity of the camera was at once its practical virtue and its artistic disqualification. As it had no power of pictorial selection the unnecessary and superfluous detail was recorded as faithfully as the essential. claimed by the deprecators of the camera, was nature seen through a personality and not through a lens, but the host of workers who in recent years have found in the camera a means of artistic expression have removed that reproach. They have proved beyond contradiction that in intelligent hands the lens may be as flexible an instrument as the brush, and the great improvements made in apparatus, together with the discoveries in technical processes, has made it possible to suppress or emphasize detail at will.

To be properly equipped to accomplish something distinctively above the ordinary is the aim of all ambitious devotees of Photography, and in selecting an outfit it is always well to bear in mind the indisputable fact that the lens and shutter are the most essential and important parts of such equipment.

The WOLLENSAK OPTICAL COMPANY are specialists in this branch of manufacture and as everything we make is covered by a broad guarantee of satisfaction, it would seem as if the purchaser could make no mistake in specifying that his camera be equipped with a Wollensak Shutter and Lens.

INTRODUCTORY

N placing before the trade and public this booklet showing the goods of our manufacture, we wish to preface the descriptions and prices with

a few words of general information in regard to our business methods. It is our aim to make only goods which are perfect in every respect no matter what the selling price, and all of our product is manufactured on this basis. Although some of our shutters and lenses list at a low price, it is not an indication of poor finish or careless work, but simply that they are less elaborate in mechanism or formula. We use only the best materials and employ skilled workmen who are under the constant personal supervision of the officers of the company.

Knowing our product to be as nearly perfect as it is possible to make it, we are able to place on every article we manufacture an absolute guarantee of satisfaction as given herewith:—

We hereby guarantee every shutter and lens manufactured by us to be mechanically and optically perfect, and will refund the purchase price to any dissatisfied customer if claim is made within thirty days from date of shipment from our factory.

WOLLENSAK OPTICAL COMPANY.

Photographic Shutters.

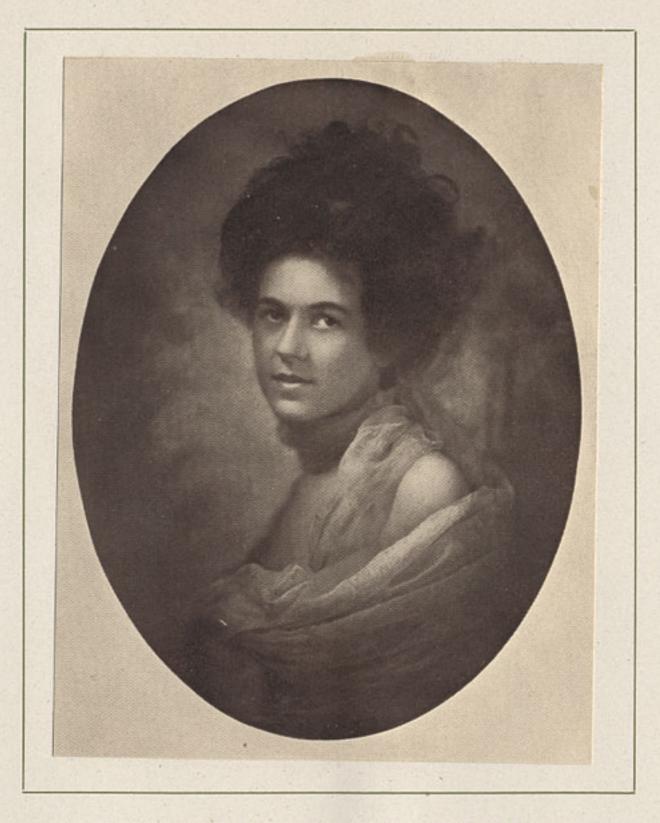
N no branch of manufacture has the improvement been more marked during the last five years than in the production of shutters for photographic purposes. This is true, not only of the mechanical part, but also of the general appearance and the price, as a complete camera can now be purchased for about the amount that a few years ago was asked for the shutter and lens. In variety also rapid progress has been made, and this company now manufactures thirty-five different sizes and styles of shutters ranging in size from $3\frac{1}{4} \times 4\frac{1}{4}$ to 17×20 and in price from \$2.00 to \$25.00.

We wish to call particular attention to the 11 x 14 and 17 x 20 Regular and Automatic shutters which are new sizes and the Sky-shade and Studio Shutters which are new styles, the two latter representing our most recent achievements in shutter designing and construction.

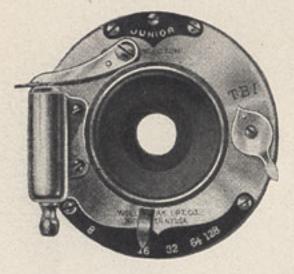
The cases of all shutters are yellow brass, highly polished and finished with three coats of transparent lacquer. The pumps and levers are nickel plated and the dials and diaphragm plates are black enamel with white figures. They are extremely attractive in appearance, very light and compact, and being simple in construction operate easily without jar or recoil and seldom need repairs. We keep a careful record of every shutter manufactured and in case there is a necessity for repairs or adjustment within six months from date of shipment make no charge for putting them in perfect condition.

