



GRAFLEX



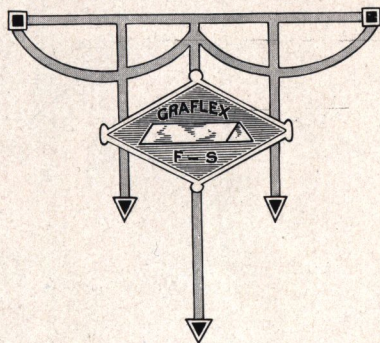
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# GRAFLEX

— AND —

# GRAPHIC

# CAMERAS



1909

**FOLMER & SCHWING DIVISION**  
*EASTMAN KODAK COMPANY*  
**ROCHESTER, NEW YORK**







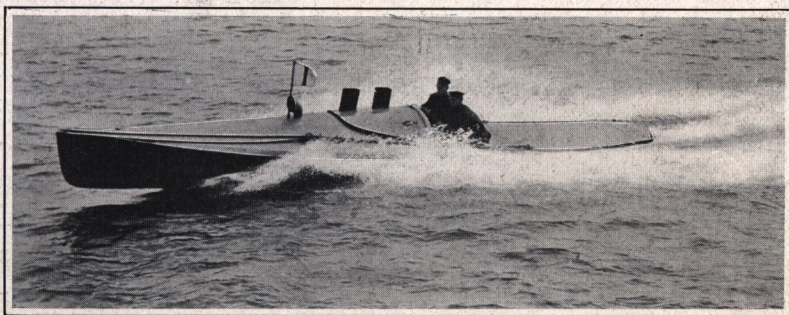


# GRAFLEX PHOTOGRAPHY

In selecting a camera, particular attention should be given to the photographic limitations of the instrument under consideration. Some cameras are good for one purpose, some another, and a very few combine adjustments that render them available for a number of purposes. There is, however, one camera that is more nearly universal in its application than any other instrument, and that camera is the Graflex.

The construction of the Graflex is radically different from that of any other camera, and includes a number of special features together with the application of certain optical principles that enable it to do anything that can be done with cameras of the usual type, and in addition accomplish results not possible with any other photographic instrument.

One of the exclusive features that meets the instant approval of the photographic worker is the method of focusing. With the Graflex the image is seen right side up, the size it will appear in the negative, *up to the very instant of exposure*. The changing composition, expression or position of the subject may be studied until the exact pictorial effect required is secured, when a slight pressure releases the shutter and the exposure is made. As no time is lost between focusing and releasing the shutter, the Graflex operator knows that he will secure in his negative exactly what was seen on the focusing screen. Compare this to







focusing with the ordinary camera with the awkward cloth, inverted image, and worst of all the time required between focusing and inserting the plate holder. The Graflex does away with the focusing scale and the necessity of guessing the distance between subject and camera. It eliminates the "finder," always unsatisfactory, not only on account of its reducing image of the subject to such microscopic proportions as to be almost indiscernible, but also because of the uncertainty that everything seen in the finder will be included in the negative. The user of a Graflex knows to a certainty that, with proper exposure, he will secure in the

negative exactly what appeared on the focusing screen — that the finished print will be an exact reproduction of the image as it appeared on the ground glass.



The Graflex Focal Plane Shutter, which is a part of every Graflex, is too well known to require an extended description, but there are still a few photog-





raphers who associate the term Focal Plane shutter with exposures of extremely short duration. While it is an undisputed fact that there is no shutter on the market to-day that can approach the Graflex Focal Plane Shutter in securing sharp, fully timed negatives of objects moving with the utmost rapidity, it is equally true that this



shutter will give perfect results under conditions that with a shutter of the ordinary type would result in failure. As the Graflex Focal Plane Shutter allows the lens to work at its maximum efficiency during the entire period of exposure, it is possible to make "snap shots" indoors, in the shade, or under unfavorable light conditions.

The operation of the Graflex is simple in the extreme. In construction the Graflex is an exemplification of painstaking care in every detail. In appearance it is instantly recognizable as a scientific instrument of exceptional merit.

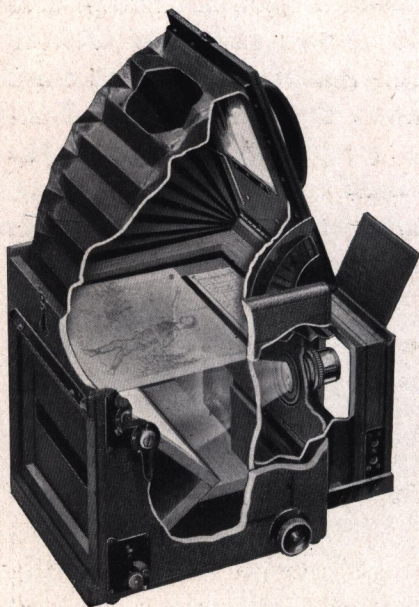






# GRAFLEX CONSTRUCTION

Without question the most useful adjustment ever adapted to a camera is the reflecting mirror, which is one of the factors that have given the Graflex its present recognized standing. This mirror is set at such an angle that it reflects the image from the lens on a ground-glass screen on top of the camera and shows the object to be photographed, right-side up and the same size that it will appear in the negative. As the mirror is released, by a push button on the left side of the camera, it releases the shutter just as the mirror itself swings up out of the cone of light. The mirror is mounted in a rigid frame and when in position for focusing, retains a perfect plane which insures coincident register of focus. It seats against an air cushion



Sectional Illustration showing  
Graflex Principle

formed in the top of the camera, thus preventing vibration. A safety device is provided which prevents the rewinding of the curtain while the mirror is up, allowing the curtain to be rewound only when the mirror is set, thus preventing fogging of plate or film when the dark slide is drawn. The reflector itself is made out of specially-ground optical plane glass carefully silvered and backed with a special preparation to prevent deterioration of the silver, thus preserving

the original brilliancy and efficiency of the mirror. It is even far superior to a silvered surface mirror.

There is probably no photographic shutter that has



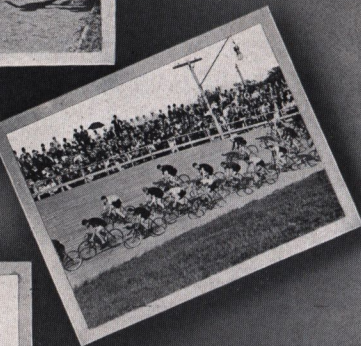
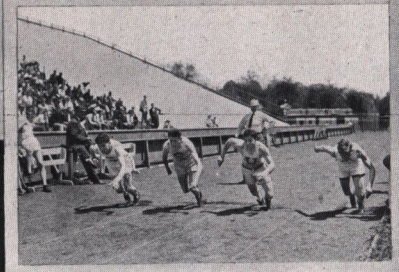
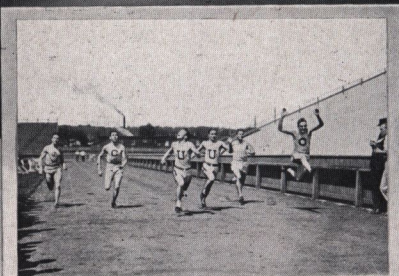
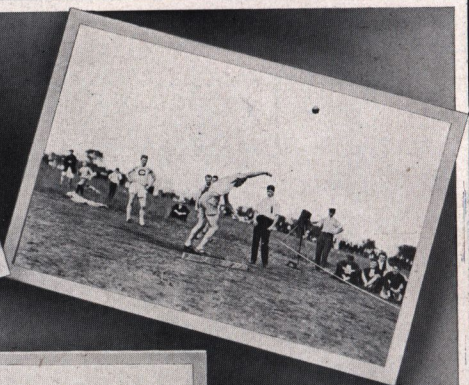
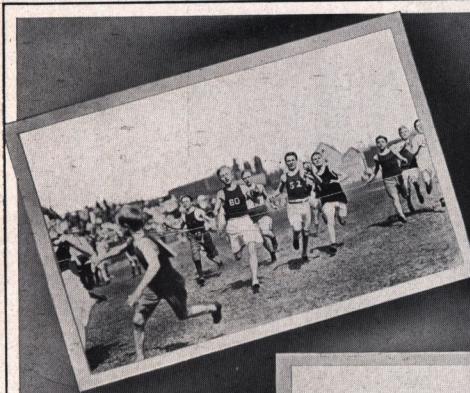


received as much favorable attention, or as much commendation by photographers—professional and amateur—as the Graflex Focal Plane Shutter. The remarkable success achieved by this shutter is not due to its marvelous effectiveness alone, but also to its extreme simplicity and durability. The principle of the Focal Plane Shutter is so well known, and its advantages over all other types of shutters so firmly established, that little need be said on this subject. A more extended discussion, however, of the relative advantages of the Focal Plane Shutter over those of the between-lens type will be found on page 43.

The Graflex Shutter consists of a long curtain, with apertures varying from full opening to an eighth of an inch, and so constructed that the aperture retains, during exposure, an absolutely uniform, parallel—not a wedge-shaped—opening.

All adjustments are easily and quickly made from the outside of the camera. The shutter is set by the turning of the winding key—the width of the aperture being indicated on an index dial near this key. By setting a rotating disc, the shutter may be set for time or instantaneous, as may be desired. The shutter release is conveniently located on left side of camera, while a finger release is also provided,









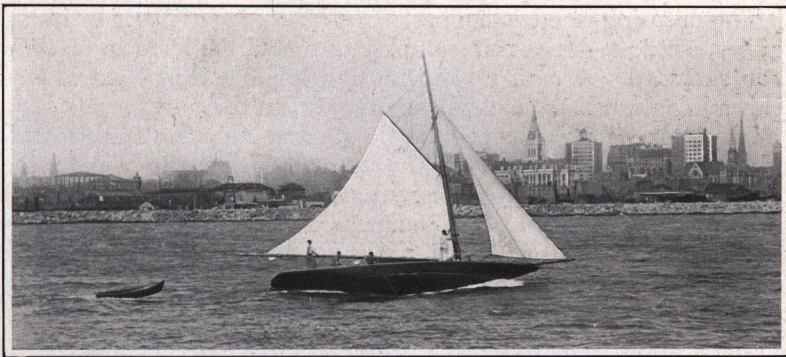
permitting time exposures of any duration. All wearing parts are of case hardened steel.

The speed of the shutter may be increased or decreased by a tension button, and six varying tensions are allowed with this shutter. Any speed from time to  $\frac{1}{1000}$  of a second may be secured in the Auto Graflex, while in the Press Graflex a speed of  $\frac{1}{1500}$  of a second is attainable.

The Graflex itself is made of mahogany, covered with fine Persian morocco leather. All visible wood parts are given a fine ebonized finish. The metal work is oxydized—a beautiful gun metal effect being secured. In the Auto, Press and Naturalists' Graflex the front runs out on two side arms milled from heavy brass, running between metal guides. In the folding front models the platform is fitted with a metal track running in guideways, carefully milled from thick brass, insuring absolute rigidity and no lost motion. When the front is extended, the lens cover opens instantly and automatically. The front is secured by a piano hinge extending the full width of the camera and, when opened, allows the removal of the lens and lens board.

Focusing is done by turning a large milled head at the right side of the camera near the front. Tripod plates are provided.

The aim has been merely to touch upon the principal features in Graflex construction. The minor ones, however, have received just the same careful attention.







## THE 1A GRAFLEX

FOLMER'S PATENT FEBRUARY 5, 1907



THE 1A Graflex is constructed with a particular view to furnishing a camera of the highest possible type with all the exclusive Graflex features, occupying the least possible space, and at the same time combining Graflex construction with film simplicity and convenience. The 1A Graflex is exceedingly compact—the ideal camera for the tourist—and makes a negative of very pleasing proportions,  $2\frac{1}{2} \times 4\frac{1}{4}$  inches on regular Kodak Film, which can be procured anywhere camera supplies are sold.

With the 1A Graflex, as with the other Graflex models, it is possible to see the image the size it will appear in the negative up to

the instant of exposure, and make exposures of any duration from time to  $\frac{1}{1000}$  of a second, the 1A Graflex being fitted with the regular Graflex Focal Plane Shutter. This camera is also fitted with a safety device which prevents the winding of the shutter curtain until the mirror is in position for focusing and making of exposure; this insures the setting of shutter, and what is more important prevents the unintentional fogging of film.

