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No. 15-3-20-07-5M-7738

CATALOGUE OF

CAMERAS, PHOTOGRAPHIC APPARATUS and SUPPLIES STEREOPTICONS, MAGIC LANTERNS, ETC.



American School of Art and Photography

SCRANTON, PA., U. S. A.

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Looking back over our almost ten years of success as the world's representative correspondence school of photography, we fully appreciate the immense value of our Photo Supply Department to the student. This is not only true as to the money our scholars have saved on low priced goods, but also in permitting us as experts to place in their hands cameras, lenses and photo supplies which we know, by test, are the best obtainable for the purpose recommended.

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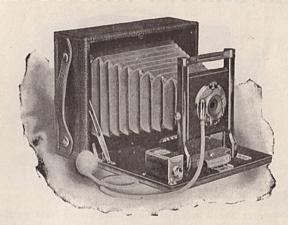
American School of Art & Photography

290 Washington Avenue, SCRANTON, PA.

J. B. SCHRIEVER, President

U. S. A.

The Schriever Nos. 1 and 2.



The Schriever cameras Nos. 1 and 2 provide strictly reliable instruments, adapted to a large number of photographic uses at prices surprisingly low, quality considered. The Schriever No. 1 possesses a Single Achromatic Lens, while the Schriever No. 2 is fitted with a high grade Rapid Rectilinear Lens. Both are equipped with Wollensak Shutter, which is absolutely automatic in operation, requiring only a pressure of the bulb for an exposure, or if desired the finger release may be used. A carrying case is supplied with accommodations for the camera in one end and extra plate holders in the other. The price includes a carrying case and one plate holder. The Schrievers Nos. 1 and 2 are made in two sizes, 4 x 5 and 5 x 7.

SPECIFICATIONS.

Camera Box-Mahogany, dovetailed, and covered with seal grain leather.

Camera Bed-Mahogany polished, fitted with piano hinge.

Metal Parts-Highly polished brass, lacquered.

Bellows-Red Russia leather, lined with gossamer cloth.

Front-Rising and falling.

Clamp-Automatic press button.

Finder-Reversible, brass bound.

Shutter-Wollensak Automatic.

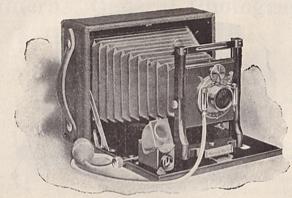
Lens-Single Achromatic, or Rapid Rectilinear.

PRICES.

Including camera, carrying case with handle, and one double plate holder.

	Children Children	
	4 x 5	5 x 7
Schriever No. 1, complete, with Achromatic Lens\$	7.50	\$11.75
Schriever No. 2, complete, with Rapid Rectilinear Lens	9.00	12.50
Extra Double Plate Holders		.90

The Schriever Nos. 3 and 4.



The Schriever Nos. 3 and 4 are champions among light weight cameras, sacrificing neither strength, rigidity, or down-to-the-moment equipment. The general design of models No. 3 and No. 4 is similar to No. 1 and No. 2. but they have in addition a fine rack and pinion for quick and accurate focusing. They are also fitted with hooded view finders. The camera is made of the best selected mahogany, highly polished, and the metal parts are of polished and lacquered brass. The bed is attached with a piano hinge, adding strength and beauty. The front is adjustable, up or down, for regulating the sky or foreground.

The lens is a Rapid Rectilinear, and in the No. 3 camera is fitted to the Wollensak Single Valve Automatic Shutter, and in the No. 4 camera to the Wollensak Regular Double Valve Shutter, either of which can be regulated for bulb, time and instantaneous exposure.

The Schriever Cameras No. 3 and No. 4 are made in two sizes, 4×5 and 5×7 .

SPECIFICATIONS.

Camera Box—Mahogany, dovetailed, and covered with seal grain leather.
Camera Bed—Mahogany polished, fitted with piano hinge.
Metal Parts—Highly polished brass, lacquered.
Bellows—Red Russia leather, lined with gossamer cloth.
Front—Rising and falling.
Clamp—Automatic press button.
Rack and Pinion—For focusing.
Finder—Reversible, brass bound, hooded.
Shutter—Wollensak Automatic Single Valve, or Regular Double Valve.
Lens—Rapid Rectilinear.
PRICES.

 Including camera, carrying case with handle, and one double plate holder.

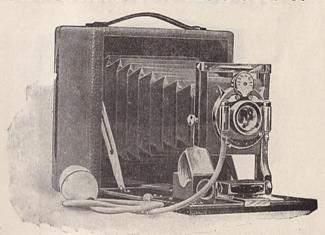
 4x5
 5x7

 Schriever No. 3, fitted with Wollensak Single Valve Automatic Shutter
 \$11.75
 \$15.75

 Schriever No. 4, fitted with Wollensak Regular Double Valve Shutter
 13.00
 17.50

 Extra Double Plate Holders
 .75
 .90

The Schriever Nos. 5 and 6.



Schriever Cameras No. 5 and No. 6 are similar in general design to the No. 4, but of a higher type. They are both manufactured of the finest mahogany, highly polished, and covered with black seal grain leather. The bed is attached to the case by means of a piano hinge. The back is reversible, a very desirable feature, especially when making tripod exposures, as with it a vertical or horizontal exposure can be made instantly without removing the camera from the tripod.

These cameras are fitted with rack and pinion for quick and accurate focusing, also brilliant view finder, which is brass bound and hooded. The only difference between the No. 5 and No. 6 is in the shutter, the No. 5 being fitted with Wollensak Single Valve Automatic Shutter and the No. 6 with Wollensak Regular Double Valve Shutter.

Schriever Cameras No. 5 and No. 6 are made in two sizes, 4 x 5 and 5 x 7.

SPECIFICATIONS.

Camera Box—Mahogany, dovetailed, and covered with seal grain leather. Camera Bed—Mahogany polished, fitted with piano hinge.

Metal Parts—Highly polished brass, lacquered.

Bellows—Red Russia leather, lined with gossamer cloth.

Front—Rising and falling.

Clamp—Automatic press button.

Back—Reversible, with single release.

Finder—Brilliant, reversible, brass bound and hooded.

Shutter—Wollensak Automatic Single Valve, or Regular Double Valve.

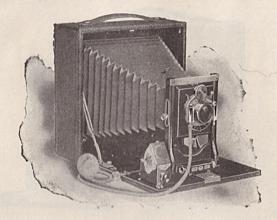
Lens—Rapid Rectilinear.

PRICES.

Including camera, carrying case with handle, and one double plat	e holder.
4 x 5	5 x 7
Schriever No. 5, fitted with Wollensak Single Valve Auto-	
matic Shutter	\$16.75
Schriever No. 5, complete as above, without rack and pinion 11.25	15.25
Schriever No. 6, fitted with Wollensak Regular Double	
Valve Shutter	19.00
Schriever No. 6, complete as above, without rack and pinion 13.75	18.25
Extra Double Plate Holders	.90

6

The Schriever No. 7



A glance at the above engraving is sufficient to convince the eye of the beauty and efficient quality of the Schriever No. 7. It possesses swing back, rising and falling front, hooded reversible finder, and also a rack and pinion. It is fitted with the celebrated Wollenback Shutter and Symmetrical Lens. The outfit includes a handsome sole leather case, accommodating the camera and extra plate holders. The increase in draw of this camera is manipulated by a fine focusing attachment and it also possesses a reversible back. The special features of the Schriever No. 7 are that it possesses a swing back and the symmetrical lens, which is a higher grade than the rapid rectilinear. It is made in two sizes, 4 x 5 and 5 x 7.

SPECIFICATIONS.

Camera Box-Mahogany, dovetailed, and covered with seal grain leather.

Camera Bed-Mahogany polished, fitted with piano hinge.

Metal Parts-Highly polished brass, lacquered.

Bellows-Red Russia leather, lined with gossamer cloth.

Front-Rising and falling.

Clamp-Automatic press button.

Rack and Pinion-For focusing.

Swing-Either back or bed.

Back-Reversible, with single release.

Finder-Brilliant, reversible, brass bound and hooded.

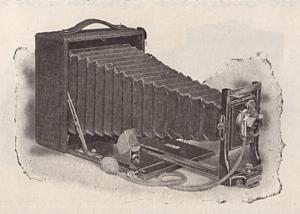
Shutter-Wollensak Regular Double Valve.

Lens-High Grade Symmetrical.

PRICES.

Including camera, carrying case with handle, and one double plate	holder.
4x5	5x7
Schriever No. 7, complete	\$24.25
Extra Double Plate Holders	.90

The Schriever Professional No. 8.



A truly remarkable camera in numerous departments is the Schriever Professional No. 8. It is built for all around work, being of the very highest grade. It meets all the requirements of the professional and amateur. Its length of draw and equipment of shutter makes the camera capable of a very wide range in photographic work. It is fitted with a double valve Automatic Shutter and the Triple Convertible Lens. The rear combination of the lens may be used alone which nearly doubles the size of the image. It has a swing back and a reversible back. The outfit includes a sole leather carrying case, which will accommodate the camera and extra holders, It is made in three sizes: 4 x 5, 5 x 7 and 61/2 x 81/4.

SPECIFICATIONS.

Camera Box-Mahogany, dovetailed, and covered with seal grain leather.

Camera Bed-Mahogany polished, fitted with piano hinge.

Metal Parts-Highly polished brass, lacquered. Bellows-Red Russia leather, lined with gossamer cloth.

Front-Rising and falling.

Camp-Automatic press button.

Rack and Pinion-For focusing.

Swing-Either back or bed.

Back-Reversible, with single release.

Finder-Brilliant, reversible, brass bound and hooded.

Shutter-Wollensak Automatic Double Valve.

Lens Board-Removable.

Lens-Triple Convertible.

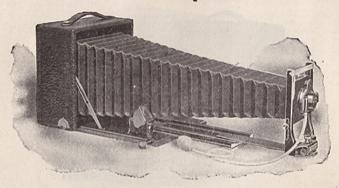
Focal Capacity-4 x 5, 11 inches. 5 x 7, 151/2 inches. 61/2 x 81/2, 20 inches.

PRICES.

Including camera, carrying case with handle, and one	double pla	te holder.
4 x 5	5 x 7	61/2 x 81/2
Schriever Professional No. 8, complete\$21.00	\$28.00	\$38.50
Schriever Professional No. 8, fitted with Wollen-		
sak Single Valve Automatic Shutter 16.75	24.00	35.00
Extra Double Plate Holders	.90	1.50

Estimates furnished on equipment fitted with any other lens, on applieation.

The Schriever Special No. 9.



The camera maker has touched the top notch of his art in the production of the Schriever Special No. 9. Equipped with this camera either the beginner or expert amateur is prepared to conquer all photo-making difficulties. There are many points of acknowledged superiority of the Schriever No. 9 which will excite interest. There are no conditions which confront the photographer which this instrument will not satisfactorily meet, and can be depended upon for results which are highly gratifying. It possesses a swing back which operates on a rack and pinion principle. It also has a removable front board, which will be found of great advantage in cleaning the lens. The front board is also large enough to permit the use of many styles of lenses without cutting down the flange. The camera is fitted with the Automatic Shutter with a finger and pneumatic release, setting itself automatically for time or instantaneous exposures. If it is desired to do the highest type of camera work no better instrument can be selected than Schriever Special No. 9. It is fitted with the Convertible Three-Focus Lens. The rear combination of the lens may be used alone, which nearly doubles the size of the image or the rear combination may be removed and the front substituted, which gives or the rear combination may be removed and the front substituted, which gives a still larger image.

a still larger image.

For copying or other work that requires the use of a long focus camera the instrument is especially suited. It has an automatic double acting rack and pinion in front of the double extension bed. One pinion only is used to rack out both beds, the top bed or extension locking itself to the bottom bed or extension automatically as the pinion is turned forward and unlocking automatically as the camera front is racked back in position. A brilliant hooded finder is supplied, accurately showing the view as it will appear on the finished print. We supply the Schriever Special No. 9 regularly with the Convertible Three-Focus Lens. A handsome black sole leather carrying case with a handle and one plate holder. The camera is made in three sizes, 4x5, 5x7, and 6½x8½.

SPECIFICATIONS.

Camera Box—Mahogany, dovetailed, and covered with Buffalo grain leather. Camera Bed—Triple extension, mahogany polished, and fitted with piano

Metal Parts-Highly polished brass, lacquered. Bellows-Red Russia leather, lined with gossamer cloth. Front-Double sliding, vertical and horizontal. Clamp—Automatic press button.

Rack and Finion—For focusing.

Swing—Either back or bed, operated with self-locking device.

Back—Reversible, with improved swing.

Finder—Brilliant, reversible, brass bound and hooded.

Shutter—Wollensak Automatic Double Valve.

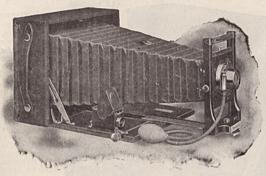
Lens Board—Removable.
Lens—Triple Convertible.

Focal Capacity-4x5, 17 inches; 5x7, 24 inches; 63/2x83/2, 28 inches.

PRICES.

Including camera, carrying case with handle, and one double plate holder. Estimates furnished on equipment fitted with any other lens, on applica-

THE SCRANTON SPECIAL.



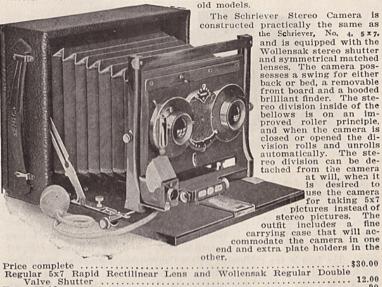
In the Scranton Special the ambitious picture maker has his fondest desires fulfilled. This is the first instrument of the high-grade long focus variety ever offered at so popular a price. It is made of Mahogany, dovetailed and covered with the best Morocco seal grain leather. The camera is made most compact and is built especially for those who desire a long focus camera fitted with a convertible lens, put up in the most compact form. The lens is the celebrated Triple Convertible, permitting two different focuses (the same lens exactly as that fitted to No. 8), and the shutter is the Uno single valve. The metal parts are of brass, handsomely nickelplated. The bellows, of Red Russia leather, soft and flexible, shows a beautiful contrast in combination. The camera also possesses a rack and pinion for fine focusing. Considering the very low price of this camera it offers the best value of any in the Scranton series. The outfit includes the camera and one plate holder. It is made in one size only, the 5 x 7.

SPECIFICATIONS.

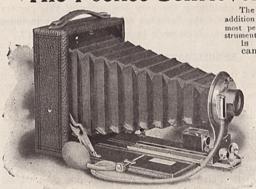
Dimensions-8 x 61/2 x 2 inches. Camera Box-Mahogany, dovetailed and covered with seal grain leather. Camera Bed-Mahogany polished, fitted with piano hinge. Metal Parts—Highly polished brass, lacquered.
Bellows—Red Russia leather, lined with gossamer cloth. Focal Capacity-12% inches. Front-Rising and falling. Rack and Pinion-For focusing. Back-Spring actuated ground glass panel. Finder-Reversible, brass bound and hooded. Shutter-Wollensak Single Valve Automatic, with bulb and tube attach-Lens-Three-Focus Convertible. Camera and one plate holder. Carrying Case \$2.00 extra.

THE SCHRIEVER STEREO.

The beauty of photography can be fully appreciated only by stereoscopic effects. We offer here a stereo camera that is greatly improved over the



The Pocket Schriever No. 10.

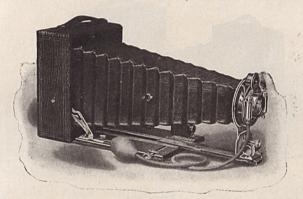


The Pocket Schriever is the lates addition to the Schriever series, and the most perfect pocket photographic instrument ever offered to the public. It is not merely a snap-shot camera, but a thoroughly equipped instrument,

equipped instrument, allowing the operator the widest latitude in every branch of photography. The camera weighs but little and can be readily carried in the pocket. In its symmetry and simplicity it is unequaled. Both time and instantaneous exposures come within its scope, while its manipulation in the use of film or plates is so easy that the novice cannot fall to

understand the camera and its workings. Built of mahogany, highly polished, the metal parts of brass, handsomely nickel plated, is fitted with rack and pinion and extension bed, also ground glass panel in the rear for focusing, which may be easily removed. The lens, either single achromatic or rapid rectilinear, is fitted to the Wollensak automatic single valve shutter. The hooded view finder is of the brilliant pattern.

Pocket Schriever No. 11.



Extended.

Pocket Schriever No. 11 is one of the new additions to the Schriever Pocket Series. It is built along the general lines of our Schriever Professional No. 8, being fitted with convertible lens and automatic shutter. It has greater length of bellows than the Pocket Schriever No. 10 and allows the operator to use the back combination of the lens alone. It is equipped with a swinging bed and possesses a rising and falling front, is made of mahogany, ebony finished, the metal parts being nickel plated. The Camera presents a handsome and rich appearance. These Cameras are made in two sizes, $3\frac{1}{4} \times 4\frac{1}{4}$ and 4×5 . The price includes Camera and one Double Plate Holder.

SPECIFICATIONS.

Dimensions: In 3½ x 4½ size, 4½ x 2½ x 5½. In 4 x 5 size, 5½ x 2½ x 6½.

Draw: In 31/4 x 41/4 size, 93/4 inches. In 4 x 5 size 11 inches.

Camera: Ebony finish, dovetailed, covered with Walrus grain leather.

Front: Metallic, reinforced, rising and falling.

Back: Improved swing, ground glass panel for focusing.

Bellows: Black, lined with Gossamer cloth.

Rack and Pinion: For fine focusing, locking device.

Swing: Either back or bed operated with self-locking device.

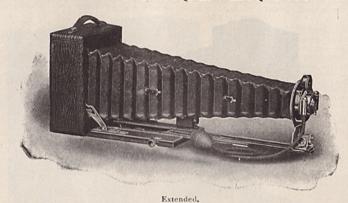
Finder: Brilliant and Hooded.

Tripod Socket: Two.

Shutter: Wollensack Automatic with bulb and tube attachment.

Lens: Triple Convertible.

POCKET SCHRIEVER No. 12.



This instrument is a miniature model of our Schriever Special No. 9. It is fitted with rack and pinion, extension bellows and is without a doubt the most compact folding pocket instrument ever offered, considering the number of its adjustments and the high class work this camera will do. We have no hesitation in saying that it is a photo marvel.

In the construction of the Schriever Pocket No. 12, we have incorporated the features which have made our Schriever Special No. 9 so popular, i. e., rising and falling front, both swing back and swing bed, rack and pinion, extension bellows and also the popular Automatic shutter and Triple Convertible Lens. The price includes Camera and one Double Plate Holder.

SPECIFICATIONS.

Dimensions: $3\frac{1}{4}$ x $4\frac{1}{4}$, size $4\frac{1}{8}$ x $2\frac{3}{8}$ x $5\frac{1}{2}$; in 4 x 5 size, $5\frac{1}{8}$ x $2\frac{3}{8}$ x $6\frac{1}{4}$. Focal Capacity: In $3\frac{1}{4}$ x $4\frac{1}{4}$ size 12 inches; in 4 x 5 size 14 inches.

Camera Box: Ebony finish, dovetailed and covered with Walrus grain leather.

Camera Bed: Triple extension.

Metal Parts: Highly polished brass, nickel plated. Bellows: Black leather, lined with gossamer cloth.

SPECIAL FEATURES.

Front: Metallic reinforced, rising and falling.

Clamp: Automatic press button.

Rack and Pinion: For focusing self locking device.

Swing: Either back or bed, operated with self-locking device.

Back: Improved swing, ground glass panel. Finder: Brilliant, reversible and hooded.

Shutter: Wollensack Automatic, with bulb and tube attachment.

Lens: Triple Convertible.

Schriever Pocket Filmplate.



Pocket Filmplate Cameras represent the highest mechanical development in the making of moderate priced instruments using film or plates, capable of producing photo results equal to cameras of many times their value.

The cases of Pocket Filmplate Cameras are made of selected cherry of natural finish, highly polished, covered with grain leatherette; metal parts all nickel plated. The bellows extension in the 4" x 5" size, we offer, is 63% inches. Pocket Filmplate Cameras are fitted with Achromatic Lens and Uno Shutter, have ground glass panel for focusing, reversible finder and two tripod sockets. With each camera goes one plate holder.

SPECIFICATIONS.

Dimensions: In $3\frac{1}{4}$ x $4\frac{1}{4}$ size, $5\frac{3}{8}$ x $4\frac{1}{2}$ x 2 in. In 4 x 5 size, $6\frac{1}{8}$ x $5\frac{1}{8}$ x 2 in.

Draw: In 31/4 x 41/4 size, 6 in. In 4 x 5 size, 63/4 in.

Camera Box: Light finish, dovetailed, covered with seal grain leatherette.

Camera Bed: Highly polished cherry.

Metal Parts: Nickle Plated. Front: Metallic, reinforced.

Back: Ground glass panel for focusing.

Reversible finder, two tripod scekets, Uno Shutter, Achromatic Lens.

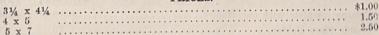
PRICES

Schriever Pocket Filmplate: 3 1/4 x 41/4, \$6.00; 4 x 5, \$6.50.

Film Pack Adapter.

This adapter is similar in form to an ordinary plate holder. It is constructed for use with plate cameras, thereby converting them into daylight loading film cameras. This adapter can be removed and replaced the same as a plate holder, thus giving the advantage of focusing on the ground glass when using films. The back is of aluminum and the slide of hard leather. With this adapter you can use either plates or films in your camera as occasion requires. All our hand cameras are made for either the plate holder or film pack.







