

# KORONA CAMERAS



GUNDLACH-MANHATTAN OPTICAL Co.  
— ROCHESTER, N.Y. —

**The Weidenthal  
Photo Supply Co.**  
Dealers in  
**Cameras, Lenses and Supplies**

**JUST A  
REMINDER**

*LOOK OVER THIS LIST AND  
CHECK OFF WHAT  
YOU NEED*

**1909-1910**

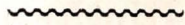
**415 Prospect Avenue, S. E.  
Cleveland, Ohio**

Cuyahoga Telephone  
Central 3890 T

Bell Telephone  
Main 2637 J



# Special Price List



Cyko Post Cards	13c doz.	\$1.20 per Gross	\$3.75 for 500	\$7.00 per Thousand
Argo " "	- 13c "	75c per Hundred	3.50 for 500	6.50 per "
Artura " "	20c "	\$2.00 per Gross	5.00 for 500	8.50 per "

Artura Developing Paper	-	-	at List
Argo " "	-	-	20% off "
Cyko " "	-	-	20% " "
Disco Printing out " "	-	-	20% " "

## PLATES

	3¼ x 4¼	3¼ x 5½	4 x 5	4¼ x 6½	5 x 7	6½ x 8½	8 x 10
Challange	23	35	33	45	55	83	120
Vulcan	23	35	33	45	55	83	120
Stanly	23	35	33	45	55	83	120
Standard	27	42	39	54	66	99	144
Cramer Banner X	30	45	43	59	72	108	156
"    Crown	32	48	46	63	77	116	168
"    Iso	34	52	49	68	83	124	180
Lumiere Blue Label	27	42	39	54	66	99	144
"    Sigma	36		52		88	132	192

	oz.	1-4 lb.	1-21 lb.	lb.
Metal ( Hauff )	.65	\$2.50	\$4.50	\$8.50
Pyro ( Mallinckrodt )	.21	.65	1.10	2.10
Hydrochinone	.15	.40	.75	1.40
Sulphite of Soda ( Mall )		Crystals 15c lb.		Anhydrous .24
Carbonate of Soda "		" 13c "		" .17
Bicarbonate of " "				" .13
Sulphate " " "				" .19
Chrome Alum		Crystals 17c lb.		" .25
Powdered "				.12
Bromide Potassium		9c oz.		.40
Chloride of Gold ( Mall )			Bottle of 15 Grains	.45
Hypo Pea Crystal		3c lb.		100 lbs. \$2.45
Flash Powder		No. 1, 30c lb.		No. 2, \$1.10
"    "    Cartridges ( Box of 6 )		No. 1, 25c lb.		No. 2, .40

## DEVELOPING POWDERS

5c Size M. Q. Developing Powders for	-	-	-	-	-	3c
10c " " " " " " " " " " " "	-	-	-	-	-	5c
Burke & James—Pyro—Hydrochinone—Hydro Metal	-					18c for Box of 6
" " " Auto Tank—Watkins Time Developer	-	-				22c " " " 6
" " " 4 oz. M. Q. Tubes	-	-	-	-		22c " " " 6
" " " Professional M. Q. Tubes	-	-	-	-		35c " " " 6
" " " Toning and Fixing Powder	-	-	-	-		22c " " " 6

Also all of Mitchell's Cyko and Artura Developing Powders.

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WE CARRY A FULL LINE OF

## Korona, Seneca and Ansco Cameras

All Sizes Ansco Films

Goerz, Turner-Reich, Voightlander, Bausch and Lomb  
and Wollensak Lenses

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Write for Prices and Catalogues

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We Will Take Your Second Hand Camera or Lense in Trade on  
New Outfits. Prices on Some Articles May Fluctuate.

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### OUR TERMS ARE CASH.

Remit by Postal Order, Express Order or draft on bank. Personal checks  
not accepted. Stamps will be accepted for orders of \$1.00 or less.

Orders for not less than \$2.00 may be sent by express c.o.d., providing one-  
third of total amount accompanies the order.

Orders shipped by mail at purchasers risk.



## INTRODUCTION



AN ARIZONA ELECTION  
Copyright 1906  
Simeon Schweinberger  
St. Michaels, Ariz.

**P**HOTOGRAPHY advances every year. It has steadily become more important commercially. It has won recognition for its value as a pictorial and artistic method of reproducing nature and it has taken a high place in science which utilizes its possibilities in many different ways. As a means of recreation it has no equal and to the student of its chemistry, optics and various applications it never loses interest and well repays the time devoted to it.

During a quarter of a century we have kept pace with the progress of photography by evolving cameras and lenses adapted to the higher development of the art, and the more critical demands of the photographer. Our cameras, lenses and other photographic apparatus and optical instruments are better than ever this year, due to our greater experience, the development of new ideas and our constant effort to maintain our reputation as the makers of the best grade of goods the market affords.

Personal examination of our products will prove their perfection in construction, design and finish and we hope that all who read this catalogue will put our goods to the test of practical use.

## *SOME GOOD POINTS ABOUT THE CONSTRUCTION OF KORONA CAMERAS*

**R**EGARDLESS of the similarity between cameras in appearance there is a great difference in the general features of their construction and the means used to secure certain mechanical results. Two cameras of the same type which list at about the same prices can represent a wide difference in manufacturing cost and value to the purchaser. One may be a cheaply made camera listing at a catalogue price of \$25.00 which is always retailed at a big discount. It is never worth \$25.00 except in the catalogue. The other will actually be a \$25.00 camera into which its maker has incorporated the best features and finest workmanship, and in comparison it may be a better camera for \$25.00 than the other is for \$15.00 or whatever bargain price is paid for it.

Korona cameras exemplify more expensive construction than any others and we endeavor to make them so superior in every detail that they will prove the best value under any comparison of prices.

### *The Intending Purchaser*

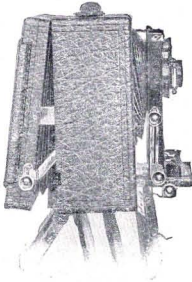
Of a camera should carefully note the following features of Korona construction and look for points of equal merit in other cameras under consideration. All the parts of Korona cameras are so simple in principle and action that any one of ordinary mechanical knowledge can estimate their advantages and test their efficiency.

### *The Bellows*

Is made of a waterproof material, absolutely opaque and with better wearing qualities than skivers. It has a nice grained finish. All bellows are lined with the best grade of rubber cloth. For harmony and contrast we furnish a black bellows with mahogany cameras and a red bellows with those having an ebony finish.



### *The Swing Back*



As a feature of Korona cameras always conforms to the correct principle by having the pivotal point located as near as possible to the middle of the plate. Any other construction is incorrect and consequently ineffective. A central swing does not disturb the focal point; therefore, the lens may be used with a much larger diaphragm opening than when the swing back is wrongly designed. Series III and IV Koronas have an improved central swing which extends automatically by pressing a concealed button on each side of the camera. It can be closed without touching the buttons. The swing back of Series V Korona extends automatically when the bed is dropped and it is closed by the reverse movement. By this ingenious arrangement (patented) the swing back is always ready for use when the camera is open.

### *Wide Angle Beds*



We originated and patented the idea of a supplementary bed for lenses of short focus and as any purchaser of a camera may of necessity have to use a wide angle lens at times it is an important advantage of Korona cameras that they are all adapted to take our inexpensive and convenient wide angle bed plate. We make a special auxiliary wide angle bed with rack and pinion adjustment for the Series V Korona.

### *The Rack and Pinion*

The diagonal rack and pinion is always used for scientific instruments where precision is required and this is an exclusive feature of our cameras. All our rack and pinion adjustments are fitted carefully to operate smoothly and without lost motion.

## OTHER KORONA ADVANTAGES

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### *The Double Action Kick Springs*

Insure a uniformly strong pressure against the side arms and rigidity to the bed which is necessary for good work and adds to the serviceable qualities of the camera.

### *The Adjustable Front Locks*

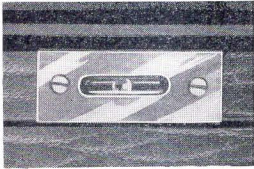
With parallel bearings keep the front always at right angles to the bed plate and provide for taking up the wear from use.

Every part whether of wood or metal has been proportioned to be strong and serviceable.

### *All The Pinion Rods*

Lock at any point by means of a milled sleeve which meshes into a socket, holding the focal extension positively in a very simple and convenient manner.

### *The Horizon Level*



Is a new idea. It provides a flush spirit level with which the camera can be accurately leveled horizontally.

All our ground glass frames are detachable, making the interior of our cameras accessible. THE BACK DOORS pro-

tecting the ground glass are made of metal and, therefore will not shrink, swell or warp.

Our cameras have been improved to the highest state of mechanical perfection and there are many other details of their construction which we can not describe fully that evidence the care with which they are made.

The purchaser of a poorly constructed camera always discovers its faults and weak points when it is put to practical use. Any camera of ours is sure to prove reliable and convince the customer that it pays to buy the best.



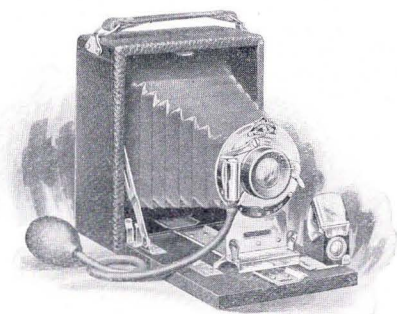


Taken with lens  
of 6" focus

Made with a  
**PANCRATIC TELE-PHOTO LENS**  
Magnification 6 Diameters

Reproduced by permission of  
Mr. P. B. Wallace, Phila., Pa.

## MARVEL PETIT



**T**HE beginner can select this camera with confidence that it will give thorough satisfaction in results and service. There is absolutely nothing about it to get out of order and it conforms to our Korona standard of quality and finish in every particular.

### Construction

Mahogany with rubbed finish, metal work nickel plated, seal grain cover, spring actuated focusing screen, piano hinge, reversible finder, tripod sockets, automatic front grip.

### Equipment

Rapid Rectilinear Lens F: 8, Junior Automatic Shutter.

	$3\frac{1}{4} \times 4\frac{1}{4}$	$3\frac{1}{4} \times 5\frac{1}{2}$
Bellows length .....	6 inches	8 inches
Dimensions .....	$2\frac{1}{2} \times 4\frac{1}{2} \times 5\frac{3}{8}$	$2\frac{3}{4} \times 4\frac{1}{2} \times 6\frac{5}{8}$
Weight .....	19 oz.	24 oz.

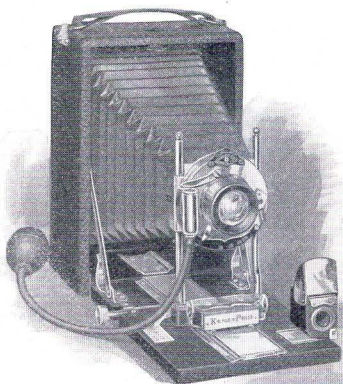
### Prices

Including one Korona Plate Holder.

	$3\frac{1}{4} \times 4\frac{1}{4}$	$3\frac{1}{4} \times 5\frac{1}{2}$
Marvel Petit .....	\$10.00	\$12.00
Korona Plate Holders .....	.80	.90
Covered Carrying Case, for camera and four holders.....	1.30	1.50
Sole Leather Case, for camera and four holders.....	2.50	2.50
Korona Adapter, for film packs, patented.....	1.00	1.25
Shoulder Strap 48 in. ....	.25	.25



## KORONA PETIT



**T**HIS model has some adjustments of inestimable value which are usually omitted from cameras of this size and price. The front has vertical and horizontal adjustments and the rack and pinion is of great convenience for rapid and accurate focusing.