The platform is fitted with a track made of heavy milled brass, a stop being adjusted in a position indicating the universal focus of the lens, which permits the camera to be used for general "fixed focus" work as well as photography involving the utmost accuracy of focus. The depressed platform and the fact that the lens, mirror and bellows all recede into the body of the camera produce an instrument of unusual compactness.

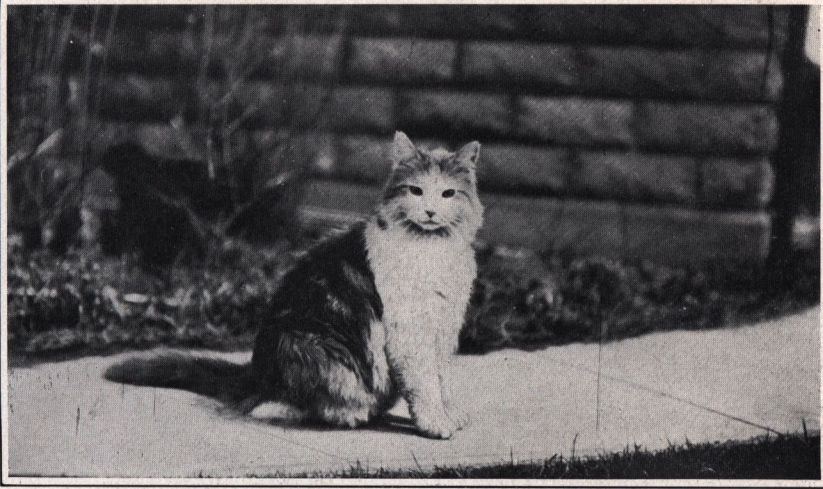
The focusing hood is supported by "lazy tongs" which insure rigidity, a unique device being employed to hold the hood in position when extended. A spring actuated eye-shield excludes extraneous light, adding much to ease and accuracy when focusing.

The back of the camera is made of aluminum, leather covered, and is removed and attached in the same manner as the back on the 1A Kodak. Another improvement adding much to the ease of operation of the 1A Graflex is the method of adjusting film spools, a self-centering device making it necessary to simply drop the film spool into position, when it finds its own center. The film winding key, when drawn out and given a slight turn, locks open; another turn in the opposite direction allows it to snap back into position,





## The 1A Graflex—Continued



Exact size of picture made with  $2\frac{1}{2} \times 4\frac{1}{4}$  1A Graflex

holding the spool securely in place and creating sufficient pressure to prevent play. Tension springs are provided in the film pockets from unwinding and permitting film to warp.

Every detail of construction has been carefully considered, making the 1A Graflex the most compact, serviceable and efficient camera of the reflecting type ever before produced.



The 1A Graflex Closed

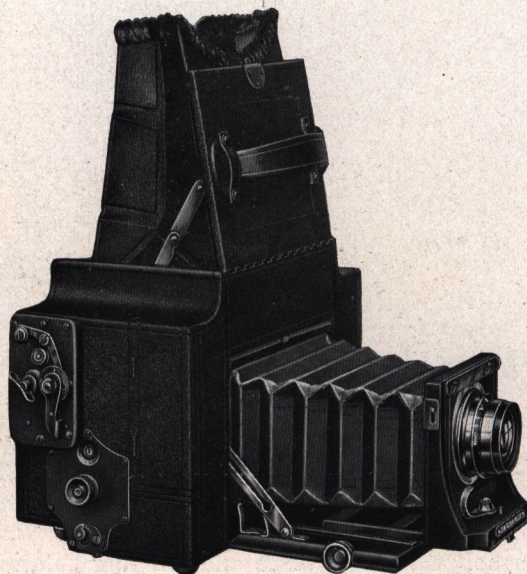
## Specifications

Outside dimensions, closed	$5\frac{1}{2} \times 9\frac{1}{2} \times 3$	Weight	59 ozs.
Focal capacity	$6\frac{1}{2}$ inches	Size of lens board	$2\frac{1}{4} \times 2\frac{3}{8}$ inches
Minimum focus of lenses accommodated			$4\frac{1}{2}$ inches

## Prices

1A Graflex without lens	\$ 60.00
With Zeiss Kodak Anastigmat Lens, <i>f</i> .6.3, No. 2	82.00
With B. & L.-Zeiss Tessar Lens, Series Ic, <i>f</i> .4.5, No. 14	100.50
With B. & L.-Zeiss Tessar Lens, Series IIb, <i>f</i> .6.3, No. 4	94.50
With Cooke Lens, Series IV, <i>f</i> .5.6, No. 25	98.00
Leather case for 1A Graflex, extra	7.00
Extra lens boards, each	.40





## THE 3A GRAFLEX

FOLMER'S PATENT FEBRUARY 5, 1907

**F**ILM simplicity and convenience combined with the Graflex idea have produced, in the 3A Graflex, a camera of remarkable utility. The added advantages of a daylight loading film arrangement in connection with the other recognized superior features of the Graflex Camera should really constitute the ideal hand camera. This, together with the consideration that no extra attachments are required, and that the film used,  $3\frac{1}{4} \times 5\frac{1}{2}$ , is of a standard size, obtainable anywhere, and of most beautiful proportions for hand camera work, leaves little to be desired for a complete, convenient and compact equipment.

The 3A Graflex Camera is designed to take 3A Kodak film, for pictures  $3\frac{1}{4} \times 5\frac{1}{2}$ . It is of the folding type, incorporating all the features of the regular Graflex, and on account of being an exclusive film, as well as folding type of camera, it is much more compact.

The regular Graflex Focal Plane Shutter, giving various instantaneous exposures from  $\frac{1}{10}$  to  $\frac{1}{1000}$  part of a second, and time exposures of any duration, is a part of this camera. It is also fitted with a safety device, preventing the re-winding of shutter while the mirror



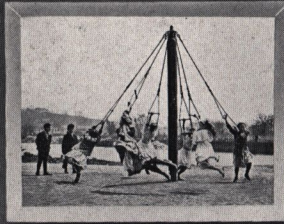
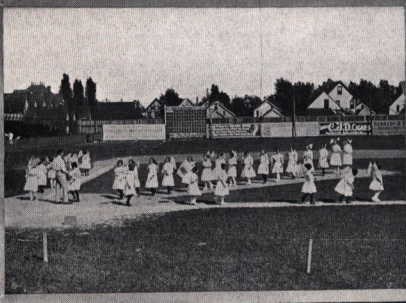


Exact size of picture made with the  $3\frac{1}{4} \times 5\frac{1}{2}$  3A Graflex

is up, thus eliminating the danger of fogging film. The front is drawn out on a platform similar to the ordinary folding camera. This platform is fitted with a metal track running in guide ways, which are carefully milled from thick brass. The track being wide and perforated in the center, affords extra lens space, thus gaining compactness. Focusing is done by a carefully adjusted rack and pinion. When the camera is closed the lens recedes into the body of the camera, swinging the mirror and bellows frame back into a very compact space.

The back is hinged and when opened affords easy access to the film spool compartments. The unexposed spool of film is placed in the film pocket on left side of camera, and held between two spring actuated centers. These centers are drawn out and turned to the right to lock, permitting the spool to be removed or a new one re-inserted. The receiving spool at right end engages the sliding center in the upper part of the compartment, the lower centers upon the web of the winding key. A hinged spring spool center in the bottom of the film compartment facilitates the removal of the exposed roll of film. The back is locked securely by means of a sliding bolt. The surplus space at either end of the camera is converted into storage pockets for extra spools of film.









The upper part of the focusing hood, which opens automatically when the cover of camera is raised, is shaped to fit the contour of the face, excluding all outside light and enabling the operator to focus perfectly.



3A Graflex Closed

The body of the camera is made from selected mahogany, thoroughly kiln-dried, lock-jointed, and covered with the best quality of Persian morocco. All exposed wood parts are ebonyized, and metal parts oxydized

in gun metal finish. Two tripod sockets are fitted.

The 3A Graflex when fitted with a No. 7 Series VIIa Zeiss Lens affords an ideal outfit, the camera having sufficient focal capacity to accommodate the doublet of  $6\frac{3}{8}$ -inch equivalent focus, as well as the front single combination, used in its normal position in front of the mount.

## Specifications

Dimensions . . .	$10\frac{1}{4} \times 5 \times 6\frac{7}{8}$	Weight . . .	$4\frac{1}{2}$ lbs.
Focal capacity . . .	10 inches	Size of lens board . . .	$3 \times 3$ inches
Minimum focus of lenses accommodated . . .		6 inches	

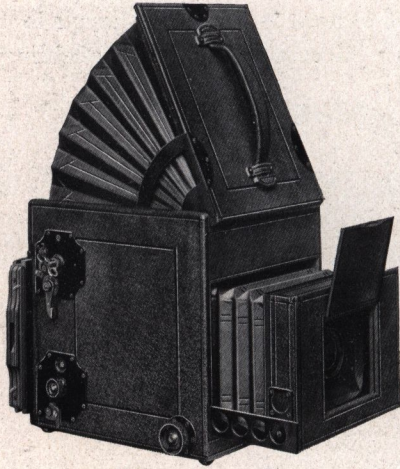
## Prices

3A Graflex without lens . . . . .	$8\frac{1}{4} \times 5\frac{1}{2}$
With Zeiss Kodak Lens, <i>f</i> .6.3, No. 4 . . . . .	\$ 75.00
With B. & L.-Zeiss Tessar Lens, Series IIb, <i>f</i> .6.3, No. 5a . . . . .	105.50
With B. & L.-Zeiss Tessar Lens, Series Ic, <i>f</i> .4.5, No. 15a . . . . .	125.50
With B. & L.-Zeiss Protar Lens, Series VIIa, <i>f</i> .6.3, No. 7 . . . . .	132.50
With Cooke Lens, Series IV, <i>f</i> .5.6, No. 27 . . . . .	141.50
With Cooke Lens, Series IIIa, <i>f</i> .6.5, No. 4 . . . . .	129.00
Leather case for 3A Graflex, extra . . . . .	114.50
Extra lens boards, each . . . . .	11.00
	.50

To insure proper fitting we recommend that cameras be bought from us complete with lenses as listed. We will not hold ourselves responsible for results with any of our cameras when lenses are not fitted by us.

When customers already own Anastigmat lenses and send them to us for fitting, a nominal charge will be made for the work.





## THE AUTO GRAFLEX

FOLMER'S PATENT FEBRUARY 5, 1907

**T**HE Auto Graflex, in general construction, conforms with the detail given on pages 6, 7 and 9.

In addition to the reflecting mirror, a supplementary mirror is provided. This mirror is placed on top of the focusing hood, and with it the camera may be used when reversed. It also allows the operator to hold the camera on a level with the eyes, or at a lower elevation.

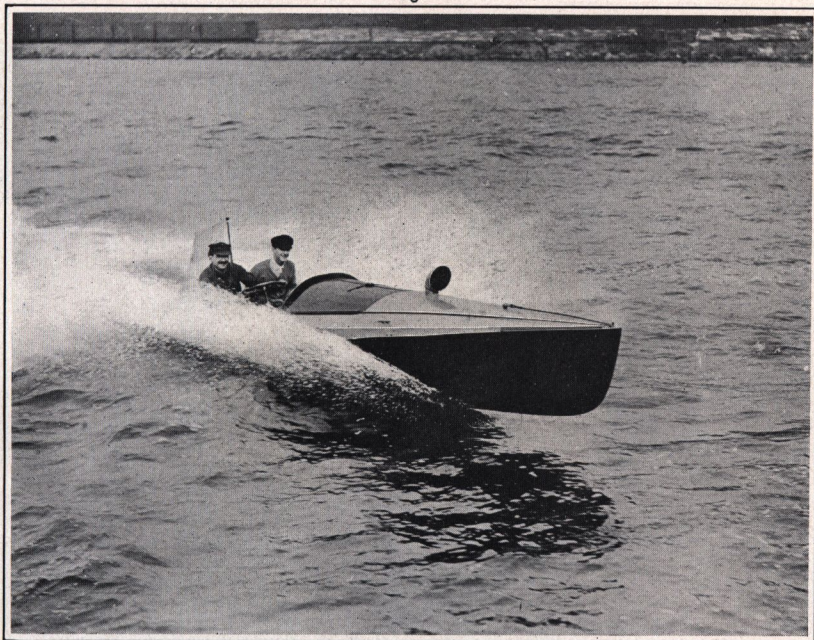
The regular Auto Graflex Focal Plane Shutter with safety device is a part of this camera. This shutter may be set at any speed, from time to  $\frac{1}{1000}$  of a second. Two tripod sockets are supplied.