Schriever Junior and Schriever Senior.



For 31/2 x 31/2 and 4 x 5 Pictures

The names "Junior" and "Senior apply to the two respective sizes of the Schriever Camera illustrated above.

The Schriever Junior is small, neat and compact. Takes a picture of 31/2 x 31/2, will produce portraits, landscapes or interiors and will carry three double plate holders with a capacity of six dry plates. Any quantity of extra dry plate holders may be supplied so that a large number of pictures may be made without reloading. The camera is supplied with a finder for snapshot work. It has an Achromatic lens of wonderful depth and definition and an improved shutter. A tripod socket is provided, so that it can be used for hand or tripod work, as desired. The popularity of the Schriever Senior is sufficient evidence of its merits. It takes pictures 4 x 5 in size, and has our improved Automatic Shutter for time and snap shot exposures, one button answering for both purposes. It is fitted with two large view finders, and two tripod sockets. The Schriever Senior is fitted with high grade achromatic lens, meniscus combination, of universal focus, requiring no focusing attachment. The camera is strongly made and light.

PRICES.

Junior	. Senior.
3½ x 3½	4 x 5
Camera complete with one Holder\$3.00	\$3.50
Double Plate Holder	

The Ingento Improved Magazine Camera.

The plate changing mechanism of this camera is constructed on a new and improved plan, being greatly simplified over all magazine cameras which heretofore have been placed on the market. This simplicity of construction, combined with its perfect operation,

makes failure impossible, insuring the certain changing of the exposed

plate to the exposed chamber at each turn of the button. The loading and unloading of the plates is readily accomplished. In

first slipped into metal sheaths or holders, then inserted in the camera at the back. The exposed plates can be removed at any time without disturbing the remaining unexposed plates. The capacity of the camera is twelve 4x5 plates.



By simply turning a button the exposed plate is dropped to the bottom of the camera, and the next plate springs into position ready for the next exposure. At each turn of the button a register is automatically operated, registering the number of the exposed plate.

The shutter is automatic in its action, being always set and ready for the next exposure. It is of the simplest possible construction and cannot get out of order through its operation. The release of the shutter can be made with either bulb or finger release. The shutter is also fitted with a set of diaphragms and a shut-off, which, when set, locks the shutter and prevents accidental exposure.

The camera is fitted with a high grade achromatic Meniscus lens of universal focus, which cuts sharp to the corners of the plate and gives great definition and speed. The two view finders are of the brilliant type, and show the image as bright as it appears to the eye. They are adjusted for both vertical and horizontal pictures.

We can thoroughly recommend this camera as the most perfect of the magazine type that has ever been before the photographic trade.

Price, 4x5\$10 00

Reflex Cameras.

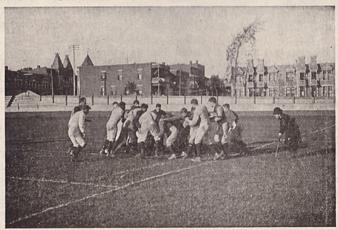
Reversible Back. Improved 1906 Model.



This camera stands in a class by itself. It is adapted for all kinds of high-speed instantaneous work, such as photographing yacht races, street scenes, express trains at full speed, birds on the wing and special sub-

jects for newspaper and magazine illustrations. It is so constructed that it may be used under any and all conditions of light, and is beyond a doubt the equipment par excellence for the progressive photographer. The Reflex camera is so made that the operator may focus his subject up to the instant of making the exposure. This is possible owing to the fact that the machine is constructed with a special optically

perfect mirror which reflects the image upon a ground glass placed parallel with the top of the machine, and which is protected by a hood, as shown in the illustration. Upon pressing a button the mirror is released and the image is projected through the lens in readiness to operate the shutter.



The shutter is of an improved type, with outside slit adjustment, works parallel with and just in front of the plate, and permits exposures up to $12\frac{1}{00}$ of a second. The entire operation is very simple and will be easily understood upon reading the complete book of instructions that accompanies the camera.

We list these cameras without lenses, but otherwise complete in every detail. We recommend any of the anastigmats listed in this catalog as suitable for the Reflex.

Reflex Cameras.



Prices, fitted with Focal Plane Shutter (outside slit adjustment), Reversible Back, and one Double Plate Holder:

Dutch, and one Double I late Holder		
4 x 5 Reflex, without lens; focal capacity 5% to 81/4 inches\$	65	00
5 x 7 Reflex, without lens; focal capacity 81/4 to 103/4 inches	75	00
6½ x 8½ Reflex, without lens; focal capacity 9½ to 12 inches	90	00
4 x 5 Long Focus Reflex, without lens; focal capacity 7 to 18		
inches	100	00
5 x 7 Long Focus Reflex, without lens; focal capacity 9 to 22		
inches	110	00
6½ x 8½ Long Focus Reflex, without lens; focal capacity 9½ to 24		
inches	135	00
Stereo Reflex, without lens; focal capacity 4½ to 6 inches		

Send for complete catalogue describing every detail.

Ingento Special Magazine Camera.

A New Model, Constructed on Lines Different From Those of Any Other Magazine Camera on the American Market.

In the Ingento Special Magazine Camera we present to the photographic trade one of the most compact, most convenient and most complete cameras of its kind to be found in the country. In our researches, made during the cur-

rent year in Europe, we found no camera that compared with this.

The Camera, as shown by illustration, is rectangular in shape, 6% inches high, 8½ inches long and only 3% inches wide. It is covered in imitation leather and has a leather carrying strap. As shown by dimensions above, it is very narrow for a camera of its kind, while it is no longer than some of the popular folding cameras now on the market. Its general appearance is similar to that of the higher-priced instruments.

The Lens is the strongest feature of the outfit, it being double rectilinear instead of a single achromatic lens as supplied on similar cameras. With this lens one is enabled

to make pictures as close as four feet, which is of untold advantage in a camera of this size, when it is considered that the lenses usually supplied work at a distance of six feet, at the nearest. The lens alone is worth the price of the entire outfit.

The lens is also equipped with iris diaphragms which are set by an ingenious arrangement of the front hood of the lens. Simply turning the hood sets the diaphragms.

The Shutter is of the "ever-ready" pattern, having a speed of 1/100 of a second, with speed indicator which can be quickly adjusted.

The capacity of the camera is twelve $3\frac{1}{4}$ x4 $\frac{1}{4}$ plates, which are changed by the slipping of a knob on the outside top of the camera, and only one plate can be changed at a time. The change is sure and instantly made. Each change is automatically registered at time plate is dropped. Every dealer knows how unreliable, as a usual thing, this part of a magazine camera is. The dropping device of the Ingento Special is so constructed that only one plate at a time can drop.

This camera is fitted with brilliant view finders which are placed for both vertical and horizontal pictures. Two tripod plates complete the details of this camera.

On the whole, we can recommend this camera as a thorough and practical instrument that cannot be beat in quality and price. It is remarkable how so good a camera can be put up at the figure. To see it is to want it.

Made in 3 1/4 x 4 1/4 Size Only.

Price, complete as above	\$10 00
Sole leather carrying case extra	2 25

The Primera Plate Magazine.

Many innovations in the shape of magazine cameras have been offered to the ambitious amateur whose delight it is to spend a day picture taking. Cameras of this type, however, are entirely unsatisfactory for high class work



and are limited in operation. The Primera plate magazine marks the evolution of the magazine camera and is being marketed for the first time after years of careful planning by the inventors. This instrument is designed to accommodate from one to twelve plates at one time, and it occupies the space required for three ordinary plate holders. It consists of a magazine chamber into which the unexposed or exposed plates are placed and a plate holder accommodating one plate, which latter is used in conjunction with and is a part of the magazine.

Its simplicity of operation and compactness plainly display the skill used in its construction, there being no complicated parts to easily get out of order. The possibility of mistakes being made

by improper manipulation of the instrument has been carefully guarded against, as the operation of loading the plate holder from the magazine and ing it, unload after the plate has been duly exposed, is automatically performed with but slight assistance from the operator.

An ingenious numbering device automatically registers each exposure, the plates being recorded as they are transferred from the magazine to the plate holder.

The plate holder is lined with a black felt material which gives the plates the non-halation quality so desirable in all work. The slides of the magazine chamber and holder cannot be accidentally withdrawn, being provided with automatic stops.

This instrument to its possessor will prove itself a "panacea for all ills" attendant upon loading and unloading of plate holders, preventing plates from becoming light struck, finger marked, etc.

Double exposure of plates is also lessened, as exposed plates must be returned to receiving side of magazine before holder can be reloaded.

A plate can be loaded into plate holder from magazine and returned to receiving side of magazine in less than ten seconds, thus permitting the loading and unloading of twelve plates in less than 3½ minutes. The owner of the cheapest, as well as the possessor of the most expensive outfit, will readily appreciate the acquisition of one of these magazines.

The magazine is made of mahogany, highly polished, and the metal work of brass, beautifully nickel plated, making a handsome outfit. It is furnished fitted in a neat leather velvet lined case, with strap, and is operated while slung across the shoulders from either side.

The plate holder is made of aluminum and mahogany. When ordering state style of holder required. They are made to fit all cameras.

Ingento Plate Holders.

These plate holders are made of the best seasoned cherry throughout, finely finished and varnished and are equal to any plate holder supplied with any of the cameras on the market. They are light and compact, all joints being neatly dovetailed together, insuring strength and durability. The light excluding shutter is of an improved pattern, and perfectly shuts out all light from entering through the narrow opening when the slide is withdrawn.

Ingento Plate Holders are supplied with either hard rubber or press-board slides. We recommend the use of press-board slides, instead of hard rubber, as the former will not electrify, cause fog or collect dust, or be affected by changes of temperature.

Size	Holders with H. R. Slides		Size	Holders with H.R. Slides	Holders with P.B. Slides
4 x5	\$0 80	\$0 70	8x10	\$2 00	\$1 75
		85	11x14	4 00	3 50
64×81	6 1 75	1 50			

When ordering specify name of camera for which wanted.

Errata.

Page 20, catalog No. 10 (1906-1907): Please tear off the slip below line and paste on page 25 of catalog to correct prices erroneously given.

	Ir	igento Plat	e Holde	rs.	
4 x5 5 x7 6½x8½	1 00	With P. B. Slides\$0 70851 50	8x10 11x14	THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	With P. B. Slides\$1 75 5 00

Plate Holder Slides.

		Hard R			Press	Board		Hard Rubber	Press Bos	ard
	x5						8x10	\$0 65		35
	x7									
61/2	x81/2		50			25				
	Always	give st	yle c	of hole	ler or	came	ra when or	dering.		

Adjustable Plate Holders.

Prices on 61/2x81/2 should be \$2.00; 8x10, \$2.50.

Size 4 x5,	tor plates 4x5, 31/4 x41/4, and 31/2 x51/2	שנ טט
Size 5 x7,	for plates $5x7$, $4\frac{1}{4}x6\frac{1}{2}$, $4x5$ and $3\frac{1}{4}x4\frac{1}{4}$	1 25
Size 61/2 x81/2,	for plates $6\frac{1}{2} \times 8\frac{1}{2}$, 5×8 , 5×7 and $4\frac{1}{4} \times 6\frac{1}{2}$	1 75
Size 8 x10,	for plates 8x10, 61/2x81/2, 5x8 and 5x7	2 00

Schriever Plate Holders.

It is our aim to turn out plate holders that are absolutely perfect, and for this reason we have been very careful to furnish with our line of cameras a plate holder that will give entire satisfaction. Schriever Plate Holders are made from the best seasoned cherry, and the grooves are accurate and smooth inside, insuring freedom of action. To load them, rest the end of the plate against the spring bar at the end, then by simply pressing the bar with the finger the



plate falls into place. To unload, press the bar and let the plate rest against the fingers, when it may be taken from the holder. We are furnishing all of our plate holders, unless otherwise specified, with black press-board slides, especially prepared by us to prevent warping, swelling, etc., caused by change of temperature. In this way we avoid many of the faults blamable to hard rubber. We recommend press-board slides in every instance. However, we give the choice of hard rubber up to and including the 5×7 , but do not guarantee them against breakage or fogging.

PRICES.

3½ x 3½	5 5 x 8 \$1.25
	$5 \mid 6\frac{1}{2} \times 8\frac{1}{2} \dots 1.50$
	5 8 x 10 1.75
5 x7	0

ENGLISH BOOK STYLE OF PLATE HOLDER.

This is the regular English form of holder, has many advantages, and is specially adapted for sizes larger than 8 x 10. The two sides are hinged and open like a book when placing or displacing the plates. The septum, for division between the two sides of holder, is also hinged, and works most satisfactorily in the dark room.

		S.

Size	Press-board slides	Rubi	ber slides
11 x 14	 \$4 50		\$5 00
	6 00		
	7 00		
	7 00		

Expo Vest Pocket Camera.

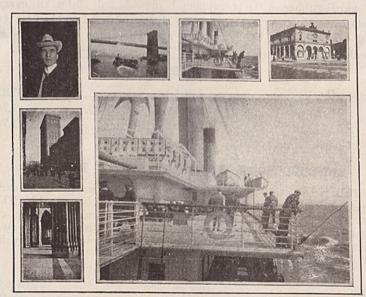
Looks exactly like a watch. Loads in daylight with films for 25 pictures. A camera that weighs but three ounces, that looks exactly like and takes no more room in the

vest pocket than an ordinary watch; that loads in daylight with film for 25 perfect little pictures, $\frac{5}{8}$ x $\frac{7}{8}$; that has time and instantaneous shutter, and, in short, nearly everything a big and expensive camera has.

The fact that the New York "Herald" and other leading newspapers have their reporters equipped with Expo Watch Cameras is proof conclusive that this camera wonder is highly practical

and not a toy. Every camera is sold under a positive guarantee.

To add to the practicability of the Expo Watch Camera, the Expo Enlarger, a new and novel contrivance that will enlarge Expo pictures in the simplest possible manner up to 2x3 size, has been devised.



The smaller prints in above illustration are made with the Expo Watch Camera. The large print is enlarged from an Expo negative with the Expo Enlarger.

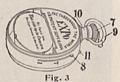
Expo Vest Pocket Camera.

Description of Expo Watch Camera and Enlarger.

FIGURE 1.—Expo Watch Camera with View Finder attached. Actual weight three ounces. No. 1 (Fig. 1) indicator window; 5, film-winding key; 10, stem containing lens.







ig. 1

FIGURE 2.—Expo film holder or spool, containing film for 25 exposures.

FIGURE 3.—Camera with cover off and film spool in position. No. 7 (Fig. 3), cap covering lens hole in stem, to be removed in taking pictures; 10, stem; 8, lug attached to shutter to be drawn back along slot on side of camera to I or T, in making time or instantaneous exposures; 11, push button releasing shutter.





FIGURE 4.—Expo Enlarger closed ready for enlarging.

FIGURE 5.—Expo Enlarger open. Nos. 1 and 7, covers, attached to body of Enlarger with hooks; 2, spring frame holding negative in place; 3, catch locking spring frame; 4 and 5, glass pieces between which negative is placed; 6, body of Enlarger; 8, position for bromide paper; 10, shutter rod to be drawn out in making enlargement.

Prices.

Expo Watch Camera, guaranteed to do practical work	\$2	50
Expo Enlarger	1	50
Expo View Finder		50
Film Spools-don't forget film spools when ordering c	am-	
era—each extra		20

The No. 1 Ansco.

For Pictures 3 1/2 x 3 1/2 inches.



Adapted for films of either six or twelve exposures. Dimensions, $4\frac{3}{8} \times 4\frac{3}{4} \times 5\frac{1}{2}$; weight 19 ounces. This is a high grade practical camera at a popular price. It is always ready, as the single achromatic lens with which it is fitted is of the fixed focus style. The shutter with three diaphragms is arranged to give three grades of speed, as well as time exposures. The camera is provided with a tripod

socket. Each camera is complete in itself, and has no loose parts to become broken or lost.

It is provided with a brilliant finder of the best quality. It is covered with genuine seal leather and all parts are nickel plated. This camera is adapted to the use of daylight loading film cartridge system.

No. 1 Ansco Camera\$5	00
Carrying Case	25
Ansco Film Cartridge, 31/2x31/2, 6 exposures \$0 30; 12 exposures	60

The No. 2 Ansco.

For Pictures 3 1/4 x 4 1/4 inches.

Adapted for film of either six or twelve exposures. Dimensions, 434 x 51/2 x 61/2; weight 30 ounces. The No. 2 Ansco is of the box type of camera. Very compact and covered with seal grain leather. All its metal fittings are nickel plated. This camera is always ready, as the lens, which is a high grade single achromatic, is of the fixed focus type. The shutter is of an improved form of finger release automatic for both time and instantaneous exposures. It



has a brilliant finder which allows the user to center the image quickly. The camera has two tripod sockets, so as to make pictures either way of the film.

The camera is adapted for use with the daylight loading film cartridge system.

Ansco Camera No. 2	25
Carrying Case	50
Ansco Film Cartridge, 31/x41/4, 6 exposures \$0 35; 12 exposures	70

The No. 3 Ansco. For Pictures 4x5 inches.

Adapted for films of either six or twelve exposures. Dimensions, 8\(\frac{1}{4}\)x6x5\(\frac{1}{8}\) inches; weight 40 ounces. It is a most com-

pact 4x5 camera of the box type, covered with seal grain leather, and is fitted with two tripod sockets. All metal fittings are nickel plated. It is fitted with a single achromatic lens of the fixed focus type, and an improved form of finger release automatic shutter for both time and instantaneous exposure.



The shutter contains a set of three dia-

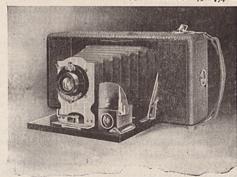
phragms. With this camera there is no uncertainty as to distances, provided the subject is six feet or further away.

The brilliant finder with which it is provided for viewing the picture, is of the same general nature as that fitted to all the Ansco Cameras. The picture is seen quickly, even though the sun should shine directly on it. It is adapted for use with the daylight load-

ing cartridge system.	
Ansco Camera No. 3\$7	75
Carrying Case 1	
Ansco Film Cartridge, 4x5, 6 exposures \$0.45: 12 exposures	

The Ansco Junior.

For Pictures 2 1/2 inches.



Dimensions, 2x81/4x41/4; weight 21 ounces. This is a very handsome compact camera, with self-locking devise for bellows extension, covered with seal grain leather and fitted with a high grade fixed focus rapid rectilinear lens with diar hragms, and time, bulb release and instantaneous shutter: also socket for tripod.

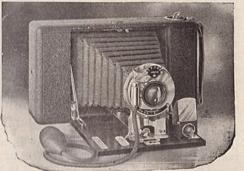
Ansco Junior\$12 (00
Carrying Case 1	
	50

No. 4 Folding Pocket Ansco.

For Pictures 3 1/4 x 4 1/4 inches.

Adapted for film of either six or twelve exposures. Dimensions, 8x4½x 2 inches; weight 25 ounces. Fitted with rapid rectilinear lens and Winner Automatic Shutter. Focal length of lens five inches. The dimensions of this camera and its shape will appeal to tourists, for it is designed so that it may be conveniently carried even in an overcoat pocket; but it is a thoroughly durable and reliable instrument

It is made throughout of selected mahogany, and the metal parts with the ex-ception of the shutter, are nickeled. The camera is covered with a fine black seal leather, and is fitted with a Vidil back. The bellows is of maroon leather. The lenses used in this camera are of the double rapid rectilinear type, each lens being carefully selected and tested by an expert, before the instrument leaves the factory. They are fitted with popular Winner Auto-



matic Shutter with Iris diaphragm. The camera is also fitted with a brilliant reversible finder and tripod sockets, and an accurately adjusted focusing scale. An interchangeable back, the Ansco Dry Plate Attachment, is also furnished separate for this camera, and when so fitted it becomes a most compact, practical and finished dry plate camera.

Ansco No. 4 Folding, 31/4 x 41/4, fitted with rapid rectilinear lens and		A	
shutter\$	14	50	
Camera fitted with No. 0, Series III, Goerz Double Anastigmat lens			
and new automatic shutter	55	00	
Leather carrying case		50	
Ansco dry plate attachment	3	50	
Double dry plate holder 3½ x4½ each	1	00	
Ansco Film Cartridge, 3\forall x4\forall 4, 6 exposures \$0 35; 12 exposures		70	
Ansco Vidil Film Cartridge, 31/4 x41/4, 12 exposures		70	

No. 5 Folding Pocket Ansco.

For Pictures 4x5 inches.

Adapted for film of either six or twelve exposures. Dimensions, 2x51/x83/4 inches; weight 31 ounces. Fitted with rapid rectilinear lens and Winner Automatic Shutter; focal length of lens, 51/4 inches.

The Ansco No. 5 is the same in every particular as the No. 4, except that it makes a picture 4x5. An interchangeable back, the Ansco Dry Plate Attachment is also furnished separate for this camera.

tachment, is also turnished separate for this camera.	
Ansco No. 5 Folding, 4x5, with rapid rectilinear lens and shutter\$18 5 Camera fitted with No 1 Goerz Anastigmat lens, Series III, with new	50
automatic shutter	50
Leather carrying case 1	50
Ansco dry plate attachment	50
Double dry plate holder 4x5 each	00
	90
	90

No. 6 and 7 Folding Pocket Ansco.

For Pictures 3 % x 4 % and 4x5 inches.