The Korona Petit is, from every standpoint, the best camera ever made for the money, as comparison will prove.

### *Construction*

Mahogany with rubbed finish, metal work nickel plated, walrus grain cover, spring actuated focusing screen, brilliant finder, automatic grip, piano hinge.

### *Equipment*

Rapid Rectilinear Lens F: 8, Junior Automatic Shutter.

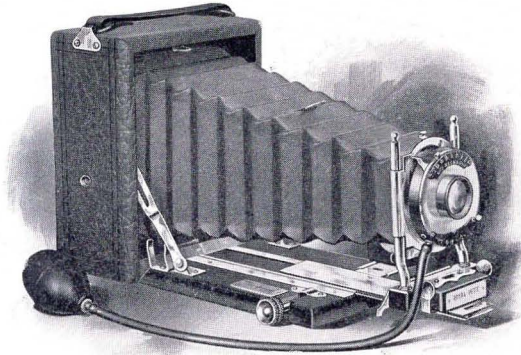
	3¼ x 4¼	3¼ x 5½
Bellows length .....	7 inches	9 inches
Dimensions .....	2½ x 4½ x 5⅜	2¾ x 4½ x 6⅝
Weight .....	19 oz.	24 oz.

### *Prices*

Including one Korona Plate Holder.

	3¼ x 4¼	3¼ x 5½
Korona Petit .....	\$12.00	\$14.00
Korona Petit, Turner-Reich, Anastigmat F: 6.8 Regno Shutter .....	40.00	45.00
Korona Plate Holders .....	.80	.90
Covered Carrying Case, for camera and four holders.....	1.30	1.50
Sole Leather Case, for camera and four holders.....	2.50	2.50
Korona Adapter for film packs, patented.....	1.00	1.25
Shoulder Strap 48 in. ....	.25	.25
Victus Shutter \$3.00 extra. Regno Shutter \$4.00 extra. Autex Shutter \$6.00 extra.		

## ROYAL PETIT



**T**HE Royal Petit is an edition de luxe of the Korona Petit. In construction it has the advantage of greater bellows capacity adapting it to lenses of longer focal length and close work. Its finish is improved by a handsome cover of bear grain leather. The bellows length allows the rear combination of the lens to be used separately. The illustration shows very inadequately the appearance of this exquisite little camera.

### Construction

Mahogany with rubbed finish, metal work nickel plated, bear grain cowhide cover, spring actuated focusing screen, brilliant finder, automatic grip, piano hinge, vertical and horizontal front adjustment, rack and pinion.

### Equipment

Rapid Convertible Lens F: 8, Victus Shutter.

Bellows length .....	9 inches
Dimensions .....	2½ x 4½ x 5⅜
Weight .....	20 oz.

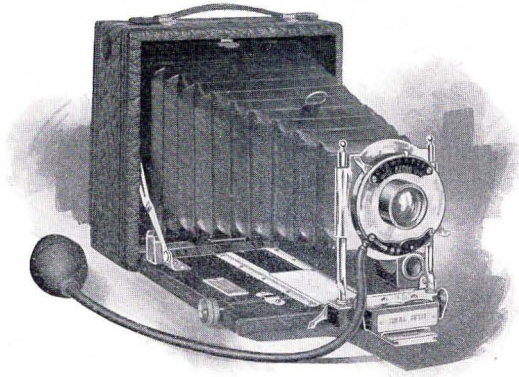
### Prices

Including one Korona Plate Holder.

3¼x4¼ Royal Petit .....	\$18.50
3¼x4¼ Royal Petit Series II Turner-Reich lens, Autex Shutter.....	48.50
Korona Plate Holders, each .....	.80
Covered Carrying Case, for camera and four holders.....	1.30
Sole Leather Case, velvet lined, for camera and four holders.....	3.00
Korona Adapter, for film packs, patented.....	1.00
Shoulder Strap 48 in. ....	.25
Compound Shutter, extra.....	10.30
Optimo Shutter, extra .....	9.00
Koilos Shutter, extra.....	9.00



## *IDEAL PETIT*



**N**O camera of its size offers such a complete range of adjustments as the Ideal Petit and it is thoroughly adapted to a wide range of work. This camera fulfills perfectly the requirements of those who wish to make lantern slides or enlargements from  $3\frac{1}{4} \times 4\frac{1}{4}$  negatives. In finish and appearance it is superb.

### *Construction*

Mahogany with rubbed finish, metal work nickel plated, bear grain cowhide cover, reversible back, spring actuated focusing screen, rising and falling front and lateral front adjustment, diagonal rack and pinion, automatic front lock, brilliant finder, piano hinge, tripod sockets.

### *Equipment*

Rapid Convertible Lens F: 8, Victus Shutter.

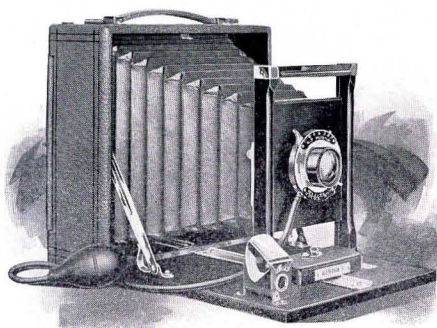
Bellows length .....	9½ inches
Dimensions .....	$2\frac{3}{8} \times 5\frac{1}{4} \times 5\frac{1}{4}$
Weight .....	24 oz.

### *Prices*

Including one Plate Holder.

3¼x4¼ Ideal Petit .....	\$20.00
3¼x4¼ Ideal Petit, Series II Turner-Reich Anastigmat F: 6.8.....	50.00
Korona Plate Holders, each .....	.80
Korona Adapter, for film packs.....	1.00
Covered Carrying Case, for camera and four holders.....	1.75
Sole Leather Case, velvet lined, for camera and four holders.....	3.50
Shoulder Strap 48 in.....	.25
Compound Shutter, extra .....	10.30
Optimo Shutter, extra .....	9.00
Koilos Shutter, extra .....	9.00

## SERIES I KORONA



**T**HIS is a camera which is admirably adapted to the work of a beginner. It has a rising and falling front which is a very desirable adjustment and a reversible back that is equally valuable as a useful feature. It is a simple, compact and serviceable camera which gives excellent value for its moderate price.

### *Construction*

Mahogany with rubbed finish, metal work nickel plated, seal grain cover, spring actuated focusing screen, brilliant finder, piano hinge, tripod sockets.

### *Equipment*

Rapid Rectilinear Lens F:8, Victus Shutter, Covered Carrying Case.

	4 x 5	5 x 7
Bellows length .....	7 inches	9 inches
Dimensions .....	3 x 6 $\frac{1}{4}$ x 6 $\frac{1}{4}$	3 $\frac{1}{8}$ x 8 x 8
Weight .....	2 lbs.	2 lbs., 13 oz.

### *Prices*

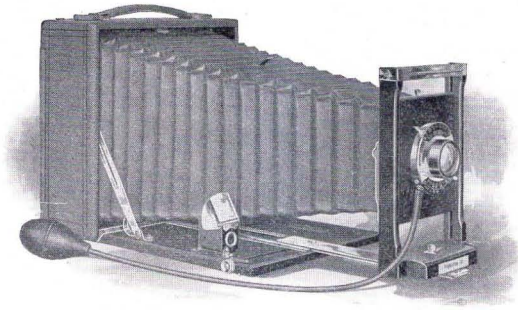
Including one Korona Plate Holder.

	4 x 5	5 x 7
Series I Korona .....	\$14.00	\$19.00
Series I Korona, without lens or shutter.....	11.00	15.00
Korona Plate Holders.....	.90	1.10
Emil Wide Angle Lens, in cells.....	5.00	6.00
Wide Angle Bed Plate, patented.....	.50	.50
Korona Adapter, for film packs, patented.....	1.25	2.00
Shoulder Strap 48 in. ....	.25	.25

Regno Shutter extra \$1.00. Autex Shutter extra \$5.00



## SERIES II KORONA



**I**N comparison with the Series I Korona this design has the advantages of a rack and pinion for quick and accurate focusing, more bellows length, a convertible lens of which the rear combination may be used separately to magnify the image. This camera offers greater possibilities for copying and other close work.

### *Construction*

Mahogany with rubbed finish, metal work nickel plated, walrus grain cover, spring actuated focusing screen, brilliant finder, piano hinge, tripod sockets.

### *Equipment*

Convertible Rapid Rectilinear Lens F: 8, Regno Shutter, Covered Carrying Case.

	4 x 5	5 x 7
Bellows length .....	11½ inches	15¾ inches
Dimensions .....	3 x 6¼ x 6¼	3⅛ x 8 x 8
Weight .....	2 lbs., 3 oz.	3 lbs., 4 oz.

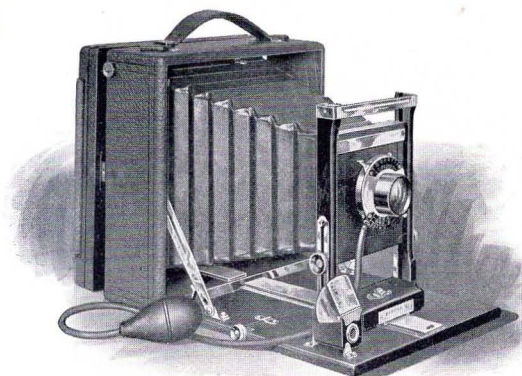
### *Prices*

Including one Korona Plate Holder.

	4 x 5	5 x 7
Series II Korona .....	\$19.00	\$24.00
Series II Korona, Rapid Rectigraphic Lens.....	25.00	33.00
Series II Korona, Series III. Turner-Reich Anastigmat F: 6.8	44.00	52.00
Series II Korona without lens or shutter.....	16.00	20.00
Korona Plate Holders, each .....	.90	1.10
Emil Wide Angle Lens, in cells.....	5.00	6.00
Wide Angle Bed Plate, patented.....	.50	.50
Korona Adapter, for film packs, patented.....	1.00	2.00
Shoulder Strap 48 in. ....	.25	.25

Autex Shutter, extra, \$4.00

## SERIES III KORONA



**T**HE addition of the swing back makes this a very desirable camera for taking architectural subjects for which this is an essential adjustment. The detachable lens board is also manifestly convenient if more than one lens is used and the front is operated by rack and pinion which permits its adjustment while the photographer is examining the image on the focusing screen. The lens board is released by raising it until the lower edge clears the groove in which it rests.

### *Construction*

Mahogany with rubbed finish, metal work nickel plated, walrus grain cover, spring actuated focusing screen, brilliant finder, horizon level, piano hinge, tripod sockets, automatic swing back, reversible back, diagonal rack and pinion, detachable lens board, rising and falling front operated by rack and pinion, adjustable front lock.

### *Equipment*

Rapid Convertible Lens, F: 8, Regno Shutter, Sole Leather Carrying Case.