Our shutters are used by many of the leading camera and lens manufacturers, but can be obtained from any dealer or with any camera or lens by specifying them when giving the order. 4×5 shutters are used for 5×7 lenses as well as 4×5 , and 10×12 lenses can be mounted in the 11×14 shutter as can the 14×17 in the 17×20 . Prices given are for shutter complete with flange, bulb and tube.

For weights, dimensions, apertures, etc., see page 28.



PHOTOGRAPHED BY DUDLEY HOYT WITH ROYAL PORTRAIT LENS

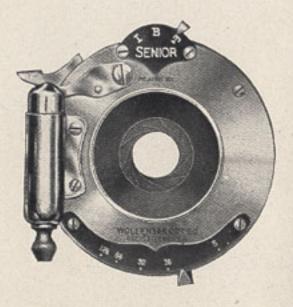


JUNIOR.

THIS shutter is made in one size only, but can be used for all ordinary lenses either single or double in $3\frac{1}{4} \times 4\frac{1}{4}$, 4×5 or 5×7 sizes. It is self setting or automatic, can be operated by finger or bulb and is fitted with iris diaphragm. It is readily

adjusted for time, bulb, or instantaneous exposures by moving the indicator at the right.

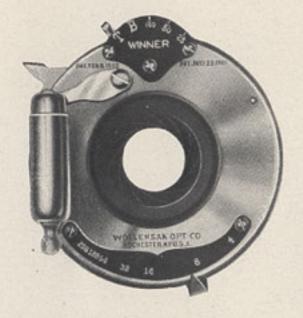
The Junior is made without a flange and is attached to the camera front by three small screws through the outer edge of the shutter.



SENIOR.

THE "Senior" is a new model made to meet the demand for a light, compact, low priced shutter for use by amateurs on cameras of the smaller sizes. It is made in one size only, but can be used for all ordinary lenses both single or double up to and including 5 x 7 size. It is self-setting or automatic, can be operated by finger or bulb, and is fitted with iris diaph-

ragm. It gives three different exposures, viz: time, bulb and instantaneous, and like the Junior has no flange but is attached to the camera front by small screws through the outer edge.



WINNER.

THIS is a popular-priced single pump shutter made on the same lines and after the same model as the more expensive ones. In addition to the time and bulb exposures it gives three speeds of instantaneous exposures and is automatic in its action. It has iris diaphragm, bulb and finger

release and is attached to the front board with a flange which makes it readily removable. A small lever at the top which can be instantly adjusted insures the desired exposure. The "Winner" is made in four sizes and is an extremely satisfactory shutter both in appearance and operation for a moderate priced outfit.

PRICE LIST.

3½ x 4¼,			\$4.00	$6\frac{1}{2} \times 8\frac{1}{2}$, .		\$7.00
4 x 5,			5.00	8 x 10, .		8.00



REGULAR.



THE "Regular" is a double pump shutter of high grade, and in addition to the time and bulb exposures gives three different speeds of instantaneous and three automatic time exposures. At the top is a milled disc on which is an indicator, and to set the shutter for the desired exposure the disc is revolved until the indicator is opposite the proper figures on the dial. The shutter is set by pressing down the lever to the right and

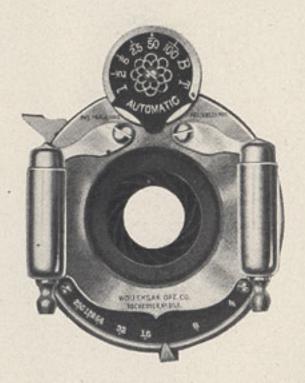
released either by the bulb, which is attached to pump on the left, or by pressure on the left hand lever. It has an iris diaphragm and is attached to the front board with a flange. The "Regular" is made in six sizes and is one of the best types for general use yet devised. It is easy of adjustment and even in the largest size releases smoothly and without vibration. This shutter has been on the market in its present form over three years and in every climate and under the most trying conditions it has given universal satisfaction, proving itself to be unequalled for accuracy and reliability.

PRICE LIST

34 x 44,			\$5.00
4 x 5,			6.00
$6\frac{1}{2} \times 8\frac{1}{2}$,			8.00
8 x 10,			10.00
11 x 14,			14.00
17 x 20,			20.00



AUTOMATIC.



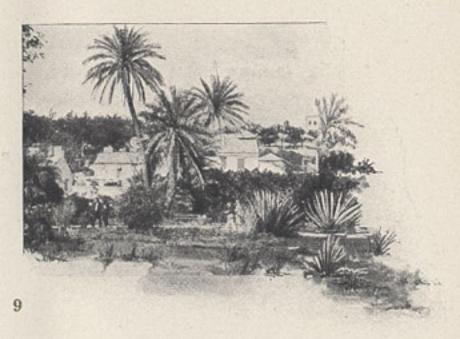
THIS shutter is similar to the "Regular" except that it has the advantage that after each exposure it automatically sets itself for the next one. It is made in six sizes, and even in the largest size releases smoothly and easily, as the mechanical parts are so well balanced and the levers so arranged that there is very little resistance to overcome. The problem of constructing a shutter which was self-setting and yet would release easily

giving high enough speed to be efficacious was first solved by this company, and in the AUTOMATIC we have succeeded in producing a shutter which loses nothing in reliability, speed or ease of operation on account of being automatic, and has the obvious advantage that it is always set.