Adapted for films either 6 or 12 exposures. Dimensions of No. 6, 2x4½x8 inches; weight 25 ounces. Dimensions of No. 7, 2x5½x8¾ inches; weight 31 ounces. This camera is designed for those who are proud to possess a camera of the highest quality and finish throughout. It is made of selected mahogany



and is highly polished. The metal parts, with the exception of the shutter, are nickeled, and the camera is covered with black seal grain leather. It is provided with rack and pinion movement, for focusing with great precision. It has a rising front to include more of the foreground, or more of the sky, as the composition of the picture might require; and also for taking high buildings. For similar purposes it has a lateral shifting front.

The Ansco cameras Nos. 6 and 7 are fitted with the highest grade lenses hat can be produced at a popular price. The lenses fitted to the folding Ansco cameras from No. 4 up, have a covering capacity designated as F 8. They will take snap shots in sunlight in 1/100 part of a second, and with the shutter working at 1/50 a second will make satisfactory negatives on hazy days.

Both Nos. 6 and 7 Ancos are provided with a Vidil focusing back, reversible finder and tripod socket for both horizontal and vertical pictures, and have a accurately adjusted focusing scale for the rapid rectilinear lens.

The Ansco dry plate attachment is also furnished separate for these cameras, and when so fitted they become most compact, practical and finished dry plate cameras.

Prices:

shutter)	\$20	(
shutter		
Leather carrying case	1	
Ansco dry plate attachment	3	
Double dry plate holder, 3¼ x4¼	1	(
Ansco non-curling film cartridge, 12 exposures 3½ x4½		
Ansco non-curling film cartridge, 6 exposures, 3\frac{1}{4}\times 4\frac{1}{4} \dots		
Ansco Vidil Film Cartridge, 12 exposures		
Ansco No. 7 folding, 4x5 camera (rapid rectilinear lens and shutter)	25	
Camera fitted with No. 1, Series III, Goerz anastigmat lens with new	20	
automatic shutter	70	į,
eather carrying case		
Ansco dry plate attachment	3	
Ansco dry plate holder, 4x5	1	
Ansco non-curling film cartridge, 12 exposures, 4x5		
Ansco non-curling film cartridge, 6 exposures, 4x5		
Ansco Vidil film cartridge, 10 exposures, 4x5	F.000	

No. 9 Folding Pocket Ansco.

For Pictures 31/4 x51/2 inches.

Adapted for films of either six or ten exposures. Dimensions, 2x41/2x91/2

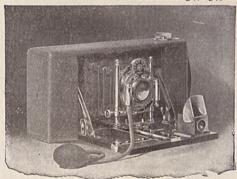
inches; weight, 35 ounces. This camera represents all through the highest grade of workmanship, and the size of the picture which it takes, namely: 3½ x 5½ inches, is a very popular size. It has a rack and pinion device for focusing, which is very desirable and important. Like all the Ansco Folding Cameras, it has a Vidil focusing back; also tripod sockets. It is fitted with Rapid Rectilinear lens and single valve automatic shutter. The Ansco dry plate attachment is also furnished separate for for this camera.



Ansco No. 9, 3½ x5½ camera, (with rapid rectilinear lens and shutter). \$20 00 Camera fitted with No. 1 Goerz Anastigmat lens, series III, with new Automatic shutter. 69 00 Leather carrying case 1 50 Ansco dry plate attachment 3 50 Plate holders each 1 50 Ansco Film Cartridge 3½ x5½, 6 exposures \$0 40; 10 exposures 70 Ansco Vidil Film Cartridge, 3½ x5½, 8 exposures 70 70

No. 10 Folding Pocket Ansco.

For Pictures 3 1/4 x 5 1/2 inches.



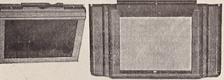
Adapted for film either six or ten exposures. Dimensions 2x41/2x91/2 inches; weight 35 ounces. This high grade camera possesses all the fine features of the No. 9 Ansco. It is fitted with a Rapid Rectilinear lens of fine quality and double valve automatic time, bulb release and instantaneous shutter, a rising and falling front, Vidil focusing back and has tripod sockets for both horizontal and vertical pictures. The Ansco dry plate attachment is also furnished separate for this camera.

Ansco No. 10 Folding 3¼ x5½ camera (with rapid rectilinear lens		
and shutter)\$	25	50
Camera fittled with No. 1 Goerz Anistigmat lens, series III, and		
Automatic shutter	70	00
Leather carrying case	1	50
Ansco dry plate attachment	3	50
Plate holders each	1	00
Ansco Film Cartridge, 31/4 x51/2, 6 exposures \$0 40; 10 exposures		70
Ansco Vidil Film Cartridge, 31/4 x51/2, 8 exposures		70

Ansco Dry Plate Attachment.

This attachment, or rather interchangeable back, is supplied for those who desire to use dry plates instead of films in the Ansco Camers Nos. 4, 5, 6, 7, 9 and 10.

When the Ansco Dry Plate attachment is substituted for the film back, the Ansco camera does not vary in appearance. It remains the same only that it takes a double dry plate holder. It is not, therefore, a make-



shift, as heretofore sold by other manufacturers. An Ansco fitted with this attachment becomes the most compact, practical and efficient dry plate camera on the market.

When ordering be sure to give style of camera for which desired.

Price	complete	\$3	50
Extra	Plate Holder	1	00

Buster Brown Cameras.

No. 1, for pictures 21/x21/4 inches; adapted for six exposure Film. Dimensions, 31/x31/x41/4 inches; weight, 8 ounces.



This camera is not a toy. It is accurate and reliable in every respect, and was designed with special reference to the wants of boys and girls, and having in mind the requirements of a child full of fun, as represented by the Buster Brown sketches.

It is fitted with a fine quality lens and shutter for both snap-shot and time exposures.

Price

No. 1 Buster Brown\$1	00
Carrying Case	50
Six Exposure Film,	
2½ x2½	15

No. 2, for pictures 2½ x3½ inches; adapted for six exposure Film. Dimensions, 3½ x4½ x5½ inches; weight, 11 ounces.

This camera is the same as No. 1, only on a larger scale, for it takes pictures $2\frac{1}{4} \times 3\frac{1}{4}$ inches. It is fitted with a lens, guaranteed to produce good pictures, and a shutter adjusted for both snap-shot and time exposures. It is provided withtwo finders for horizontal and vertical pictures, and carrying strap.

No. 2 Buster Brown	50
Carrying Case	7:
Six Exposure Film, 21/4 x31/4	20

The No. 3 Buster Brown.

For Pictures 2 1/4 x 3 1/4 inches.

Adapted for six exposure films. Dimensions, $3 \frac{1}{2} \times 4\frac{1}{8} \times 5\frac{1}{2}$ inches; weight, 11 ounces. This camera is identical in style, quality and construction



to that of the well known and popular No. 1 Ansco Box Camera. It is fitted with a good working lens and time and instantantaneous finger release shutter. It is also provided with two ground glass finders for horizontal and vertical pictures. The camera speaks for itself, and is sure to give satisfaction.

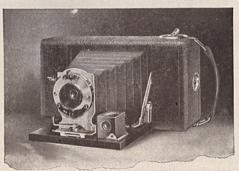
Price.

No. 3 Buster Brown Camera	\$3 50
Carrying Case	75
Six Exposure Film, 2½ x 3½	20

The No. 1 Folding Buster Brown.

For Pictures 2 1/4 x 3 1/4 inches.

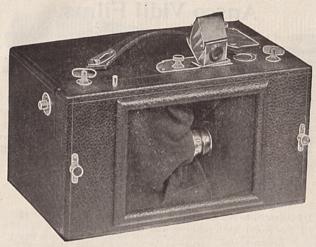
Adapted for six exposure films. Dimensions, $3\frac{1}{2}$ x6 $\frac{3}{4}$ x $1\frac{3}{4}$; weight, 14 ounces. This camera is very compact and is fitted with a fine meniscus lens with diaphragm and with a shutter for time and instantaneous exposures. It is also provided with a brilliant finder for horizontal and vertical pictures; also socket for tripod.



Price.

No. 1 Folding Buster Brown\$6	50
Carrying Case	00
Six Exposure Film, 2½x3½	20

The Al-Vista Panoramic Camera.



When using an ordinary limited-view camera, how many times you want to get in your picture just a little more than your camera will get on the plate—an object to make the view more artistic, or something necessary to complete the picture. If you place your camera further back you then reduce the size of the objects in your picture, besides, the difference in the point of view Changes the whole picture. If you use a wide angle lens you will get more in the picture, but it is changed by the violent perspective. A larger camera will give the same scene larger in size but not larger in scope; besides the cost of camera, larger plates, and extra weight to carry!

The Al-Vista Camera, fitted with swinging or revolving lens, will do the work. You press the button and in an instant it records everything within its sweep of nearly 180 degrees—half a circle!

It has carefully tested lenses, improved shutter with fan attachment, either time or instantaneous, and its Brilliant View Finder is mounted upon a revolving plate and can be rotated in any direction to bring the object on the plate and take the FULL SCOPE of view.

All Models use the regular daylight-loading film cartridge.

"BABY AL VISTA." Makes picture 21/2 x63/4. Price, \$3 50 MODEL, "3 B." Makes pictures 31/2 inches wide and either 41/2 or 9 inches long. Size of camera, 9x5x6 inches. Price, \$20 MODEL "4 B." Makes pictures 4x4, 4x6, 4x8, and 4x10 inches. Size of camera 91/2 x5x51/2 inches. MODEL, "5 B." Makes pictures 5x4, 5x6, 5x8, 5x10 and 5x12 inches. Size of camera, 111/x61/x7. Price, \$30 MODEL, "5 D." Makes pictures 5x6, 5x8, 5x10 5x12 and 5x16. Size of camera, 131/x61/x81/2 inches. Price, \$35 MODEL, "7 E" Makes pictures 7 inches wide and 21 inches long. Fitted with special lens. Size of camera, 17 1/4 x10 1/2 inches. Price, \$100

Ansco Non-Curling Films and Ansco Vidil Films.

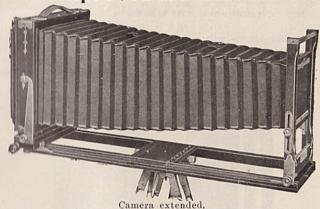
Latitude of exposure is one of the important qualities of the Ansco Films, as it allows the photographer great leeway in estimating the length of exposure. In short, Ansco Films have many of the advantages of the best glass plates, with the additional features of film photography, viz.: lightness, compactness, loading in daylight, unloading in daylight.

Ansco Non-Curling Film will, as its name implies, remain perfectly flat after development. Its other qualities are non-electric and non-halation.

Ansco Vidil Film permits the focusing of each picture previous to exposing. Each spool is provided with twelve focusing screens, one between each film. After exposure any one of the films can be removed from the roll in the daek room and developed singly without disturbing the others.

PRICE LIST.						
	6 ex.	12 ex.				
1½ x 2 Adapted to Pocket Kodak	\$	\$0 25				
15% x 2½ Adapted to No. O Folding Pocket Kodak	15	25				
2½ x 2½ For No. 1 Buster Brown and adapted to No. 1						
Brownie	15					
2½ x 3½ For No. 2 Buster Brown, No. 3 Buster Brown, No.						
1 Folding Buster Brown, and adapted to No. 2						
Brownie	20					
2½ x 3½ Adapted to No. 1 Folding Pocket Kodak	20	40				
2½ x 4¼ For Ansco Jr. and adapted to No. 1-A Folding						
Pocket Kodak	25	50				
3¼ x 4¼ For Nos. 2, 4 and 6 Ansco Cameras, also adapted						
No. 3 Folding Pocket Kodak, No. 3 Buck-Eye,						
No. 3 Folding Hawk-Eye, Stereo Hawkeye or						
No. 3 Weno Hawk-Eye	35	, 70				
3½ x 3½ For No. 1 Ansco Camera, also adapted to No. 2						
Folding Pocket Kodak, No. 2 Flexo, No. 2						
Folding Pocket Kodak, No. 2 Flexo, No. 2 Bulls-Eye, No. 2 Bullet, No. 2 Stereo Kodak, No. 4 Panoram Kodak, Tourist Buck-Eye, No.						
2 Weno Hawk-Eye, or No. 3 B Al Vista	30	60				
31/ x 51/2 For Nos. 9 and 10 Ansco and adapted to No. 3-A		IO ex.				
Folding Pocket Kodak	40	70				
4 x 5 For Nos. 3, 5 and 7 Anco Cameras, also adapted		12 ex.				
to No. 4 Folding Buck-Eye, No. 4 Weno Hawk-						
Eye, No. 4 Folding Hawk-Eye, No. 4 Bulls-	45	90				
Eye, No. 4 Bullet or No. 4 B and No. 4 G Al Vista 4¼ x 3¼ Adapted to No. 3 Cartridge Kodak	35	70				
5 x 4 Adapted to No. 5 B, 5 D, 5 F, No. 5 C Al Vista						
Cameras or No. 4 Cartridge Kodak	45	90				
7 x 5 Adapted to No. 7 D, No. 7 E, No. 7 F, Al Vista						
Cameras or No. 5 Cartridge Kodak	80	1 60				
Asserted to the first that the first that the second transfer of the second						
ANSCO VIDIL FILMS.						
31/2 x 41/2 For No. 4 and No. 6 Ansco Cameras, 12 exposure	s	\$0 70				
31/4 x 51/2 For No. 9 and No. 10 Ansco Cameras, 8 exposure		70				
4 x 5 For No. 5 and No. 7 Ansco Camera, 10 exposures		90				

New Improved Schriever View.



We fear no contradiction to our claim that the Schriever View Outfit, a description of which follows, is the realization of the highest perfection in this style of camera. Made of the finest mahogany, well finished and very strong. The metal parts are made of heavy gauge brass, handsomely polished and lacquered. The corners are reinforced and the bed extra heavy, fitted with a piano hinge, thereby making the camera very rigid in all parts. The horizontal and vertical swings are operated with a rack and pinion movement with a set screw, and both swings are from the center. A feature that will be appreciated is the high front frame or standard. When the camera is closed the standard and bed fit tightly against the camera box. This feature corrects a fault so commonly found in all other view cameras where the front frame or standard is so short that it interferes with the bellows when the camera is closed. The rising and falling front is operated by a rack and pinion. The camera is built on a three section bed, which gives great focal capacity. The three sections fit close together, and are made firm and secure, so there is practically no lost motion. It possesses a reversible back of an improved design allowing a view to be taken in either a horizontal or vertical position by simply reversing the back instead of the camera. We also provide in the reversible back a sliding division, thereby permitting the operator to expose one-half of the plate at a time. This sliding division will be found a great convenience and a saver of plates. It can be instantly removed when an exposure is wanted on an entire plate. A handle is attached to the camera which will be found convenient. A plumb bob of brass is attached to the side to insure perfect alignment and correct position of the camera when in use. The bellows is of a new pattern, made in the best possible manner. The carrying case is made of heavy canvas and lined with flannel, reinforced on the corners with brass, nickel-plated. We regularly supply with the New Improved Schriever View Camera a long case, which holds the camera and six plate holders, and for a slight additional expense we will furnish instead of the case regularly supplied, one to take the camera and six plate holders, with a compartment for a tripod. For those desiring a view camera complete, with lens and shutter, for either interior or out of door work, including architectural and landscape work, we offer an equipment that will please the most advanced photographer, as well as the beginner. We list below the view camera, fitted with the complete Rapid Rectilinear Lens or the Convertible Three-Focus Lens, fitted with the Automatic Double Valve Shutter or our Regular Duo Double Valve Shutter. The outfit includes the camera, case, and one plate holder. For sizes above the 8 x 10 the

English Book holder is supplied. We also furnish with sizes above the $8\,\mathrm{x}\,10$, the Schriever Camera Bed Brace. The $17\,\mathrm{x}\,20$ size will, if so ordered, be adapted as to take a $16\,\mathrm{x}\,20$ holder.

In line with our up-to-date methods will be noted our simple working and practical bellows support. This latest attachment to this instrument fills a long felt want. No more sagging bellows to cut off your view. No bothersome eyelets, etc., which at best are but crude makeshifts and proverbally unsatisfactory.





PRICES OF THE NEW IMPROVED SCHRIEVER VIEW CAMERA.

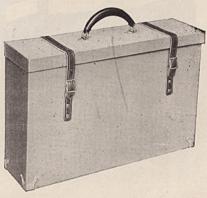
Length of Bellows	Price.	Plate Holders.
5 x 7	\$18.25	\$.90
5 x 8	19.50	1.25
6½ x 8½	19.50	1.50
8 x 10	21.25	1.75
11 x 14	33.50	4.25
14 x 1730 inches	50.00	5.75
17 x 2031¾ inches	62.50	7.00

NEW IMPROVED SCHRIEVER VIEW CAMERAS FITTED WITH LENSES AND SHUTTERS. PRICES.

FRICES.			
	5x7	61/2x81/2	8x10
Improved Schriever View Camera fitted with Rapid			
Rectilinear Lens and Double Valve Shutter\$	28.50	\$33.50	\$41.00
Improved Schriever View Camera fitted with Rapid			
Rectilinear Lens and "Autic" Automatic Shutter	31.00	36.00	43.00
Improved Schriever View Camera, fitted with Convertible Three-Focus Lens and "Autic" Auto-			
matic Shutter	33.00	38.00	46.00
Improved Schriever View Camera, fitted with Schriever Universal Extra Rapid Lens, speed F-6 and			
Unicum Shutter	55.00	70.00	80.00

Estimates furnished on equipment fitted with any other lens, upon application.

CARRYING CASE WHICH IS PROVIDED WITH THE NEW IMPROVED SCHRIEVER VIEW CAMERA.



For a large case with an extra compartment for tripod, in place of case regularly supplied, in 5×7 , 5×8 and $6\frac{1}{2} \times 8\frac{1}{2}$ sizes, 75c extra. In 8×10 size, \$1.00 extra. In 11×14 , size, \$1.50 extra.

Extra Schriever Plate Holders: 5 x 7, 90c; 5 x 8, \$1.25; 6½ x 8½, \$1.50; 8 x 10, \$1.75; 11 x 14, \$4.50; 14 x 17, \$5.50; 16 x 20, \$7.00; 17 x 20, \$7.00.

Many users of a view camera desire a case that opens at the side like a dress suit case. We are therefore manufacturing a most serviceable case made in this style, of leatheret, with strong handle, and metal parts of brass. The suit case is made to hold the view camera, extra holders, tripod and lens, also an extra compartment provided for focusing cloth etc.

DRESS SUIT CASES FOR NEW IMPROVED SCHRIEVER VIEW CAMERA.

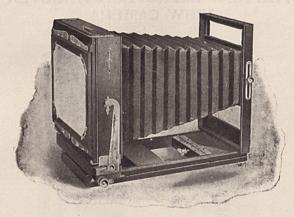


PRICES.

Price of Dress Suit Case size 5 x 7, \$5.50; size 5 x 8, \$6.00; size 6½ x 8½, \$6.00; size 8 x 10, \$7.00.

Price when supplied with Camera in place of Canvas Case regularly supplied: $8.7, 85.00; \text{ size } 5 \times 8, \$5.75; \text{ size } 6\frac{1}{2} \times 8\frac{1}{2}, \$5.75; \text{ size } 8 \times 10, \$6.50.$

Schriever Service View Camera No. 14.



This camera is designed, as its name implies, for general service. All classes of professional work can be made with it. It is one of the best constructed cameras ever manufactured. The camera is mahogany finished, lacquered brass metal work, leather bellows, reversible back, rack and pinion focus movement, double swing and centrally pivoted. The reversible back may be instantly changed to do either upright or horizontal work. The double swing which is pivoted at the center is quickly adjusted to any desired angle and securely clamped in place by a large milled head screw. The front is adjustable permitting a wide range of movement either above or below the center. For wide angle work the back may be racked up close to the front, thus permitting the use of the shortest focus lens made, leaving no part of the bed in range of the lens.

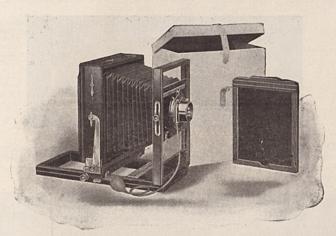
It also possesses two tripod plates for properly balancing the camera; rising and falling front, while the front is made sufficiently wide to permit of stereoscopic lens being used, if desired.

Price, including camera, carrying case and one holder.

Size of View Focal Capacity	Dimensions when Folded or Closed	Size of Front Board	Price
$5 \times 7 \dots 14\frac{1}{2} \dots$	5x 9 $x11\frac{1}{4}$.4 x 6	.\$13 50
$6\frac{1}{2}$ x $8\frac{1}{2}$			
8 x1018	3X12 X14/2	4 X 6	. 15 00

Price extra plate holder for Service View Camera, 5x7, \$0 90; $6\frac{1}{2}x8\frac{1}{2}$, \$1 50; 8x10, \$1 75.

Schriever Service View Camera No. 14.



FITTED WITH LENSES AND SHUTTERS.

For those desiring a view camera complete with lens and shutter for either interior or outdoor work, including groups, landscapes, and architectural work, we offer an equipment that will please the most advanced photographer as well as the beginner.

PRICES.

	5	x7	6+	x8½	8x1	10	
Service fitted with single valve shutter and rapid rectilinear lens		Single	valve		not mad		
Service fitted with double shutter and rapid rectilinear lens		00	\$32	00	\$39	00	
Service fitted with double shutter and triple convertible lens	28	00	34	00	41	00	
Service fitted with Autic shutter and rapid rectilinear lens		00	35	00	42	00	
Service fitted with Autic shutter and triple convertible lens		00	37	00	45	00	
Price includes camera, carrying of	case	and o	ne 1	older	beidel		

Schriever Amateur Finishing Outfit No. 1.