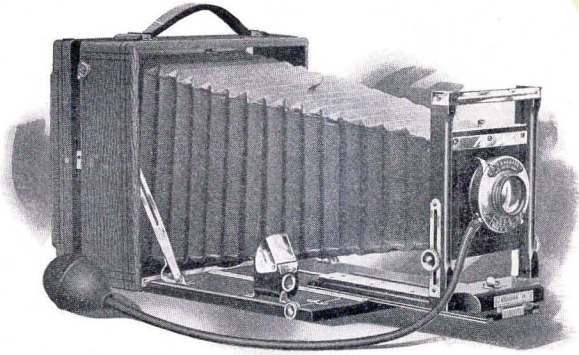
	4 x 5	5 x 7
Bellows length .....	8 inches	10 inches
Dimensions .....	3 x 6 $\frac{1}{4}$ x 6 $\frac{1}{4}$	3 $\frac{1}{2}$ x 8 x 8
Weight .....	2 lbs., 8 oz.	3 lbs., 8 oz

### *Prices*

Including one Korona Plate Holder.

	4 x 5	5 x 7
Series III Korona .....	\$25.00	\$30.00
Series III Korona, Rapid Rectigraphic Lens.....	31.00	39.00
Series III Korona, Series III Turner-Reich Anastigmat F: 6.8	50.00	58.00
Series III Korona, without lens or shutter.....	21.00	25.00
Korona Plate Holders, each.....	.90	1.10
Emil Wide Angle Lens, in cells.....	5.00	6.00
Wide Angle Bed Plate, patented.....	.50	.50
Korona Adapter, for film packs, patented.....	1.00	2.00
Shoulder Strap 48 in.....	.25	.25
Autex Shutter, extra.....	4.00	4.00

## SERIES IV KORONA



**T**HIS camera is the counterpart of our Series III with the exception that it has greater bellows capacity. The extension bed is made of mahogany with metal bearings and it is very rigid when racked out full length. The Series IV Korona possesses every essential adjustment of a complete camera and it is well qualified to the requirements of advanced photography. It is exceedingly well adapted to such a wide range of subjects as interiors with wide angle lenses and tele-photography of moderate amplifications.

### *Construction*

Mahogany with rubbed finish, metal work nickel plated, walrus grain cover, spring actuated focusing screen, brilliant finder, horizon level, piano hinge, tripod sockets, automatic swing back, reversible back, diagonal rack and pinion, detachable lens board, rising and falling front operated by rack and pinion, adjustable front lock, extension bed.

### *Equipment*

Rapid Convertible Lens F: 8, Autex Shutter. Sole Leather Case.

	4 x 5	5 x 7	6 1/2 x 8 1/2
Bellows length .....	12 inches	16 1/2 inches	20 inches
Dimensions .....	3 1/4 x 6 1/4 x 6 1/4	3 1/2 x 8 x 8	5 x 10 1/8 x 10 1/8
Weight .....	2 lb., 11 oz.	3 lb., 11 oz.	6 lb., 8 oz.

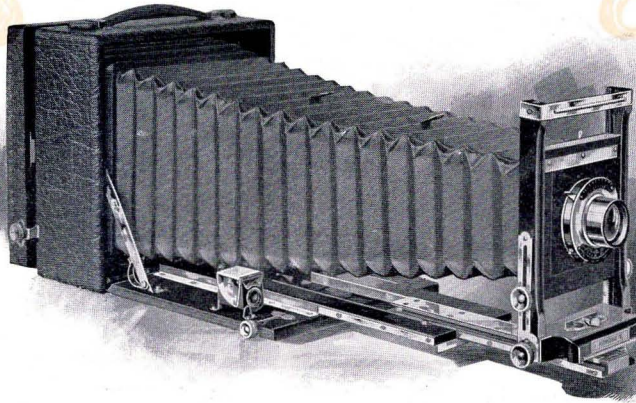
### *Prices*

Including one Korona Plate Holder.

	4x5	5x7	6 1/2x8 1/2
Series IV Korona, as above .....	\$28.00	\$35.00	\$48.00
Series IV Korona, Rapid Rectigraphic Lens .....	36.00	44.00	56.00
Series IV Korona, Series II Turner-Reich, Anastigmat F: 6.8 .....	58.00	71.00	101.00
Series IV Korona, without lens or shutter .....	24.00	30.00	38.00
Korona Plate Holders, each .....	.90	1.10	1.60
Emil Wide Angle Lens, in cells .....	5.00	6.00	8.00
Wide Angle Bed Plate, patented .....	.50	.50	.50
Korona Adapter, for film packs, patented .....	1.25	2.00	not made
Shoulder Strap 48 in. ....	.25	.25	.25



## SERIES V KORONA



**T**HE Series V Korona is in every respect an ideal camera and a plain statement of its attributes conveys a very inadequate idea of this superb instrument. It has so many exclusive features that we may justly describe it as an incomparable camera of its class.

The construction of the bed deserves an explanation in detail. The center section is automatically unlocked and carried out by the front and it locks in position when its limit of movement has been reached. The front returns it in the same way without this section requiring any individual attention. To secure the full bed extension the front is pulled out as far as it will go, carrying with it the center bed section and the other section is adjusted by rack and pinion. All the bearing surfaces are brass bound to insure smooth action and accurate fitting.

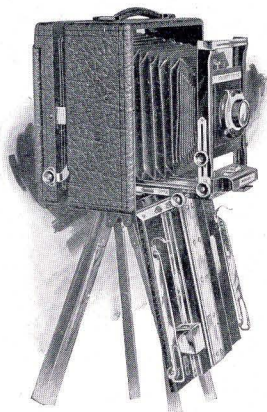
The front has vertical and horizontal adjustments by rack and pinion and a lateral movement controlled by a worm screw. The front lock has an adjustment grip with parallel bearings, keeping the front at right angles to the bed. The lens board is detachable without catches of any kind to consider.

The automatic swing back is controlled by the side arms and the back extends and is closed by the action of opening and closing the camera.

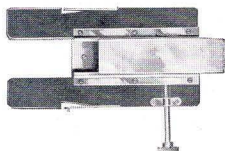
For wide angle work the bed proper drops by detaching the side arms and the auxiliary wide angle bed takes its place. The wide angle bed plate may also be used with this camera.

## SERIES V KORONA—Continued

### Construction



Mahogany rubbed finish, bear grain cowhide cover, padded handle, triple extension bed, reversible back, spring actuated focusing screen, automatic swing back, diagonal rack and pinion, rising and falling front operated by rack and pinion, lateral front movement with screw adjustment, detachable lens board, horizon level, brilliant finder, piano hinge, tripod sockets.



### Equipment

Rapid Convertible Lens F: 8, Korona Autex Shutter, Sole Leather Carrying Case, velvet lined.

	4 x 5	5 x 7	6½ x 8½
Bellows extension .....	15½ inches	20 inches	26 inches
Dimensions .....	3¾ x 6¼ x 6¼	4¼ x 8 x 8	5 x 10⅛ x 10⅛
Weight .....	3 lbs.	4 lbs. 6 oz.	6 lbs. 8 oz.

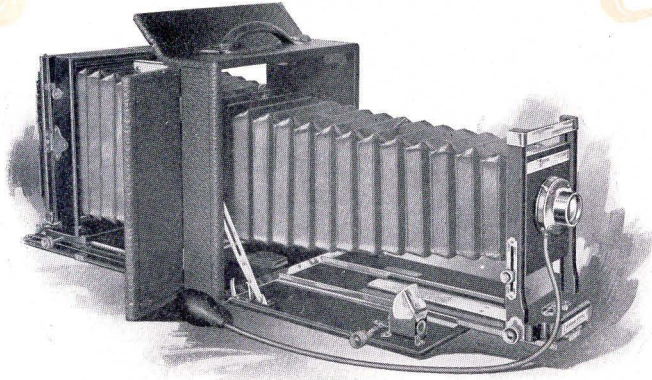
### Prices

Including one Korona Plate Holder.

	4 x 5	5 x 7	6½ x 8½
Series V Korona, as above.....	\$35.00	\$45.00	\$65.00
Series V Korona, Rapid Rectigraphic Lens.....	43.00	54.00	73.00
Series V Korona, Series II Turner-Reich Anastigmat			
F: 6.8 .....	65.00	81.00	118.00
Series V Korona, without lens or shutter.....	30.00	40.00	50.00
Korona Plate Holders, each .....	.90	1.10	1.60
Auxiliary Wide Angle Bed, patented.....	2.00	2.00	3.00
Emil Wide Angle Lens, in cells.....	5.00	6.00	8.00
Korona Adapter, for film packs, patented.....	1.25	2.00	
Compound Shutter, extra.....	12.00	12.75	13.25
Optimo Shutter, extra.....	10.00	10.00	10.00
Koilos Shutter, extra.....	8.25	10.00	11.00



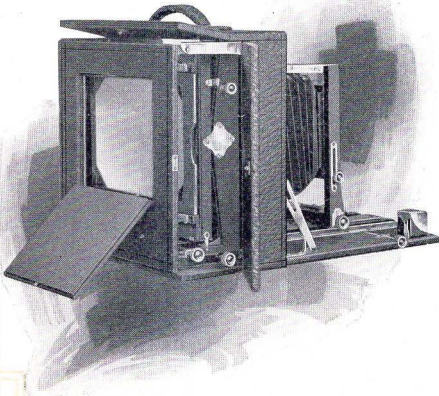
## KORONA ROYAL



**T**HE Korona Royal is pre-eminently a camera for the specialist, the photographer of birds, the botanist and others who follow the higher branches of photography. It is exceptionally well adapted for telephoto work and the use of convertible lenses by its rigid construction and unusual bellows capacity.

It is quite as convenient for ordinary tripod use and may also be employed as a hand camera, so the Korona Royal may well be regarded as a universal camera. For wide angle work the front bed drops to clear the field of the lens and the rear bed may be lowered also by disconnecting the supporting side arm.

The Royal may be focused from the front or rear with rack and pinion and all adjustments are controlled in this manner except the lateral front motion which is operated by a worm screw. Without using the rear extension the bellows capacity is 18 inches in 5 x 7 size. We have done everything possible to combine utility, strength, lightness and compactness in this camera and make it perfect in every detail of construction.



## *KORONA ROYAL—Continued*

### *Construction*

Mahogany, rubbed finish, bear grain cowhide cover, padded handle, front and rear extension, reversible back with improved spring action to ground glass frame, vertical and horizontal swings operated by rack and pinion, rising and falling front with rack and pinion, lateral front adjustment, brilliant finder, piano hinges, detachable lens board.

### *Equipment*

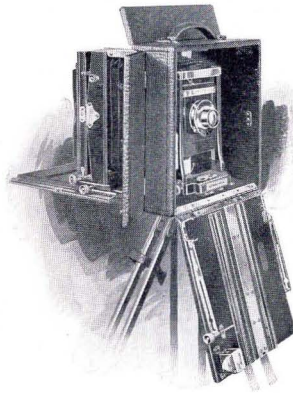
Rapid Convertible Lens F: 8, Autex Shutter.

	5 x 7	6½ x 8½	8 x 10
Bellows length .....	28 inches	34 inches	40 inches
Dimensions .....	5½ x 9¾ x 10	6¼ x 12 x 12½	8 x 13¾ x 14½
Weight .....	7 lbs. 4 oz.	13 lbs.	16 lbs.

### *Prices*

Including one Korona Holder.