A very unique arrangement on the Auto Graflex is the retaining device for holding in position the plate holder, Cartridge Roll Holder, or Film Pack Adapter. It is a sliding lock which is simple, quick and reliable in its operation.

The Auto Graflex will take either the Graflex Magazine Plate Holder, which may be loaded with twelve glass plates; the Cartridge Roll Holder, which permits of the use of daylight loading roll film; or the Film Pack Adapter, which takes the Film Pack.

To it may be fitted any of the well-known Anastigmat Lenses. These will be found listed on pages 51 and 52.





Exact size of picture made with  $3\frac{1}{4} \times 4\frac{1}{4}$  Auto Graflex



Exact size of picture made with  $4 \times 5$  Auto Graflex





The Auto Graflex—Continued



Exact size of picture made with 5 x 7 Auto Graflex





## The Auto Graflex—Continued

The Auto Graflex has surely established a new standard in camera construction. By the foremost photographers—professionals and amateur, both—it is accorded a superior position owing to its availability—the ability to do with it a range of work not possible with any other type of camera.

The Auto Graflex is offered in three sizes,  $3\frac{1}{4} \times 4\frac{1}{4}$ ,  $4 \times 5$  and  $5 \times 7$ .



Auto Graflex Closed

## Specifications

	$3\frac{1}{4} \times 4\frac{1}{4}$	$4 \times 5$	$5 \times 7$
Dimensions when closed	$6\frac{1}{4} \times 5\frac{3}{8} \times 6\frac{3}{4}$	$7\frac{1}{8} \times 6\frac{1}{8} \times 7\frac{3}{8}$	$9\frac{1}{4} \times 8\frac{1}{4} \times 9\frac{1}{2}$
Focal capacity	7 inches	$8\frac{1}{2}$ inches	12 inches
Weight	$3\frac{1}{2}$ lbs.	$4\frac{3}{4}$ lbs.	8 lbs.
Size of lens board	$2\frac{3}{4} \times 2\frac{3}{4}$ inches	$3 \times 3$ inches	$4 \times 4$ inches
Minimum focus of lenses accommodated	$5\frac{1}{2}$ inches	6 inches	$7\frac{1}{4}$ inches

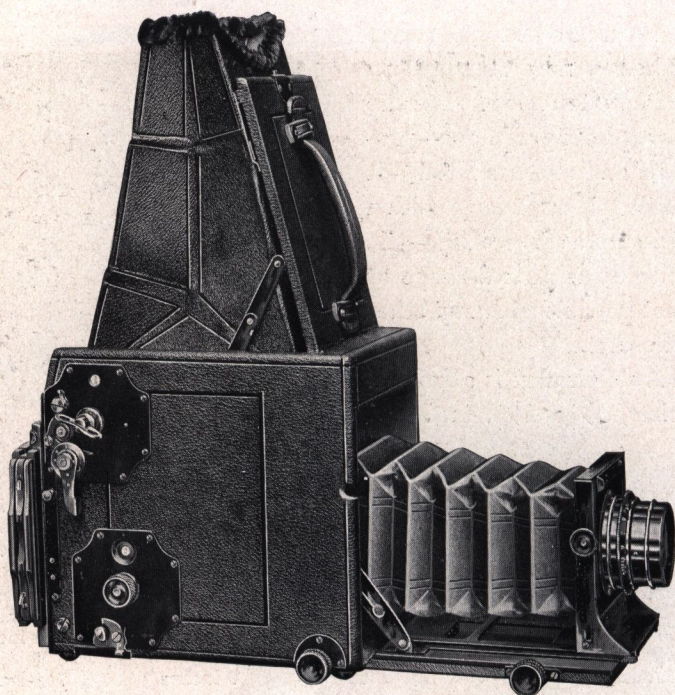
## Prices

	$3\frac{1}{4} \times 4\frac{1}{4}$	$4 \times 5$	$5 \times 7$
Auto Graflex without lens, including one double holder	No. 2 \$ 60.00	No. 3 \$ 75.00	No. 5 \$ 90.00
With Zeiss Kodak Lens, <i>f</i> .6.3	No. 2 82.00	No. 3 102.00	No. 5 130.00
With B. & L.-Zeiss Tessar, Series IIb, <i>f</i> .6.3	No. 4 94.50	No. 5 111.00	No. 6 151.50
With B. & L.-Zeiss Tessar, Series Ic, <i>f</i> .4.5	No. 14 100.50	No. 15 122.00	No. 16 162.00
With Cooke, Series IV, <i>f</i> .5.6	No. 25 98.00	No. 26 118.00	No. 27 144.00
Graflex magazine plate or cut film holder, extra	13.00	13.00	15.00
Film Pack Adapter, leather covered, extra	4.50	5.00	7.50
Cartridge Roll Holder, leather covered, extra	7.50	7.50	10.00
Leather case for camera and Film Pack Adapter, with lock and key	10.00	11.00	13.00
Leather case, for six plate holders, with lock and key	5.00	6.00	9.00
Leather case for camera and magazine plate holder or roll holder	11.50	12.50	15.00
Extra Graflex plate holders, each	2.50	2.50	3.50
Extra lens boards, each	.50	.60	.70

To insure proper fitting, we recommend that cameras be bought from us complete with lenses as listed. We will not hold ourselves responsible for results with any of our cameras when lenses are not fitted by us.

When customers already own Anastigmat lenses and send them to us for fitting, a nominal charge will be made for the work.





## THE REVOLVING BACK AUTO GRAFLEX

FOLMER'S PATENT FEBRUARY 5, 1907, AND JUNE 8, 1909

**T**HE Revolving Back Auto Graflex is fitted with revolving back, so that vertical or horizontal pictures may be taken without turning the camera on its side. This revolving or turn-table back is so constructed that there is no danger of fogging the plate or film while reversing it from one position to another with the slide drawn.

A detailed description of the reflecting mirror will be found on page 6. On account of the mirror being longer, in order to intercept the cone of light for vertical as well as horizontal plate, it makes the body of the camera a trifle longer than that of the regular Auto Graflex. The front bed being fitted with a telescopic rack allows the front to be drawn out beyond the edge of platform, giving extreme bellows capacity. The fitting of two focusing pinions, one on the body of the camera and another on the front platform,





The Revolving Back Auto

Graflex—Continued



Exact size of picture made with a 4x5 Revolving Back Auto Graflex

allows the main bed to be dropped out of the cone of light when using lenses of short or medium focus, the focus in this case being adjusted by using the rear pinion. Where long focus or single combinations of convertible lenses are used, the forward pinion on platform permits the front of camera being racked a considerable distance beyond forward edge of platform.

The new form of rising front is introduced in this camera, permitting full rise of front regardless of position of bellows, as when front of camera is racked in as far as it will go the entire bellows will rise, the bellows frame sliding in grooves.





### The Revolving Back Auto

#### Graflex—Continued

The metal lens board support is riveted to the telescopic bed, affording a front of extreme rigidity and insuring perfect parallelism of front board and focal plane of camera.



Revolving Back Auto Graflex Closed

The focusing hood, being of the collapsible folding type similar to that supplied with the 3A Graflex, affords a comfortable reading distance, and permits accurate focusing. By pressing the small



Revolving Back Auto Graflex

release catch near end of handle, the camera is opened, when the hood automatically comes into position for focusing.

The regular Auto Graflex Focal Plane Shutter with safety device





## The Revolving Back Auto

### Graflex—Continued

preventing re-adjusting of shutter before setting mirror, thus preventing fogging the plate or film, is fitted to this camera as on all other Graflex Cameras. For further details regarding the shutter see pages 43 and 44.

The Revolving Back Long Focus Auto Graflex Camera is made in two sizes,  $3\frac{1}{4} \times 4\frac{1}{4}$  and  $4 \times 5$ , with sufficient draw of bellows to accommodate the single elements of a No. 10 Series VIIa Zeiss Convertible Lens fitted to the  $3\frac{1}{4} \times 4\frac{1}{4}$ , and No. 13 Series VIIa fitted to the  $4 \times 5$ .

## Specifications

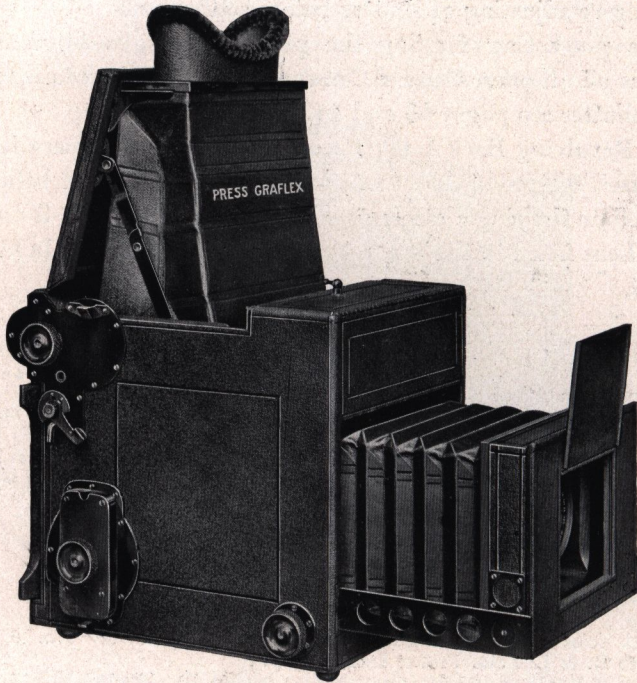
Dimensions when closed . . . . .	$8\frac{1}{4} \times 5\frac{1}{2} \times 7\frac{1}{2}$	$9\frac{1}{2} \times 6\frac{1}{8} \times 8\frac{1}{2}$
Focal capacity . . . . .	15 inches	18 inches
Weight . . . . .	5 lbs.	6 $\frac{3}{4}$ lbs.
Size of lens board . . . . .	$3 \times 3$ inches	$3\frac{3}{4} \times 3\frac{3}{4}$ inches
Minimum focus of lenses accommodated . . . . .	$6\frac{3}{4}$ inches	$7\frac{3}{4}$ inches

## Prices

	$3\frac{1}{4} \times 4\frac{1}{4}$	$4 \times 5$
Revolving Back Long Focus Auto Graflex, without lens, including one double plate holder . . . . .	No. 5 \$110.00	No. 6 \$125.00
Fitted with Zeiss Kodak Anastigmat Lens . . . . .	No. 10 190.50	No. 13 230.00
Fitted with B. & L.-Zeiss Protar Lens, Series VIIa . . . . .	No. 15a 167.50	No. 17 240.50
Fitted with B. & L.-Zeiss Tessar Lens, Series Ic . . . . .	No. 5a 160.50	No. 7 208.00
Fitted with B. & L.-Zeiss Tessar Lens, Series IIb . . . . .	No. 5 158.50	No. 7 216.00
Fitted with Cooke Lens, Series IIIa . . . . .	No. 27 164.00	No. 27 $\frac{1}{2}$ 205.00
Fitted with Cooke Lens, Series IV . . . . .	13.00	13.00
Graflex magazine plate or cut film holder, extra . . . . .	4.50	5.00
Film Pack Adapter, leather covered, extra . . . . .	7.50	7.50
Cartridge Roll Holder, leather covered, extra . . . . .	11.00	12.00
Leather case for camera and Film Pack Adapter, with lock and key . . . . .	5.00	6.00
Leather case for six plate holders, with lock and key . . . . .	12.00	14.00
Leather case for camera and magazine plate holder or roll holder . . . . .	2.50	2.50
Extra Graflex plate holders, each . . . . .	.60	.70
Extra lens boards . . . . .		