This outfit is intended for beginners who wish to use prepared chemicals for developing and printing where all that is required is to dissolve the powders in water when they are ready for use. It is composed of the following articles, values itemized:

1	Dark Room Lamp \$.25	1 Negative Rack	.25
2	Trays 4 x 5	.36	1 Printing Frame, 4 x 5	.25
	Measuring Glass		1 package Printing Paper Glossy	
	lb. Hypo		6 Toning Powders	.25
6	Developing Powders	.25	1 doz. Standard Plates 4 x 5	.65

\$2.66

Our Special Price is \$2.00.

If 5 x 7 Outfit is desired same will be supplied for \$2.50.

Complete Schriever Finishing Outfit No. 2.

For Those Who Wish to Prepare Their Own Solutions.



The outfit includes all the paraphernalia, chemicals, etc., necessary for all kinds of photographic work. Plates and paper are not included. They should be ordered as needed. A few dozen plates and as much paper as is needed for immediate use could be ordered extra and shipped with the outlit if desired. See price list of Paper and Plates in this catalogue.

The articles included in this outfit are listed on the following page.

Prices and Assortment of Finishing Outfit No. 2.

2	Developing Trays 5 x 7\$.9	0 1	oz. Acetate of	Soda		9 10
			oz. Metol			75
4	Ruby Lamp 1.5	0 1				
1	8-oz. Graduate	0 1 (z. Hydroquino	n		.30
1	Hydrometer	0 4	oz. Carbonate	of Potassiun	m	.20
1	Negative Rack	5 3 '	Foning Trays	5 x 8		1.05
1	Printing Frame	0 1 1	bottle Red Lit	mus Paper		.15
1	Camel's Hair Brush 11/2 inch 3	5 1	bottle Blue Li	tmus Paper.		.15
1	lb. Sulphite of Soda	5 15	grs. Chloride	of Gold		.50
1	1b. Carbonate of Soda	5 1	oz. Sulphuric	Ac:d		.15
5	lbs. Hypo-Sulphite of Soda	5 15	grs. Chloro.	Platinite		.50
1	oz. Pyro3	1 1	oz. Phosphoric	Acid C. P		.15
1	oz. Red Prussiate of Potash1	5 1 (oz. Persulphate	e of Ammoni	a	.25
1	oz. Bichloride of Mercury1	5 1	oz. Nitrie Acid	I C. P		.15
1	oz. Bromide of Potassium1	5				-
1	oz. Borax	2 Re	gular list price	of this outf	t is \$	10.64
	Our Specia	l Price	e is \$8.00.			

Complete Schriever Professional Finishing Outfit No. 3.



This outfit is a complete professional outfit and contains every article necessary for the professional worker.

Outfit No. 3 consists of the following:

Ruby Lamp	3 Toning Trays, 8 x 10 \$2.25 1 oz. Red Prussiate of Potash 15 1 oz. Bichloride of Mercury 15 1 oz. Bromide Potassium 15 1 oz. Persulphate of Ammonia 25 1 oz. of Pyro 30 15 grs. Chloride of Gold 50 1 oz. Acetate of Soda 10 1 bottle Red Litmus Paper 15 1 bottle Blue Litmus Paper 15 1 oz. Metol 75 1 oz. Hydroquinon 30 1 oz. Hydroquinon 30 1 oz. Phosphoric Acid 15
ib, Carbonate of Soda	1 oz. Hydroquinon
0 158 Hypo-Sulphite of Soda	4 oz. Carb. Potassium
	Regular Price

Our Special Price is \$12.00.

The above list covers all the chemicals and paraphernalia necessary. The plates and paper should be ordered as needed. A few dozen plates and a little paper could be shipped with the outfit if desired, but are not included in the above.

Complete Photographic Outfit No. 6

THE SCHRIEVER PROFESSIONAL HAND CAMERA PARAPHER-NALIA AND FINISHING OUTFIT.

This outfit is intended for high-class at-home portraiture, newspaper and magazine illustrating and all general photography.



The camera is our Schriever Professional No. 8. It is built for all-around work, being of the very highest grade. It meets all the requirements of the professional or ambitious amateur. The camera is 5 x 7, Mahogany finished, covered with seal grain cowhide. The bed is Piano finished attached by Piano hinge and long extension track. The bellows is of red Russia leather, lined with gossamer cloth. The back is reversible. Upright or horizontal pictures can be made by simply reversing the back. The bed is fitted with rack and pinion for fine focusing. The lens is our triple convertible. The rear lens may be used alone which doubles the size of the image. The shutter is our double valve autic with bulb and tube attachments and can be used for either time or instantaneous exposures.

1 No. 8 Camera, 5 x 7	28.00
We include 2 Double Plate Holders, 5 x 7	
1 Folding Ideal Tripod No. 2	
1 Focusing Cloth	
1 Head Ground for At Home Portraiture	2.50
1 Complete Finishing Outfit No. 2	10.64
Total\$	45.94

Our Special Price for Complete Photographic Outfit \$38.00

The Complete Schriever Professional Photographer's Outfit No. 7



This outfit includes instruments, backgrounds, trays and chemicals, and every article necessary for equipping a studio to commence business, excepting dry places and paper, which can be ordered in as large a quantity as one

- CL	osires.			
1	8x8 Background, with 7-ft.		1 Negative Rack	.50
*	extension floor cloth, exterior		1 Hydrometer	.50
	or interior\$15.00		1 8-oz. Graduate	.40
4				.10
4				3.00
4	Ingento Portrait Camera Cur-		1 Pair Scales, Ideal	
	tain slide holder, reversible		4 Toning Trays, 8x10	3.00
	cabinet attachment 27.50		6 Printing Frames, 5x7	3.00
1	Schriever Universal extra		1 Printing Frame, 8x10	.75
	rapid lens, 8x10, with Uni-		1 Print Roller, 6-in	.50
	cum Shutter 68.00)	1 Camels' Hair Brush, Rubber	
1	Ingento Vignette 7.50		Bound	.75
9	Magic Camera Stand 15.00		1 Bristle Brush	.35
9	Schriever View Camera, 8x10 21.25		1 lb. Sulphite Soda (Anhydrus)	.35
4	Ingento No. 6 Tripod, 8x10 3.00		1 lb. Carbonate	.35
4				.30
4			1 oz. Pyro 1 oz. Bromide Potassium	.15
4	12-in, Aladdin Burnisher 10.00			
3	Embossing Press and 1 Die 7.00		1 oz. Bichloride Mercury	.15
1	Retouching Easel, Ideal 3.00		1 oz. Persulphate Ammonia	.25
1	Retouching Glass, 3-in 1.25		1 oz. Red Prussiate Potash	.15
1	Retouching Lead BB		4 oz. Carbonate Potassium	.20
1	Retouching Lead HH		1 lb. Borax Crystals	.20
1	Retouching Lead Holder		10 lbs. Hypo	.50
1	Spotting Brush		15 grs. Chloride Gold	.50
1	Cake Opaque		15 grs. Chloride Platinite	.50
4	Hox Etching Paste		1 oz. Acetate Soda	.10
4	Hottle Retouching Dope25		1 oz. Met'ol	.75
9	Hottle Hammer's Varnish		1 oz. Hydroquinon	.30
0			1 oz. Nitric Acid C. P	.15
0				.15
1	Posing Chair (Regina) 5.50		1 oz. Sulphuric Acid C. P	
A.	No. 2 Dark Room Lamp 2.00		1 bottle Red Litmus Paper	.15
0	Daveloping Trays, 8x10 2.25		1 bottle Blue Litmus Paper	.15
1	Hypo Fixing Box 1.50		1 oz. Phosphoric Acid 50%	.15
	1 Washing Box		1.25	
			11 - 1 1- 0000 00	

total regular price of the articles mentioned is \$230.30. We will supply this outfit complete for \$185.00.
Note The Schriever extra Rapid universal lens can be used on both
the Portrait and view camera.

RETOUCHING OUTFIT.



This outfit consists of all the articles necessary for Retouching, Etching and Modeling. Each article can be purchased separately at prices given, or in the outfit complete.

The Schriever Retouching Outfit consists of

	T . D T	4 1 111 70 1 11 771 13	~~
1	Ingento Retouching Easel\$3.00	1 bottle Retouching Fluid	.25
1	3-inch Retouching Glass 1.25	1 bottle Negative Varnish	.40
1	Lead Holder and 1 HH Lead .25	1 box Schriever Etching Paste	.25
1	BB Retouching Lead10	1 5 x 7 Printing Frame	.50
1	Schriever Etching Tool 1.25	1 package Proof Paper	.25
1	Spotting Brush		
	Cake Opaque	Total\$	7.75

Our price of complete outfit..........\$5.00

SCHRIEVER ETCHING KNIFE.

This imported instrument is made of the finest German tempered steel made especially to our order. It is scientifically ground, according to our



specifications. The blade is 2 inches long and is so ground that either edge can be used. One edge is ground with more curve than the other. The blade folds up similar to a pocket knife. The handle is nickel plated and the instrument can be carried in the vest pocket. This instrument is used by the most expert etchers and is the best tool in the market. Price, \$1.25

Volute Shutters.

Volute represents the highest type of this form of shutter. It is the most rapid, compact, convenient, dust proof, durable and elegant Iris Diaphragm Shutter ever offered. It gives bulb and time exposures and works automatically at varying speeds very closely approximating from 3 seconds to 1-150, 1-100 and 1-75 second respectively in Nos. 1, 2 and 3. All speeds are controlled by our patent pneumatic retarding device. An exposure of 1-150 second is fast enough for athletes, race horses, express trains and the like in motion with very good sized images. There is no other Iris Diaphragm Shutter giving equal speed.



The shutter is set by simply moving the pointer at the top. Any size opening, from pin hole to largest stop, is obtained by placing the lower pointer opposite the stop number desired. No extra stops or diaphragms are needed.

Volute can not open or expose the plate while being set. It can be arranged for use with two or more lenses.

PRICE LIST.

No.	For Lenses.	Highest Speed	Price	Cost of Fitting
No. 1,	4 x 5	1-150	\$17.00	\$1.00
No. 2,	5 x 7	1-100	18.50	1.50
No. 3,	6½ x 8½	1-75	20.00	2.00

Schriever Etching Paste.



For reducing strong negatives after they are dry. No retoucher's outfit is complete without it. It is just what a retoucher requires. With this paste one can reduce any strong highlight on face or drapery. The paste is applied to the parts to be reduced. If only a trifle reduction is required, apply lightly. If considerable is desired, apply heavier. With this paste the most delicate or the most dense plate can be reduced and a good printing negative made of it, while if printed from before reducing with this paste, a very harsh, contrasty print would result.

Nichols' Portrait Flash Lamp.

The most practical and general all around useful flash lamp on the market is the Nichols. It is especially adapted for portraiture, being at the same time the best and simplest for general purposes. The diffusion of light with this lamp being controlled with the umbrella is perfect, and as the illustration will show, the light is always under full control of the operator. Any style and effect of lighting can be produced with this lamp, anywhere. The lamp is free from danger, is not heavy, is compact and portable; requiring neither gasoline or electricity for operating. It is very valuable in making interiors, large groups, baby pictures and "'at home portraits.''

THE LAMP.

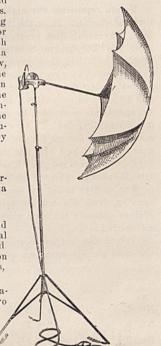
Made of galvanized Iron and Brass so arranged that it screws on the standard like a camera on a tripod.

Weight complete less than 10 pounds.

THE STANDARD.—The rigidity and compactness of the standard is an especial feature of this outfit. It is collapsible and light in weight. It has an extreme elevation of 13½ feet and folds up in small compass, making a package only 3 feet long.

The cost of operating. A cabinet negative can be made at a cost of less than two cents.

The Price of lamp complete net, \$15.00.



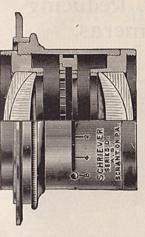


The Practical Lamp.

It is one of the most complete made. Three varieties of light may be obtained: a soft ruby, of tested value; an opal white, for examining negatives or transparencies; and the unobstructed white light for making Velox and bromides. It may be hung up if desired. Handsomely finished in black and gold japan.

PRICE LIST.

No.	1,	5	x	7	glass,	oil.				.\$3.00
										. 6.00



The Schriever Universal Exra Rapid Lens.

The production of this new lens is the result of a pressing demand for a lens that would perform the highest grade of service in all the departments of photography.

The Schriever Universal fulfills alike the requirements of the studio, the commercial and landscape photographer, copying and hand camera work.

With it instantaneous pictures can be made on dark and misty days where slower lenses would utterly fail. The 4×5 and 5×7 sizes readily adjust to hand cameras. The larger sizes are highly recommended for studio portraiture and group work. With the 8×10 size, a full length cabinet picture can be made in a fifteen foot operating room.

Their speed, depth of focus, compactness and high grade general utility at the moderate prices at which we quote them, make them the wonder of the photographic profession.

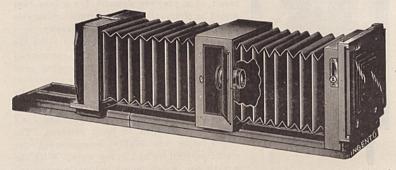
Owing to the fact that the front and back combination of this lens are individually corrected, the operator may by the use of the back combinations alone produce an image of twice the size of the one obtained with the entire objective, and also increase the focal length of same to double that of the whole lens. We supply these lenses fitted with Iris diaphragm. They are also furnished fitted complete with Unicum shutter. When supplied with shutter the Iris diaphragm is included in the shutter.

		Equivalent	PRICE			
No.	Size of Plate	Focus	Back Focus	Lens	Lens with	
	Inches	Inches	Inches	Only	U. Shutter	
No. 1,	4 x 5	6 3-8	5 9-16	\$26.00	\$33.00	
No. 2,	5 x 8	8	7	36.00	44.00	
No. 3,	61/2 x 81/2	9 7-16	8 1-4	46.00	55.00	
No. 4,	8 x 10	11 1-4	9 13-16	58.00	68.00	
No. 5,	10 x 12	14 1-4	12 7-16	75.00	87.00	
No. 6,	12 x 15	17 1-2	15 1-4	95.00	110.00	
No. 7,	16 x 20	22 3-4	19 7-8	120.00		

Schriever Special Rectilinear Wide-Angle Lens, 100 Degrees.

filize	Diameter	Equivalent Focus	Price
4 × 5	3-4"	31/8"	\$12.00
5 x 8	,,	31/2"	15.00
616 x 81/4	,,	51/4"	20.00
8 x 10	7/8"	6½"	22.00
11 x 14	11/8	8"	30.00
14 x 17	11/2"	101/2"	38.00

Ingento Enlarging, Reducing and Copying Cameras.



The material used in the manufacture of these cameras is of the very highest grade. They are made of hard wood throughout, have rising and sliding front and focusing lever. The centerboard with lens can be fitted in front of the camera in place of the set of kits when used for copying purposes, which gives the operator the advantage of the full-length bellows

The kits in the front of the camera accommodate any size plate from $3\frac{1}{4} \times 4\frac{1}{4}$ inches to full size of the camera.

It is supplied with regular Bonanza style wet-plate holder, fitted with a silver-saving trough, adaptable to any size of plate without the use of kits. The bed is in two sections so that the camera can be packed in small space. This camera is invaluable for the production of lantern slides and all transparencies, and also for copying and enlarging on bromide papers. Prices below do not include lens shown in cut.

PRICES

8 x 10	Length	of bed	1.5	feet	 \$ 35	00
10 x 12	"		51/2		 40	00
11 x 14		34	61/2	"	 47	00
14 x 17	"					00
17 x 20						00
18 x 22 · · · · · · · · ·						
20 x 24	. ""	"	9	"	 100	00

Ingento Multiplying Camera No. 35.

For Button Pictures, Penny Pictures and Stamp Photos.

This is a regular portrait camera as well as a multiplying camera. Every part is thoroughly well made and accurately fitted.



The metal parts are of brass. This camera is fitted with a sliding back, which makes it unnecessary to replace the plate holder slide between each operation of focusing and exposing. It is made in 4x5 and 5x7 sizes.

The 4x5 size may be divided up into 4, 9 or 12 exposures, and also full size of plate. The 5x7 size may

be divided up into 4, 9, 12 or 24 exposures, cabinet size or full size of plate, and each exposure can be of a different subject.

A double plate holder fitted with press board slides is furnished with this camera. The camera is supplied with or without lens and shutter. The lens we supply with the camera is a high-grade rapid rectilinear, fitted with the celebrated Wollensak shutter with Iris diaphragm, pneumatic and finger release, bulb and hose, and is adjustable for instantaneous, time and bulb exposures.

The entire outfit is the finest and most practical ever offered, regardless of price.

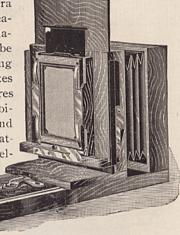
PRICES

	4 X	5	5 ×	7
Camera without lens and shutter	\$13	20	\$17	60
Camera with R.R. lens and Wollensak shutter .	21	20	27	60
Extra plate holders		70		85

Ingento Multiplying Camera No. 36

For Cabinets, Penny Pictures and Button Photos.

The construction of this camera has been improved, the special feature of which is that the various diaphragms for the different sizes can be adjusted instantly, without removing the entire block. This camera makes 4, 9, 12, 16, 20, 30 or 42 exposures on a 5x7 plate, as well as full cabinets. It has a spring-actuated ground glass and accurate focusing lever attachments. Extreme length of bel-



lows, useful in making copies or for enlarging. Made in 5x7 size only.

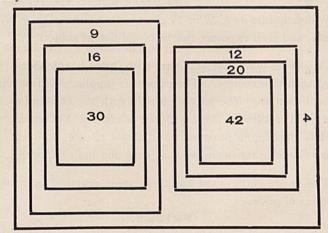
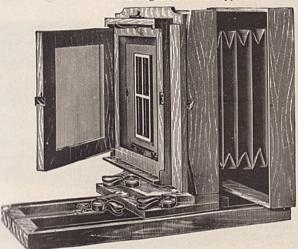


Diagram shows exact size of pictures made with above camera.

No. 36 Camera, with one double plate holder	\$22	00
No. 36A Camera complete, with 5x7 R.R. lens and Wollen-		
sak shutter	30	00
No. 36B, Penny picture outfit, includes camera, lens, shut-	1	
ter and No. 00 Ingento camera stand	32	25
Ingento plate holders each, extra		85

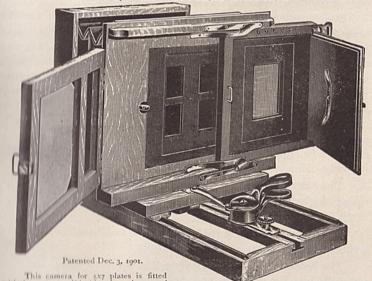
LAKESIDE CAMERA.

For Negatives or Ferrotypes



Made of mahogany, plain finished Fitted with s.!flocking focuslever. It is furnished with complete outfit of 5x7 and 7x10 rab-beted kits, so that it is adapted for any kind of work. With one tube it will make one or two pictures on plates 3 1-4x4 1-4 to 8 x 10 and with 4 1-4 gem tubes will make 4 or 8 on a 5x7 plate or 8 on 7x10 plate. This double swing camera is fitted with the new automatic lever adjustment for operating the swing back, and is fitted with an improved wet plate holder for either dry or wet plates.

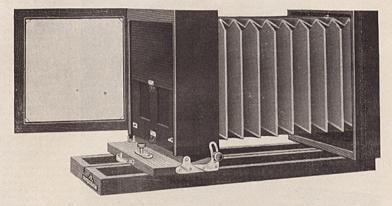
IMPROVED VICTORIA CAMERA.



This camera for \$x7\$ plates is fitted with the patent self-locking focus lever and displacements for making 4 1-4x5 1-2 and 3 1-4x3 1-4 pictures with one tube; it is also fitted to make four or this pictures on a \$x7\$ plate with four gen tubes. The camera is made of selected hardwood and has all the latest improvements.

Place without tubes, \$14 00. Extra plate holders.

Ingento Portrait Camera No. 38.



This camera is designed to meet the popular demand for a good serviceable article, substantially made and capable of giving any desired adjustment, and yet come within reach of those whose means are limited or who wish to make their investment as small as is consistent with complete utility.

It is made of mahogany or cherry, nicely finished, and has brass fittings for the adjustment of the swings, and screw clamps for holding the back in position when focused. The bellows is of rubber and is of normal length. It is fitted with double swing-back, which will be found of great convenience to the operator, who very often desires to get in the picture more of the upper or lower part of a figure, or of one side more than the other, without moving the person or the camera. This can be done quickly by means of the double swing-back, which allows the operator to make any change, laterally or vertically, he desires until the figure is properly delineated on the ground glass.

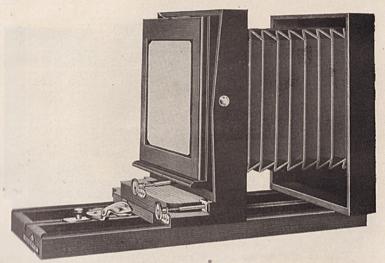
The camera is fitted with a curtain slide plate holder, which is reversible, enabling the operator to expose his plates in either a vertical or horizontal position.

The curtain slide is constructed of slats of hardwood, glued to a rubber cloth, and is perfectly light tight.

The holder is rabbeted inside to take an 8x10 plate, and is fitted with kits for $6\frac{1}{2}x8\frac{1}{2}$ and 5x7 sizes. All other sizes can be used by procuring kits for the same.