	5 x 7	6½ x 8½	8 x 10
Korona Royal, .....	\$60.00	\$75.00	\$90.00
Korona Royal, Rapid Rectigraphic Lens.....	69.00	83.00	100.00
Korona Royal, Series II Turner-Reich F: 6.8....	96.00	128.00	152.00
Korona Royal, without lens or shutter.....	50.00	60.00	75.00
Sole Leather Case, velvet lined, for camera only....	6.00	8.00	10.00
Sole Leather Case, velvet lined, for camera and eight holders .....	7.00	9.50	12.00
Korona Plate Holders, each .....	1.10	1.60	1.80
Emil Wide Angle Lens, in cells.....	6.00	8.00	10.00
Optimo Shutter, extra.....	10.00	10.00	10.00
Compound Shutter, extra.....	12.75	13.25	15.50
Koilos Shutter, extra.....	10.00	11.00	11.00





## SERIES VII KORONA



**A**N examination of this camera proves at once that it is Korona quality throughout and an excellent outfit for general hand camera work or use on a tripod. Its simplicity is an advantage to the beginner and does not detract in the least from its application to the wide range of subjects included in amateur photography.

### Construction

Mahogany, with rubbed finish, seal grain cover, metal work nickel plated, spring actuated focusing screen, rising and falling front, reversible finder, piano hinge, tripod sockets.

### Equipment

Lens according to order. Junior Automatic Shutter. Covered Carrying Case.

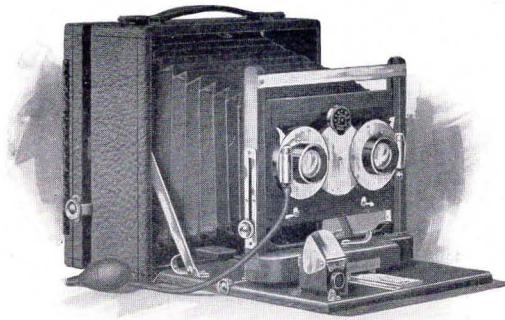
	4 x 5	5 x 7
Dimensions .....	$2\frac{3}{4} \times 5\frac{3}{8} \times 6\frac{1}{4}$	$3\frac{1}{4} \times 6\frac{1}{4} \times 8\frac{1}{4}$
Weight .....	1 lb., 9 oz.	2 lbs., 10 oz.
Bellows length .....	6 inches	8 inches

### Prices

\* Including one Korona Plate Holder.

	4 x 5	5 x 7
Series VIIA Korona, Rapid Achromatic Lens.....	\$9.00	\$13.00
Series VIIB Korona, Rapid Rectilinear Lens F:8.....	11.00	15.00
Regno Shutter, extra.....	4.00	4.00
Korona Plate Holders, each .....	.90	1.10
Korona Adapter, for film packs, patented.....	1.25	2.00
Emil Wide Angle Lens, in cells.....	5.00	6.00
Wide Angle Bed Plate, patented.....	.50	.50

## STEREO KORONAS



**T**HE Stereo Korona Series III, IV and V are similar to the regular models of these cameras in general construction and capacity but they are all covered with bear grain cowhide. The bellows division is instantly removable so these cameras are equally well adapted to 5x7 work. The carrying case has an extra compartment for holding a lens and shutter. The single combinations of convertible lenses are matched in focal length as well as the complete lenses.

### Prices

Including Carrying Case and one Korona Holder.

	Series III	Series IV	Series V
Korona Stereo, 4x5, Rectilinear Lenses F: 8, Winner Shutter .....	\$45.00	\$50.00	\$60.00
Korona Stereo, 4x5, Rapid Convertible Lenses F: 8, Winner Shutter.....	50.00	55.00	65.00
Korona Stereo, 4x5 Series II Turner-Reich Anastigmat Lenses F: 6.8, Winner Shutter.....	110.00	115.00	125.00
Regular Stereo Shutter, extra.....	2.00	2.00	2.00
Automatic Stereo Shutter, extra.....	7.00	7.00	7.00
Korona Stereo without lenses or shutter.....	30.00	35.00	45.00
Extra Lens Boards, each.....	.40	.40	.40

The above prices do not include a 5x7 lens and shutter.

## SERIES VII STEREO KORONA



**S**TEREOSCOPIC pictures is one of the most interesting applications of photography. The realism of stereo pictures gives them a scientific as well as pictorial value and the most simple subject produces a good result.

This camera offers a first-class outfit for a moderate price, which will give the best of results and provide as well a useful equipment for 5x7 work.

### *Construction*

Mahogany, rubbed finish, metal work nickel plated, seal grain cover, spring actuated focusing screen, rising and falling front, rack and pinion, brilliant finder.

### *Equipment*

4x5 Rapid Rectilinear Lenses F:8, Senior Automatic Stereo Shutter, Covered Carrying Case, to hold Camera and six Plate Holders with a compartment for a 5x7 Lens and Shutter.

Bellows length .....	10 inches
Dimensions .....	3½ x 6½ x 8½
Weight .....	3 lbs.

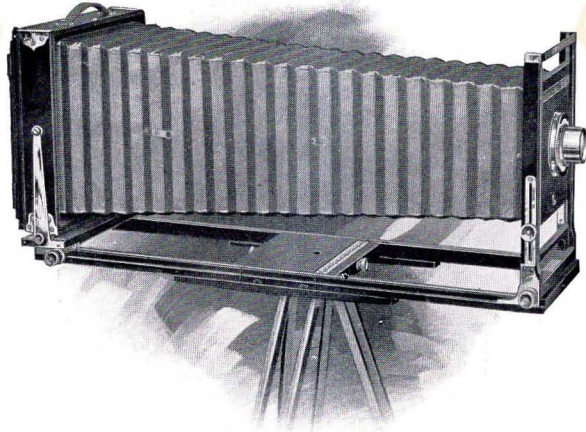
### *Prices*

Including one Korona Holder.

5x7 Series VII Stereo Korona .....	\$30.00
Korona Adapter, for film packs, patented .....	2.00
5x7 Rapid Rectilinear Lens F:8,Victus Automatic Shutter with lens board attached .....	9.00



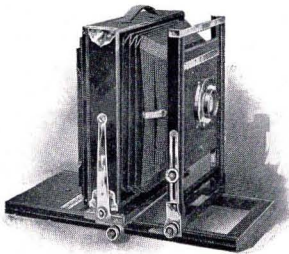
## KORONA VIEW



**T**HE Korona View is an incomparable camera for all kinds of work done by the commercial photographer. We have spared no effort to make it excel every camera of its class, but we have not added any showy attachments which have no practical value. We believe that any experienced photographer who examines the Korona View will concede that it is the best camera of its kind in construction, capacity, special features and finish.

One of its most valuable features is the improved focusing screen. The new construction is a pivoted spring action ground glass frame which keeps the plate holder firmly in place but allows its easy insertion and removal without danger of moving the camera. Both the front and back are furnished with pinion rods for focusing and the rising front is also operated by rack and pinion. The front will remain in any position without using the lock nut. The vertical swing is controlled by rack and pinion and both swings work from the centre.

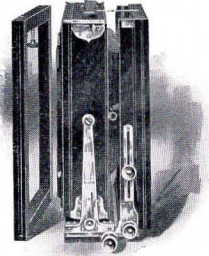
The rear bed section is detachable and a bed brace is included with each camera except in the 5 x 7 size. The bed brace adds greatly to the rigidity of the camera when it is fully extended. The reversible back is provided with a sliding panel for use in making two exposures on one plate.



We direct attention to the large size of the lens boards and the exceptional bellows length in all sizes of this camera. The 5x7 lens board will accommodate stereoscopic lenses. By the addition of the enlarging

## KORONA VIEW—continued

attachment which replaces the reversible back the Korona View becomes a perfect enlarging and reducing camera. The carrying case is strongly made, covered with canvas and lined with canton flannel. The usual straps are replaced by more convenient metal fasteners. The handle is a very comfortable shape. The long case carries the camera and six holders. A short case for the camera and three holders is optional except in 5x7 size.



### Construction

Mahogany or ebony finish, reversible back, double swings, rising and falling front, detachable, lens boards, sliding panel in reversible back, improved spring actuated focusing screen, bed brace.

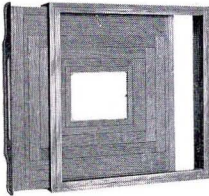
	Lens Board	Bellows Length	Folded
5 x 7	$3\frac{1}{2} \times 5$ 1-16	24 inches	$5\frac{1}{8} \times 8\frac{1}{4} \times 10\frac{1}{4}$
$6\frac{1}{2} \times 8\frac{1}{2}$	$4\frac{1}{2} \times 4\frac{1}{2}$	28 inches	$5\frac{1}{2} \times 11\frac{1}{4} \times 12\frac{1}{4}$
8 x 10	6 x 6	32 inches	$5\frac{3}{4} \times 13\frac{1}{2} \times 14\frac{1}{2}$
11 x 14	$6\frac{3}{8} \times 6\frac{3}{8}$	42 inches	$6\frac{1}{4} \times 17\frac{3}{4} \times 19\frac{1}{4}$

Long Case holds Camera and 6 Holders. Short Case Camera and 3 Holders.

### Prices

Including Case and one Plate Holder.

	5 x 7	$6\frac{1}{2} \times 8\frac{1}{2}$	8 x 10	11 x 14
Korona View .....	\$22.00	\$24.00	\$26.00	\$42.00
Korona View, Convertible Rapid Rectilinear Lens F: 8, Regno Shutter....	31.00	40.00	47.50	81.00
Korona View, Rapid Rectigraphic Lens F: 8, Regno Shutter.....	46.00	57.00	68.00	109.00
Korona View, Series III Turner-Reich Anastigmat F: 6.8, Regno Shutter...	65.00	92.00	105.00	194.00
Autex Shutter, extra.....	4.00	4.00	4.00	
Optimos Shutter, extra.....	10.00	10.00	10.00	
Koilos Shutter, extra.....	10.00	11.00	11.00	
Compound Shutter, extra.....	12.75	13.25	15.50	
Emil Wide Angle Lens, in cells.....	6.00	8.00	10.00	
Korona Plate Holders.....	1.10	1.60	1.80	5.00
Korona Enlarging Attachment.....		4.00	5.00	7.00



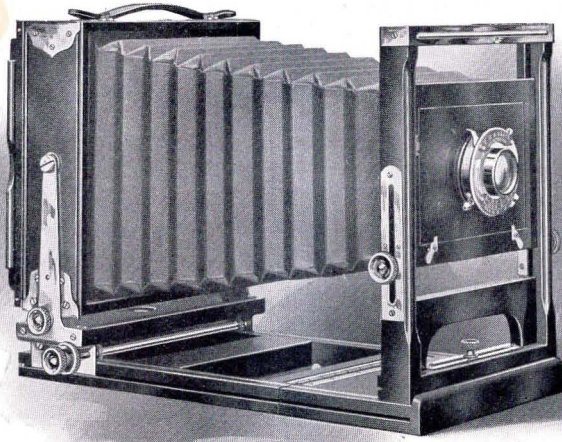
ENLARGING ATTACHMENT

### Extra Reversible Backs

5 x 7	for 4 x 5 Plate Holders.....	\$6.00
$6\frac{1}{2} \times 8\frac{1}{2}$	for 5 x 7 Plate Holders.....	8.00
8 x 10	for $6\frac{1}{2} \times 8\frac{1}{2}$ or 5 x 7 Plate Holders .....	10.00
11 x 14	for 8 x 10 or $6\frac{1}{2} \times 8\frac{1}{2}$ Plate Holders .....	12.00



## CRITERION VIEW



**A** TECHNICAL description of this camera indicates that it is much superior to others of somewhat similar design but under personal examination it will defy comparison and win approbation by its completeness and perfection in every detail.