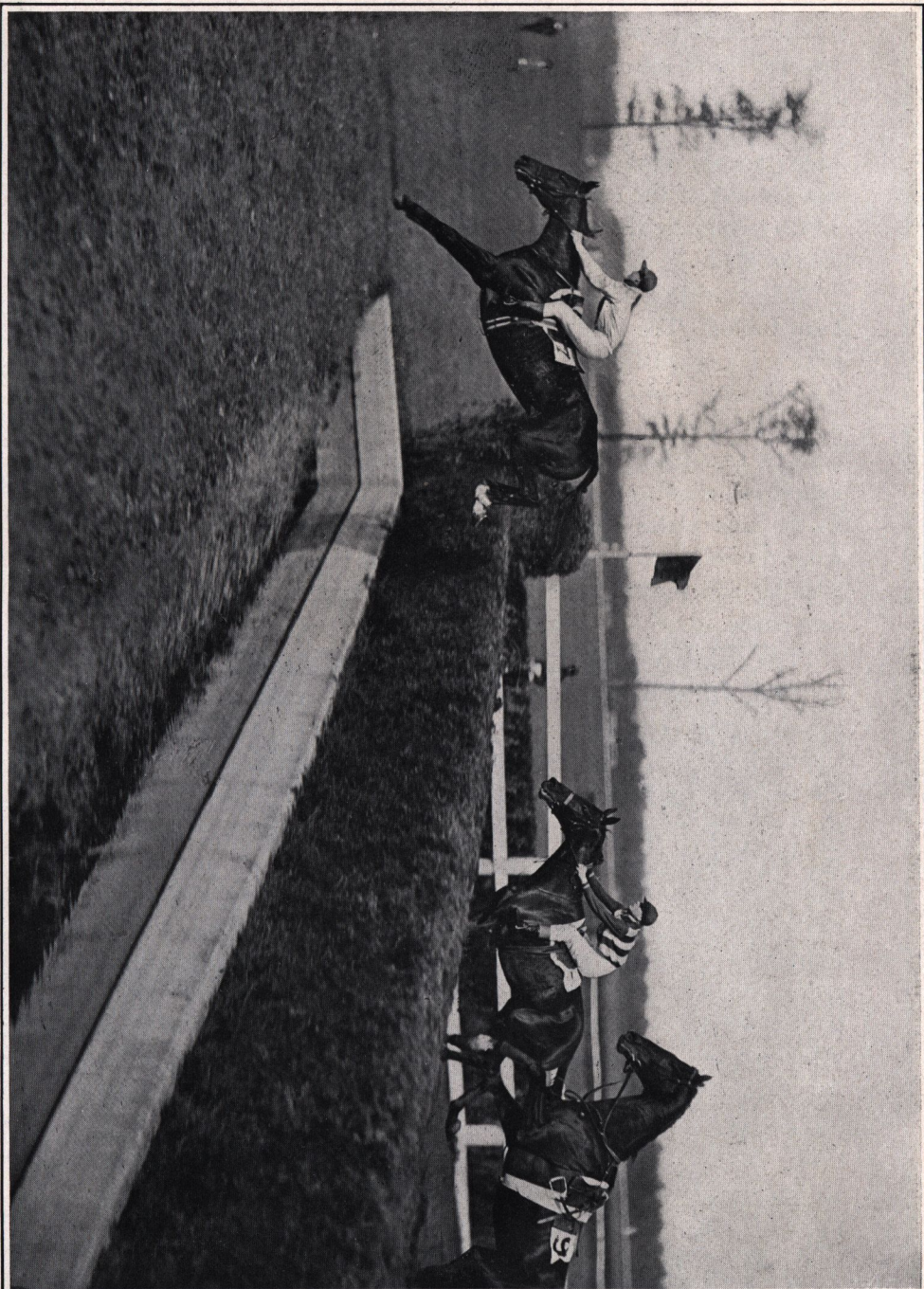
## THE PRESS GRAFLEX

FOLMER'S PATENT FEBRUARY 5, 1907, AND JUNE 8, 1909

**T**HERE is probably no one that subjects a camera to such strenuous usage, or demands as much of a photographic equipment, as does the newspaper photographer, and the fact that the Press Graflex is being used by a large majority of the successful press photographers attests its wonderful advantages in this most exacting field.

The Press Graflex is made in the 5 x 7 size only, and is of the non-reversible type. It is fitted with two tripod screw plates and may be used on a tripod in either a horizontal or vertical position. The telescopic side arms are made long enough to give 14-inch focal capacity, and the new Press Focal Plane Shutter which carries the curtain roller back of the focal plane allows this camera to accommodate lenses from  $7\frac{3}{4}$ -inch to 14-inch equivalent focus, permitting a wide range of lenses for confined situations, or the use of long-focus lenses for track or field work. The minimum focus of lens which the Press Graflex will take is  $7\frac{3}{4}$  inches.





Exact size of picture made with the 5 x 7 Press Graflex





The tension roller is operated by a clock spring, which may be speeded up to  $\frac{1}{1500}$  part of a second, or lowered to  $\frac{1}{5}$  of a second. Slow instantaneous exposures can be made by setting the curtain aperture index at "O," handling the camera the same as for regular instantaneous work; the mirror opens the exposure as it swings upward out of the cone of light, automatically tripping the curtain which terminates the exposure. Time exposures of any duration can also be made.

The curtain is wound by one complete turn with a large milled head button. The number indicating size of the exposing aperture, reflected upward by a right-angle prism, is always in full view of the operator, obviating the necessity of turning the camera on its side. The curtain of the Focal Plane Shutter being of the Auto type, is re-enforced with tape edges, with struts of three-ply stock, which will stand any high-speed work. The curtain roller bearings in the side plates are bushed, giving longer bearings. These are more durable and cause less friction than the ordinary kind. The winding and releasing mechanism of the shutter is made of steel, case hardened, which will stand the strain of high-speed work.

The focusing hood is large and spacious, giving a full view of the field, with a complete eye shield fitting the contour of the face, permitting the operator to view the image on the focusing screen, right-side up, with the greatest ease. The camera is opened ready for focusing by pressing a small lever placed conveniently near the right thumb, when carrying the camera. The cover operating the focusing hood is likewise opened automatically, and the construction of this cover is such that the camera may be carried ready for use while it is open. The lens cover opens automatically the moment the front is racked out. Tension springs bearing against the side arms prevent the front of the camera from moving back or forth when the camera is held in an inclined position. The camera is provided with a large lens board and ample lens space to accommodate Anastigmat lenses.

A detachable, spring-actuated ground-glass panel holds the plate holder or film pack adapter in place.

This panel may be detached whenever the Graflex Magazine Plate Holder or Graflex Cartridge Roll Holder is used, and may be employed for focusing when the camera is on a tripod or in an elevated position.





## Specifications

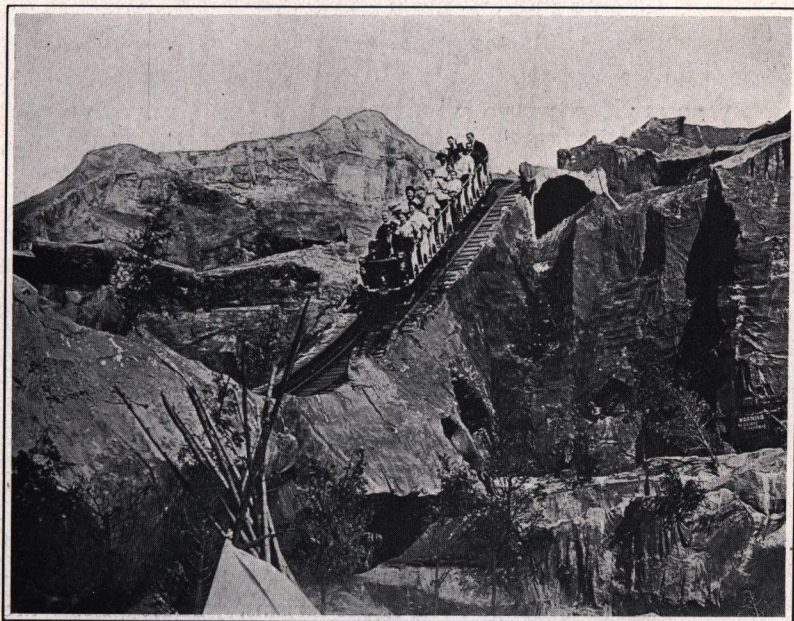
Dimensions . . . . .	11 x 8 $\frac{3}{8}$ x 9 $\frac{3}{4}$
Focal capacity . . . . .	14 inches
Weight . . . . .	10 $\frac{1}{2}$ lbs.
Size of lens board . . . . .	4 x 4 inches
Minimum focus of lenses accommodated . . . . .	7 $\frac{3}{4}$ inches

## Prices

Press Graflex without lens, including one double plate holder . . . . .	5 x 7 \$110.00
With Zeiss Kodak Lens, <i>f</i> .6.3, No. 5 . . . . .	150.00
With B. & L.-Zeiss Tessar Lens, Series IIb, <i>f</i> .6.3, No. 6 . . . . .	171.50
With B. & L.-Zeiss Tessar Lens, Series Ic, <i>f</i> .4.5, No. 16 . . . . .	182.00
With B. & L.-Zeiss Protar Lens, Series VIIa, <i>f</i> .6.3, No. 13 . . . . .	215.00
With Cooke Lens, Series II, <i>f</i> .4.5, No. 22 . . . . .	167.50
With Cooke Lens, Series IV, <i>f</i> .5.6, No. 27 . . . . .	164.00
Graflex magazine plate or cut film holder, extra . . . . .	15.00
Film Pack Adapter, leather covered, extra . . . . .	7.50
Cartridge Roll Holder, leather covered, extra . . . . .	10.00
Leather case for camera and plate holder or adapter attached, with lock and key . . . . .	16.00
Leather case for six plate holders, with lock and key . . . . .	9.00
Extra Graflex holders, each . . . . .	3.50
Extra lens boards, each . . . . .	.75

To insure proper fitting, we recommend that cameras be bought from us complete with lens as listed. We will not hold ourselves responsible for results with any of our cameras when lenses are not fitted by us.

When customers already own Anastigmat lenses and send them to us for fitting, a nominal charge will be made for the work.







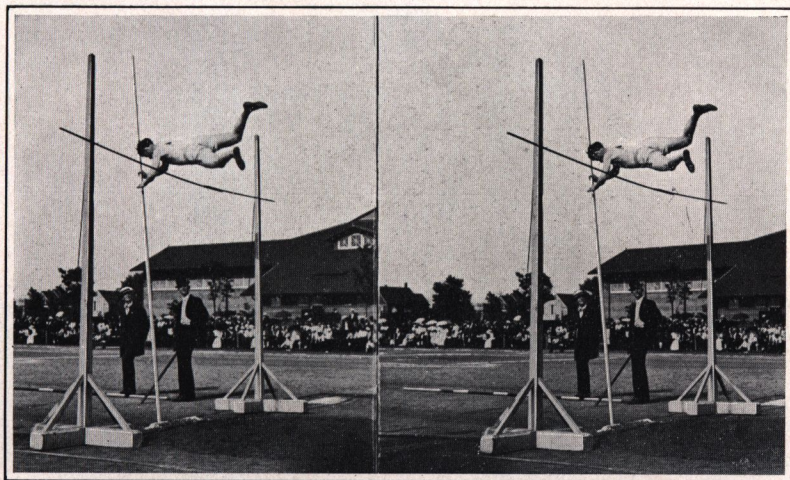
## THE STEREO AUTO GRAFLEX

FOLMER'S PATENT FEBRUARY 5, 1907

THE beauty of stereoscopic pictures and the fascination of producing them with a thoroughly modern equipment, is being more and more appreciated by an increasing number of photographers. This accounts for the growing popularity of the finest outfit ever made for stereo work — the Stereo Auto Graflex.