Price\$18 00

Ingento Portrait Camera No. 39.



This is the most popular camera of our series, having all the adjustments of the higher priced cameras and at a price within the reach of all. It is made of well seasoned mahogany or cherry, finished in shellac, and is of exceedingly good value at the low price at which they are offered. It is fitted with a double swing back, which is actuated by a new rack and pinion screw mechanism, affording the most accurate adjustment. The camera is also equipped with a self-locking focus lever, which permits of a quick and accurate adjustment. The holder supplied with this camera is the regular reversible curtain slide style, fitted with kits for all along of plates smaller than the largest for which it is made.

Length of Bed. Price.

10.10 .30 inches .\$23 00

10.12 .34 ' .28 00

11.14 .36 ' .35 00

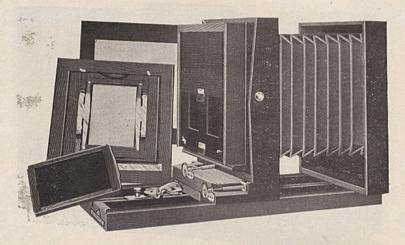
11.17 .40 ' .45 00

Ingento Portrait Camera No. 40.

This camera is made similar to the No. 39, but of superior finish. It is made of selected mahogany and finely polished. It is also supplied with the Automatic Curtain Slide Holder instead of the regular holder.

Bise,	Length of Bed.	Price.
B)c10		.\$25 00
		. 55 00
WASHINGTON ! I I I I I		. 00 00

Ingento Portrait Camera No. 41.



This is one of the most popular cameras we manufacture, being low in price, yet complete in every detail and of superior workmanship.

It is made of polished mahogany, with cherry bed. and the metal work is of brass, polished and lacquered. The back is made with both vertical and horizontal swing, which is adjusted by our new rack and pinion screw mechanism, allowing a fine and accurate adjustment. The camera is focused by means of a self locking focus lever, which permits of quick and accurate focusing.

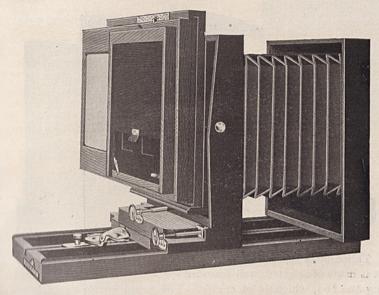
The camera is supplied with our Automatic Rack and Pinion Curtain Slide Holder, which will automatically accommodate any size plate smaller than the size for which camera is made.

It is equipped with an Ingento Reversible Cabinet Attachment, which is fitted with spring-actuated ground glass, made to accommodate the ordinary 5x7 double plate holder, one of which is supplied with each camera.

This attachment can be instantly attached or detached, being fitted to the camera in the same way as the automatic holder.

Size.	Length of Bed.	Price.
8x10	30 inches	\$ 33 00
	34 ''	
11x14		49 00
14x17	40 "	65 00

Ingento Portrait Camera No. 42.

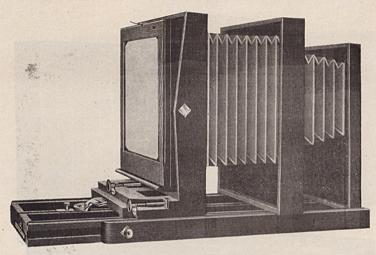


This camera is specially designed for the photographer who desires to make more than one exposure on a plate. It is made of well seasoned mahogany throughout, excepting the bed, which is of cherry. The metal parts are of brass, polished and lacquered. The back is fitted with a sliding carriage for plate holder, and which also contains the ground glass. When the plate holder is brought in from dark room the operator places it in the carriage and proceeds with the focusing. When the focus is obtained, with one movement he slides the ground glass to one side and brings the plate holder into position. The camera is fitted with both vertical and horizontal swings, which are operated by our improved screw mechanism, making it possible to secure the most minute adjustment. The plate holder is our Automatic Rack and Pinion style, which carries all sizes of plates, from 8x10 down, either vertically or horizontally.

A "cut-off" is supplied with each holder, for making two exposures on a plate.

Hiso.	Length of Bed.	Price.
8%10.		\$45 00

Ingento Portrait Camera No. 43.



This camera represents the highest type of camera construction. It is made of selected, well-seasoned mahogany throughout, excepting the bed, which is of cherry. The metal parts are of brass, polished and lacquered. The back is fitted with both vertical and horizontal swings, actuated by our improved screw mechanism. The special feature of this camera consists in an extra long draw, which is accomplished by dividing the bellows in two sections. To permit of this long draw, the bed is also in two sections, one telescoping into the other, making the camera very compact.

The plate holder which accompanies this camera, up to size 11x14, is our improved Automatic, which is self-centering and instantly adjustable to any size plate in either vertical or horizontal position. Above size 11x14 the regular curtain slide holder is furnished.

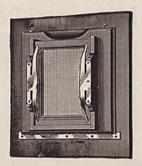
Either our Ingento Reversible Cabinet Attachment or Combination Cabinet Attachment and Multiplying Back can be fitted to this camera at an extra charge.

Size.	Length of Bellows.		
10x12	38 inches	\$ 52 00	
11x14		62 00	
14x17		72 00	
18x22		90 00	
20x24		100 00	
25x30		150 00	

Ingento Reversible Cabinet Attachment.

For 8 x 10 Portrait Cameras.

This is the most compact cabinet attachment ever manufactured. It can be readily attached to any of the portrait cameras illustrated in this catalogue. It has spring actuated ground glass attachment the same as the modern view camera, to take 5x7 double plateholders.



Ingento Combination Cabinet Attachment and Multiplying Back.

(Not Reversible.)

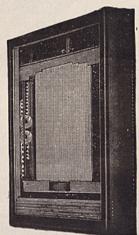
This attachment can be readily fitted to any 8x10 portrait camera. It has a spring-actuated ground glass, which takes 5x7 double plateholders. It will be found a very convenient accessory for cabinet work. The multiplying device will make 1, 4, 9, 12, 16, 20 and 30 exposures on a 5x7 plate. The adjustments are so simple that any photographer will readily understand how to use them.

Price, complete, with one double holder. \$13 20 This back can be fitted to any larger camera at an expense of from \$3.00 to \$5.00 extra.

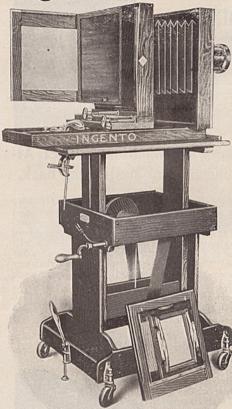
Ingento Automatic Studio Plate Holder.

In this holder the plate can be taken out without so much as turning a single button. You simply draw down the curtain slide, turn the front of the holder to you, place the plate on the bottom crosspiece, put one or two of your fingers on the top edge of the plate, press gently downward with the opening is large enough to admit the plate will slip in the top and the plate will slip in the top the plate of the plate will slip in the top the prove and remain securely in focus without any notice of the plate of plate from the full capacity of the holder down to two inches square; the plate plate is a plate of the holder, working in a double rack, to the plate of which are attached the bottom and plate, the bottom bar being automatically centered by means of tension springs at the sides.

They are made to fit any regular portrait cam-



Ingento No. 1 Studio Outfit



The Ingento No. 1 Studio Outfit comprises the following:

Camera made of selected mahogany, beautifully finished, and fitted with self-locking swing adjustment and quick-acting levers for focusing and adjusting swing backs. It is supplied with automatic curtain-slide holder.

Stand is the No. 2 Magic, newly improved, mahogany finished.

Reversible Cabinet Attachment. Takes the regular double plate holder, 5x7, either vertically or horizontally. Made of mahogany, with spring actuated ground glass. Supplied with one 5x7 double plate holder.

Lens. Either our Cephaloscope, working at F:5, or the Ideal, series D. F:6.

Shutter. The No. 6 Packard, which can be operated for time or instantaneous exposures. It is fitted behind the lens. This shutter is automatic and is operated entirely with the bulb.

PRICE

Ingento No. 1 Studio Outfit, including 8x10 portrait camera with automatic holder, No. 2 Magic stand, reversible cabinet attachment with 5x7 double plate holder, Cephaloscope lens, 8x10, and No. 6 Packard shutter.. \$98 00 Same as above, with Ideal series D lens instead of Cephalo-Ingento No. 1 Outfit without lens or shutter................. 43 50 Extra 5x7 double plate holders each...... 1 00

New York Studio Outfit.

This outfit, one of the most complete and cheapest, includes:

I.-11C, 8x10 mahogany portrait camera, of newest design, fitted with double swing back and patent lever focusing attachment. Fitted with curtain slide Benster holder \$28 75

13C, 11x14 camera, same descrip-

> II.-Anthony's automatic cabinet attachment, with one curtain slide holder, by means of which, in one movement, the ground glass is pushed aside and holder placed in position with slide automatically drawn, ready for exposure. Price, regular .\$10 00 Reversible 12 50

> Extra plate holders, with curtain slide, 41/4 x 61/2, 5 x 7 or 5 x 8, regular, each .. \$1 50 Reversible, each 2 00

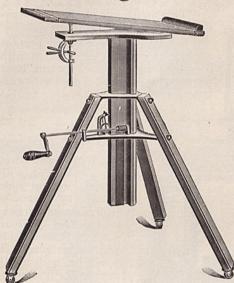
> III.-No. 1 New York camera stand, the most modern studio stand, having only one hand wheel for



raising, lowering and tilting the top\$19 50 IV. Holder rack, carried on the side of the stand, with 13 grooves for 12 plate holders..... \$ 1 25 8x10 outfit as above..... 58 00 8x10 outfit with automatic reversible cabinet attachment . 60 00 11x14 outfit with automatic reversible cabinet attachment . 87 50 Norm.—The 13C camera, which forms a part of the 11x14 nutfit, has telescopic bed.

New York outfits must be ordered complete in order to obtain mutht prices. Otherwise each part will be charged for separately at its respective price.

The Ingento No. "0" Stand.



This stand is designed to meet the requirements of those in need of a good, substantial article, with quick, easy and convenient vertical adjustment, accomplished with the belt and shaft mechanism, which is unequaled by any other system, and is automatically clamped at any elevation by means of a roller stop.

The tilting mechanism is the same as that applied to the Nos. 1 and 2 designs, which are illustrated and described on pages 42 and 43.

This stand is shipped

"knocked down" and can be quickly set up. It is especially adapted for penny picture, button and multiplying cameras, or any other cameras, including 8x10 regular portrait styles.

Price......\$6 75

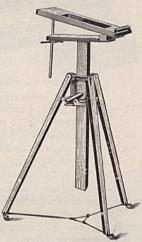
The Ingento No. "00" Stand.

The No. 00 Stand is offered to meet the demand for a good, reliable article at a low price.

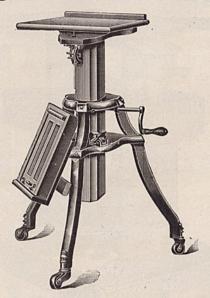
There are no set screws nor slow, tedious tilting mechanism, and each operation is quickly and easily accomplished.

The superior points of this stand consist of patent stop for automatically holding and binding the vertically adjustable central support at any desired height, and the semiautomatic tilting attachment so long and satisfactorily used on the higher grade stands.





The Ingento Camera Stand No. 1.



In the wonderful improvement which has been made in the entire line of camera stands, the No. 1 pattern has taken the lead in receiving a greater number of improvements than any other.

The first improvement consists of the adoption of iron frames for holding the upper ends of the legs rigidly in their places, and which also form the guide-way for the vertically adjustable central column. The legs are bolted firmly to these castings, thus producing a frame of unparalelled strength and rigidity and one which can be easily taken apart and shipped "knocked down."

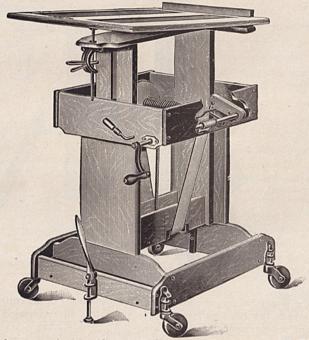
Another vast improvement is embodied in the new patent Tilting Device. When tilting the camera forward it works entirely automatic; no need of touching it; simply lift rear of top to the desired angle, and it will stay there, and when lowering rear of top simply bring the clamping clutch to a level, and the supporting rod will pass through it freely. For speed, for fine adjustments and rigidity it has no equal. The other notable change is in the adoption of the cam lock in the place of the roller stop formerly used, for stopping and automatically binding the central supporting column, a very simple device, serving to throw this clamp out of binding contact when among is to be lowered.

The wood parts are oak, nicely finished, and the metal parts beautifully nickel plated. A rack for holding the Plate Holder is attached to its side.

For mpldity and ease of adjustment, for rigidity and durability it has no equal for the price.

Price for cameras 8x10 and smaller......\$10 00

The Ingento Camera Stand No. 2.



No heavy weights. No grinding gears. No set screws. Rigid, simple, effective and easily handled.

In the new stand we retain the most valuable features of the original, viz: the raising and lowering of the camera by means of a belt winding on a shaft, assisted by coiled springs for bearing the greater part of the weight. A system positively unequaled by any other crank movement of any description. We have, however, substituted cam locks for the rollers formerly used for clamps. They operate **entirely automatic** in holding, and **binding rigidly** the vertically adjustable frame, at any elevation. For lowering the standard they are instantly thrown out of operative or binding contact by throwing or swinging to the right the small handle in rear of the base frame, but when raising the camera this handle should not be touched, as the came both release and clamp automatically.

The greatest improvement, however, lies in the new, patent, semi-automatic tilting device, giving the most rapid and the most minutely exact adjustment of the tilt of any device ever invented. The clamping of the steel rod which supports the rear of the stand top is entirely automatic (no ratchets or set screws). A slight pressure of the thumb to release the clutch is all that is necessary when the rear of top is to be lowered, while for tilting the camera forward the clamping mechanism must not be touched; simply lift the rear of top to the desired angle and it will stay there, bound automatically and immovably.

PRICES.

Style		Eac	h
No. 2 E.	Natural Oak, varnish finish	\$15	00
No. 2 F.	Golden Oak, polished finish	16	50
No. 2 G.	Cherry, imitation Mahogany, polished	16	50



This is thoroughly made and nicely finished in hard wood. It is provided with a strong spring which can be so adjusted as to balance perfectly the weight of any camera and lens. Hence only slight pressure of the hand is needed to raise or lower the camera at will. It is intended for cameras 8x10 to 11x14 inches. Size of top 17½x32½ inches.

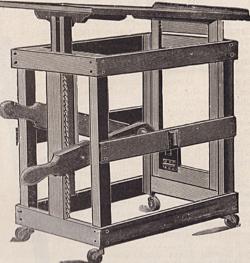
Price \$18 00

The Improved Lever Camera Stand.

This stand has been improved so that it can be raised as high as any ordinary camera stand. It has large casters which do not drop out of the sockets when lifted from the floor.

Prices for 8x10 camera, \$10 50 For 14x17 camera, 13 20

For 18x22 camera, 19 80





20th Century Camera Stands No. 1.

The No. 1 Twentieth Century Camera Stand, as cut will show, is made to be taken apart and put together without wrenches, screw-drivers, or any tools whatever. It can be used from the smallest camera up to 8 x 10 inclusive. It has an automatic catch or lock which, when raised to any desirable height, will act without the operator's attention. The tilting of the table can be done with very little effort, and can be done with one hand or both, as desired. The size of the top or table of this stand is 21 x 11 inches. This is strong enough to carry any camera that can be placed upon that size top.

PRICE:

No. 1.....\$5.50

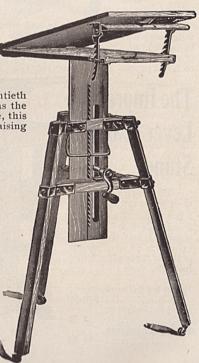
20th Century Camera Stands Nos. 2 and 3.

The description of the No. 2 Twentieth Century Camera Stand is the same as the No. 1, with the exception of the size, this being larger, and has a device for raising and lowering, as shown in the cut. A strong cord is wound around the shaft to raise it. It also has the automatic lock like the No. 1. This stand is made for 8x10 and 10x12 cameras inclusive (not with telescopic bed). The size of the top or table is 14x22 inches. It can be taken apart, like the No. 1, without any tools whatever. Full directions will be furnished with every

The No. 3 Twentieth Century Camera stand is like the No. 2, except larger. This can be used for 10x12 and 11x14 cameras (not with telescopic bed). The size of the top is 15x30 in. This stand has rack for holder and ground-glass frame.

stand.

No. 2. \$ 8.80 No. 3 with Plain Rack for Holder and G G Frame . . 11.00





These outfits contain all the necessary apparatus, chemicals and material for the developing and fixing of plates, also for the printing, toning and mounting of prints. Our No. 3 outfit contains everything required for the production of the finished mounted photograph except the camera and is especially recommended. We guarantee everything contained in these outfits to be of the best quality. The total value of each outfit greatly exceeds the price listed.

The following is a list of what the outfits contain:

Ideal Developing Outfit No. 1, for 4x5 or Smaller Size.

	The state of the s	
2	Japanned Trays at 20 cents\$0.60 Ruby Candle Lamp25	Toning Powder to make 8 ozs. Solution\$0.10
1	Printing Frame	ı lb. Hypo
- 1	Developing Powders to make 8	1 4-oz. Measuring Glass
	ozs. Solution	I Doz. Sensitized Paper15
	I Manual of	Instructions.
	Price complete in cardboard	box · · · · \$1 · 00
	Ideal Developing Outfit No	o. 2, for 4x5 or smaller Size.
1	Electrose Trays at 18c\$0.54	I Pkg. Toning Powders\$0.25
	Ruby Candle Lamp25	ı lb. Hypo
1	Printing Frame	1 4-oz. Measuring Glass15
1	Hox Developing Powders 25	1 Doz. Sensitized Paper15
	1 Manual of	Instructions.
	Price complete in cardboard	box · · · · · \$1 · 50
	Ideal Developing Outfit No	o. 3, for 4x5 or Smaller Size.
	Electrose Trays at 18c\$0.54	1 Negative Drying Rack \$0.15
	1 4 0%. Graduate	I Print Roller
- 1	Huby Candle Lamp	1 4-oz. Jar Paste15
- 1	Printing Frame	ı Paste Brush
. 1	Hox Developing Powders25	I Doz. Card Mounts
1	Plag. Toning Powders25	1 Lb. of Hypo
1	Des. Bensitized Paper15	I Manual of Instruction.

Price complete in cardboard box.....\$2 00

The Ideal Tripods.

Compact Combination Sliding and Folding.



THE IDEAL TRIPODS.

All of **The Ideal** Tripods are made to fold very compact. Each leg is composed of three sections. The lowest section slides into the second, while the upper section folds back upon it.

The lower section may be clamped at any desired length (by means of a screw) so that tripod may be used at varying heights.

The heads are detachable, and are fitted with the standard thread camera screw which fits any camera.

The wood is selected, thoroughly seasoned, smoothed and varnished, and the metal fittings are of brass polished and lacquered. The workmanship is perfect, as every part is thoroughly well made and fitted.

The Ideal Tripods possess a handsome appearance combined with strength and rigidity.

The Ideal Tripod No. 1 Jr.

The Ideal Tripod No. 1.

Made of maple; length folded 19 inches. Supplied with wood head to match, covered with leather on top. Fitted with standard thread camera screw. For 4x5 and 5x7 cameras. Price... \$2 50

The Ideal Tripod No. 2.

The Ideal Tripod No. 7.

This tripod is especially recommended for the heavier 8x10 and 11x14 cameras. It is made of ash, with large top suitable for the cameras for which it is designed. Price...........\$4 00

Ingento Tripods

Ingento Tripods.

(Sliding)

The legs of the Ingento Tripods are made in three pieces, the center piece sliding in between the outer ones forming the lower section.

The lower section may be clamped at any desired length so that the tripod may be used at varying heights. They are all made of thoroughly seasoned spruce except the No. 6, which is made of ash. The metal parts are all made of brass, polished and lacquered. They are strong and rigid and are the most practical tripods for general use.

PRICES.

Ingento Tripod.	No. 3, maple,	for 4 x 5	and 5 x 7	cameras\$1.00
Ingento Tripod.	No. 4, spruce,	for 5 x 7	and 61/6x 81	2 cameras 2 00
Ingento Tripod.	No. 5, spruce,	for 61/2 x 81/2	and 8 x10	cameras 2.50
Ingento Tripod.	No. 6, ash,	for 8 x10	and 10 x12	cameras 3 00

Quick Set Tripod.

Four Section Telescope — Metal Tripod—Very Compact.

The Quick Set Tripod is made of special brass tubing, polished and heavily nickleplated, and fitted with an aluminum head. Each leg is made of four tubes that telescope. When closed the tripod is only 15 inches long and weighs only 11/2 lbs. The legs can be extended in less than five seconds by simply pulling out each leg fully and giving it a short turn, securely locking all of the sections at once. When set up the tripod is very rigid and will hold any reasonable weight placed on it. The Quick Set Tripod is of very neat and handsome appearance as there are no projecting screws, springs or catches. Each tripod is supplied with a metal carrying case. PRICES.

Quick	Set Tripod		\$4.50
Quick	Set Tripod	in Leatherette (Case 5.00
Entra	Leatherette	Case	75



Ingento Metal Tripods.

We have at last succeeded in placing before the photographic public metal tripods at prices that easily bring them within the reach of every user of a camera. In the line we can satisfy the user of the smallest camera to the larger 5x7 patterns. The telescoping parts are nickel plated and the upper and outside tubes are finished in black. By a clever device, pushing in a spring lever in the upper joint, automatically releases the other joints, and it is only necessary to push the parts together.