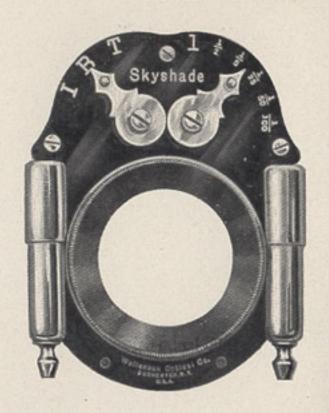
To the professional or amateur photographer desiring a perfect shutter, graceful in design, light in weight, absolute in action and reasonable in price, we recommend the Wollensak "AUTO-MATIC."

PRICE LIST.

3\frac{1}{4} x 4\frac{1}{4},		\$ 8.00
4 x 5,		10.00
6½ x 8½,		12.00
8 x 10,		14.00
11 x 14,		18.00
17 x 20,		25.00



THE SKYSHADE SHUTTER.



It is a well known fact among photographers that a sensitized plate which is given an equal exposure over its entire surface will always show an over exposed sky and an under exposed foreground. After a long period of experimenting we have succeeded in constructing a shutter which makes it possible to illuminate the plate equally no matter what the conditions of light may be. The name we have given this shutter is the "SKYSHADE" and it is protected by two patents

covering about forty different claims. As on the negative the sky is reversed and so at the bottom, the rays of light from the sky must enter at the top of the front lens and cross the rays of light from the foreground at the diaphragm point. It is a fact, therefore, that a shutter working before the lens which admits more light from the bottom than from the top will necessarily equalize the exposure. Although the SKYSHADE can be used under any conditions with good results, its great point of superiority over existing models is when the operator wishes to minimize a strong overhead light. It is constructed so that it can be instantly and firmly attached to the front mount or lens barrel by an automatic clamp, so no fitting is necessary, and can be used with lenses either mounted in barrel or which already are attached to shutters. As to mount it between the lenses would destroy most of its value, it is not constructed for that purpose and has no iris diaphragm.

It is automatic in its action, has no finger release, but is operated entirely with the bulb and as all its working parts, including the pumps, are entirely covered, no dust can penetrate the mechan-

ism and so it is very unlikely to get out of order. It has but one leaf or blade which rises from the bottom, the speed being regulated by the indicator on the right, and even when working at its fastest speed must necessarily expose the bottom of the plate (or sky) for a shorter period than the top. When set on the less rapid exposures the blade rises slowly until the top is reached when it instantly descends so that on the one second mark it would give the foreground one second exposure but the sky would not be exposed for over one-eighth of a second. One indicator can be set on "one second" and the other on "time" when the blade will rise slowly and remain at the top until the bulb is pressed again or if the speed indicator is set at 1-100 it will rise instantly. Having two regulating levers each with its own mechanism makes it possible to give an infinite variety of exposures and the operator can really put in the lighting of a photograph almost as an artist would with his brush in a painting.

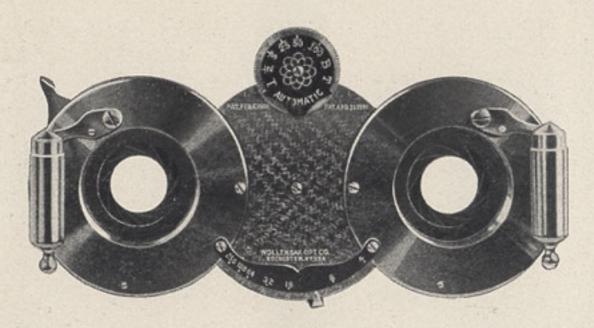
As the "SKYSHADE" works before the lens the light opening used must be larger than the working aperture of the lens, or it will not illuminate the corners of the plate properly.

When lenses are mounted in a barrel having a hood on the front, this should be removed and in ordering shutter the exact diameter of barrel or front mount must always be given. This shutter is furnished in a velvet lined leather covered case and is a useful addition to any photographic outfit.

PRICE LIST.

No.	Light Opening.	For Lenses with Free Diameter of	Will fit Barrels or Mounts with Diameter of	Price.
1	1 3 in.	Up to 1 inch.	1½ to 1 ½ inches.	\$12.00.
2	1 9 in.	$1\frac{1}{8}$ to $1\frac{8}{8}$ inches.	15 to 2 1 inches.	15.00.
3	2 1 in.	1½ to 1½ inches.	2½ to 2½ inches.	18.00.
4	2 % in.	2 to 25 inches.	2 13 to 37 inches.	24.00.

STEREOSCOPIC SHUTTERS.



STEREOSCOPIC Photography has grown so rapidly in popular favor during the last few years, that in order to meet every possible demand we now make seven different shutters specially designed for this class of work. In all of them a single mechanism controls the movements, thus insuring uniformity in the operation of both the blades and the diaphragms. Each kind is the same in finish and manner of operation as the single shutter bearing the same name, and owing to the perfected mechanism works without vibration and releases easily. The distance from center to center of the openings is 3½ inches and the shutters are attached to the front board by jamb nuts removable from the back.

PRICE LIST.