The Stereo Auto Graflex Camera is a counterpart of the regular Graflex in stereo form. This camera is constructed with a wide front to carry a matched pair of lenses for the production of stereoscopic pictures. It differs entirely from any other form of stereo camera, not only in its unique design and perfect adjustment, but in the method of focusing. The hood at the top is practically a stereoscope, as it contains a pair of stereo prisms. These prisms are





arranged to give the stereoscopic effect when focusing, as the operator sees but one image on the ground-glass screen — right side up — not inverted. The object is viewed just as one would see the finished stereogram through a stereoscope. A rising front operated by a rack and pinion enables the operator to cut off the foreground when desired. The stereo partition is a part of the camera and is not removable.

## Specifications

Dimensions, when closed	8¼ x 9 x 8¾
Focal capacity	8 inches
Weight	8 lbs.
Size of lens board	3 x 5¾
Minimum focus of lenses accommodated	6¼ inches

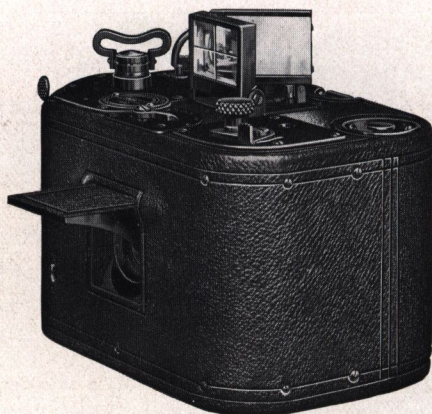
## Prices

Stereo Auto Graflex without lenses, including one double plate holder	\$200.00
With matched pair Zeiss Kodak Lenses, <i>f</i> .6.3, No. 3	254.00
With matched pair B. & L.-Zeiss Tessar, Series IIb, <i>f</i> .6.3, No. 5	272.00
Graflex magazine plate or cut film holder, extra	15.00
Film Pack Adapter, leather covered, extra	7.50
Cartridge Roll Holder, leather covered, extra	10.00
Leather case for camera and Film Pack Adapter, with lock and key	13.00
Leather case for six plate holders, with lock and key	9.00
lock and key	15.00
Extra Graflex plate holders, each	3.50
Extra lens boards, each	2.00

To insure proper fitting we recommend that cameras be bought from us complete with lenses as listed. We will not hold ourselves responsible for results with any of our cameras when lenses are not fitted by us.

When customers already own Anastigmat lenses and send them to us for fitting, a nominal charge will be made for the work.





## THE NO. 0 GRAPHIC CAMERA

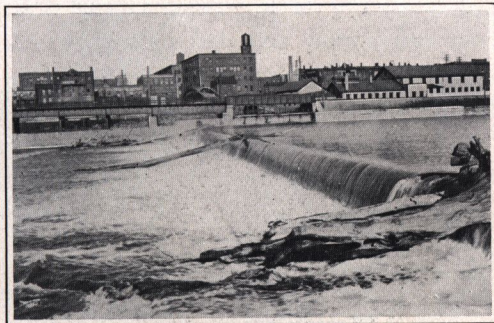
**I**N presenting the No. 0 Graphic we introduce a type of camera that is radically different from any other photographic instrument and possessing advantages that will at once appeal to photographic workers requiring a camera of the smallest possible size, extreme efficiency and, at the same time, so simple in operation that the merest novice in photography will secure the greatest possible percentage of perfect results. Briefly, the No. 0 Graphic is a high grade, fixed or universal focus film camera, fitted with a high speed Anastigmat lens and Graflex Focal Plane Shutter.

It is needless to elaborate on the advantages of a universal focus camera, one that does not have to be set or adjusted for varying distances, and is always in focus; nor is it necessary to enumerate the manifold advantages of the Graflex Focal Plane Shutter, especially when used in conjunction with a high speed Anastigmat lens such as is supplied with the No. 0 Graphic. When these advantages are considered with the fact that this camera uses a standard size of regular Kodak Film, it will be instantly seen that the No. 0 Graphic embodies a higher degree of efficiency than has ever been secured in a fixed focus camera.

The body of the No. 0 Graphic is made of selected mahogany and aluminum covered with the best quality of Morocco leather.

The lens is the Zeiss Kodak Anastigmat  $f.6.3$ , having a focal length of three inches. The diaphragm is controlled from the outside of the camera by a unique mechanical device, the lens opening being plainly shown on a dial on the top of the instrument.





Exact size of picture made with No. 0 Graphic Camera

The well known Auto Graflex Focal Plane Shutter is part of the No. 0 Graphic. This shutter has three apertures for instantaneous exposures —  $\frac{1}{4}$ ,  $\frac{3}{4}$  and  $1\frac{1}{2}$  inches, giving a range of instantaneous exposures from  $\frac{1}{10}$  to  $\frac{1}{500}$  of a second, and one full opening for time exposures of any duration. The tension on the shutter spring is adjustable, regulating the speed of exposure. A speed table indicates the exposure speeds with varying tensions and the different curtain apertures.

An automatic sky-shade prevents the strong sky rays from creating halation and serves the purpose of an automatic cap, which closes, blocking the light while the curtain is being re-set. When it is necessary to give time exposures the shade may be locked open.

A specially constructed folding sight finder is provided, recording approximately the field covered by the lens when the camera is held on a level with the eyes at normal reading distance. A small metal bound reflecting mirror provided with dowel pins is supplied with each camera, and by adjusting this mirror in position on the finder, the outfit is converted into a deceptive angle camera permitting photographs to be taken at right angles to the line of vision.

The shutter winding key is conveniently placed at the right of the camera, register dial showing the curtain aperture in position for exposure.

Should it be necessary to use a larger shutter opening than that indicated on the dial, pressure on a small button located near the winding key brings the next larger shutter opening into position without danger of exposing the film, as the button releases the shutter without opening the sky-shade or automatic lens cover.

The No. 0 Graphic takes the regular No. 0 F. P. Kodak Film





The No. 0 Graphic Camera

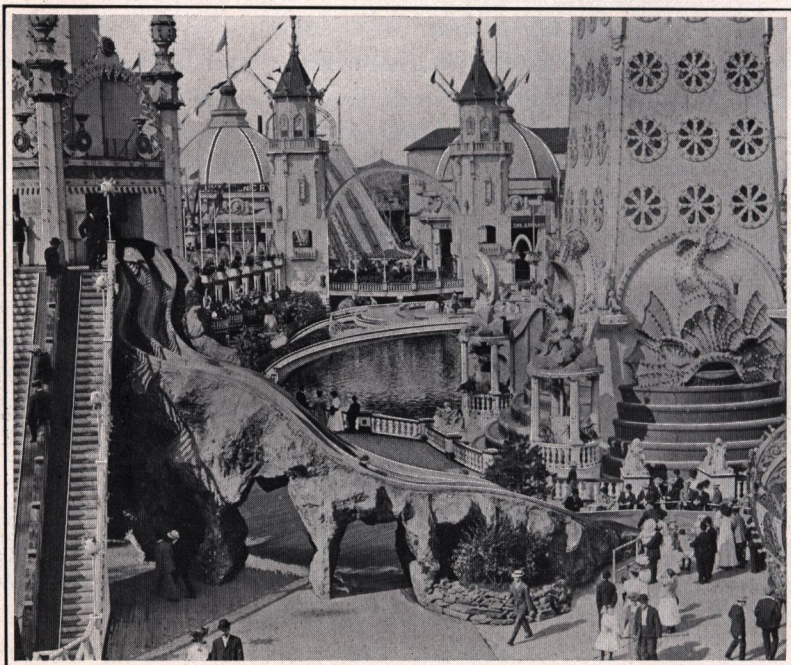
— Continued

for pictures  $1\frac{5}{8} \times 2\frac{1}{2}$  inches, the film spool being adjusted between two spring actuated centres, which upon being drawn out and given a slight turn to the right, lock in position, permitting the film spool to be placed in position or removed; a turn to the left will allow the centres to spring forward and engage the spool ends. A small tension spring fitted in the film pocket creates sufficient drag to draw the film taut, and affords perfect register of focal plane.

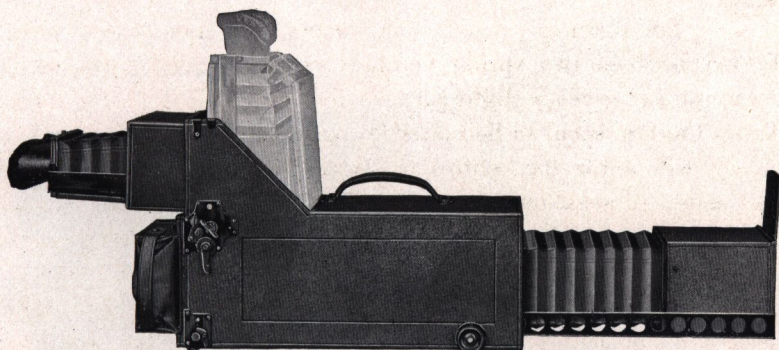
Every part of the No. 0 Graphic is adjusted with micrometer precision. The lens is of the best possible type for the work for which it is intended. The shutter is rapid enough for exposures of extremely short duration. This, together with the fact that every part of the picture is in perfect focus, makes it possible to enlarge the pictures to post-card size, or larger, and still retain perfect definition and brilliancy.

### Specifications

Dimensions	. . . . .	$5 \times 3\frac{1}{2} \times 3\frac{1}{4}$
Weight	. . . . .	25 oz.
Price	. . . . .	\$50.00
Sole leather carrying case	. . . . .	5.00







## THE NATURALISTS' GRAFLEX

FOLMER'S PATENT FEBRUARY 5, 1907

**T**HE Naturalists' Graflex Camera is designed especially for naturalists' work in photographing birds, wild animals, or similar subjects where long-focus or tele-photo lenses are required.

The camera in general design and construction is similar to the regular Auto Graflex, but the increased length of camera accommodates much longer side arms. These arms are made of heavy brass, giving a liberal extension, yet maintaining absolute rigidity. The focus is obtained by reflection on the upper mirror, and enables the operator to conceal himself behind a stone or log and focus from the rear of the camera without exposing too much of his person, as would be the case in using the ordinary type of Graflex Camera.

The focusing hood is hinged so that it will swing up, permitting the operator to view the image in the same way as with the Press Graflex.

The Naturalists' Graflex will accommodate lenses of from  $12\frac{3}{4}$  to 26 inches equivalent focus, and is fitted with the regular Graflex Focal Plane Shutter.

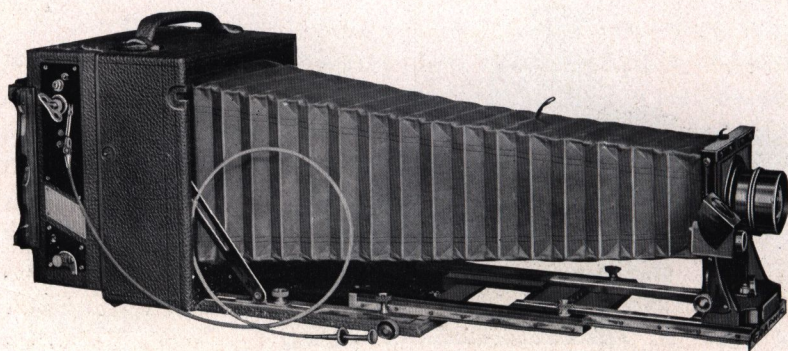
### *Specifications*

Dimensions . . .	$19 \times 6\frac{1}{4} \times 9\frac{3}{4}$	Weight . . .	7 $\frac{1}{2}$ lbs.
Focal capacity . . .	26 inches	Size of lens board . . .	4 x 4 inches
Minimum focus of lenses accommodated . . .			12 $\frac{3}{4}$ inches

### *Prices*

Naturalists' Graflex without lens, including one double plate holder . . .	\$190.00
With B. & L.-Zeiss Protar Lens, Series VIIa, No. 19, <i>f</i> .6.3 . . .	376.00
B. & L. High Power, Tele-Photo Attachment, extra . . .	24.00
Graflex magazine plate or cut film holder, extra . . .	13.00
Film Pack Adapter, leather covered, extra . . .	5.00
Extra Graflex holders, each . . .	2.50



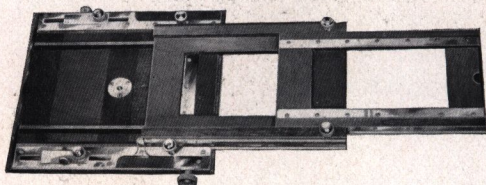


## THE REVOLVING BACK CYCLE GRAPHIC

**I**N keeping with the desire to continue to maintain for the Cycle Graphic its reputation as the foremost camera of its type, several very valuable improvements have been added. The new revolving back and the new adjustment for raising and lowering the front are the most notable.