Ingento Metal Tripod No. 11

is composed of three sliding parts, telescoping one into the other, producing a most compact tripod, adapted to 4x5 or smaller cameras.

To open the tripod, the several joints are pulled out as far as they will go, when they are automatically set without any further manipulation, and cannot close except by the pressing down of the device above indicated. When set up the tripod is perfectly rigid, and when folded, this, as well as the other numbers of the series, fold up in a most compact manner and can

> be readily carried or packed away in an ordinary suit case. The tripod is light and porta-

ble and will appeal to the amateur who has a camera, from a Brownie or Baby Ansco to a folding camera.

Ingento Metal Tripod No 12.

is similiar in construction to No. 11 above, but is made up of four sections instead of three, and is made of heavier and larger tubing, making a much more substantial tripod.

Ingento Metal Tripod. No. 13.

is of the same construction as the No. 12, made in four joints, but of heavier tubing and adapted to the heavier 4x5 and 5x7 cameras.

ĸ			

	Length Extended	Length Closed	Price
Ingento Metal Tripod No.	11433/4 inches.	.17 inches.	\$2 00
Ingento Metal Tripod No.			2 50
Ingento Metal Tripod No.	13491/2 "	.141/2 " .	3 50



Ingento Tripod Extension.

This is a very handy device for increasing the length of metal tripods. It consists of a brass tube, highly nickeled, and telescoping within a smaller tube. It is so constructed that it will slide up and down easily, and can be adjusted to hold perfectly rigid at any point, by means of an expander, controlled by a knurled ring. The attachment increases the standing length of the tripod 13 inches, and when telescoped measures but seven inches in length. Adapted for any of the standard makes of metal tripods and fitted with universal tri-

Fitted with small size ball and socket tripod top...... 1 75

The Ingento Turn Table.

This article is of particular benefit to the amateur who posseses a metal tripod. With this attachment it is not necessary to release the tripod screw in order to swing the camera from one point to another. Merely

loosening the set-screw on the side permits the camera to revolve freely in all directions, and it can be set perfectly firm and rigid at any point.

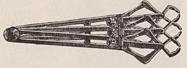
Ingento Ball and Socket Top.

This attachment can be readily adapted to any of the metal tripods and its utility will commend its use to many amateurs. by the use of this device attached to the tripod, the camera can be adjusted or tilted at any angle, or can be revolved in any direction. It is especi-

ally valuable when using a camera not fitted with a reversible back, which is the case with all of the prevailing styles of film cameras or kodaks and many of the plate cameras. You can swing your camera from the position of making a landscape or horizontal picture to that of a panel or vertical view in an instant and without removing apparatus from tripod. Made of brass, and nickled.

Ingento Automatic Tripod Clamp.

An article of merit which will recommend itself to all camera users. Increases the stability of metal tripods. Prevents slipping on polished surfaces. Allows the tripod to be set up in otherwise inaccessible places. Made entirely of metal with rubber protected tips to prevent marring metal tripods. Price. \$1 00



Ingento Convertible Tripod Attachment.



One of the greatest inventions of the new century. It is a time and money saver. By its use the camera can be tilted to any desired angle. There is no position required for a camera which this attachment cannot secure.

Some of its special features are illustrated by the half-tones below.

By the use of this adjustment the camera can be instantly changed from a horizontal position to upright thus giving the

tion to upright thus giving the ordinary camera the value of a reversible back instrument. It will enable the operator to point his camera upward at any angle so that he can photograph fancy ceilings of halls or churches, a feat which never before could be accomplished, and which will be

ls or churches, a fer be accomplished, and which will be recognized as being most essential, especially to architects or anyone interested in photographing the interior of domes or docorated ceilings, etc.

Again it is often desirable to point the camera downward when



photographing Mosaic flooring, etc., a movement which is easily attained when the Ingento Attachment is used. This attachment is also fitted with



a ball and socket joint, which allows the operator to swing the camera to any angle without moving the legs of the tripod. There are no levers or thum b-screws used to clamp this joint, as by an ingenious device it is held by friction, which



can be instantly adjusted to the weight of any camera.

The complete attachment is made of metal, handsomely nickel-plated.

Price......\$1 50

INGENTO VIEW FINDERS.



These Finders with the exception of styles "E" and "F" are SIGHT FINDERS, the convenience and utility of which are readily apparent. They are especially useful for photographing scenes with moving objects. The image appears right side up, and in same relative position as upon the sensitive plate. All of these can readily be attached to or detached from camera, and as will be seen from illustrations of Styles A, B and C, can be folded, so that very little space is occupied when folded up.

Style A is a high grade brilliant sight finder, with sighter and centering lines.

Prices..... No. 1, 4x5, \$1.50; No. 2, 5x7, \$2.00; No. 3, 61/2x81/2 and 8x10, \$2.50

Style B

is similar to Style A, but of cheaper construction of mounting and thinner lens. In two sizes only.



5

Style C

Style C Style B serves the purpose of both sight and mirror finder. When used as a sight finder the mirror is slipped underneath in its receptacle, out of the way. Has sighter and centering lines.

Prices......No. 6, 4x5, \$2.50; No. 7, 5x7, \$3.00; No. 8, 6½x8½ and 8x10, \$3.50

Style D is also a combination finder,

mounted in strong hooded frame. Front is reversible, as shown in cut, and is a finder of the highest grade.

Prices. No. 9, 4x5, \$4.00; No. 10, 5x7, \$5.00



Style D

Style E

is the ordinary style of finder but of high grade lens, brilliant, and readily attached to and detached from camera.

ached from camera.		
Prices No. 11, 4x5 No. 12, 5x7	\$2 2	00

Style E is a brilliant finder, similar to htyle E, but of cheaper construction. This finder shows an inverted image.

Prices. No. 13, 4x5......\$1 50 No. 14, 5x7......\$1 75



Style F

Ingento Focusing Glasses.



Nos. 1 and 2 are Pocket Focusing Glasses of fine magnifying power, mounted in nickeled frame, with protective case and ring.

	Diameter of Lens	Each		
No.	$1 \dots \frac{7}{8}$ inch	\$0 35		
No	2 13 "	50		

Nos. 1 and 2.

No. 3 glasses are fitted with two lenses and screw adjustments. Finely finished in

brass and lacquered.

No. 4 has fixed mounting and meets the demand for a good yet cheap instrument. Nicely mounted, and not so large as the No. 3.



No. 3.

No. 4. No. 5 is one of the finest glasses on the market, of extra large size. Is handsomely finished with a worm-like screw

for accurate adjustment.

No. 6 is of the same high grade as No. 5, having graduated scale on inner tube for minute focusing.

No.	3.									each,	\$1	00	
No.												75	
No.	5.										2	25	
No.	6.									"	2	25	

No. 6.

MAGNIFYING, RETOUCHING AND FOCUSING GLASSES



German silver frames, ebony handles.

2 inch diameter, each...\$0 70 3½-inch diameter, each...\$1 75 2½ '' '' '' 90 4 '' '' 2 25 3 '' '' '' 1 25 4½ '' '' '' 2 50

Ingento Spirit Levels.

A level on a camera for outdoor work is no longer considered a luxurious adjunct, but has become a necessity. Ingento spirit

levels are made in three different styles to suit all requirements. They are all guaranteed perfectly accurate and are easily attached. The frame work of each is made of brass, polished and finished according to description, and are handsome in appearance.

Number 1 is the well known T-shaped double level. It has been one of the most popular levels of recent years. It is a practical instrument that can be be easily applied.

Numbers 4 and 5 are of a very high grade and are strongly recommended for work where great accuracy is necessary.

The No. 5 is hinged to a base which is fastened to the camera. When not in use the body of level is folded into the base, out of the way. The level is so arranged that it can be

looked at when in either a vertical or horizonal position, and can also be seen when folded down.



No. 4

PRICES

No. 1 double level	\$0 40
No. 4 double level	1.25
No. 5 combination level	1 25

The Ingento Push Pin.

This pin will be found most practical for a great many purposes, especially for hanging up films and prints to dry. The handle or knob is made of non-corrosive metal. The pins are short and strong and can be quickly inserted and removed by the fingers when used in either hard or soft wood.

Price, per box containing	g 12 pins	.\$0 18
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Watkins Standard Meter.

This is an elaborate instrument of precision, designed and constructed to meet the requirements of process and three-color workers and professional photographers as well. It is the only meter



that furnishes within itself the correct solution for all problems of time and light that confront the photographer, by which we mean that the instrument itself furnishes answers to such problems, without having to refer to tables, etc., which is an item of especial importance in connection with copying, enlarging

and similar work of accuracy. The underlying principle is the same in all Watkins meters, but the Standard differs in many details of construction from others of the series. It is made of brass, handsomely nickel plated, and fitted with interdependent revolving rings and pointers, the adjustment of which in accordance with specific instructions supplied with the instrument furnishes instant answer to the given problem. There is also a pendulum to aid in counting the seconds, and a ribbon of "Steadfast" sensitive paper, incomparably the best and most lasting actinometer paper known. This is the most accurate instrument of its kind on the market, and as simple to operate as it is accurate.

Price .		 	 	 \$5	00
	ribbon				25

The Queen Bee Meter.

With this meter correct exposure, either in or out doors, is determined with a single movement. It differs from the regular Bee meter chiefly in its more ornate construction, being silver plated, equipped with a convex ivorine dial, lettered with hand engraving on the metal rim and provided with a leather-covered pocket case. It has a chain pen-



dulum for timing seconds. The QueenBee meter is made for those who desire the finest workmanship and material obtainable.

Price \$4 50

Watkins Bee Meter.

The Bee meter is handsomely mounted in a polished nickel case, with a glass-covered dial, and measures 15% inches across the face and 3% inch thick. The correct exposure of any plate or film, under any and all conditions of weather, indoors or out in the open, can be promptly and surely ascertained by revolving the back of the meter so as to expose the contained sensitized paper, and then turning the speed indicating dial to the figures shown for speed of plate and size of diaphragm. The manipulation is extremely simple and the results are positively accurate, leaving nothing whatever for guess work. Simple yet explicit directions are supplied with each meter. The saving effected by getting a correct negative from

U. S. dials supplied unless otherwise ordered.

each exposure will in a single day's use more than pay the trifling

The Eikronometer.

A necessary adjunct to the well equipped dark room. This is a small specially made clock, having a 10-minute dial instead of the 60-minute or 12-hour dial of an ordinary clock. It is provided



cost of one of these meters.

with a simple calculating device, especially designed for use with the Watkins factorial system of development and has legs so it can be used face upward when desired. The mechanical makeup of this instrument is in keeping with the other Watkins specialties—heavily nickel plated, with large black figures on a white background, making a dial that can be easily read by the dimmest dark-room lamp. The minute

hand is started at 0, and when it reaches a point shown by a finger set for the factor given by the manual for the particular developer in use, development will be complete. Full instructions are furnished with each Eikronometer.

Price \$5 00

74

Watkins

Watkins Universal Pinhole Lens.

This little device is so constructed that it will fit any lens flange and, when properly adjusted converts the camera to which it is applied into a pinhole camera whose value over an ordinary pinhole camera is measued by the efficiency of the lens with which it is already provided. There are certain artistic effects that can be obtained photographically only by the use of a pinhole camera, and this device at once makes a pinhole camera of the ordinary instrument to which it is applied.

Price \$0 60

Exposure Meter Sundries.

All meters are furnished complete with instructions and speed card, but a charge will invariably be made for them if wanted separately or afterward.

Speed card, from actual test of principal American plates	\$0 05
Instruction booklet for any pattern Watkins meter	10
Steadfast disk refill (with tints) for Bee and dial meters	25
Steadfast ribbon refill (with tints) for the Standard meter	25
Refills for Print meter	25
Extra dial for meter, either U. S. or F system	50

The Watkins Manual of Exposure and Development.

BY ALFRED WATKINS.

This is a manual of factorial development. It gives a multitude of extremely interesting details relating to the proper exposure and development of plates and films under almost all conceivable conditions. Written in an able and convincing manner and fully illustrated. The mastering of this book is equal to many years of photographic experiment,

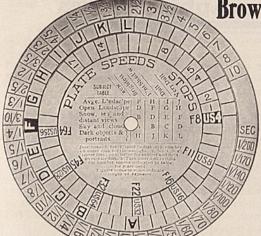
and amounts to a complete education in photography—to that part ofit, at least, that relates to exposure and development. No photographer can afford to be without it.

Price bound in limp cloth \$0 50

Exposure Notes.

A pocket book in which to enter details of exposures. Entirely revised in size, form and arrangement of contents. Upright shape with pencil. Size reduced. Information given in Watkins Manual is not repeated in this book.





Brown's Exposure

Disk. Patented Oct. 16, 1900

Brown's Exposure Disk is a handy, up-to-date pocket exposure meter, and tells the exact exposure to give under every condition of light and subject, and for every size of stop and make of plate.

Its operation is very simple, only requiring the turning of the two innermost disks until the dark-faced letters, which are the pointers or index letters, indicate the conditions of light, subject and plate at the time of the exposure, when the figures in the margin corresponding to each stop will indicate the correct exposure for that stop in seconds or fractions of a second, without requiring any addition, multiplication or division. It has stood the test

EXPOSURE METER.

of four years' practical use. The more it is used the better it is liked. PRICE, each\$0.25

Cheape Exposure Meter.

This Exposure Meter is made of white celluloid. It is operated by moving an attached sliding celluloid strip up or down the scale to the correct subject. It then shows, at a glance, the correct exposures for all of the different stops at the same time, and for all makes of plates. It is perfectly accurate and easily operated.

Price, each\$0.35

The Watkins Print Meter.

This is an ingenious little instrument that enables its user to make correct printing



user to make correct printing
exposures with not only the ordinary printing-out
paper, blue print, etc., but also with the difficult
carbon papers, gum prints and platinotypes. Like
the various styles of Bee meters, it is shaped like a
watch, and, like them, carries a disk of sensitive
paper, with a set of eight tints that are to be
matched by the darkening of the exposed paper.

It is a compact and strongly constructed instrument, in hard white metal, nickel plated.

Photographic Lenses



HE selecting of a photographic lens is no doubt a perplexing problem even to the most experienced photographer. We do not propose to explain here how to select and test a photographic lens, as volumes might be written on this subject, and such explanations only tend to confuse the prospective buyer rather than enlighten him.

It is true, however, that many serious defects may exist in a photographic lens which cannot be detected by visual examination. The purchaser, therefore, must, to a great measure, depend upon the reputation of the manufacturer and dealer, and then upon his own skill in testing.

The price at which a lens is offered should not be the guide to its working value. Of course, extremely low priced lenses necessarily cannot be good, as much skill and high priced labor is used in the construction and accurate adjusting of good lenses.

Lenses of moderate price are sometimes superior to many offered at much higher figures. It is, therefore, only just that the purchaser of a photographic lens should test it by actually making several negatives with it before concluding the purchase. We, therefore, sell all of our lenses with the positive understanding that they may be returned and the money refunded if not entirely satisfactory after 10 days trial.

Our experience as photographic opticians has aided us in selecting and making the best, the most practical and complete line of photographic lenses on the market. We list no duplicates, each lens having its own characterisics as described.

When purchasing a lens, the first thing that ought to be considered is what kind of work the lens is to be used for. If for Portrait work exclusively, a portrait lens such as our Ideal Series I, Cephaloscope, etc., should certainly be used, as much superior effects in portraiture are obtained with such lenses, but they will not prove so satisfactory for other classes of work as will the symmetrical or anastigmat types.

Where one lens is to be used for portraits in the studio, as well as for large groups, views, etc., the Ideal Series D Lens will be found most satisfactory.

For general work such as views and instantaneous photography, the Ideal Series B, J or K are admirably adapted.

For all work where high optical excellence is desired, such as Copying, Street Scenes, and Scientific Work, the Anastigmat Lens should be used. We can recommend the Ingento Anastigmat as a lens of the highest type.

For interiors and confined situations, Wide Angle Lenses are necessary but should not be selected for general work.

Our lenses are in use by many of the leading photographers, scientific institutions, and experts throughout the country, and hundreds of testimonials have been received.

We invite correspondence on lenses, and will cheerfully furnish any information asked for.

TABLE FOR STUDIO DISTANCES FOR AN OBJECT SIXTY. EIGHT INCHES IN HEIGHT.

LENT US (ES)	HEIGHT OF IMAGES (INCHES).														
EQUIVALENT FOCUS (INCHES)	I	2	3	4	6	8	10	12	14	16	20				
7	483.0	245.0 7.1	165.7 7.3	126.0	86.3 7.6	66.5	54.6 8.0	46.7 8.2	41.0 8.4	36.7 8.6					
8	552.0 8.1	280.0 8.2	189.3 8.4	144.0 8.5	98.7 8.7	76.0 8.9	62.4	53.3 9.4	46.9 9.6	42.0 9.9	35.2 10.4				
9	621.0 9.1	315.0	213.0 9.4	162.0 9.5	9.8	85.5 10.1	. 70.2 10.3	60.0 10.6	52.7 10.9	47.2 II.I	39.6				
10	690.0 10.1	350.0 10.3°	236.7	180 0 10.6	123.3	95.0	78.0 11.5	66.7	58.6 12.1	52.5 12.4	44.0				
11	759.0 11.2	385.0	260.3 11.5	198.0	135.7	104.5	85.8 12.6	73.3 12.9	64.4	57.7 13.6	48.4				
12	828.0 12.2	420,0 12,4	284.0	216.0	148.0	114.0	93.6 13.8	80.0 14.1	70.3	63.0 14.8	52.8				
13	89°.0 13.2	455.0 13.4	307.7 13.6	234.0 13.8	160.3 14.1	123.5	101.4	86.7 15.3	76.1 15.7	68.2 16.1	57.2 16.8				
14	996.0 14.2	490.0	331.3 14.6	252.0 15.7	172.7	133.0	109.2 16.1	93.3 16.5	82.0 16.9	73.5	61.6				
16	1104	560.0 16.5	378 7	288.0 16.9	197.3	152.0	124.8	106.7	93.7	84.0	70.4				
18	1242	630.0 18.5	426 o 18.8	324.0 19.1	222.0 19.6	171.0 20.1	140.4	120.0	105.4	94.5	79.2				
20	1380 20.3	700.0	473.3 20.9	360.0 21.2	246.7	199.0	156.0	133.3	117.1	105.0	88.c				
22	1518 22.3	770.0	520.7 23.0	396.0 23.3	271.3	209.0	171.6	146.7 25.9	128.9 26.5	115.5	96.8				
24	1656 24.4	840.0 24.7	568.0 25.1	432.0 25.4	296.0 26.1	228.0 26.8	187.2 27.5	160.0 28.2	140.6 28.9	126.0	105.				

This table gives, in inches, the distance from lens to object (greater conjugate focus, upper number) and from lens to ground glass (lesser conjugate focus, lower number) for different heights of images and different lengths of foci of lenses, when the height of object is 68 inches (=average height of man).

Q-What is the height of image of a person who is 133 inches distant from lens, when a lens of 14 inches focus is used?

A-The height of image in this case is 8 inches.

Q-What are the distances between object, lens and ground glass if the image of a person is to be 8 inches high and a 14 inches focus lens is employed?

A—The distance from object to lens will be 133 inches, from lens to ground glass 15 6 inches

TABLE OF DISTANCES FOR LANTERN PROJECTION.

Distance of Projection Lens from Screen, Mask Being Three Inches.

Poci	41/2	5	51/2	6	7	8	9	10	11	12
)isc.	fr. in.	ft in	ft in	ft in	ft in	ft in	ft in	ft in	ft in	
5	7 10 16	8 9	9 71/2	10 6	12 3	14 0	15 9	17 6	19 3	21
0	9 4 36	10 5	11 532	12 6 14 6	14 7	16 8	18 9	20 10	22 11	25
6	10 1036	12 1	13 336	14 6	16 11	19 4	21 9	24 2 2 7 6	26 7	29
0	12 432	13 9	The second secon	100000000000000000000000000000000000000	CONTRACTOR OF THE PARTY OF THE	PARTY DECK	THE PERSON NAMED IN	STATE OF THE PARTY	No. of Contract of	33.
9	13 101/2	15 5	16 1136	18 6	21 7	24 8	27 9	3C 10	33 11	37
10	15 436	17 1	18 91/2	20 6	23 11	27 4 30 0	30 9	34 2 37 6	37 7	41
11	16 1036 18 436	18 9	20 71/2 22 51/2	24 6	26 3 28 7	30 0	33 9 36 9	40 10	41 3	45
		15 10 CO A 15		00000000	SECRECIES.		The state of the state of	NORTH STATE	500000000000000000000000000000000000000	100000
13	19 1036	22 I	24. 336	26 6 28 6	30 11	35 4 38 0	39 9	44 2	48 7	53
!!	21 436	23 9	26 136 27 1136	30 6	33 3 35 7		42 9	47 6 50 10	52 3	57 61
18	24 436	25 5	29 936	32 6	37 11	40 8	45 9	54 2	59 7	65
			The state of the s	100000000000000000000000000000000000000	TO CHECK THE		TON O MANUAL TON		The second secon	1000
18	27 434	30 5	33 516	36 6	42 7	48 8	54 9	67 6	66 11	73 81
20	30 41/2	33 9 42 I	37 136 46 336	40 6 50 6	47 3 58 11	1 2 1	75 9	84 2	74 3	101
95 50	37 1034 45 434	50 5	55 516	60 6	70 7	80 8	90 9	100 10	110 11	121

THE IDEAL SERIES I. F. 4.