Senior Stereo,			\$ 8.00
Winner Stereo, 3 ¹ / ₄ x 4 ¹ / ₄	1		10.00
Winner Stereo, 4 x 5			13.00
Regular Stereo, 3 ¹ / ₄ x 4 ¹ / ₄			12.00
Regular Stereo, 4 x 5			15.00
Automatic Stereo, 31 x 41			17.00
Automatic Stereo, 4 x 5			20.00



THIS NEGATIVE, WHICH SHOWS ABSOLUTE UNIFORMITY OF ILLUMINATION, WAS TAKEN WITH SKYSHADE SHUTTER WITHOUT THE USE OF RAY FILTER OR ORTHOCHROMATIC PLATE

THE STUDIO SHUTTER.



THIS shutter is made specially for use by professional photographers and is absolutely noiseless, as it has rubber cushions at all points of contact in the mechanism. The Studio Shutter has ten leaves, is constructed on the iris diaphragm principle and is made in two models. Style A being for use behind the lenses, is finished mat black, can be attached to board by screws and has focusing attachment. Style

B is a between the lens shutter and is handsomely finished in brass with transparent lacquer. It is made primarily for use with our portrait lenses as it is only necessary to unscrew the barrel and screw on the shutter in place of the iris diaphragm and no special fitting is needed. The shutter itself acts as a diaphragm and can be set at any desired opening and also at full aperture for focusing purposes. Other makes of lenses can be used with the Style B by having them fitted specially.

PRICE LIST.

No. Outside Diameter.	Light Opening.	Style B will fit Por- trait Lenses as follows:		Price Style A	Price Style B		
Diameter			Series A	Royal	Style A	Style B	
1	3½ in.	2 1 in.	No. 3		\$ 6.00.	\$ 8.00.	
2	4½ in.	2 7 in.	No. 4		7.00.	9.00.	
3	47 in.	215 in.	No. 5	No. 1	8.00.	10.00.	
4	5% in.	$3\frac{1}{2}$ in.		No. 2	10.00.	12.00.	
5	67 in.	4½ in.		No. 3	12.00.	14.00.	

PHOTOGRAPHIC LENSES.

THE progress made in Photographic optics during the last decade has been very rapid and the improvement in methods of manufacture now makes it possible to sell a really good lens at a moderate price. We therefore do not hesitate to state that every lens we make is capable of producing first-class negatives as we use only imported glass and in grinding, polishing, centering and cementing each lens is carefully watched by our optical experts.

After all processes are completed, the lenses are subjected to a severe test and any not up to our standard are rejected. If we were not positive that our lens product was perfect we could not give the broad guarantee of satisfaction which we publish on page 3 of this catalogue.

Extra Large Lenses.

Lenses of larger sizes than shown in this catalogue will be made to order, as this enables us to meet the user's requirements exactly. In sending inquiry give full particulars of just what is wanted and we will quote lowest price consistent with best material and workmanship.

Focal Lengths.

A LL orders for lenses where focus is not specified will be filled with the standard focus as shown on page 28. Lenses of special focus can be furnished when desired.

Prices of Lenses in Mounts Only.

WHERE we supply a lens mounted in cells only to fit customer's own barrel or shutter, a deduction of 15 per cent. is made from list price of lens in barrel.

Note-All our barrels are supplied with iris diaphragm, flange and cap.

Royal Anastigmat Lenses.



BY our purchase of the company which for a number of years manufactured the line of Royal Anastigmats we acquired their formulas and the benefit of their experience with this lens. While in some respects and for some purposes it was beyond criticism, after careful test and experiments we found we could improve it for general uses by making slight modifica-

tions and corrections and we now confidently place it on the market with our

full recommendation and with the same guarantee of satisfaction we give on all our product. The Royal is of the double Symmetrical type, each system consisting of four elementary lenses and is corrected absolutely for chromatic and spherical aberration and astigmatism. The mechanical and optical construction is of the highest order and the glass used is the best obtainable. Each lens is treated individually and is carefully studied and tested before it is shipped so that we can be positive not only that the lens will be accepted but that it will give unqualified satisfaction.

We always prefer to mount the Royal Anastigmats ourselves as with all extremely high grade lenses absolute accuracy of adjustment is necessary and we can only guarantee the best results when it is mounted by men who thoroughly understand its construction.

On the following page we give price lists and all other necessary particulars in regard to these lenses.

Royal Anastigmat, Series I. f-6.8.

THE Series I is a standard focus lens for general use, the two systems being of the same focal length, which is about double the equivalent focus and each system is corrected for separate use. The smaller sizes are especially adapted for hand camera work and on account of its great speed, fine definition and unequalled covering power, it is possible to obtain good results under almost any conditions.

					Price,	
No.	Free Aperture	Equivalent Focus.	Plate Covered Sharply at f-6.8.	With Barrel.	With Regular Shutter.	With Automatic Shutter.
1	.75	5 inches.	3½ x 4½	\$ 29.00.	\$ 30.00.	\$ 33.00.
2	.90	6 "	4 x 5	35.00.	36.00.	40.00.
3	1.2	7 "	5 x 7	43.00.	44.00.	48.00.
4.	1.5	10 "	61 x 81	69.00.	70.00.	74.00.
5	1.94	13 "	8 x 10	83.00.	85.00.	89.00.
6	2.25	15 "	10 x 12	113.00.	116.00.	120.00.
7	2.44	161 66	11 x 14	153.00.	156.00.	160.00.