As a beautiful piece of apparatus it will please the most fastidious photographer and no camera has ever been made which meets the requirements of general practice as thoroughly. Its novelty and new feature for a camera of this kind lies in the lateral adjustment of the front permitting the lens to be centered for any quarter section of the plate. Double sliding panels in the reversible back provide for making four exposures on one plate. Focusing and the vertical front adjustment are both operated by rack and pinion and the same movement controls the vertical swing back. Both swings pivot from the center. The springs of the focusing screen are our new pattern which pivot the ground glass frame in the center and allow the easy insertion and removal of the plate holder. The corner reinforcements and piano hinge are finishing touches having utility as well. This camera is finished in ebony with nicked metal work which gives it a very handsome appearance.

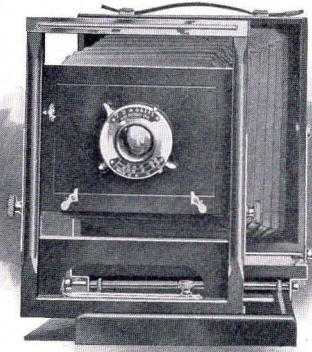
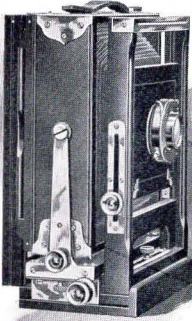
### *Construction*

Rising and falling front, lateral front adjustment, double swing back, reversible back, double sliding panels, large lens boards, (stereo in 5x7 size).

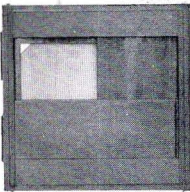
Short Canvas Case for Camera and Three Holders, 5x7 Case takes Six Holders.



## CRITERION VIEW—Continued.



	Bellows Length	Lens Board	Price
5 x 7	13½ inches	3½ x 5⅞	\$18.00
6½ x 8½	16½ inches	4½ x 4½	19.00
8 x 10	18½ inches	6 x 6	20.00

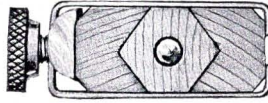


This camera is unrivalled for home portraiture or studio work and it will meet the requirements exactly of any photographer who desires a general purpose camera.

### Prices

	Equipped with Lenses and Shutters		
	5 x 7	6½ x 8½	8 x 10
Criterion View, Convertible Rapid Rectilinear Lens— Lens F: 8, Regno Shutter .....	\$27.00	\$35.00	\$41.50
Criterion View, Rapid Rectigraphic Lens F: 8, Regno Shutter .....	42.00	52.00	62.00
Criterion View, Series III Turner-Reich Anastigmat F: 6.8, Regno Shutter.....	61.00	87.00	99.00
Autex Shutter, extra .....	4.00	4.00	4.00
Optimo Shutter, extra .....	10.00	10.00	10.00
Koilos Shutter, extra .....	10.00	11.00	11.00
Compound Shutter, extra .....	12.75	13.25	15.50
Emil Wide Angle Lens in Cells .....	6.00	8.00	10.00
5 x 7 Korona Adapter for Film Packs .....	\$2.00		
Korona Plate Holders, each .....	1.10	1.60	1.80

## KORONA TRIPODS



**K**ORONA tripods are made on the best principle ever applied to tripod construction. The sliding sections are grooved as illustrated, adding more stock and rigidity to the lower part, and when clamped together the result is equal to one solid piece. Further the adjustable part slides freely when released.

All tripods have straps attached for binding the legs together. Korona tripods are made of straight grained spruce, the stiffest and lightest wood for the purpose.

No. 0 Tripod has a metal head, brass plated. No. 3 tripod is rigid enough for 6½ x 8½, 8 x 10, or 11 x 14 cameras.

### Specifications

	Weight	Length folded
No. 0 Sliding tripod.....	20 oz.	29 inches
No. 1 Combination tripod.....	2 lb.	23 inches
No. 2 Combination tripod.....	2 lb., 9 oz.	23 inches
No. 3 Sliding tripod.....	3 lb.	31 inches

Full length extended 55 inches.



No. 0 Sliding tripod for 4 x 5 and 5 x 7 cameras.....	\$.90
No. 3 Sliding tripod for 8 x 10 and larger cameras.....	3.00



The Korona combination folding and sliding tripod folds to one-third its length. The lower section is adjustable in length. The head is shaped as illustrated to permit dropping the camera bed when using a wide angle lens. The head cannot detach accidentally.

No. 1 Combination tripod for 4 x 5 and 5 x 7.....	\$2.50
No. 2 Combination tripod for 6½ x 8½ and 8 x 10.....	3.00



## **KORONA ADAPTERS**

*FOR FILM PACKS*

Our Korona Adapter for film packs is the most simple and convenient means devised for using film packs with plate cameras.

This valuable accessory is no larger than one plate holder and yet it carries a film pack for twelve exposures which may be loaded in daylight. The lower end of the pack is inserted in the bottom pocket of the Adapter and the two sliding top catches lock it in place. The Adapter is fitted with a slide like a plate holder and it is finished in ebony with the metal parts nickel plated.

The Korona Adapter will be made to correspond with all of the standard plate holders.

### *Prices*

$3\frac{1}{4} \times 4\frac{1}{4}$	$3\frac{1}{4} \times 5\frac{1}{2}$	4 x 5	5 x 7
\$1.00	\$1.25	\$1.25	\$2.00

KORONA ADAPTER  
PATENT PENDING



## KORONA PLATE HOLDERS

*Patented 1902*

**T**HE salient feature of the patent covering this holder is a lever in the edge that controls the spring which retains the plate. When the lever is down, nothing interferes with the insertion or removal of the plate; push the lever up, and the plate is held firmly. Nothing could be more simple and positive.

Plates do not have to be forced in nor pried out. All holders carry two plates. The slide valve is made of metal with a felt edge. All holders have waterproofed pressboard slides.

Orders should specify the model required.

### *Models*

1903	3 1/4 x 4 1/4	3 13-16 x 5	groove
1904	3 1/4 x 4 1/4	3 15-16 x 5 3-16	tongue
1901	4 x 5	4 3/4 x 6	groove
1902	4 x 5	4 7/8 x 6	groove
1904	4 x 5	4 7/8 x 6	tongue
	5 x 7	5 13-16 x 8	groove
6 1/2 x 8 1/2	Korona holders		8 x 10 1/8 groove
8 x 10	Korona holders		9 1/2 x 11 3/4 groove
6 1/2 x 8 1/2	Wizard View holders		7 1/2 x 9 7/8 tongue
8 x 10	Wizard View holders		9 3/8 x 11 1/2 tongue

11x14 book holders for Wizard View.

4 x 5, 5 x 7, 6 1/2 x 8 1/2 Manhattan holders, 1898 model, for Wide Angle Wizards. Baby Wizards, Bo Peep, Boss Dandy and Wizard V cameras made by the Manhattan Optical Co. This holder has a tongue.

4 x 5, 5 x 7, 6 1/2 x 8 1/2 Wizard holders, 1899 model, for all cameras made by the Manhattan Optical Co. not bearing the above names. This is a grooved holder.

We also make 5 x 7 Korona holders for 4 3/4 x 6 1/2 plates, 5 x 7 Korona holders for 13/18 c/m plates, 4 x 5 holders for 9/12 c/m plates.

### *Prices*

3 1/4 x 4 1/4	3 1/4 x 5 1/2	4 x 5	5 x 7	6 1/2 x 8 1/2	8 x 10	11 x 14
\$.80	\$.90	\$.90	\$1.10	\$1.60	\$1.80	\$5.00

## PLATE HOLDER SLIDES

**O**UR holder slides are made of waterproofed pressboard, the most satisfactory material for this purpose.

$3\frac{1}{4} \times 4\frac{1}{4}$	4 x 5	5 x 7	$6\frac{1}{2} \times 8\frac{1}{2}$	8 x 10	11 x 14
\$.20	\$.20	\$.25	\$.35	\$.50	\$.75

## KITS

These are adapter-frames, allowing the use of smaller than the regular size plates in holders.

4 x 5	for plates $3\frac{1}{4} \times 4\frac{1}{4}$ , $3\frac{1}{4} \times 4$	.....	\$.20
5 x 7	for plates $3\frac{1}{4} \times 4\frac{1}{4}$ , 4 x 5, $3\frac{1}{4} \times 5\frac{1}{2}$	.....	.25
$6\frac{1}{2} \times 8\frac{1}{2}$	for plates 4 x 5, 5 x 7	.....	.30
8 x 10	for plates $6\frac{1}{2} \times 8\frac{1}{2}$ , 5 x 7	.....	.35
11 x 14	for plates 8 x 10, $6\frac{1}{2} \times 8\frac{1}{2}$	.....	.50

## KORONA PRINTING FRAMES

These are made of thoroughly seasoned cherry, the No. 1, which is the heavier, being the standard style. The No. 2 frame, while not so heavy as the No. 1, is quite as serviceable for the amateur.

No. 1 Heavy.		No. 2 Light.	
4 x 5 .....	\$.40	$3\frac{1}{4} \times 4\frac{1}{4}$ .....	\$.25
$4\frac{1}{4} \times 6\frac{1}{2}$ .....	.45	$3\frac{1}{2} \times 3\frac{1}{2}$ .....	.25
5 x 7 .....	.50	$3\frac{1}{4} \times 5\frac{1}{2}$ .....	.25
$6\frac{1}{2} \times 8\frac{1}{2}$ .....	.60	4 x 5 .....	.25
8 x 10 .....	.75	5 x 7 .....	.35

## SUNDRIES

Lens boards, 4 x 5 .....	.30	Tubing, per foot .....	.10
Lens boards, 5 x 7 .....	.35	Ground glass, 4 x 5, acid ground	.15
Lens boards, $6\frac{1}{2} \times 8\frac{1}{2}$ .....	.40	Ground glass, 5 x 7, acid ground	.20
Lens boards, 8 x 10 .....	.50	Ground glass, $6\frac{1}{2} \times 8\frac{1}{2}$ , acid ground	.30
Lens boards, stereo .....	.40	Ground glass, 8 x 10, acid ground	.40
Bulb and tube .....	.25	Rubber focusing cloth .....	.60
Tripod tops with screws .....	.75	Shoulder straps —	
Tripod leg screws .....	.15	36 inches, 42 inches, 48 inches	.25
Tripod head screws .....	.20	54 inches, 56 inches .....	.35

## *LENSES*

**T**HE best advice we can give to the purchaser of a lens is to buy the best if possible, and, to be sure of getting the best, make a choice from those made by opticians with a reputation. The best lens for general use is an Anastigmat with a working aperture of about  $F: 6.8$ , the next best is a good rapid rectilinear. Special lenses are made for portraiture, wide angle work and tele-photography which are necessary and useful for these purposes; but the lens which comes the nearest to optical perfection and covers the widest field of utility is the Anastigmat, marvelous for its covering power and definition with large apertures.

Our name on a lens mount guarantees its quality and we promise that it will prove equal, if not superior, to any lens of the same type, focal length and working aperture with which it may be compared.