PORTRAIT LENS.



This is a lens that will more than please the most exacting portrait photographer. It is very quick, as may be inferred from the fact that it works at F. 4, and it has optical qualities that fit it for the most rapid and most accurate studio work.

The results obtained with this lens are notable for their extraordinary brilliancy, combined with infinite softness and perfect "modeling."

Negatives produced by it yield prints that have a wonderful quality of vitality—that quality that is present in a portrait when it is termed a "speaking likeness," and which is so sought after both by photographers and by their patrons.

The elementary lenses of which this lens system is made up are so arranged that the rear set is freely adjustable within the lens tube, thereby allowing the operator to obtain any degree of softness and delicacy in the image that he may desire. Thus, when in an ordinary portrait considerable sharpness is desired, the back lenses are screwed close together and the greatest sharpness is obtained. For large portaits, where the sitter is placed close to the lens, the back lenses are separated and there is a corresponding increase in softness and delicacy.

The value of such a freely adjustable lens combination is so obvious that it need not be further dwelt upon. It is sufficient to say that the individual lenses of which the IDEAL SERIES is composed is each the recipient of more care and delicacy of manipulation in grinding, polishing and fitting than was formerly bestowed on a whole lens combination, and the result is A PERFECT PORTRAIT LENS AT A REASONABLE PRICE.

PRICE.

All sizes are provided with the improved Iris diaphragm.

No	Size, inches.	Diameter of Lenses, inches.	Equivalent Focus, Inches.	Back Focus.	Price.
2	5 x 8	31/4	11 1/4	81/4	\$65.00
3	6½ x 8½	41	151/2	11 1/4	85.00
4	8 x 10	41/4	18	13 1/2	135.00

Cebraroscobs

TRADE MARK

PORTRAIT LENS.



This lens has been specially designed to meet the very exacting requirements of rapid portrait photography. Its optical construction is such that the utmost possible light that F-5 permits of is secured, thus assuring extreme rapidity; and the elementary lenses of the system are so correlated with each other and so finely adjusted that the most perfect definition, depth and roundness characterizes the negatives obtained with them.

The very highest class of mechanical skill has been employed in the manufacture of these lenses, and nothing but the very choicest materials have been used, so that the finished product, the Cephaloscope Lens, may be and is the most thoroughly satisfactory lens that is obtainable.

We solicit a comparison between the Cephaloscope Lens and any other F-5 portrait lens in the world, no matter what its price or where made, knowing that such comparison can only result to the great advantage of our lens. It leads the world in depth of focus, definition, brilliancy, workmanship, price, and, in fact, in every requirement of a perfect rapid portrait lens working at F-5.

For regular portrait work it can be used at full aperture, and when stopped down it can be used for groups, views, etc.

The lenses of the front combination are cemented together, but those of the rear are separated and mounted in an adjustable mounting, so that the operator can adjust them at will and thus obtain any degree of softness or delicacy of the image that he may require.

The mechanism is perfect, and the lens is large and of handsome appearance.
It is fitted with the Iris diaphragm and an accurately engraved scale.

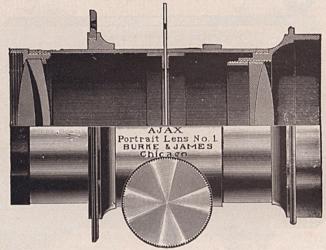
The use of this lens means successful portraiture—no progressive photographer can afford to be without it.

PRICE LIST.

Number	Size Plate Covered, Inches	Diameter, Inches	Equivalent Focus, Inches	Back Focus, Inches	Price
1	5 x 8	2	9	61/2	\$35 00
- 0	61/4×81/4	21/2	111/2	81/2	46 00
9	8 x10	31/4	151/2	111/2	60 00

Ajax Portrait Lens F 5.

Waterhouse Diaphragm,



These lenses are constructed exactly on the same plan as the Highest Grade Portrait Lenses. The front system of lenses is cemented together, while the rear lenses are separated. The deep curves in both systems give Great Covering Power and Even Illumination. The Lenses are achromatic, and perfectly corrected.

The special features of this lens are its High Efficiency and Low Price. We are able to offer them at a low price owing to the extraordinary large quantities in which we have them made, but their efficiency should in no way be judged by the price at which they are offered, as we are not charging anything for the name, but simply for the lens. As these lenses are made in such large quantities and with such perfect skill and accurate tools, we are able to turn them out at the lowest possible cost.

The Ajax Lenses are Made with Great Accuracy. They are mounted in a nickel plated barrel, with adjustable rack and pinion.

No.	Size of Plate. Inches.	Back Focus. Inches.	Equivalent Focus. Inches.	Size.	Diameter of Lens. Inches.	Price.
1	4 1 x 6 14	7	9	1/4	134	\$ 9.00
2	5x7	81/2	10%	1/3	2	14.00
3	5x7	81/2	12	2/3	21/2	21.00
4	6½x8½	101/2	15	1	3	31 50

THE IDEAL PROJECTING LENSES FOR MAGIC LANTERNS AND STEREOPTICONS.

These lenses are especially designed for projection purposes and utilize an exceptionally large amount of the light of the lantern, giving beautifully illuminated, sharp, clear pictures. Their extremely flat field gives a clear picture of equal sharpness over the entire screen. Optically, these lenses are greatly superior to the imported lenses which have been sold for projection work. They are beautifully mounted in nickel-plated tube with rack and pinion for rapid and accurate focusing.

		Back focus.		Price.
No.	1	 5½ inches	 For short distances	 \$5 00
"	2	 9 "	 " medium "	 5 50
			 " long "	 6 00

Ingento Double Anastigmat, F: 6.8.

Made by C. P. Goerg.

These lenses possess the highest anastigmatic qualities. They are made specially for us by C. P. Goerz, the most famous lens



manufacturer in the world, which is sufficient guarantee of their superior excellence. The Ingento Anastigmat is an extra rapid, universal lens for portraits, groups, instantaneous photography, landscapes, architecture, interiors and enlargements.

It has a working aperture of F: 6.8, and will cover, at full opening, an image circle of sixty-four degrees, and a circle of seventy degrees at smaller apertures. The image is perfectly sharp; even with large apertures the definition, brilliancy and depth of every point of

the field is absolutely uniform.

The separate combinations are each composed of four elementary lenses made of the celebrated Jena glass, and as each combination is corrected for astigmatism and chromic aberation, the rear system, when used alone, is free from astigmatism and spherical distortion.

We are placing these lenses on the market at much lower prices than that of any other high grade anastigmat lens, although for optical excellence they are second to none. We will gladly send out these lenses on ten days trial for the purpose of allowing the prospective customer to make comparative tests.

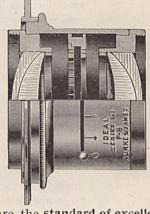
No.	Equivalent focus in inches	Size of plate covered at full opening	Price with Volute shutter	Price with B. & L. auto- matic shutter	Price in barrel with Iris diaphragm	only, includ- ing fitting to any shutter
1 2	6 7	4 x 5 5 x 7	\$40 50 46 00	\$29 00 34 00	\$25 00 30 00	\$23 50 28 50
3	814	5x7 or 5x8 61/2x81/2	57 50 66 00	47 00 58 00	42 50 50 00	40 50 47 50
5	12	8x10	82 00	72 00	65 00	62,00

The price with shutter does not include extra barrel and diaphragm.

F. 8.

The Ideal Series B.

UNIVERSAL RAPID SYMMETRICAL LENSES.



The Best Made.

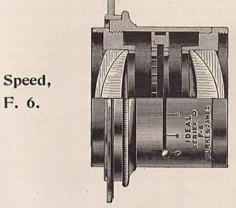
These lenses are the standard of excellence in every detail. They are made to a formula computed by one of the World famous opticians. Each individual lens undergoes the most sensitive tests, and none are turned out unless they are perfect. They work at F. 8, which is very rapid. They are particularly adapted for instantaneous photography, landscape, architecture, groups and copying. They are made on the same plan as the Series D, but not quite so rapid. The back combination can be used alone, forming a lens of double the focal length of the original objective, which gives an image twice as large as when the complete lens is used.

They cover the plate perfectly with full aperture from corner to corner. They have great depth of focus and produce brilliant negatives. They have given entire satisfaction to all who have used them, and we particularly invite comparisons and tests with any similar lenses regardless of their cost.

No.	Largest Stop Covers.	Equiva- lent Focus.	Diameter of Image Circle.	brameter of Lenses.	With Iris Diaphgram.	With Unicum Shutters
10	4 x 5	6¾	91/4	1,16	\$10.00	\$13.50
11	5 x 8	87/8	11	13/8	13.00	17.50
12	6 1/2 x 8 1/2	1134	131/4	15%	20.00	25.00
13	8 x10	137/8	155%	17/8	25.00	28.00
14	10 x12	17	20	21/8	40.00	
15	12 x15	20 1/4	21 1/2	25%	45.00	
16	17 x20	2434	27 1/2	31/8	60.00	

The Ideal Series D.

EXTRA RAPID UNIVERSAL LENSES.



Makes Snap Shots on Dull Days.

These lenses are the most rapid and perfect lenses of the symmetrical or rectilinear type. They are truly the most universal lenses, as they possess the greatest speed possible for this class of lens. They are well adapted for photographing moving objects, landscapes or other subjects where great speed is required. For portraiture, copying and hand camera work they are unequaled.

Instantaneous pictures can be made on dark and misty days where other slower lenses would fail. The 4x5 and 5x7 size can readily be fitted to hand cameras. The larger sizes will be found especially suitable for studio portraiture or group work. Their speed, compactness, depth of focus and moderate price will recommend them to anyone desiring a high grade lens for all-around work.

The lenses of the front and back combinations are individually corrected, so that the back combination may be used alone, forming a lens of double the focal length of the entire objective, thus giving the advantage of two lenses of different focal lengths. These lenses are fitted with Iris diaphragm. They are also supplied fitted complete with Unicum shutters. When supplied with shutter, the barrel containing the Iris diaphragm is not included.

	Size of Plate.	Diameter of	Equivalent	Back Focus.	PRI	CE.
No.	Inches.	Lenses. Inches.	Focus. 1nches.	Inches.	Lens Only.	Lens, with Un cum Shutter.
20	4 x 5	1 1/4	63/8	5,9	\$21.00	\$28.00
30	5 x 8	1%	8	7	27.00	35.00
31 .	614 x 814	1¾	97	81/4	35.00	44.00
32	B x 10	21/8	11 1/4	913	45.00	
33	10 x 12	25%	14 1/4	127	60.00	
34	12 x 15	3,5	17 1/2	1514	80.00	
MA	16 × 20	3¾	223/4	197/8	100.00	

THE METASCOPE.

(Trifocal Lens.)

For general photographic work of no matter what class the, Metascope is easily the superior of any other lens that



is now made. It is composed of two interchangeable systems, a front one and a back one, and they are of different focal length, so that by using them together, or by using the front system alone, or by removidg the back system and putting the front system in its place, three differfocal leng, hs are obtainable, and

that with the least possible trouble and greatest satisfaction to the operator.

These systems have been corrected and perfected in every imaginable way. They are anastigmatic to a remarkable extent; they are absolutely corrected for spherical and color aberrations, and for actinic light at any and all apertures. Both the front and back systems have been corrected in these respects, so that their perfections are as notable when they are used separately as when they are used together.

The advantages of such a combination are so many and so readily apparent to anybody who is at all experienced in the use of camera and lenses, that their enumeration here would be superflous. We might add, however, that one of the advantages of the Metascope lens is the fact that it is wholly free from internal reflections, and the image it throws on the ground glass is very brilliant and clear over the entire field.

PRICES.

				nn	ICES
SIZES	Equivalent Focus Inches	Front Combination Inches	Back Cembination Inches	With Iris Diaphragm	With Unicum Shutter
4 x 5	63/4	$16\frac{1}{2}$	10	\$10 00	\$13 00
5 x 8	81/8	191/4	13	13 00	14 50
6½x 0½	11	24	17	18 00	21 00
8 x10	121/2	28	22	25 00	27 00
10 x12	143/4	35	25	35 00	Not made

THE IDEAL SERIES J.

RAPID RECTILINEAR LENSES. F. 8.

With Wollensak Shutters.

This series of lenses fitted with shutters will be found most practical for general work. The lenses are high grade rectilinear, made on the symmetri-

> cal plan, allowing the rear lens to be used alone when so desired for distant views. They are carefully corrected and exceedingly rapid, and therefore well adapted for instantaneous views, architecture, copy-

ly be fitted to hand cameras.

ing, etc. They cover the plate with good definition and illumination to the corners, and give marked depth of focus to the image. The shutter is the very latest and most perfect. Every movement is positive ond accurate, and the chance of it getting out of order is reduced to a minimum. It is equipped with all of the improved movements including iris diaphragm, pneumatic release, retarding device, time, bulb and instantaneous exposures, etc. The smaller sizes can readi-

Prices, complete, with shutters attached:

	Size													ocus											Pr	3.50	70
4	X	5									6)	i	nches	3 .									 	5 7	(00
5	x	7									7	7 1	4												8		0.3
	1/2 X																				 				15	(00
	x													"								٠,			20	(00

THE IDEAL SERIES K.

RAPID RECTILINEAR LENSES. F. 8.

With Unicum Shutters.

The lenses of this series are practically the same as the series J, so the above description for the lens will answer. The principal difference is in the shutters. These lenses are fitted with the famous Unicum shutters with pneumatic release, retarding device, iris diaphragm, etc.

Prices, complete, with Unicum shutters fitted:

	Silv	0														Focus		10												ce	
4	X		5	,										6		inches							 					8	7	50)
15	×		7											7	1/	"											 		9	00)
63	4×		81/2		 								. 1	0		"							. ,				 	1	0	00	1
B	N	11	0	,					٠.		 		. 1	3	1/2	ź "										٠		2	1	00)

THE IDEAL SERIES G.

Extreme Wide Angle Lenses. 100 Degrees. Speed F. 16.

These lenses represent the highest type of extreme wide angle symmetrical lenses. The covering power and definition are excellent. The speed is F. 16, which is very rapid for this class of lens, making them suitable for flash lights, instantaneous exposures and interiors. They are perfectly rectilinear and will be found very desirable for architectural work. The corrections of these lenses are most perfect, the images are free from distortion to the margin of the plate. The lenses of these series are the most desirable wide angle lenses made. They have greater speed, covering power and angle than any wide angle lens made. They can be used on the next larger plate by stopping down.

Size	Equivalent Focus.	Price.	Size.	Equivalent Focus.	Price.
4 x 5 5 x 8	3½ 3½	\$12.00 14.00	8 x 10 11 x 14	6½ 8	\$22.00 25.00
6½x 8½	514	19.00	14 x 17	101/2	32.00

THE IDEAL SERIES H.

Wide Angle Lenses. 80 Degrees.

The lenses of this series are similiar to the series G. The only difference being in the angle. These lenses have an angle of 80° .

Size.	Equivalent Focus.	Price.	Size.	Equivalent. Focus.	Price.
4 x 5	3½	\$ 8.00	8 x 10	8	\$18.00
5 x 8	51/4	10.00	11 X 14	101/2	22.50
61/2 x 81/2	61/2	15.00	14 x 17	14	28.00

When used on the next size larger plate they give a greater angle.



The Ideal Wide Angle Lens Cells.

These lenses are made to screw into the shutters of hand cameras. The cells containing the rectilinear lenses are taken out of the shutter and these are screwed in instead. We keep them in stock to fit the Unicum and Wollensak shutters. Other shutters can be fitted, but in such cases, however, the shutter will have to be sent to be correctly fitted. They are symmetrical wide angle lenses perfectly corrected, giving an angle of 85°. They have great depth of focus, and cover the plate to the margin without distortion.

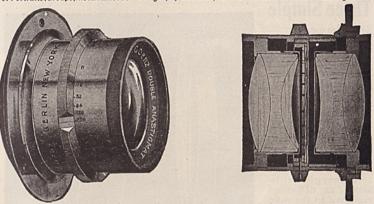
Price per pair, in neat Leather-covered case.

Size 4 x 5......\$4.50 Size 5 x 7......\$5.56

Goerz Double Anastigmat F:6.8

Series III. UNIVERSAL EXTRA-RAPID LENS.

For Portraits, Groups, Instantaneous Photography, Landscapes, Architecture, Interiors & Enlargements



		Equivalent	Free	Size	OF PLATE SHA COVERED AT	RPLY	Price with
1	No.	Focus.	Aperture.	F: 6.8	F: 15.5	F:62	Iris Diaphragm,
-	0	43	5 8 7	31×41	4×5	5x7	\$37.50
111111	1	4 ³ / ₄	7 9	4×5	5x7	5x8	45.00
00	2	7	I	5x7	5x8	7x9	51.50
0	3	81	114	5x8	61x81	8x10	62.50
i	4	91	15	61x81	7x9	IOXI2	75.50
-	5	103	11	7x9	8x10	12X15	91.00
	6	12	1½ 15	8x10	IOXI2	16x18	107.00
1	7	14	2	IOX12	12X15	18x22	140.00
P .	70	161	23	IIXI4	13X17	21X25	182.00
1:	8	19	25	12X15	16x18	22X25	219 00
i.	9	24	3,5	16x18	18x22	24×30	325.00
-	TO	30	28 25 35 41 41	18x22	22X25	28x36	539.00

Goerz Double Anastigmat.

Series 1B F: 4.5 F: 5.5
For Studio Portrait Work or for extra fast work with Focal Plane Shutter.

1	1 100 110		Diameter	Size of	PLATE.	Price
No.	Focus.	Relative Opening.	of Lenses.	Full Open.	F:15.5	with Iris Diaphragm.
	43	F 4.8	1 1 3 2	31×41	4 ×5	\$40.00
	44	F 4.8	11	4 X5	5 x7	47.00
	7	F 4.8	11	5 x7	5 x8	54.50
	81	F 5.	13	5 x8	61x81	67.00
111 1111	01	F 5.	131	61x81	7 x9	90.50
	108	F 5.	$ \begin{array}{c c} 1\frac{3}{3}\frac{1}{2} \\ 2\frac{3}{16} \end{array} $	7 x9	8 xio	108.50
	12	F 5.5	21	8 x10	IOX12	126.50
	14	F 5.5	221	IOX12	12X15	163 00
	161	F 5.5	333	IIXI4	13X17	208 50

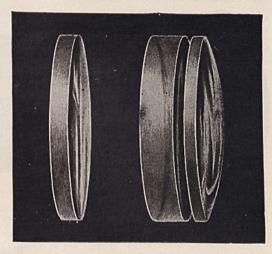
Send to us for Special Catalogue of Goerz Lenses.

Cooke Lenses.

Three Simple Glasses.

This illustration shows the extreme simplicity of Cooke lenses which are not only as perfect in theory as the more complex anastigmats, but are more easily made of a uniform high standard of excellence.

With full apertures they give critically fine definition right up to the margins of their plates, and will cover larger plates than wide angle lenses will if stopped down.



They are free from distortion, from spherical and chromatic aberration, from astigmatism and curved field, from flare, ghost, and other common defects of lenses.

They are nicely proportioned, more accurately made, and better finished than any other lenses.

They are more compact, and weigh less than other anastigmats, and cost less.

Cooke Lenses Series III F. 6. 5.

This series of Cooke lenses are exceedingly rapid and are especially suitable for Instantaneous Photography, Portraits etc.

		DIMENSION	IN INCHES	3.	PRICES
Number	Equiva- lent focus	With large apertures to cover plates.	At f-16 to cover plates	Diam- eter of flange- screw	With iris diaphragm and standard flange
1	3	2¼ x 2¼ 3¼ x 3¼	3¼ x 4¼	1%	\$27.50
2 3	5	31/4 x 41/4	4 x 5 4¾ x 6½	11/4	32.00 35.00
5	6 7½	4 x 5 4¾ x 6½	6½ x 8½ 8 x 10	1%	39.50 48.50
4 5 6 7 8	81/4	5 x 7 6½ x 8½	8 x 10 11 x 14	134	53.00 91.00
8	13		14 x 17	21/2	130.00

Cooke lenses can be fitted to most shutters now on the market. It should be specially noted however that they should be fitted by the makers only.

We are the Chicago wholesale selling agents for these lenses. Send for special catalogue.

Cooke Lenses

Series V. F/8.

For general use this lens is unsurpassed. It will give the best results for every kind of work, where the highest optical excellence is desired.

Cooke lenses are being used by the leading photographers and experts throughout the world.

	DIAM	ETER IN INC	HES.		PRICES.
No.	Equivalent focus.	With large apertures to cover plates.	At F-16 to cover plates.	Diameter of flange-screw.	With Iris diaphragm and standard flange
10	4 1/4	34 x 34	4 x 5	1%	\$26.00
11	5	3½ x 4½	434 x 6%	11/4	28.00
12	6	4 x 5	5 x 8	11/4	32.00
13	7%	434 x 614	6½ x 8½	1%	39.50
14	9	5 x 7	10 x 12	11/2	48.00
15	11	6½ x 8½	12 x 15	1%	67.50
16	13	8 x 10	14 x 17	2	87.00
17	16	10 x 12	18 x 20	21/2	130.00
18	18	12 x 15	31 in. circle		160.50
19	24	16 x 18	44 " "	4	260.00

They can be fitted to any shutter on the market.

Cooke Extension Lenses.

By removing the usual back glass of a Cooke lens, and substituting one of these extension glasses, the focus of the combination can be lengthened. Thus, from the same point of view, the photographer can vary the scale of his photographs.