Lenses working at a large aperture are necessarily much larger than those having a slower speed. The Graphic cameras are constructed with a view to accommodating lenses of this type, an especially large and rigid front being provided to accept the largest Anastigmats.

The rigidity of the Graphic—due to the most careful, accurate and thorough construction ever incorporated in photographic apparatus—is still a Graphic feature which will bear particular emphasis, and it is one of the features which has given the Graphic its prestige with scientific and advanced photographic workers.



Cycle Graphic Bed extended

To allow the use of long-focus lenses, sufficient bellows capacity is provided. The front runs out on telescopic framed tracks, re-enforced by angle brass guides with milled head binding screws, which lock the bed rigidly in place. These extension tracks being in the form of frames allow extra large





## The Revolving Back Cycle

### Graphic — Continued

lens space when closed. The construction of these tracks affords a wider base for the lens support and prevents any lateral

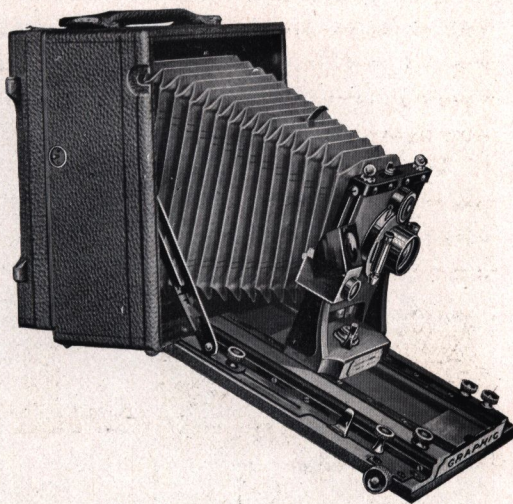


Rear of Cycle Graphic showing  
Revolving Back

or oscillating movement, thus rendering the Cycle Graphic particularly adaptable for tele-photo or any other extremely accurate work. Cycle Graphics will take, if desired, lenses two or more sizes larger than the plate really calls for. The front is clamped with a wide base block and heavy bolt, likewise insuring the utmost rigidity and also strength. There is also a fine rack and pinion for accurate focusing, operated by a large milled head button.

The swing back is secured by an adjustment of the side arms running in a slotted plate on the platform and locked by means of milled head binding screws.

The revolving back involves the same principle as that employed in the Revolving Back Graflex. It consists of a cupped-up plate turntable carrying a frame fitted to receive the regular ground glass back carriage or the Graflex Focal Plane Shutter. It may be turned instantly from horizontal to vertical or to any intermediate position. The revolving back is fitted to all Graphic Cameras except the 8 x 10.



Cycle Graphic showing Drop Bed  
arrangement

The new rising and falling front mechanism, by means of which the front may be raised or lowered to any desired position, is at the same time a lock in itself. No further locking device or binding screws are required.

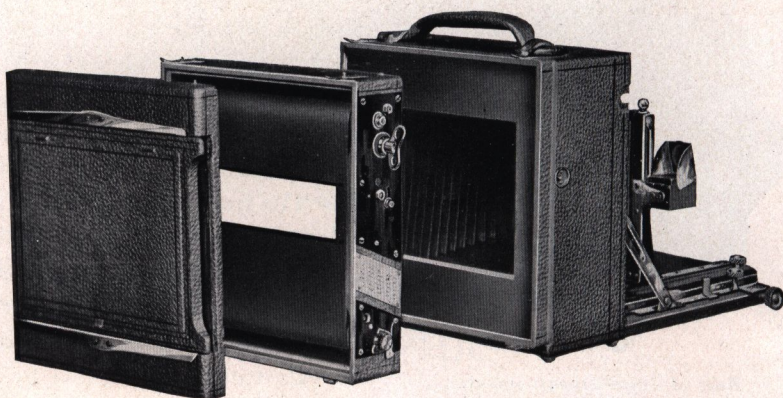




### The Revolving Back Cycle

#### Graphic—Continued

The Cycle Graphic is constructed of the best quality selected stock, lock jointed, and covered with handsome black grained leather. The bellows is of the finest quality red Russia leather.



Cycle Graphic showing Revolving Back and Graflex Focal Plane Shutter detached

A brilliant view finder, with hood, is attached to the front, moving with it while focusing. The lens board is removable. The Revolving Back Cycle Graphic is listed with the well-known Anastigmat lenses, and to complete an outfit of this kind, the Graflex Focal Plane Shutter is quite indispensable, if it is desired to secure the very best results that can be had with a lens of this type. When the Graflex Shutter is ordered as a part of this outfit no extra charge is made for fitting, and a carrying case which will hold the camera with Focal Plane Shutter attached, is supplied in place of the regular case without extra charge.







The Revolving Back Cycle

Graphic — *Continued*

## Specifications

	4 x 5	5 x 7	6½ x 8½	8 x 10
Dimensions	6⅞ x 4 x 7⅞	8¾ x 4¾ x 9¼	10⅜ x 4½ x 10⅜	12 x 5 x 12
Focal capacity	17 inches	22½ inches	26 inches	30 inches
Weight	3¾ lbs.	6¼ lbs.	7½ lbs.	10½ lbs.
Size of lens board	2½ x 2½ in.	3⅛ x 3⅛ in.	4⅛ x 4⅛ in.	4½ x 4½ in.

## Prices

Including one double plate holder and sole leather carrying case.

Revolving Back Cycle Graphic with Graphic Rapid Rectilinear Lens and Automatic Shutter	4 x 5 \$ 40.00	5 x 7 \$ 50.00	6½ x 8½ \$ 62.00	8 x 10* \$ 75.00
With Zeiss Kodak Anastigmat Lens and Volute Shutter	No. 3 78.30	No. 5 102.30	No. 6 122.70	
With Zeiss Kodak Anastigmat Lens and Compound Shutter	No. 3 77.55	No. 5 100.05	No. 6 124.20	
With B. & L.-Zeiss Protar Lens, Series VIIa, and Volute Shutter	No. 7 117.80	No. 10 142.80	No. 13 173.70	No. 17 247.50
With B. & L.-Zeiss Protar Lens, Series VIIa, and Compound Shutter	No. 7 117.05	No. 10 140.55	No. 13 175.20	No. 17 249.50
With Cooke Lens, Series III, and Volute Shutter	No. 4d 90.80	No. 6d 115.30	No. 6½d 143.70	No. 8 198.50
With Cooke Lens, Series III, and Compound Shutter	No. 4d 88.30	No. 6d 116.80	No. 6½d 145.20	No. 8 200.50
Extra plate holders, each	1.00	1.25	1.75	2.00
Graflex Focal Plane Shutter, extra	22.00	24.00	27.00	31.00

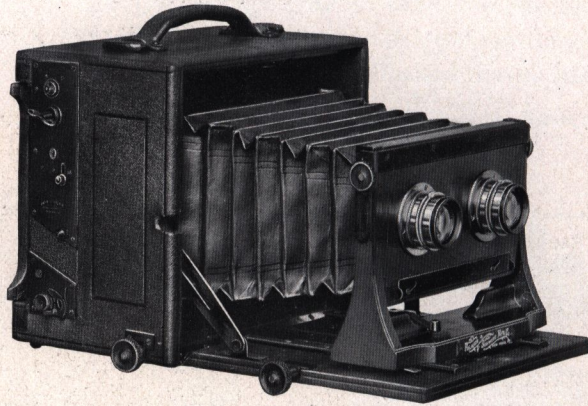
\*Furnished with reversible back only.

To insure proper fitting, we recommend that cameras be bought from us complete with lenses as listed. We will not hold ourselves responsible for results with any of our cameras when lenses are not fitted by us.

When customers already own Anastigmat lenses and send them to us for fitting, a nominal charge will be made for the work.







## THE STEREOSCOPIC GRAPHIC

*With Auto Graflex Shutter*

FOLMER'S PATENTS NOVEMBER 5, 1901; FEBRUARY 5, 1907.

**T**HE Stereoscopic Graphic represents the highest type of folding stereo camera. It is constructed of selected, kiln-dried mahogany, highly finished and covered with the best quality black grained leather. All metal parts are oxydized in gun metal finish.

The front platform is attached to the box by a heavy piano hinge with short knuckles, extending full length of the camera, giving great strength when the camera is opened. The platform drops out of the way, for use with lenses of short focus.

The front is securely fastened to a wide track of hard milled brass, preventing oscillation and side movement when the camera is racked out. Focus is adjusted by rack and pinion.

An extra pinion is set in the body of the camera for use with wide angle lenses when the front platform is dropped. The front adjusts for sky and foreground. Length of bellows is twelve inches.

The Auto Graflex Focal Plane Shutter is incorporated with and forms a part of the camera, and is a feature of the outfit. (See description, page 43.)

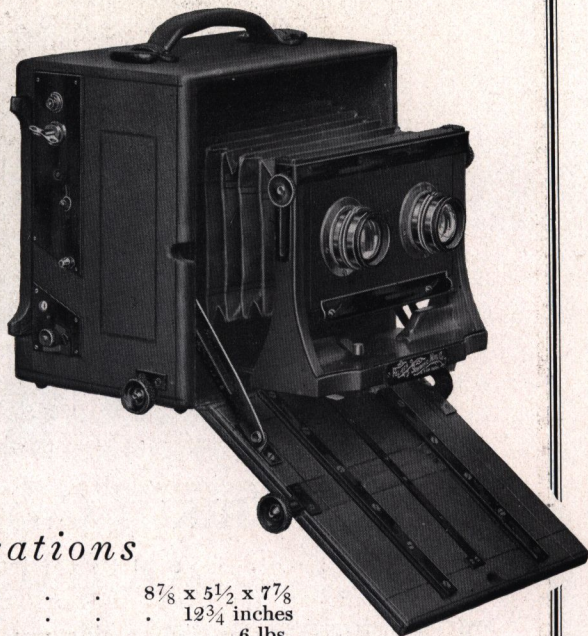
Our special spring roller partition automatically adjusts itself to lenses of any focal length, as the front is racked in and out. A removable, spring-actuated ground-glass focusing screen is fitted to camera and a large hinged focusing panel, with side shields, gives





full view of the screen. The regular lenses are a pair of Graphic Rapid Rectilinear, of just the right focus to include a pleasing angle of view. They may be used to advantage for architectural subjects and views—in fact, they answer every purpose for general stereo photography, when the high-grade Anastigmat form of lens is not desired.

By removing the stereo partition and replacing the stereo lenses with a regular lens, the camera can be used to excellent advantage for 5x7 work.