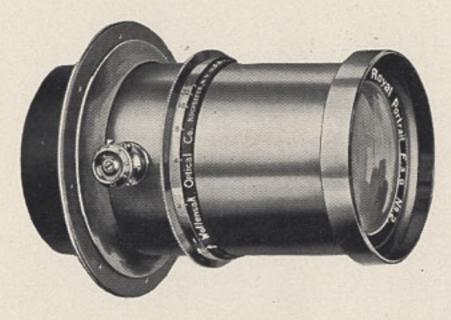
Royal Anastigmat, Wide Angle, f-9.5

Angle of Field, 90 degrees

THIS lens like the Series I is composed of two systems of four elementary lenses each and its great superiority consists in the fact that it gives a very flat field and produces a perfect image at an aperture large enough for instantaneous exposures, with an extremely wide angle of view.

			Plate Covered		Price.	
No.	Working Aperture	Equivalent Focus	at Full Aper- ture, f-9.5.	With Barrel.	With Regular Shutter.	With Automatic Shutter.
2	.35	31 inches.	4 x 5	\$ 33.00.	\$ 34.00.	\$ 38.00.
3	.48	41 44	5 x 7	39.00.	40.00.	44.00.
4	.60	51 "	6½ x 8½	59.00.	60.00.	64.00.
5	.66	61 "	8 x 10	71.00.	73.00.	77.00.
6	.85	8 "	10 x 12	97.00.	100.00.	104.00.
7	1.00	9 "	11 x 14	131.00.	134.00.	138.00.

Royal Portrait Lens, f-3.8.



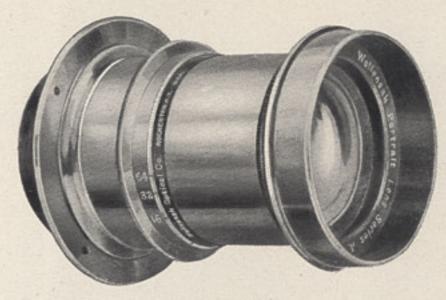
THE Royal Portrait Lens is our latest addition to the line of lenses we manufacture and is made in three sizes. It has the extremely high speed of f-3.8 and while it is intended for portrait work in heads and

busts it can also be used for groups by stopping it down. It is furnished in barrel with iris diaphragm and has a diffusing attachment which is extremely simple and effective. The front lens only of the rear combination is movable for diffusing effect which makes it possible to reach any desired degree of diffusion without interfering in the least with the optical properties of the lens. The construction of the "Royal" is similar to the Series A but a slight modification of the formula, together with the increased diameter and special glass used makes it a lens which we consider equal to many lenses listed at a very much higher price. The mounting is very attractive and we have spared no expense or effort in making the Royal Portrait perfect in both the optical and mechanical construction.

No.	Diameter of Lens.	Equivalent Focus	Distance, Lens to Sitter, for 2 in. Head.	Outside Diameter of Flange.	Price.
1	3 inches.	10 inches.	About 6 ft.	5% inches.	\$ 70.00.
2	3,9 "	13 "	" 7½ ft.	61 "	90.00.
3	43 "	16 "	" 9½ ft.	75 "	125.00.

List prices if equipped with Wollensak between the lens Studio shutter Style B: No. 1, \$76.00; No. 2, \$98.00; No. 3, \$135.00.

Wollensak Portrait Lens Series A. f-5.



OUR Series A Portrait Lens is furnished in barrel with iris diaphragm and cap.

The mountings are brass highly polished and lacquered with black trimmings.

The lenses are

made of a fine quality of imported glass and are composed of two systems of two glasses each, the front system being cemented together and the rear having an air space between the two glasses. This formula, together with their special optical construction and large diameter, gives them the high speed of f-5, and they will produce brilliant well defined negatives using the full aperture. The "Series A" is primarily intended for portrait work but is also excellent for groups when slightly stopped down and will admit of considerable diaphragming as it has great illumination and rapidity. It is especially recommended to photographers who desire a moderate priced lens which is thoroughly satisfactory for portrait work, but is not so extreme in its characteristics as to render it unfit for other uses.

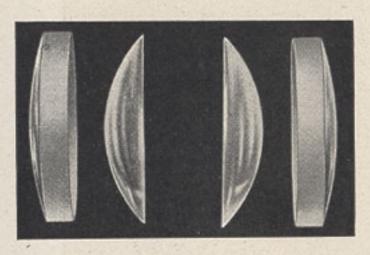
No.	Size.	Diameter of Lens.	Equivalent Focus.		nce for g Cabinet.	Outside Diameter of Flange.	Price.
1	$3\frac{1}{4} \times 4\frac{1}{4}$	15 in.	6 inches.			3½ inches	\$15.00.
2	4 x 5	17 "	7 "	About	8 feet.	38 "	20.00
3	5 x 7	21 "	10 "	44	101 "	4 "	25.00
4	$6\frac{1}{2} \times 8\frac{1}{2}$	21 66	12 "	66	13 "	41 "	35.00
5	8 x 10	3 "	14 "	66	15 "	51 "	50.00

List prices, if equipped with Wollensak between the lens Studio shutter, Style B: No. 3, \$30.00; No. 4, \$40.00; No. 5, \$55.00.