	SERIES III.		SERIES V.		
Focus of normal lens Series III f-6.5.	Focus with Extension lens f-11.	Prices.	Focus of normal lens Series V f-8.	Focus with extension lens f-16.	Prices.
4	6.6	\$7.75	41/4	6.6	\$6.50
5	7 8	8.50		7.8	7.00
6	9.3	10.00	6	9.3	7.75
7 16	11.7	11.75	71/2	11.7	9.50
814	12.8	13.00	9	13.9	11.50
11	17.1	22.50	11	17.1	16.50
13	20.	32.25	13	20.2	21.50

We are the Cuicago wholesale selling agents for these lenses. Bend for illustrated catalogue.

Isochrom Safe-Light.

For Use in Dark Room Lamps.

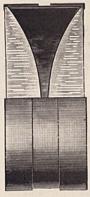
The Isochrom Safe-Light is a combination of colored glasses, spectroscopically adjusted, which transmit light of absolute safety for developing and handling isochromatic and ordinary dry plates. Ruby glass and orange glass combined, even when several thicknesses of each are used, will transmit rays of light to which dry plates, especially isochromatic, are very sensitive. These rays cause a general fog all over the negatives developed by such a light.

The Isochrom Safe-Light is guaranteed to transmit only the extreme red rays and as no isochromatic plates are sensitive to these red rays the advantage of the Isochrom Safe-Light will be readily understood.

It gives good illumination with absolute safety.

5 x7	inches each\$1	00
61/2 x81/2	inches each	50
8 x10	inches each	00
Any siz	e or shape, per square inch	nts

Condensing Lenses.



The condensing lenses listed below are accurately ground and polished, and will be found much superior to the imported lenses commonly employed for this purpose. When condensers are wanted mounted, we supply them in our improved mounts which are so constructed that there is the least possible danger of the lenses breaking when heated. The mountings are also very neat and compact.

Size in Diameter	One Lens Unmounted	Pair of Lenses mounted	Size in Diameter	One Lens Unmounted	Pair of Lenses Mounted
	\$1 50.	\$4 00	10 inches.	\$13 50	\$32 00
61/2 ".			12 ".	27 00	59 00
8 ".	7 50	17 50	14 '' .	40 00	86 00
0 "	10.00	24 00			

The Silent Shutter.



Every photographer who has experienced repeated failures owing to the "click" of his shutter in opening, causing his child subject to look toward the lens at the vital moment of exposure, or some member of a group, or an individual sitter to move just at the wrong time, will instantly appreciate the great value of the Silent Shutter, which will enable him to expose while

his subject is unconscious of it.

The "Silent" is extremely simple, not likely to get out of order, and the most compact studio shutter made.

The cupped air cushions arrest the wings as they open, avoiding all sound, vibration or dust.

PRICES

(Including 6 feet of tubir	ng and "shut-off.")
Opening Each	Opening Each
2, 21/2 and 3-in., single wing \$5 00	5½-in., double wing\$8 00
3, 3½ and 4 "double " 5 00	6 " 9 00
4½-inch, double wing 6 00	7 10 00
5 " … 7 00	

The New Pivot Bearing Silent Shutter.

Is made with a steel frame, in which conical brass bearings are set. These bearings are threaded at one end so that any wear can be taken up at any time, thus eliminating all sound or friction from that source for all time. These in connection with the patented cupped air cushions make an absolutely noiseless shutter.

PRICES

	(Including 6 fe	et of t	ubing a	and "s	hut-off.'')	
	ntside	Each	Opening	Ou	tside	Each
Isinch, X 2	x21/4, single wing.	.\$5 00	41/2-incl	1, X 61/2:	x 73/8, doub	le wing .\$8 00
	4x314. " .	. 5 00	5 "		x 77/8,	9 00
9 " X 31	6x4 . " .	. 5 00	51/2 "	X 71/2:	A 078,	10 00
914 " X 4	x41/2, " .	. 5 00	6 "	X 8 :	x 87/8,	11 00
a " X 5	x5%, double wing	. 6 00	7 "	X 9 :	x 9/8,	12 00
314 " X 51	(x63/s, " .	. 6 50	8 "	X 10 :	x107/8,	13 00
4 " X 6	x67/8, " .	, 7 00				

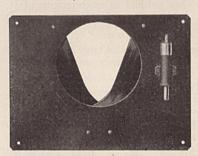
Packard Shutters.

Packard Shutters have been on the market for more than fifteen years, but the shutter of today is made of much superior construction than heretofore. They are, without doubt, the best two and four wing studio shutters manufactured. There are no slots in the wings; all are pivoted separately on a metal bearing, reducing friction to a minimum, and making it almost impossible to break the rubber wings. The shutter is durable, practical and reliable, and works rapidly, easily and noiselessly. The noiseless feature is an improvement in the construction just added, and will be greatly appreciated by users of these shutters. One of the latest improvements on these shutters is the fact that they are made of the smallest possible size according to the opening.

Packard Shutter No. 1, for Time Exposures.

This shutter is designed for studio work, and is made to be attached to the inside of the front board. It opens so as to light the drapery and foreground most. The smaller sizes are sufficiently rapid for any outdoor work, except moving objects. It is simple in constantial, and will not easily get out of order.

Price, any size, with bulb and tubing, \$4.00.



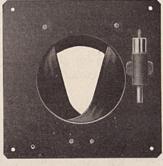
SIZ	ES.
Dia, Opening Inches	Outside Dimensions Inches
1½	3 x3½
134	3 x3¾
2	
21/4	
21/2	
23/4	4¾ x6
3	
	5½x7½
3½	
	6 x81/4
4	6½ x8½
41/2	7 x9

Packard Shutter No. 1, for Time Exposures.

This shutter is designed for studio work, and is made to be attached to the inside of the front board. It opens so as to light the drapery and foreground most. The smaller sizes are sufficiently rapid for any outdoor work, except moving objects. It is simple in construction and will not easily get out of order.

Price, any size, with bulb and tubing \$4 00.

	SIZ	ES.		
Dia, Opening Inches	outside Din	nensions	s	Price
11/2 3	14 inches	squar	e	\$4.00
1343				
24		"		
21/44		"		4.50
21/2 4		11		5.00
2345	" "	**		
35	3/ 16	**		
3146		**		
3½6		**		AND REAL PROPERTY.
		**		5.00
3347		**		5.50
47	/2 16	"		
4½8		"		6.00
58 The follo	/2			6.50



The following sizes made to order:

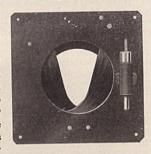
Dia. opening, 5½ in.; outside dimensions, 9½ in sq.; price. \$8 00

Dia. opening, 6 in.; outside dimensions, 10¼ in. sq.; price. 9 00

Dia. opening, 6½ in.; outside dimensions, 11 in. sq.; price. 10 00

Packard Shutter No. 6. For Time and Instantaneous Exposures.

This Shutter is the regular No. 5, embodying all its advantages with the addition of the Instantaneous Attachment, and is made to go on the front board inside the camera. Being only three sixteenths of an inch in thickness, and used behind the lens, it gives opportunity to cover a larger plate than if a much thicker or wooden back shutter is used. It is changed from time to instantaneous exposures by simply pushing in or pulling out a small pin which goes through the front board into the shutter. This change is quickly made from the outside, and the shutter



requires no setting as it works automatically, setting itself after each exposure without opening the wings, and is always ready. The Shutter works very fast, and the mechanism is extremely simple, with nothing to get out of order. At no time during an exposure is there any jar or vibration, and used as a "time" shutter, it is absolutely noiseless or silent in opening. Works easily and lightly. Price includes bulb and tubing.

SIZES AND PRICES.

Dia. Opening	Outside Dimen	sions Price	Dia. Opening	Outside Din	iensions	Price
Inches	.314 inches sq	uare\$5.50		.6 inches	square	6.50
134		5.50	3½	.61/2 "		
2	.4 "	" 6.00	3¾			7.00
214		6.00	4			7.00
21/2		6.00	4 1/2			8.00
23/4		6.50	5	.81/2		9.00
3	534 "	" 6.50				

Wollensak Shutters.

Regular and Automatic.



Wollensak shutters have gained popularity owing to their superior construction and simplicity of mechanism. The "Regular" is set before each exposure by pressing down a lever located on the right side of shutter and is released either by the bulb or by pressure on the left-hand lever. The "Automatic" sets itself automatically after each exposure. They are made in sizes from $3\frac{1}{4}$ x4 $\frac{1}{4}$ up to 17x20.

	Light	Lens	PR	ICES
	Aperture	Aperture	Regular	Automatic
31/4 x 41/4	56	. 34	\$ 5 00	\$ 8 00
4 x 5	7/8	1 3/16.	6 00	10 00
61/2 x 81/2	1 3/16.	. 13/	8 00	12 00
8 x10	1 9/13.	.23/8	10 00	14 00
1 x14	2 1/16	3	14 00	18 00
7 x20	23/	336	20 00	25 00
Fitting to sp	agial lane	ec \$1 50	to \$5.00	extra.
FILLING TO SD	eciai iens	cs pr so	10 \$2 00	Carrie

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 ex-

posed sky and and an under exposed foreground. The Skyshade Shutter makes it possible to illuminate the plate equally no matter what the conditions of light may be. It can be instantly and firmly attached to the front mount or lens barrel by an automatic clamp, and can be used with lenses either mounted in barrel or which already are attached to shutters.

It is automatic in its action, has no finger release, but is opperated entirely with the bulb, and all its working parts, including the pumps, are entirely covered; no dust can penetrate the mechanism.

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.



PRICE LIST.

No.	Light Opening	For Lenses with Free Diameter of	Will fit Barrels or Mounts with Diameter of	Price
1	1 3/16 in.	Up to 1 inch	1¼ to 1 9/16 inches	\$12 00
2	1 9/16 in.	11/8 to 13/8 inches	15% to 2 1/16 inches	15 00
3	2 1/16 in.	1½ to 1% inches	21/8 to 23/4 inches	18 00
4	2 3/4 in.	2 to 25% inches	2 13-16 to 37/s inches	24 00

Goerz Sector Shutter.

This shutter is formed by segments situated in the plane of the diaphragm, and opening from and closing toward the center.

It not only combines the good qualities of the best systems of shutters hitherto known, but actually surpasses them in many respects.

Cost of fitting \$1.00 to \$1.50 each according to size. The original lens tube is not altered and will be returned. No charge will be made for fitting to Goerz lenses when they are ordered same time as shutter.

PRICES.

Send for Special Catalogue of Goerz Lenses.

INGENTO ROLLER-BLIND SHUTTERS.

With New Device For Setting Shutter.

Roller-blind shutters have been prominently before the photographic public of late years and the superiority of this over other forms of shutters has been acknowledged by the leading users of

cameras. They have not been generally adopted, principally on account of the prices being so high that the average photographer has not felt able to possess one of them. We have at last succeeded in bringing these prices so low that the amateur as well as the professional photographer may own one.

Nearly all of the rollerblind shutters on the market are set with a string which, at best, lasts but a short time. The Ingento is set with a metal key. It is finished in highlypolished mahogany, the metal parts are brass, nickel plated.



This shutter is supplied in two styles, the mechanism being identical, the only difference being in the manner of attaching to lens.

Style No. 1 is made to fit on the tube or hood of lens. The opening of the shutter is lined with a piece of soft rubber which, when slipped over the hood, holds the shutter securely in place. The shutter has speed indicator for different degrees of instantaneous exposures, and can be set for time exposures as well. This shutter can also be set for focusing. The principle and general construction of the Ingento are the same as used in the high-priced shutters on the market.

Style No. 2 is a behind-the-lens shutter, and is of the same general construction as No. 1. Instead of being placed on hood of lens in front, is arranged to be screwed to outside of front board. The lens is mounted on panel of shutter, thus acting the same as an inside shutter. On this account it is preferred by many over the No. 1 style.

		PRI	CES		
Opening	Style No. 1	Style No. 2	Opening		Style No. 2
1+ in	. \$ 4 75	\$ 5 00	27 in	6 75	. 7 00
17 in	. 5 00	5 25	$3\frac{3}{8}$ in	8 25	. 8 50
2½ in	. 5 25	5 50		10 00	
24 in	. 5 50	5 75	4¾ in	12 00	. 12 25
	Stereo	.No. 1 \$8	00No.		

Specify style when ordering.

STEREOSCOPES.

These scopes are carefully tested and can be relied upon to produce perfect stereo effects.

No. 1. Cherry frame, medium size lens, patent folding handle, figured cherry hood, varnished. Each. \$0 40



No. 2. Varnished cherry frame, large lens, patent folding handle, engraved aluminum velvet-edged hood, nickeled trimmings, selected stock. Each. \$0 75 No. 3. Veneered rosewood frame and hood, highly polished throughout, fin-

est quality lenses, polished nickel-plated trimmings, patent folding handle, best quality. Each .. \$2 75



This instrument is made on a new principle by which it can be adjusted either for stereoscopic views or photographs and other pictures by simply reversing the lenses, as shown in cut. The Stereo-Graphoscope is practically a Camera Obscura and will give a clear and beautiful effect on the view, and is far superior to the old style.

Card of instructions with each instrument. No. 1. Cherry frame, large lenses, patent fold-

ing handle, figured mahogany hood, brass trimmings. Each......\$1 00



These views are printed by the three-color process and are more desirable than photographs, being equal to the latter in stereoscopic value but superior in color value. Sold only in complete sets of twenty-five as listed below, each set packed in a cardboard box. Order by number. Price per 100 \$2 00

MISCELLANEOUS ASSORTED VIEWS.

Ostrich Farm, Cairo, Egypt. Noted Sioux Warriors. Americanized Indians. Coke Ovens. Love Confidences, A Good Day's Sport, Holiday in Havana, Cuba. Cotton in Storage. Cotton Plantation Scene. President Diaz's Palace. Plucking Daisies. Bunch of Nasturtiums. California Partridges. Moki Indian Maidens. Chief Bald Eagle, Sioux Indians. Russian Cossack. Giant Sunflower, A Quiet Retreat, A Floral Offering. Indian Girl. Reveries. On Board Russian Man-o'-War., River Logging. The Horse Show. Japanese Garden.

WORLD'S VIEWS.

WORLD'S VIEWS.

Emperor Inspecting Regiment. Royal Gardens, Dresden, Germany. Zoological Garden, Berlin, Germany. Beautiful Venice, Palm Garden, Frankfurt, Germany. Island San Giorgio, off Venice, Italy. Ecce Homo Arch, Jerusalem, Palestine. Morro Castle, Havana, Cuba. Street Scene, Cairo, Egypt. Street Scene, Venice, Italy. Church of Madeline, Paris, France. A Beautiful Spot, Milan, Italy. A Public Well, Pekin, China. Buddhist Temple, Pekin, China. Cathedral of Notre Dame, Paris. Cathedral from Grand Canal, Rotterdam. David's Judgment Seat, Ierusalem. Garden of Gethsemane, Palestine. Jungfrau, of Swiss Alps. Moulin Rouge, Paris. Pantheon, Rome. The Stadium, Rome. Victory Monument, Leipsic. Scene in Mexico. Mexico City Workers.

AMERICAN AND WORLD'S FAIR VIEWS.

Comprise twenty-five of the most famous subjects of American scenery and the best views of the St. Louis World's Fair.

COMIC VIEWS IN SETS.

This collection includes six sets of six views each; namely, thirty-six assorted pictures. Each set of six pictures tells and portrays a comical episode. Sold only in boxes, containing the complete series of thirty-six pictures,

MISCELLANEOUS COMIC VIEWS.

Comprise a selection of twenty-five assorted comic views,

SAN FRANCISCO VIEWS.

A collection of twenty-five of the most interesting scenes-graphically illustrating the recent earth quake disaster.

Ray Filter Photography.

Ray Filter and Isochromatic Photography are now commanding the attention of all progressive photographers. It is a broad subject to deal with, but its advantages are so quickly recognized by any one that it may be narrowed down to this simple explanation.

It is the Photography of Colors—to produce in monochrome, photographs of landscapes, flowers, paintings, etc., with correct color values, specimens of which we illustrate with the half tone cuts on the following page. This is only made possible by the use of perfect Ray Filters. Ray Filter photography has been generally known for a long time, but most imperfectly, even by writers on the subject, plate makers, and others who were supposed to know.

It has been generally understood that any transparent medium with a yellow tint would answer for a Ray Filter. This has encouraged inexperienced people to make and offer for sale, ray filters made from yellow glass, stained dry plates, stained mica, etc., and transparent tanks to hold solutions of colored chemicals. These, in most cases, are not only useless as Ray Filters, but a great drawback as much better photographs can be made without their use. The manufacturer of perfect Ray Filters must have a perfect knowledge of the spectroscope and of the color sensitiveness of all of the dry plates on the market. In addition to this, he must be a practical optician, as the making of a perfect Ray Filter requires as much optical skill and accurate adjustment as is used in making the highest grade Anastigmat Lens. Like a lens, its working value cannot be judged by visual observation, but only by testing in the camera or spectroscope.

The Ray Filters of our manufacture, the Ideal and Isochrom, do away with all rule of thumb and guess work methods, as they are adjusted and measured by the use of the spectroscope and other delicately adjusted instruments. They filter out and subdue the exact color rays of light which require to be modified before they reach the plate. This requires an instrument of the most delicate and accurate adjustment.

Our Ray Filters are made on Optical Crown Glass Discs, ground and polished on both sides like a lens. The colored film is between two such discs, and all are cemented together to form one permanent homogeneous filter, optically adjusted so as not to affect the focus or correctness of the photographic lens with which it is used. They are mounted in neat compact metal frames to slip over the lens hood, and are made in all sizes. See following pages.

The Ideal and Isochrom Ray Filters are being used by thousands of the best amateurs, by most of the leading photographers, and by the prinsipal observatories, and are recommended by the dry plate manufacturers.

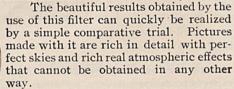
PHOTOGRAPHY, SCRANTON, PA.

Isochrom Absolute Ray Filter.

Adjusted for Absolute Color Values with Cramer Iso Filter.

For landscapes, snow scenes, sea views, copying and all other work where Cramer's Iso Plates are used. This filter renders all

colors in exact visual luminosity.



The advantages obtained by the use of the Isochrom Ray Filter are to great that no photographer, professional or amateur, nor even the beginner should be without it. The low prices at which they are sold are within the reach of everyone, and the superiority of

the results in the first exposure will more than pay big profits on the investment.

Although it is now well known that the use of a properly made yellow screen is certainly benificial to the correct rendition of the colors of the opject photographed, yet the idea that any yellow screen is suitable for use with any ortho or iso plate, is now rapidly becoming known to the great majority of photographers as fallacious, and being fully cognizant of that fact, we have selected the best known isochromatic plate as a standard (Cramer iso), for which we have manufactured a filter, specially adjusted to it.

The Isochrom is the result of extended scientific examination and measurement, and is made up to spectroscopic readings of most careful experiments. The adjustment of each filter is absolutely perfect

Particulars of the construction of these Ray Filters will be found on the preceding page, "Ray Filter Photography."

In nickel plated cells that slip over the lens hood, with adjustable springs, supplied in neat circular plush-lined cases, which can be used as a lens cap when required.

No. 1, Diam. 1 ⁵ / ₁₆ in \$1 50	No. 8, Diam. 2½ in\$3 00
No 2 for box cameras 1 50	No. 9, 2% in 3 25
No. 3, Diam. 1_{16}^{7} in 1 50	No. 10, 3 in 3 50
No. 4, " $1\frac{1}{2}$ in 1 50	No. 11, 3/4 in 4 00
No. 5, " 134 in 2 00	No. 12, 3½ in 4 50
No. 6, 2 III 2 23	No. 13, 4 in 5 25
No. 7, " 21/4 in 2 50	No. 14, " $4\frac{1}{2}$ in 6 00

The Ideal Ray Filter.

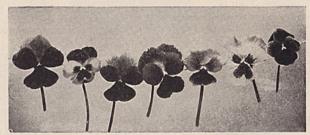
This Ray Filter can be used with any make of dry plates on

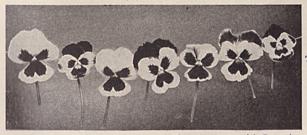


the market. It gives true color value to all objects in a picture, whether landscapes, snow scenes, interiors, flowers, portraits, or otherwise. It should be used in photographing mountains or distant objects. It prevents halation, as it absorbs the rays that cause it. The most

beautiful cloud effects are obtained with it.

MADE WITH OUT A RAY FILTER.





MADE THROUGH THE IDEAL RAY FILTER.

This Ray Filter only increases the exposure with Iso plates exactly three times. It may be used for snap shots, and is, therefore, the quickest filter on the market. Particulars of the construction and requirements of the Ray Fillers will be found on a preceding page.

PRICES OF THE IDEAL RAY FILTERS.

Mounted in nickel plated cells with adjustable springs, and supplied in neat circular plush lined cases, which can be used for a cap when the filter is over the lens.

No. 0.	For No. 3 F. P. K\$1 00	No. 8.	Diameter 21/2	inches\$2 00
	Diameter 1-5/16 inches 1 00	No. 9.	" . 234	" 2 25
No. 2.	For Box Cameras 1 00	No. 10.	" 3	" 2 50
No. 3.	Diameter 1-7/16 inches 1 00	No. 11.	" 31/4	" 3 00
No. 4.	" 1½ " 1 00	No. 12.	" 3½	" 3 50
No. 5.	" 134 " 1 25	No. 13.	" 4	" 4 25
No. 6.	" 2 " 1 50	No. 14.	" 4½	" 5 00
No. 7.	" 21/4 " 1 75			

Prices of Square Filters and special sizes on application.