## Specifications

Dimensions when closed	8 $\frac{7}{8}$ x 5 $\frac{1}{2}$ x 7 $\frac{7}{8}$
Focal capacity	12 $\frac{3}{4}$ inches
Weight	6 lbs.
Size of lens board	3 $\frac{1}{8}$ x 6 $\frac{1}{2}$ inches
Minimum focus of lenses accommodated	3 inches

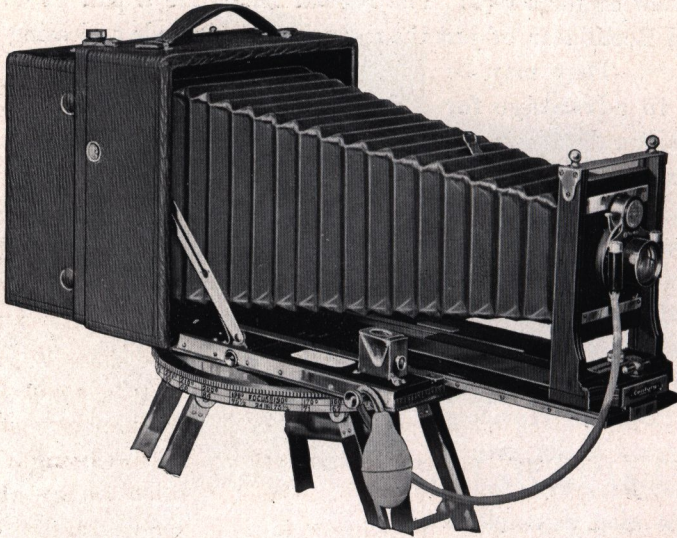
## Prices

Stereoscopic Graphic without lenses, including one double plate holder	\$ 80.00
Stereoscopic Graphic with matched Graphic Rectilinear Lenses	100.00
Stereoscopic Graphic with matched Zeiss Kodak Anastigmat Lenses, No. 3, <i>f</i> .6.3	134.00
Stereoscopic Graphic with matched B. & L.-Zeiss Tessar Lenses IIb, No. 4, <i>f</i> .6.3	149.00
Stereoscopic Graphic with matched B. & L.-Zeiss Protar Lenses VIIa, No. 7, <i>f</i> .6.3	213.00
Stereoscopic Graphic with matched B. & L.-Zeiss Plastigmat Lenses, No. 2, <i>f</i> .6.8	160.00
Stereoscopic Graphic with matched B. & L.-Zeiss Protar Lenses V, No. 1	126.00
With matched Cooke Lenses, Series III, No. 3 $\frac{1}{2}$ , <i>f</i> .6.5	155.00
Extra for Zeiss Kodak Anastigmat Lens No. 5, <i>f</i> .6.3, for full-size plate	40.00
Extra for B. & L.-Zeiss Protar Lens, Series VIIa, No. 10, <i>f</i> .6.3 for full-size plate	80.50
Leather carrying case, extra	10.00
Graphic plate holders, extra	1.25

To insure proper fitting, we recommend that cameras be bought from us complete with lenses as listed. We will not hold ourselves responsible for results with any of our cameras when lenses are not fitted by us.

When customers already own Anastigmat lenses and send them to us for fitting, a nominal charge will be made for the work.





## THE CIRKUT CAMERAS AND OUTFITS

**D**ESIGNED for the specific purpose of making panoramic pictures, it is now generally conceded that not alone does the Cirkut Camera perform that work, but that it performs it wonderfully well.

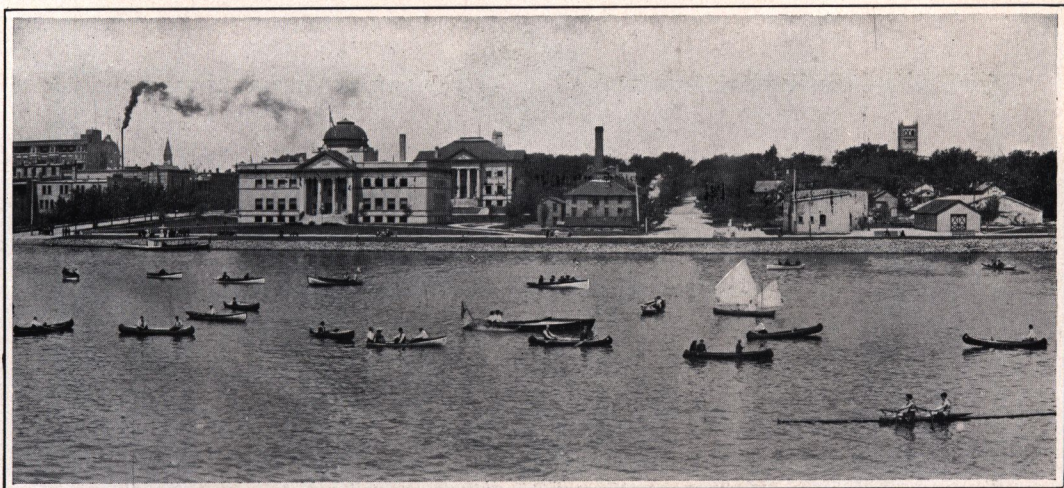
For many years the great field of Panoramic Photography has been just a little out of reach merely because there was no suitable apparatus to allow of exploiting it.

To make a panoramic picture—that is, to make it true as the eye sees it—true as to perspective and free from distortion, is something that had not been possible until the Cirkut provided the means of overcoming the difficulties that heretofore existed. And how successfully it has been done is evidenced by the large number of Cirkuts now in use.

It requires but a moment's consideration to discover the almost limitless opportunities of a camera with the wide range of possibilities that the Cirkut possesses. Survey the field. It is not alone for scenery, but for manufacturing plants, residences, country estates, public grounds, games and groups, that the Cirkut proves its usefulness.

Cirkut Cameras are made in two sizes, No. 10 and No. 16, the





former for film either 6, 8 or 10 inches wide, the latter for 10, 12, 14 or 16-inch widths. Any length of negative up to about 12 feet with the No. 10, and 18 feet with the No. 16, may be made, the length of the negative being determined by the focal length of the lens used. A scale is provided by means of which the operator can determine the length of film required for any exposure, and a register on the top of the tripod indicates the amount of film consumed and that still remaining unexposed. There is also a device for perforating the film after each exposure.

Cirkut Outfits are supplied in two sizes, No. 6 and No. 8, the former being a special 5 x 7 hand camera to which is fitted the Cirkut Attachment, while the No. 8 is an attachment fitted to a 6½ x 8½ camera. The No. 6 Cirkut Outfit takes 6½-inch film, and negatives up to 6 feet long may be made, and with the No. 8 Outfit a negative 8 inches wide and any length up to 8 feet may be made. By removing the Cirkut Attachments, the cameras supplied with the No. 6 and No. 8 Cirkut Outfits may be used with plates in the usual manner.

Only Eastman Daylight-loading Film is used. The construction of the camera allows of the most careful focusing. The image can be seen on the ground glass not alone full width but full length of picture.

The camera itself is of the best type of construction, substantially built in every particular, with rising and falling front.

## *Prices*

Including Sole Leather Carrying Case for Camera and extra Case for Tripod.

Cirkut Cameras fitted with Turner-Reich Convertible Anastigmat Lens, Series II, and

No. 4 Century Shutter . . . . .	No. 10 \$290.00	No. 16 \$425.00
Cirkut Panoramic Outfits, complete . . . . .	No. 6 112.50	No. 8 175.00

NOTE.—A special Cirkut catalogue contains full information regarding Cirkut apparatus, copy of which will be mailed on request.





## ANASTIGMAT LENSES

**T**HE Rectilinear Symmetrical Lenses with which hand cameras are ordinarily equipped, possess one inherent defect impossible to overcome. This defect is astigmatism, which may be defined as the inability to focus at the same time vertical and horizontal lines lying in the same plane.

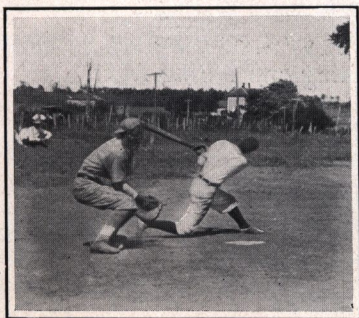
The Anastigmat Lens with its superior correction has several advantages over the Rectilinear Lens. It has greater speed because it may be used with full opening, and the resulting image will be brilliant and sharp all over. The sharpness is not confined to one spot, as is the case with the Rectilinear Lens when used with full opening. It has greater covering power, that is, area in which the image is sharply defined, and a flatter field permitting the formation of flat images, not curved. Its greater speed and covering capacity enable it to be used, therefore, advantageously under conditions where the ordinary lens is valueless.

No ordinary lens of the old type condenses to fine points, the light passing through it obliquely to the margin of the plate. The reflected images of such lenses are built up of blurred lines of light which overlap and cause a noticeable lack of definition in many photographs, especially at the margins. This defect is called "Astigmatism," and lenses that are free from it are called "Anastigmats."

We can supply the Graflex fitted with any standard make of lens not regularly listed which may be adapted for it.

### *On Fitting Lenses*

While we list Graflex Cameras without lenses, we can not be responsible for any outfit leaving our factory incomplete. The best



results cannot be secured unless the lens is accurately fitted, and so mounted that the flange is absolutely parallel to the sensitive plate or film. Therefore, in justice to ourselves, and for the purpose of avoiding errors, our guarantee only applies to cameras that are shipped from our factory, complete with lenses attached.





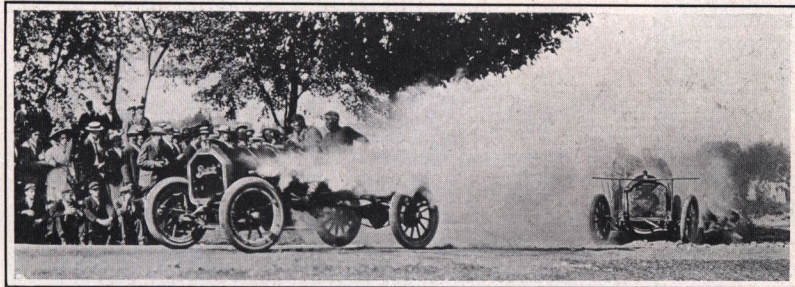
# THE GRAFLEX FOCAL PLANE SHUTTER

FOLMER'S PATENT FEBRUARY 5, 1907, AND APRIL 21, 1908

**F**OR ultra rapid photography, the Graflex Shutter presents numerous advantages over those working in front of, between or behind the lens. To secure successful negatives of rapidly moving objects, such as horse and automobile races, railroad trains, football games, base-ball contests, etc., there is no style of shutter that can equal the Graflex. And while constructed primarily for high-speed work, it is also adapted for slow automatic exposures and time exposures of any duration. Its position immediately in front of the sensitive plate or film insures the distribution of light with equal intensity upon every portion of the sensitized surface. In addition, the principle upon which it is constructed not only gives the maximum of speed, but at the same time the plate receives a greater volume of light in a given time than with any other type of shutter.

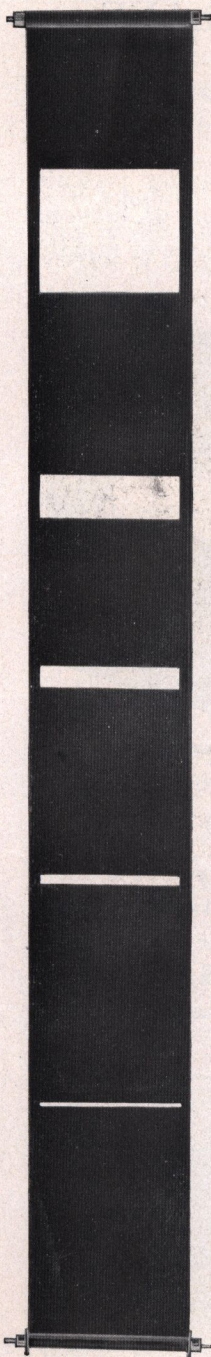


In comparing the Focal Plane Shutter with the between-lens type of shutter, which is most commonly in use, particular stress should be laid upon the fact that with the Focal Plane Shutter there is absolutely no diminishing of the volume of light passing through





The Graflex Focal Plane  
Shutter—Continued



the lens, in other words the full efficiency of the aperture used is maintained during exposure. With the between-lens type of shutter there is only a fraction of the exposure given with the working aperture of the lens, varying from that down to the pinhole. It therefore follows that with the between-lens type of shutter, high-speed exposures would be ineffective, owing to the method of lighting.

By simply turning a small key the speed can be varied from time to  $\frac{1}{1000}$  part of a second. The maximum speed of an ordinary shutter placed at the diaphragm of a lens does not exceed  $\frac{1}{100}$  of a second, and many shutters of this class do not give shorter exposures than  $\frac{1}{50}$  of a second.

The Graflex Shutter is instantly set for any exposure by a *half-turn* of the winding key. Dials on the outside indicate both the size of curtain aperture and the tension of roller spring controlling the speed.

The curtain of the Graflex Shutter is made on an entirely new principle—in one long piece, with apertures ranging from full opening to  $\frac{1}{8}$  of an inch. This insures an absolutely uniform aperture for the admission of light, and not a wedge-shaped opening, as is so often the case with shutters having a double adjustable curtain.

The Graflex Shutter is as easy to operate as an ordinary shutter and can be adapted to all makes of folding plate cameras. Graflex Focal Plane Shutters are fitted to the Graphic without extra charge, but when ordered for other cameras we add cost of adapting.