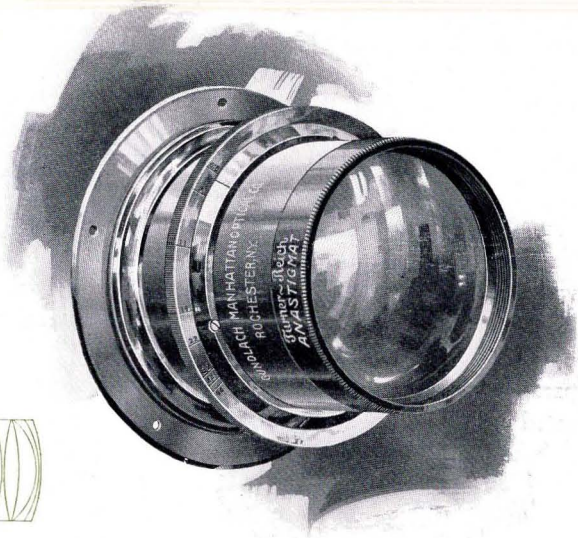
We have been making high grade lenses for every purpose for more than twenty-five years and we don't want our customers to classify us with those who furnish inferior lenses which are engraved with any name to suit the dealer or camera manufacturer who puts them on the market.

Our lenses are all made in our own optical department and they can not be excelled in quality.

## *DIAPHRAGM SCALES*

We use the Uniform System (U. S.), and give the  $F$  value of the apertures. Diaphragm scales for convertible lenses have a separate graduation for each of the single combinations and the focal length of the lens the scale applies to is indicated at one end. For wide angle lenses in cells the scale is marked to number each opening and No. 1 is the largest stop it is advisable to use.





## Turner-Reich CONVERTIBLE ANASTIGMAT *F:6.8*

**T**HESE Lenses in comparison with others of proved quality offer some advantages which are worth considering. The optical qualities of the Turner-Reich are unsurpassed which may be easily demonstrated by comparison with the best lenses of other makers and in this statement we include the corrections of all optical errors to the highest degree, the definition to the edge of the light circle and the illumination with a given aperture. By any practical or scientific test the Turner-Reich will maintain our claims that it will produce an optical image which no other lens can excel. A Convertible Anastigmat is unquestionably a more useful lens than one of symmetrical form as the single combinations afford two additional perfect lenses of unequal focal lengths which frequently meet the conditions confronting the photographer much better than a lens of normal focal length. In landscape work, marines and mountain scenery the larger images given by the single combinations will in many cases produce a more satisfactory result than the complete lens. In comparison with certain Anastigmats of unsymmetrical construction in which the front and rear combinations are entirely different, permitting no use of either separately, the Convertible Turner-Reich Lens is greatly superior, as such lenses are limited to their one focal length and as complete doublets they can not possibly give any better results. We do not approve of uncemented lenses or those with air spaces between their component parts where such construction can be avoided as in lenses of normal working aperture, because the inner surfaces gather a deposit which can not be prevented and the slightest degradation from this cause must necessarily affect the quality of the image and show in the negative by a loss of definition and brilliancy.

**T**HE Series II and Series III Turner-Reich Anastigmats are identical in optical qualities and the single combinations of the latter may be used separately like those of the convertible lenses but they are equal instead of dissimilar in focal length. The singles of the symmetrical series are about twice the focal length of the doublet. Accurate mounting and fitting of our lenses cannot be guaranteed unless we are allowed to do the work, and if the customer supplies the shutter it should be sent to us and we will furnish proper diaphragm and focusing scales for the lens.

The separation of Anastigmat lenses is very important and each lens must be treated individually. All fitting is done by a modification of the lens cells and the shutter is always left intact.

### *Turner-Reich Convertible Anastigmat F:6.8. Series II*

No.	Diameter of Lenses.	Equivalent Focus.	Focus of Back Lens.	Focus of Front Lens.	For Plates.	Price Mounted in Barrel.	Price in Regno Shutter.	Price Autex Shutter
0	$\frac{3}{4}$ in.	5 in.	8 in.	12 in.	$3\frac{1}{4} \times 4\frac{1}{4}$	\$30.00	\$32.00	\$35.00
1	$\frac{7}{8}$ in.	6 in.	11 in.	14 in.	4 x 5	40.00	42.00	46.00
2	$1\frac{1}{8}$ in.	$7\frac{1}{2}$ in.	12 in.	18 in.	5 x 7	48.00	51.00	55.00
3	$1\frac{1}{4}$ in.	8 $\frac{1}{2}$ in.	14 in.	20 in.	5 x 8	55.00	58.00	62.00
4	1 $\frac{9}{16}$ in.	10 $\frac{1}{2}$ in.	18 in.	24 in.	$6\frac{1}{2} \times 8\frac{1}{2}$	75.00	78.00	82.00
5	1 $\frac{13}{16}$ in.	12 in.	21 in.	28 in.	8 x 10	90.00	94.00	98.00

The single combinations give a working aperture of F:12.5 and F:16 respectively for the rear and front combinations. Barrel mounts have an iris diaphragm.

### *Turner-Reich Symmetrical Anastigmat F:6.8. Series III*

No.	Equivalent Focus.	Diameter of Lenses.	For Plates.	Price Mounted in Barrel.	Price Mtd. in Regno Shutter.	Price Mtd. in Autex Shutter.
1	6 in.	$\frac{7}{8}$ in.	4 x 5	\$35.00	\$37.00	\$41.00
2	$7\frac{1}{2}$ in.	$1\frac{1}{8}$ in.	5 x 7	40.00	43.00	47.00
3	8 $\frac{1}{2}$ in.	$1\frac{1}{4}$ in.	5 x 8	45.00	48.00	52.00
4	10 $\frac{1}{2}$ in.	1 $\frac{9}{16}$ in.	$6\frac{1}{2} \times 8\frac{1}{2}$	65.00	68.00	72.00
5	12 in.	1 $\frac{13}{16}$ in.	8 x 10	75.00	79.00	83.00
6	14 in.	2 in.	10 x 12	100.00	107.00	111.00
7	17 in.	2 $\frac{1}{2}$ in.	11 x 14	145.00	152.00	156.00
8	21 in.	3 $\frac{1}{8}$ in.	14 x 17	225.00	235.00	240.00
9	26 in.	3 $\frac{13}{16}$ in.	17 x 20	315.00	325.00	330.00

Compound, Optimo and Koilos shutters will be furnished with these lenses by adding the price of the shutter to the price of the lens as listed with barrel mount.





Complete Lens

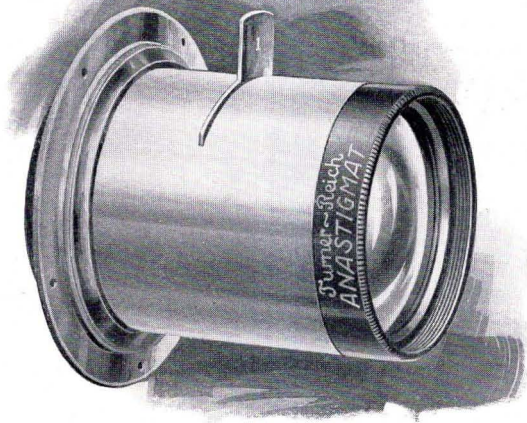
Back Combination

Front Combination

Made with a  
**5 x 7 TURNER-REICH CONVERTIBLE ANASTIGMAT**

Reproduced by permission of  
Mr. M. A. Yauch





## Turner-Reich

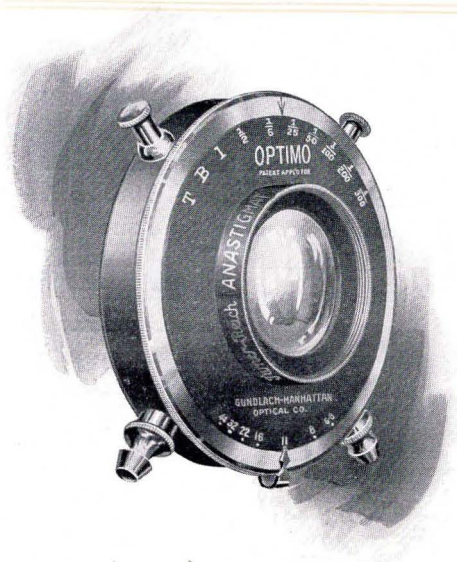
### ANASTIGMAT F:9 SERIES V

**T**HESE lenses are intended for process work and all other purposes of reproduction which require absolute definition. They are also the best lenses for all kinds of commercial photography above 8x10 as they are smaller and much lighter than lenses of larger working aperture. There is also a considerable saving in cost as compared with more rapid lenses of equal focal lengths. As satisfactory depth of focus can never be secured in commercial work or when using lenses of these focal lengths without stopping down to at least F: 9 it follows that a larger aperture offers no advantage. These lenses give a perfect image free from achromatic aberration, astigmatism or distortion. The definition is critically sharp over the whole field. The homogeneous formation and permanency of Turner-Reich lenses make them especially desirable for use in establishments where chemicals and acid fumes are present.

#### Prices

No.	Diameter of Lenses.	Plate.	Focus.	Waterhouse Stops.	Iris Diaphragm or Regno Shutter.
1	1 $\frac{5}{8}$	10 x 12	14 in. ....	\$ 75.00	\$ 80.00
2	2	16 x 18	18 in. ....	125.00	130.00
3	2 $\frac{3}{8}$	18 x 22	24 in. ....	180.00	190.00
4	3 $\frac{3}{8}$	22 x 25	30 in. ....	275.00	290.00

PRISMS. Prices will be quoted upon request.

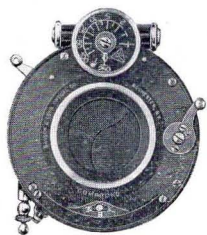


## Turner-Reich *CONVERTIBLE ANASTIGMATS F:6.8* *Mounted in High Speed Shutters*

**A** FIRST-CLASS shutter giving a wide range of speed adjustments is a desirable complement to a fine camera equipped with a high grade Anastigmat lens like the Turner-Reich and such a shutter is really necessary to use the lens to the best advantage.

We have selected the Compound, Koilos and Optimo shutters to recommend to our customers as the most desirable Shutters of this class.

### *The Compound*



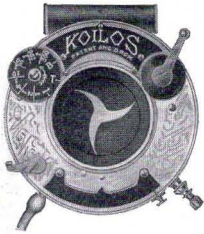
This is an automatic and setting shutter combined, which provides both time and bulb exposures automatically while speeds of from one second to the maximum speed indicated may be given automatically when the shutter is set. The steel shutter blades form a star shaped opening giving even illumination with a high co-efficiency of light. The aluminum case is very handsomely finished in black.

### *The Optimo*

This shutter has five shutter blades which revolve in making the exposure making a star shaped opening with the greatest possible illumination. In addition to "Bulb and Time" the Optimo gives a range of automatic exposures from one second to 1/300 second.



## The Koilos



Is a reliable high speed shutter giving exposures from one second to 1/300 second in all sizes and may be set for bulb and time. When focusing, the shutter is set at T and a pressure of the bulb or finger release opens the shutter blades. This shutter gives a star shaped opening and it is entirely dust proof. It is made with an aluminum case and is very light in weight, noiseless in action and accurate.

Speed of Compound				Speed of Optimo
No. 0	No. 1	No. 2	No. 3	All sizes one second
1/250	1/200	1/150	1/100	to 1/300 second.