TAKEN WITH SERIES A PORTRAIT LENS WITH FULL OPENING AND ONE SECOND EXPOSURE. REDUCED FROM A NEGATIVE BY J. E. MOCK

Rapid Symmetrical Lens f-8.



Our Rapid Symmetrical Lens is suitable for all kinds of general photographic work, including portraiture and groups. It is of the convertible type both systems being corrected for use separately so it can be used for long focus work, copying, en-

larging, etc. It is composed of two combinations of imported glass each one consisting of a crown and flint accurately ground and polished and cemented together. For a lens at a moderate price, nothing on the market is better than the "RAPID SYMMETRICAL" as it works at a good speed, covers the plate sharply and will give great depth of focus and fine definition. We carry in stock all the sizes listed and so are in a position to fill orders without delay.

PRICE LIST.

				Price,			
Size.	Diameter.	Equivalent Focus.	With barrel or Winner Shutter	With Regular Shutter	With Automatic Shutter		
3½ x 4½	å inch.	5 inches.	\$12.00	\$13.00	\$16.00		
4 x 5	1 "	61 "	14.00	15.00	19.00		
5 x 7	118 "	8 "	17.00	18.00	22.00		
6 x 8 ½	11 "	101 44	22.00	23.00	27.00		
8 x 10	18 "	121 "	28.00	30.00	34.00		
10 x 12	2 "	16 "	40.00	43.00	46.00		
11 x 14	21 "	181 "	52.00	55.00	58.00		
14 x 17	28 11	21 "	70.00	75.00	78.00		
17 x 20	31 "	26 "	80.00	85.00	88.00		

Focus of Separate Combinations when Used Singly.

Size.	Rear Lens.	Front Lens.	Size.	Rear Lens.	Front Lens.
$3\frac{1}{4} \times 4\frac{1}{4}$	81 inches.	11½ inches.	10 x 12	26 inches.	38 inches.
4 x 5 5 x 7	10½ " 14 "	14½ " 18 "	11 x 14 14 x 17	31 "35 "	43 "
$6\frac{1}{2} \times 8\frac{1}{2} \\ 8 \times 10$	17½ " 20 "	23½ " 28¼ "	17 x 20	44 "	60 "

Rapid Rectilinear Lenses.



FOR all ordinary work where high speed is not essential and where a convertible lens is not desired, we recommend the purchase of our "Rapid Rectilinear" as it is giving entire satisfaction to thousands of users. It is composed of two combinations of two lenses each, cemented together, both systems being of the same focal length which is about double the equivalent focus. It is made with the utmost care of imported glass, will cut the plate sharply with good definition and when stopped down

a little the work will compare favorably with high priced lenses used at full aperture. It is made in five sizes, the largest being 8×10 and can be furnished in barrel with iris diaphragm and cap or mounted in any of our shutters.

PRICE LIST.

				Price.	
Size.	ize. Diameter, For $x 4\frac{1}{4}$ $\frac{8}{4}$ inch. 5 in $x 5$ 1 " $6\frac{1}{4}$	Equivalent Focus.	With barrel or Winner Shutter.	With Regular Shutter.	With Automatic Shutter.
3½ x 4½	å inch.	5 inches.	\$ 9.00	\$10.00	\$13.00
4 x5	1 "	64 "	11.00	12.00	16.00
5 x7	11 "	8 "	13.00	14.00	18.00
61 x 81	11 "	101 "	18.00	19.00	23.00
8 x 10	14 "	121 "	23.00	25.00	29.00

Wide Angle Lenses.

Our SYMMETRICAL WIDE ANGLE is furnished in barrel or mounted in cells to fit our shutters so that the lens ordinarily in use can be taken off the shutter and the wide angle lens substituted. This is a very satisfactory lens at a moderate price and embraces a field of from 80 to 85 degrees.

THE EXTREME WIDE ANGLE cannot be used in shutters, as the two combinations are too close together. It is mounted in barrel with rotary stops and has the remarkably wide angle of 100 degrees.

PRICE LIST.

	4 x 5	5 x 7	6½ x 8½	8 x 10	10 x 12	11 x 14
Extreme W. A. in barrel. Symmetrical W. A. in barrel. W. A. in mounts.	\$9.00	\$18.00 12.00 9.00	15.00	18.00	22.00	27.00

Single Achromatic Lenses.

Our single lenses are constructed of a crown and flint of imported glass and are carefully ground and polished. These lenses are usually sold in large quantities for special work or fixed focus cameras, so we give list price in Junior shutters only but will quote special price in quantities and make the lens to suit the purchaser's requirements.

Price List of Junior and Senior Shutters with Lenses.

	81 x 41	4 x 5	5 x 7
Junior with Single Achromatic Lens.	\$3.00	\$3.25	\$ 3.50
" Rapid Rectilinear Lens.	6.00	7.00	9.00
Senior " " " "	7.00	8.00	10.00

Price List of Stereo Shutters with Lenses.

	With Rapid I	Rect. Lenses.	With Rapid Sym. Lens		
	31 x 41	4 x 5	31 x 41	4 x 5	
Senior Stereo.	\$16.00	\$18 00	\$24.00	\$31.00	
Winner "	18.00	25.00	26.00		
Regular " Automatic "	20.00	27.00	28.00	33.00	
	25.00	32.00	33.00	38.00	

Mounting Lenses.