### Turner-Reich Convertible Anastigmat F:6.8 Series II

	Equivalent Focus.	Focus of Back Lens.	Focus of Front Lens.	Size.	Mtd. in Compound Shutter.	Mtd. in Optimo Shutter.	Mtd. in Koilos Shutter.
No. 0	5 in.	8 in.	12 in.	3 1/4 x 4 1/4	No. 0 \$42.00	\$44.00	\$42.50
No. 1	6 in.	11 in.	14 in.	4 x 5	No. 1 54.50	56.00	54.00
No. 2	7 1/2 in.	12 in.	18 in.	5 x 7	No. 2 64.25	66.00	66.00
No. 3	8 1/2 in.	14 in.	20 in.	5 x 8	No. 2 71.25	73.00	73.00
No. 4	10 1/2 in.	18 in.	24 in.	6 1/2 x 8 1/2	No. 2 91.25	95.00	97.50
No. 5	12 in.	21 in.	28 in.	8 x 10	No. 3 110.00	110.00	112.50

### A TRIBUTE TO THE TURNER-REICH LENS

The Cirkut Panoramic Camera makes pictures as large as 16 inches wide by 20 feet long in a single exposure. All the big pictures are now made with this camera and it is safe to say it has produced the most wonderful pictures in the world in size, which are perfect in quality. On account of the principle involved in the mechanical construction of this camera and owing further to the large size of the work it does, this camera requires a convertible lens of the very highest quality and absolute uniformity. The Series II Turner-Reich Anastigmat lens has proved to be the only lens capable of meeting the exacting requirements of this camera and therefore it is the only lens recommended and listed by the Century Camera Division of the Eastman Kodak Company as the optical equipment of Cirkut Panoramic Cameras. Nearly all the pictures made with the Cirkut Cameras are taken with the components of the Convertible Turner-Reich Anastigmat of 18", 24" and 36" focal lengths, which testifies to the exceptional definition and rapidity of the single combinations of this lens.





## Turner-Reich ANASTIGMAT F:6.8

**F**OR KODAKS. A Turner-Reich lens makes a wonderful difference in kodak work and with it picture taking becomes possible and successful under conditions the ordinary kodak lens is not adapted to. A Turner-Reich lens insures perfect definition with full detail and luminosity in the shadows and its rapidity permits the addition to the equipment of a high speed shutter. The Turner-Reich is an ideal lens for kodaks as it is free from air spaces between the combinations and its four surfaces are easily accessible for cleaning.

We offer the Turner-Reich lens in cells ready to screw into the kodak single or double valve shutter and no special fitting is required.

### *Prices*

*For No. 3A and No. 4 Kodaks*

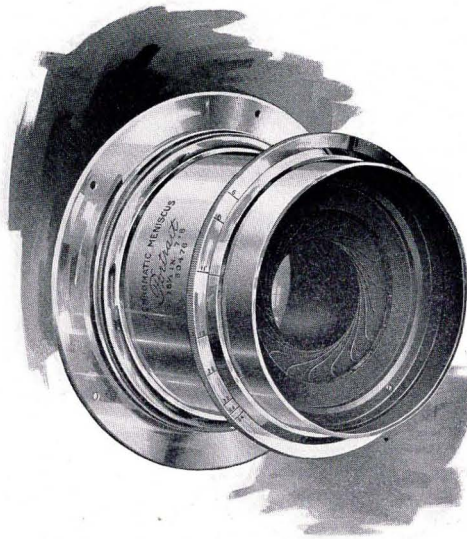
4x5 Series III Turner-Reich Anastigmat F: 6.8 in cells, 6½ inches focal length, in handsome silk lined case, diaphragm and focusing scales included .....	\$30.00
Autex Shutter, extra .....	10.00
No. 1 Compound Shutter, extra .....	14.50
No. 2A Koilos Shutter, extra .....	14.00
No. 2 Optimo Shutter, extra .....	16.00

Other shutters will be furnished if desired and in changing the shutter it is advisable to send us the kodak for fitting.



Made with the  
**ACHROMATIC MENISCUS  
PORTRAIT LENS**

Reproduced by permission of  
Mr. Sidney Carter, Montreal, Can.



## *ACHROMATIC MENISCUS PORTRAIT LENSES*

**T**HESE lenses produce an optical image which has a different quality from that given by photographic lenses of any other type. When using the full aperture, the definition is not sharp at any point but the diffusion is very evenly distributed as these lenses have a very flat field. The result is a soft rendering of the subject, the details are apparent, but not obtrusive. The effect is entirely different from that obtained by using an ordinary lens out of focus.

These lenses are employed very extensively by many of the well known amateur photographers whose work in portraiture and genre especially has shown the artistic possibilities of photography.

### *Working Aperture F:6*

No.	Diameter of Lenses.	Equivalent Focus.	Flange Inside Diameter	Flange Outside Diameter	Iris Diaphragm
1	2¼ inches	13½ inches	3 inches	4 inches .....	\$25.00
2	2½ inches	15 inches	3 inches	4 inches .....	25.00
3	2¾ inches	16½ inches	3½ inches	4⅝ inches .....	27.50
4	3 inches	18 inches	3½ inches	4⅝ inches .....	30.00





Magnification  
Eight Diameters

Made with the  
**PANCRATIC TELE-PHOTO LENS**

Reproduced by permission of  
Mr. Robert Clifton, Philadelphia, Pa.





Made with a 4 x 5  
**TURNER-REICH ANASTIGMAT**

Reproduced by permission of  
Mr. Robert Clifton, Philadelphia, Pa.



**PANCRATIC TELE-PHOTO**  
*A Wonderful New Lens*

**T**HIS is our latest achievement in photographic optics. The Pancratic Tele-Photo is a new type of lens which has many advantages as compared with Tele-Photo Attachments and its construction gives it a much wider range of usefulness.

The Pancratic is a complete lens formed of a front positive combination in an adjustable mount and a rear negative combination both of which screw into the shutter to take the place of the regular lens. By means of the adjustable mount in front, the separation between the lens combinations may be regulated to change the size of the image from three to eight diameters. The mount is graduated accordingly. The optical result of the Pancratic Tele-Photo will compare favorably with that given by a Tele-Photo Attachment fitted to a high grade Anastigmat Lens, and in the matter of convenience the Pancratic is greatly superior as it is about the same size and weight as an ordinary lens. Tele-Photo *Attachments* must be made to order and require to be fitted to an Anastigmat lens of the highest grade. They also add considerable extra weight to the camera front. The Pancratic has none of these disadvantages and dealers in photo supplies are able to carry this lens in stock ready to fit any 4x5 or 5x7 shutters made by the Wollensak Optical Co., and the Bausch & Lomb Optical Co., or other shutters which conform to the same standard of cell openings and tube length.



The rear adapter is made in two pieces. It should be used complete 11/16 long for Winner, Regular and Automatic shutters the tube length of these being 14 m/m. The short section should be removed and the adapter 7/16 long used in connection with Bausch & Lomb shutters and Victus, Regno and Autex shutters which have a tube length of 21 m/m.

The Pancratic Tele-Photo is a valuable lens for many purposes which are not strictly tele-photo work and we expect to see it used largely for landscapes, architecture, marines and other subjects which are inaccessible to lenses of normal focal length. Under favorable conditions we believe the Pancratic may be used for slow instantaneous work but it is difficult for us to foresee what its possibilities will develop. The positive combination has a focal length of 6 inches, therefore, magnifying powers of 3 to 8 diameters give images of the same sizes as lenses of 18 inches to 48 inches focus.

### *Prices*

No. 1 Pancratic Tele-Photo Lens with leather case .....	\$15.00
Victus Shutter, extra .....	5.00
Barrel Mount with Iris Diaphragm, extra .....	5.00

Our lenses may be ordered through any dealer in photo supplies for ten days trial.

Philadelphia, Pa.,  
February 3, 1909.

Gundlach-Manhattan Optical Company,  
Rochester, N. Y.

Gentlemen,—

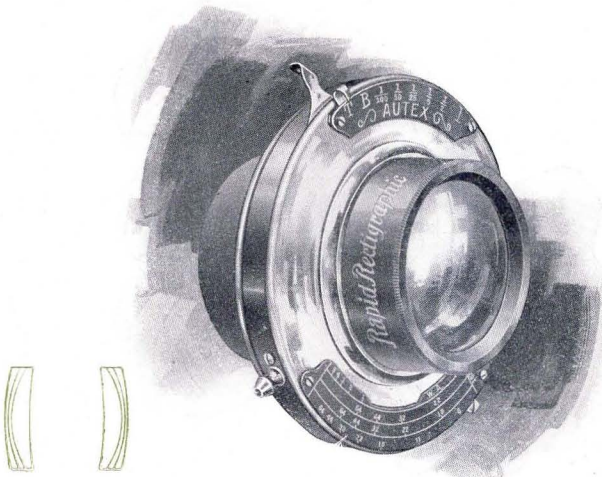
It seems to me that people in business very rarely receive the expressions of appreciation from their customers which is their due, and, while I am only one of many thousands using your lenses and cameras I believe this tribute to the quality of your products will not prove unwelcome.

I have already written you my decided preference for the Turner-Reich Anastigmat. I want to now say that another of your lenses has been tried out, and proven, in my judgment, a little short of marvelous. I refer to your Pancratic, which came to hand on Saturday and was tried on Sunday, with gratifying result.

You will, no doubt be interested in the two pictures I enclose, one taken with my Series III Turner-Reich 4 x 5, and the other from the same spot with the Pancratic lens, using eight magnifications.

Wishing you great success in the sale of this new lens, I subscribe myself a very satisfied customer.

Very truly yours,  
ROBERT G. CLIFTON,  
3218 Mt. Vernon St.



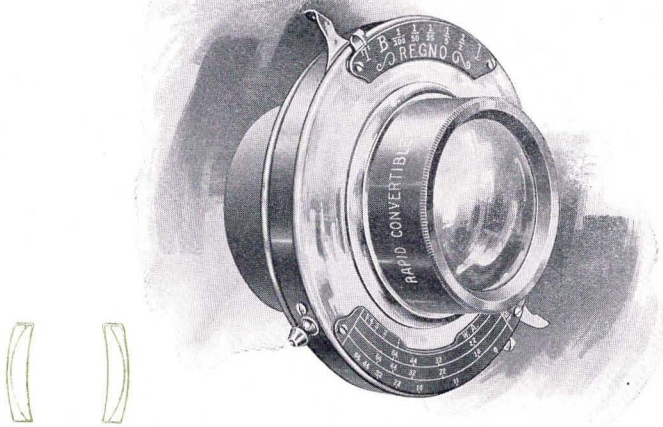
## RAPID RECTIGRAPHIC CONVERTIBLE LENSES F:8

**T**HE Rapid Rectigraphic is a superior type of rapid rectilinear lens which really stands in a class by itself between such lenses and the anastigmats.

The formula of the Rapid Rectigraphic requires three elementary lenses in each combination and by this construction the corrections have been carried to a higher degree than is possible in the usual two system formation. The Rapid Rectigraphic demonstrates a remarkably flat field and a very slight trace of astigmatism. Before the introduction of anastigmats this lens was very popular with process workers and many of them are still used for this purpose.

We believe the Rapid Rectigraphic has the distinction of being the first convertible lens ever made.

No.	Size of Plate.	Diameter of Lenses.	Equivalent Focus.	Focus of Back Lens.	Focus of Front Lens.	Price Mounted in Barrel.	Price in Regno Slutter.	Price in Autex Slutter.
1	4 x 5	1 in.	6 $\frac{1}{4}$ in.	10 in.	13 $\frac{1}{2}$ in.	\$18.00	\$20.00	\$24.00
2	5 x 7	1 $\frac{3}{16}$ in.	8 in.	12 $\frac{1}{2}$ in.	17 in.	22.00	24.00	28.00
3	5 x 8	1 $\frac{1}{4}$ in.	8 $\frac{1}{2}$ in.	13 $\frac{1}{2}$ in.	18 in.	24.00	27.00	31.00
4	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	1 $\frac{1}{2}$ in.	11 in.	17 in.	23 in.	30.00	33.00	37.00
5	8 x 10	1 $\frac{3}{4}$ in.	13 in.	20 $\frac{1}{2}$ in.	28 in.	38.00	42.00	46.00
6	10 x 12	2 in.	16 in.	25 $\frac{1}{4}$ in.	34 in.	45.00	52.00	56.00
7	11 x 14	2 $\frac{1}{4}$ in.	18 $\frac{1}{2}$ in.	29 $\frac{1}{4}$ in.	39 $\frac{1}{2}$ in.	60.00	67.00	71.00
8	14 x 17	2 $\frac{3}{4}$ in.	22 in.	34 $\frac{3}{4}$ in.	47 in.	85.00	95.00	100.00
9	17 x 20	3 $\frac{1}{4}$ in.	26 in.	41 in.	56 in.	100.00	110.00	115.00



### RAPID CONVERTIBLE LENSES F:8

The Rapid Convertible is an aplanatic rectilinear of unusually fine quality and the corrections have been carried to the highest degree for this type of lens. A rapid rectilinear of four lens construction cannot possibly result in a better compensation for chromatic and spherical aberrations. The optical work on these lenses is the best and the surfaces are finished with the same care we bestow upon our lenses of all kinds. This is our Instantaneous Symmetrical Lens in convertible form which has been the standard of quality for rapid rectilinear lenses for many years.

No.	Size of Plate.	Diameter of Lenses.	Equivalent Focus.	Focus of Back Lens.	Focus of Front Lens.	Price Mounted in Barrel.	Price in Regno Shutter.	Price in Autex Shutter.
1	4 x 5	1 in.	6 $\frac{1}{4}$ in.	10 in.	13 $\frac{1}{2}$ in.	\$10.00	\$12.00	\$16.00
2	5 x 7	1 $\frac{3}{16}$ in.	8 in.	12 $\frac{1}{2}$ in.	17 in.	13.00	15.00	19.00
3	5 x 8	1 $\frac{1}{4}$ in.	8 $\frac{1}{2}$ in.	13 $\frac{1}{2}$ in.	18 in.	18.00	21.00	25.00
4	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	1 $\frac{1}{2}$ in.	11 in.	17 in.	23 in.	22.00	25.00	29.00
5	8 x 10	1 $\frac{3}{4}$ in.	13 in.	20 $\frac{1}{2}$ in.	28 in.	28.00	32.00	36.00
6	10 x 12	2 in.	16 in.	25 $\frac{1}{4}$ in.	34 in.	40.00	47.00	51.00
7	11 x 14	2 $\frac{1}{4}$ in.	18 $\frac{1}{2}$ in.	29 $\frac{1}{4}$ in.	39 $\frac{1}{2}$ in.	52.00	59.00	63.00
8	14 x 17	2 $\frac{3}{4}$ in.	22 in.	34 $\frac{3}{4}$ in.	47 in.	70.00	80.00	85.00
9	17 x 20	3 $\frac{1}{4}$ in.	26 in.	41 in.	56 in.	80.00	90.00	95.00



## WIDE ANGLE LENSES

### Series X Extreme Wide Angle Lenses

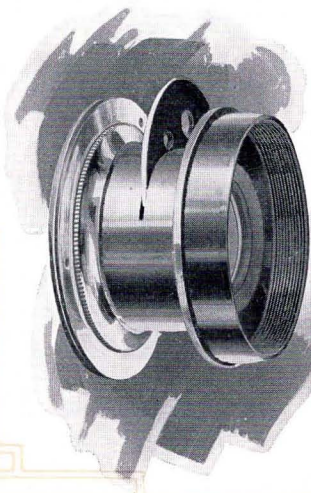
Furnished only in barrel mount with revolving stops.



No.	Size of Plate.	Diameter of Lenses.	Back Focus.	Equivalent Focus.	Price.
1	5 x 7	7/8 in.	3 in.	3 3/8 in.	\$18.00
2	6 1/2 x 8 1/2	1 in.	4 1/8 in.	4 5/8 in.	22.00
3	8 x 10	1 1/8 in.	4 3/4 in.	5 3/8 in.	25.00
4	10 x 12	1 1/2 in.	6 in.	6 1/2 in.	30.00
5	11 x 14	1 5/8 in.	6 7/8 in.	7 1/2 in.	35.00
6	14 x 17	2 in.	8 1/4 in.	9 in.	45.00
7	17 x 20	2 3/8 in.	10 in.	11 in.	65.00

The best wide angle lens for ordinary conditions is one which gives an angle of about 80 degrees on the base line of the plate. Our wide angle symmetrical is the lens we recommend for general use and its quality is unsurpassed.

For extreme wide angle work we offer our Series X wide angle lenses which include 90 degrees within the base line of the plate, which is a greater angle than any other lens of this type will cover. Don't be misled by statements that lenses will give an angle of over 100 degrees as they won't if the actual field included within the base line of the plate is considered which is the only proper way to determine the angle of view. No lens will include a wider angle than the Series X unless it is shorter in focal length for the same size of plate and few if any cameras will permit lenses of shorter focus to be used.

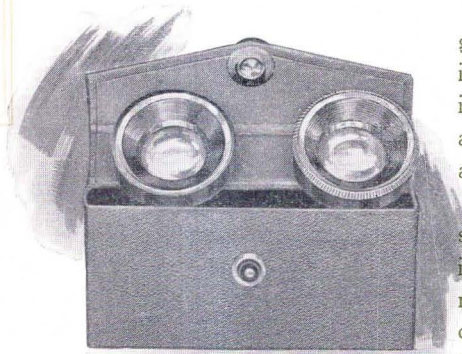


### Wide Angle Symmetrical

Mounted in barrel with rotary stops or supplied in cells with case at same price. Style of shutter should be specified or shutter sent for fitting.

No.	Size of Plate.	Equivalent Focus.	Back Focus.	Price in Barrel.
1	4 x 5	4 in.	3 1/2 in.	\$ 9.00
2	5 x 7	5 1/2 in.	4 3/4 in.	12.00
3	6 1/2 x 8 1/2	6 1/2 in.	5 1/2 in.	15.00
4	8 x 10	8 in.	7 1/4 in.	18.00

## EMIL WIDE ANGLE LENSES IN CELLS



This lens is well known for its good qualities, and it has popularized the wide angle lens in cells. It is well corrected for achromatism, and gives a perfectly rectilinear image with even illumination.

In ordering give the name of your shutter, the diameter of the cell openings and tube length. The shutter must be sent with order where special mounting is required for which there will be an extra charge.

Back Focus.	Diameter.	Size of Plate.	Price in Cells with Case.
$3\frac{3}{8}$ in.	$\frac{5}{8}$ in.	4 x 5	\$ 5.00
$4\frac{7}{8}$ in.	$\frac{3}{4}$ in.	5 x 7	6.00
$6\frac{1}{4}$ in.	1 in.	$6\frac{1}{2}$ x $8\frac{1}{2}$	8.00
$7\frac{1}{4}$ in.	$1\frac{1}{8}$ in.	8 x 10	10.00

## Globe Magnifier

This pocket magnifier is an exceptionally fine instrument which is used largely by assayers, prospectors, physicians and others who desire the best results. It consists of a sphere of crown glass enclosed in two hemispheres of flint glass, a construction which results in a large flat field.



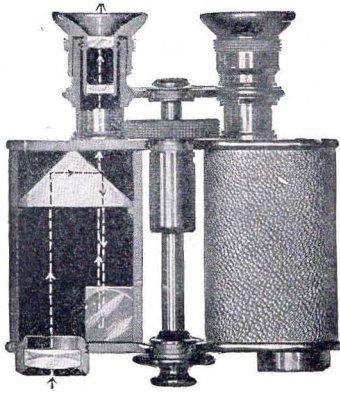
No. 290—1 in. focus, nickel-plated brass mount, magnifying 11 diameters	\$4.00
No. 291— $\frac{3}{4}$ in. focus, nickel-plated brass mount, magnifying 14 diameters	4.50
No. 292— $\frac{1}{2}$ in. focus, nickel-plated brass mount, magnifying 21 diameters	5.00

## Korona Focusing Glass

This is a very useful magnifier for examining the image on the ground glass, especially when the subject is poorly illuminated, as in the case of many interiors. The lens is mounted in an adjustable tube, and a set screw holds it at any desired point.

Price in nickel-plated mount ..... \$3.00





## Turner-Reich

### PRISM BINOCULAR

#### A Perfect Field Glass

The prism binocular is now a well known optical instrument. Its superiority to the old fashioned field glass in magnifying power, field of view and definition, combined with light weight and compactness makes it a much more desirable instrument regardless of the difference in price. Our Turner-Reich Prism Binoculars are perfect instruments of this type.

Weight 12 ounces.

#### Prices

Including sole leather case, velvet lined with neck and shoulder straps.  
 6 Power \$40.00, 8 Power \$40.00, 10 Power \$40.00

Send for complete catalogue.

### SHUTTERS

Korona Cameras are equipped with the excellent shutters made by the Wollensak Optical Co. by whom they are broadly guaranteed. This season's shutters are dust proof and all the mechanism is enclosed within the case. When ordering a shutter it is always advisable and usually necessary to furnish the lens for fitting.

#### Prices of Shutters

	No. 0	No. 1	No. 2	No. 3	No. 4
Victus .....		\$ 4.00	\$ 5.00	\$ 7.00	\$ 8.00
Regno .....		5.00	6.00	8.00	10.00
Autex .....		8.00	10.00	12.00	14.00
Optimo .....		14.00	16.00	18.00	20.00
Compound .....	12.00	14.50	16.25	20.00	22.00
Volute .....		17.00	18.50	20.00	
Koilos .....		12.50	14.00	18.00	22.50
Winner Stereo .....		13.00			
Regular Stereo .....		15.00			
Automatic Stereo .....		20.00			
Flanges .....		.75	.75	1.00	1.50
Lens Caps .....	4 x 5 and 5 x 7, 50c.	6 1/2 x 8 1/2, 60c.		8 x 10, 75c.	

All shutters should be returned direct to their makers when in need of adjustment or repairs. Forward the shutter only by mail and mark the package with your name and address, mail instructions separately.

We manufacture Photographic Lenses of all kinds, Cameras and other Photographic Apparatus, Lenses for other purposes and Prisms, Periscopes for Surgical Instruments, Microscopes and Accessories.

**GUNDLACH-MANHATTAN OPTICAL CO.**

Rochester, N. Y.



## TERMS

All previous prices and quotations are hereby withdrawn.

The prices in this list are f. o. b. Rochester.

Parties unknown to us and desiring to establish a line of credit, will avoid delay by giving references with their order.

To applicants who are unknown to us, and who do not furnish satisfactory references, our terms are strictly C. O. D., and a remittance, at least sufficient for expressage both ways, must accompany the order.

We guarantee delivery of goods sent by freight or express, but assume no responsibility for goods ordered sent by mail.

All goods are packed with the utmost care, and our responsibility ceases when they are delivered to the transportation company. Shipments damaged in transit should be receipted for as being received in bad order, and claim made to the company which delivered them for reimbursement to the extent of the damage.

All remittances should be made by draft, post-office or express order. On all personal checks, 15 cents extra to pay exchange must be added.

Prices herein, and quotations hereunder, subject to change upon issue of our next catalogue.

GUNDLACH-MANHATTAN OPTICAL CO.

Rochester, N. Y., June 1, 1909.





IT'S ALL  
IN THE  
LENS