WE have exceptional facilities for the accurate fitting of lenses of all makes and guarantee perfect satisfaction when we do the mounting. Any lens having a separation of $2\frac{1}{2}$ mm. ($\frac{1}{8}$ of an inch) or more can be mounted in Wollensak shutters. The barrel is left intact, so that the lens may be used in either shutter or barrel. On page 28 will

be found tables giving all dimensions of our different size shutters which

will enable any one to determine the size necessary for a lens and on the same page will also be found the

prices charged for mounting and fitting, making special scales, etc.

We ordinarily return a lens within three days but if so desired and the order is marked "rush" we can usually ship within 24 hours of the time received.

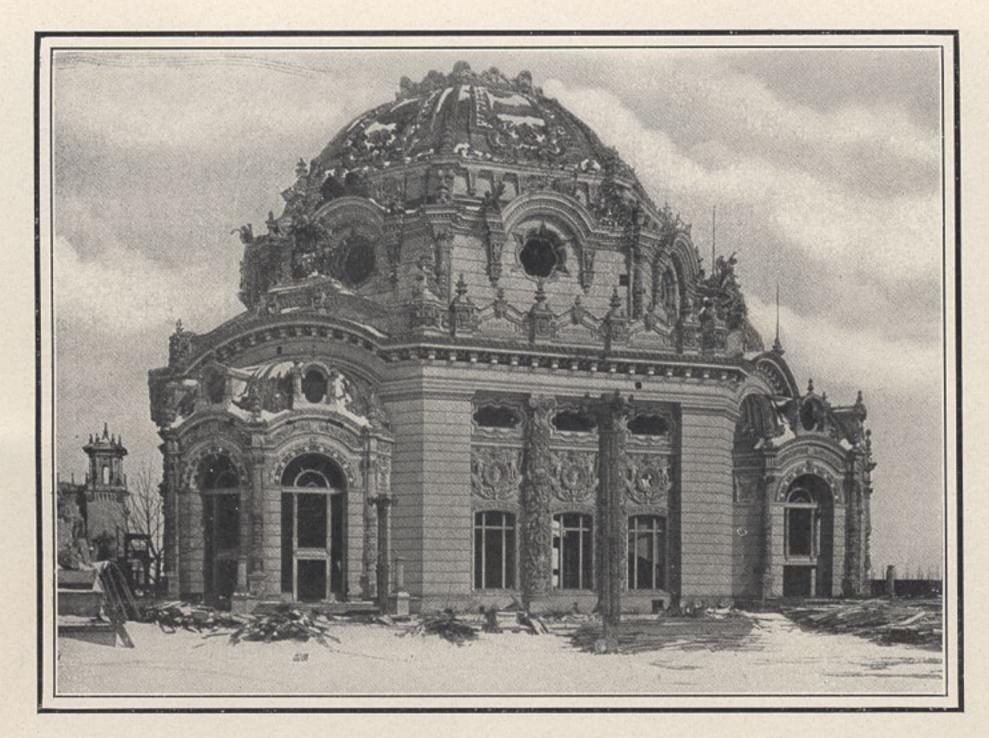
Iris Diaphragms.

FOR the use of Lens manufacturers we make nine sizes of iris diaphragms which are furnished in compact form ready to insert in the lens barrel and have removable pin to attach to the indicator.

PRICE LIST.

Number	1	2	3	4	5	6	7	8 .	9
Opening Outside Diameter			$1\frac{1}{4}$ $1\frac{23}{32}$						
Price	\$1.50								

Note—Above measurements are given in inches. The thickness of diaphragms vary from $\frac{5}{16}$ of an inch for the No. 1 to $\frac{9}{16}$ for the No. 9.



TAKEN WITH ROYAL ANASTIGMAT SERIES I

A Few Unsolicited Testimonials.

WE have never considered it necessary to ask for letters of indorsement from our customers but in the ordinary course of correspondence many of them express satisfaction with their purchases, and we give herewith some extracts from their letters, the few which we publish giving a good general idea of what people in all parts of the country think of our product. We selected the first two to demonstrate that our shutters will stand all climates from frozen Alaska to torrid Oklahoma.

" I use three of your shutters and all give perfect satisfaction."

CORTES FORD,

Skagway, Alaska.

"I have used your shutters ever since their introduction to my entire satisfaction, as they are capable of standing very hard usage and I cannot say too much in favor of them."

V. C. TRAPHAGEN,

Guymon, Okla.

"It is certainly the neatest, lightest and most ingenious shutter I have yet seen and the workmanship is exquisite."

DR. GEO. E. BLACKMAN, Dunkirk, N. Y.

"No other lens has given us the satisfaction that yours has and we are now using two of your 8 x 10 size." THE L. G. J. LEHR CO., Cleveland, Ohio.

"I purchased one of your shutters shortly after receiving your catalogue and am highly pleased with it. It is beautiful in finish and durable in construction."

M. V. THURSTON,

Brooklyn, N. Y.

"I beg to express my satisfaction with your SKYSHADE shutter which I have used for the past two months with excellent results. I have tried every form of shutter intended to equalize the illumination of the plate that has come to my notice, but have heretofore found all of them too bulky for use on an ordinary camera. With the Skyshade I have secured absolute sharpness, catching the lightest and fleeciest clouds with fully exposed foreground, and can most heartily commend it to those wanting exposures as seen by the eye."

CHAS. E. KELLY,

Philadelphia, Pa.

"I am using one of the No. 5. Series A. Wollensak Portrait Lenses in my studio with great satisfaction to myself and my patrons I have half a dozen high priced lenses but the results attained with this lens compares very favorably with the work done by any of them." J. E. MOCK, Rochester, N. Y.

Special Order Work.

Our factory is equipped with modern labor saving machinery and is divided into three separate departments, viz: Brass Working, Lens Grinding and Die Making. We are prepared to submit estimates for manufacturing any special articles or dies which are within our line of work as it is often an advantage to have such work done under contract by a responsible company. In all cases where work is accepted a price will be given, sample submitted and date of delivery specified.

Terms.

SHIPPING instructions should always accompany orders but when not specified we will use our own judgment. Goods ordered by individuals or firms not having a satisfactory commercial rating will be sent C. O. D.

All goods are carefully packed and delivered to transportation companies and we cannot be responsible for damage during transit. No charge will be made for packing, all prices being F. O. B. at Rochester.

"WOLLENSAK" SHUTTERS AND LENSES

can be purchased from any dealer in photographic goods, or will be furnished direct from the factory where dealers are not accessible. For further information and for special discounts to the trade, address

WOLLENSAK OPTICAL COMPANY ROCHESTER, N. Y.

LONDON, 8 Bradford Avenue. PARIS, 6 Rue Beranger. HAMBURG, 16 Grosse Bleichen.

Table Showing Weights, Dimensions and Openings of Shutters.

Shutter.	Weight.	Outside Diameter.	Light Opening.	Lens Opening.
Junior,	21	2½ x 2½	\$	11/8
Senior,	21	2 x 2	- a 8	11/8
Regular, 31 x 41,	21	17 x 17	48	#
" 4 x 5,	31	21 x 21	7 8	$1\frac{3}{16}$
" 6½ x 8½,	51	2½ x 2½	13	14
" 8 x 10,	91	35 x 35	1 9	28 3
" 11 x 14,	16	45 x 45	21	3
" 17 x 20,	27	$6\frac{1}{4} \times 6\frac{1}{4}$	24	48
" Stereo 3\(\frac{1}{4}\) x 4\(\frac{1}{4}\),	$5\frac{1}{2}$	17 x 5	4	8 4
" " 4 x 5,	7	21 x 51	7 8	13
Senior Stereo,	5	2 x 51	5 8	$1\frac{1}{8}$

The size and openings of the Automatic and Winner Shutters are the same as the Regular. The weight of the Automatic is the same and of the Winner about ten per cent. less.

Note-Weights given in ounces, dimensions in inches.

Table Showing Standard Focal Lengths of Lenses in Inches.

Lenses.	$3\frac{1}{4} \times 4\frac{1}{4}$	4 x 5	5 x 7	$6\frac{1}{2} \times 8\frac{1}{2}$	8 x 10	10 x 12	11 x 14	14 x 17	17 x 20
Single Lens, Double Lens, Convertible Lens, rear, " front, Sym. Wide Angle, Extreme Wide Angle,	$\begin{array}{c} 4\frac{1}{2} \\ 5 \\ 8\frac{1}{4} \\ 11\frac{1}{2} \end{array}$	$\begin{array}{c} 5\frac{1}{2} \\ 6\frac{1}{4} \\ 10\frac{1}{2} \\ 14\frac{1}{2} \\ 4 \end{array}$	$\begin{array}{c} 7 \\ 8 \\ 14 \\ 18 \\ 5\frac{1}{2} \\ 3\frac{1}{2} \end{array}$	$10\frac{1}{2}$ $17\frac{1}{2}$ $23\frac{1}{2}$ $6\frac{1}{2}$ $4\frac{1}{2}$	$12\frac{1}{2}$ 20 $28\frac{1}{2}$ 8 $5\frac{1}{4}$	16 26 38 $6\frac{1}{2}$	$18\frac{1}{2}$ 31 43 $7\frac{1}{2}$	21 35 49	26 44 60
S. A. Diameter, Double Lens Diameter, Wide Angle "	月 七 月 4	1 8 4	$\frac{1}{1\frac{1}{8}}$	$1^{\frac{1}{2}}$	1 ⁸ / ₄ 1 ¹ / ₈	$\frac{2}{1\frac{1}{2}}$	$\frac{2\frac{1}{4}}{1\frac{5}{8}}$	24	31

Price List of Parts, Fitting Special Lenses, etc.

Mounting and Fitting,	\$1.50	\$1.50	\$1.50	\$2.00	\$3.00	\$3.50	\$4.00	\$4.50	\$5.00
Extra Flanges,	.50	.50	.50	.75	1.00	1.50	1.50	2.00	2.00
Caps,	:30	.35	.40	.45	:50	.65	.75	1.00	1.25
Standard Double Mts.	.50	.60	.75	1.00	1.50	2.00	2.50	3.00	3.50

Bulbs and tubing, 25 cents.

Special focus or diaphragm scales, 50 cents.

Special front for Folding Pocket Kodak, \$2.00.