### Specifications

	4 x 5	5 x 7	6½ x 8½	8 x 10
Dimensions	6¼ x 6¼ x 2	8¼ x 8¼ x 2	9¾ x 9¾ x 2½	11¾ x 11¾ x 2½
Weight	15 oz.	22 oz.	26 oz.	32 oz.

### Prices

	4 x 5	5 x 7	6½ x 8½	8 x 10
Graflex Focal Plane Shutter	\$22.00	\$24.00	\$27.00	\$31.00





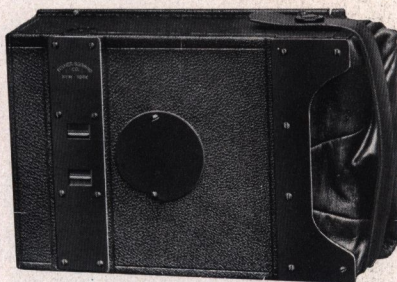
# THE GRAFLEX MAGAZINE PLATE OR CUT FILM HOLDER

FOLMER'S PATENT AUGUST 15, 1899

THE Graflex Magazine Plate Holder is made to carry twelve glass plates or cut films loaded into metal septums. Each septum is numbered on the back, the number appearing before the ruby window of the magazine, as each exposure is made.

When a plate is exposed the septum is drawn into a leather bag attached to the end of a magazine, by means of a brass rod, and re-inserted by hand into the rear of the magazine holder.

Each septum has a depression in the back, which serves as a spring to force the plate forward into focus, regardless of the thickness of the plate. The serial numbers are placed



Graflex Magazine Plate Holder

Springs at the back of the magazine force the septums forward and bring the front plate into exact register for each exposure.

When the 12 plates or cut films have been exposed, the extra septum or dark slide returns to the front, closing the magazine, so that it can be detached from the camera in daylight.

It is not necessary to expose all the plates or films before starting to develop.

One or more plates can be removed from the magazine at any time in the dark-room.

## Specifications

			$3\frac{1}{4} \times 4\frac{1}{4}$	$4 \times 5$	$5 \times 7$
Dimensions . . .		$5\frac{3}{4} \times 4\frac{1}{4} \times 2\frac{1}{8}$	$6\frac{1}{2} \times 5 \times 2\frac{1}{4}$	$8\frac{3}{4} \times 6\frac{1}{4} \times 2\frac{1}{2}$	
Weight . . . . .		$1\frac{1}{4}$ lbs.	$1\frac{3}{4}$ lbs.	$2\frac{3}{4}$ lbs.	

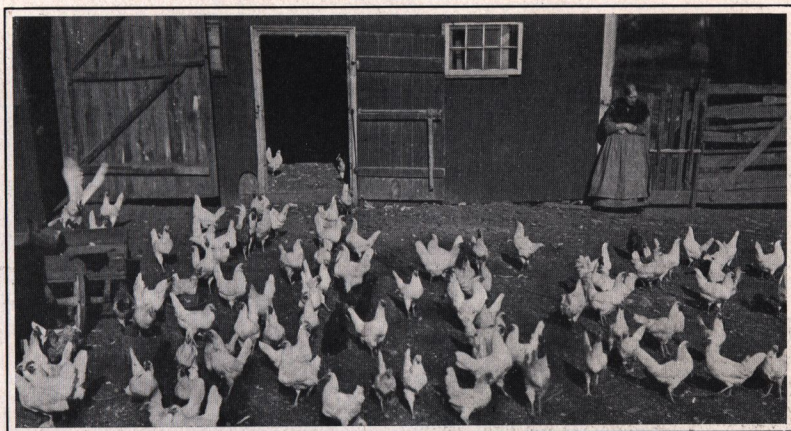
## Prices

$3\frac{1}{4} \times 4\frac{1}{4}$ , each . . . . .	\$13.00
$4 \times 5$ " . . . . .	13.00
$5 \times 7$ " . . . . .	15.00



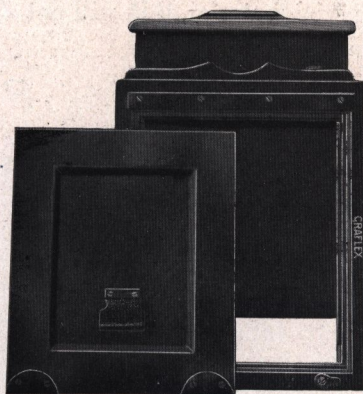






# GRAFLEX COLOR PLATE HOLDER

THE Graflex Color Plate Holder is designed especially for color plates when used with Graflex Cameras. The register of focus is measured from the sensitive surface of plate, which should be placed in the holder with the glass side of plate towards the lens. Receding springs compensate for glass of varying thickness, which makes this holder suitable for any color plate used in a manner reverse to the ordinary plates, and keep the sensitized surface of the color plate in coincident register with the upper ground glass or focusing screen. Graflex Color Plate Holders can be used only with Graflex Cameras, to which regular Graflex plate holders are adjustable, and are constructed of selected cherry, ebonized and finished in the same manner as the Graflex Holders.



## Prices

[illegible]





# THE GRAPHIC PLATE HOLDER

FOLMER'S PATENT OCTOBER 25, 1904

**G**RAPHIC Plate Holders are the most practical holders in the market. They are compact, yet strong, being made of selected, well-seasoned cherry and fitted with our new spring finger cut-off, which prevents the entrance of light and fogging of plates when drawing or replacing slides.



Section of Graphic Plate Holder showing Cut-off

Springs on either side of the septum keep the plates in *absolute register* at all times.

To load the Graphic Holder one end of plate is inserted under the rabbet where the slide is withdrawn, and the other end placed against the septum, being held in place by the two sliding locks at

opposite end of holder. The locks do away with the side and end rabbets and allow the full width and length of the plate to be exposed with the exception of less than  $\frac{1}{8}$  of an inch at one end.

Graphic Plate Holders are fitted with mat finish slides, of a special material, that will not warp, crack, buckle or collect dust like hard rubber.

## Prices

4	x	5,	each	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	\$1.00
5	x	7	"	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1.25
6½	x	8½	"	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1.75
8	x	10	"	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2.00







# THE CROWN TRIPOD

FOLMER'S PATENT JUNE 23, 1903

THE Crown is a four-section telescopic folding tripod, absolutely rigid, quickly set up and readily adjusted for height. It is made of selected straight-grained cherry, soaked in an oil bath for ten days before being finished. The wood is then rubbed down and shellacked. This treatment renders it extremely tough and practically waterproof.

For carrying, the lower sections telescope into the third and the upper section folds back upon it, making it very compact.

All binding screws on lower sections of this tripod are "upset" and cannot be lost.

Taper pins in the ear pieces of the head fit snugly into metal-tipped sockets of the legs, preventing loose joints and side play.

Expansion brackets in the upper section make it impossible for the legs to be detached from the head until brackets are folded.

The No. 1, when closed, measures 16¼ inches and weighs, with top, 36 ounces. When extended to its full capacity, it stands 4⅓ feet high.

The No. 2, closed, measures 17¼ inches long and weighs, with top, 65 ounces. When extended, it has a height of 4⅔ feet.

The No. 3, closed, measures 20 inches long and weighs, with top, 70 ounces. When extended, it has a height of 5½ feet.



## Price

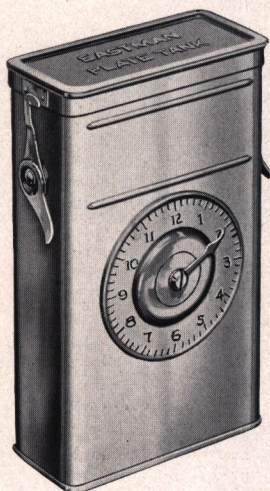
No. 1 Crown Tripod with 4-inch top	.	.	.	.	.	.	.	\$5.50
No. 2 Crown Tripod with 6-inch top	.	.	.	.	.	.	.	6.00
No. 3 Crown Tripod with 6-inch top	.	.	.	.	.	.	.	7.50





## THE EASTMAN PLATE TANK

THE Eastman Plate Tank is the same in theory as the highly successful Kodak Film Tank, with, of course, such modifications as are rendered necessary by the physical difference between plates and film. That equally successful results are produced goes without saying. The Eastman Plate Tank consists of a

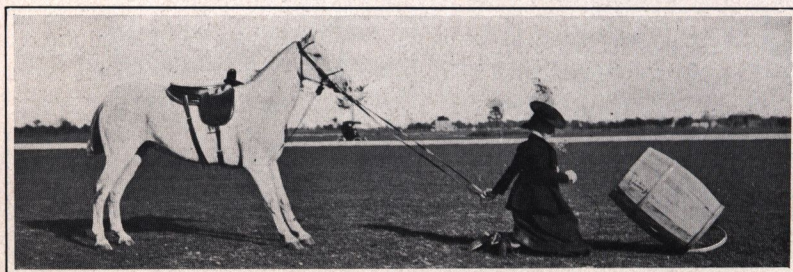


metal solution cup, with tightly-fitting cover, a rack for holding twelve plates, or less, during development and fixing, and an ingenious loading block for loading the plates into the rack in the dark-room. The exposed plates are loaded into the rack and placed in the tank in the dark-room, and the tank cover fastened in place. As soon as the plates have been lowered into the developer, the time is noted by watch or clock, and the hand on dial on front of tank set to indicate time when development will be complete. Development is allowed to continue for fifteen minutes, the tank being reversed several times. After development the developer is washed out of the plates, and the fixing bath poured

into the tank. Fixing may be carried on in daylight.

### Prices

Eastman Plate Tank, 4 x 5, including solution cup, plate rack, and loading block	\$3.50
Ditto, 5 x 7	4.50
Kit for 4 x 5 tank, to take $3\frac{1}{4}$ x $4\frac{1}{4}$ plates	.50
Kit for 5 x 7 tank, to take $4\frac{1}{4}$ x $6\frac{1}{2}$ plates	.75
Eastman Plate Tank Developer Powders, for 4 x 5 tank, per pkg., $\frac{1}{2}$ doz.	.20
Ditto, for 5 x 7 tank, per package, $\frac{1}{2}$ dozen	.35
Kodak Acid Fixing Powder, per 1-pound package	.25







## ZEISS-KODAK ANASTIGMAT *f.6.3*

No.	Size of Plate covered with Stop <i>f.6.3</i> Inches	Equivalent Focus Inches	PRICE		
			Lens in Barrel	Lens in Volute Shutter	Lens in Compound Shutter
2	3¼ x 4¼	5	\$22 00	\$39 00	\$34 00
3	4 x 5	6½	27 00	44 00	43 25
4	3¼ x 5½	6⅞	30 50	47 50	45 00
5	5 x 7	8¼	40 00	58 50	56 25
6	6½ x 8½	10	54 00	72 50	74 00

## BAUSCH & LOMB-ZEISS TESSAR, *Series IIb, f.6.3*

No.	Size of Plate covered with Stop <i>f.6.3</i> Inches	Equivalent Focus Inches	PRICE		
			Lens in Barrel with Iris Diaphragm	Lens Fitted with Volute Shutter	Lens Fitted with Compound Shutter
4	3¼ x 4¼	5½	\$ 34 50	\$ 51 50	\$ 49 00
5	4 x 5	6½	36 00	53 00	52 25
5 <i>k</i>	3¼ x 5½	6⅞	46 00	63 00	60 50
5 <i>a</i>	5 x 7	7⅞	50 50	69 00	66 75
6	5 x 8	8¼	61 50	80 00	81 50
7	6½ x 8½	10	83 00	101 50	103 00
8	8 x 10	12	122 50	142 50	144 50
9	10 x 12	14½	158 50	178 50	.....
9 <i>a</i>	11 x 14	16½	178 00	.....	.....
10	14 x 17	19½	252 00	.....	.....
11	16 x 20	23½	324 00	.....	.....

## BAUSCH & LOMB-ZEISS TESSAR, *Series Ic, f.4.5*

No.	Size of Plate covered with Stop <i>f.4.5</i> Inches	Equivalent Focus Inches	PRICE		
			Lens in Barrel with Iris Diaphragm	Lens Fitted with Volute Shutter	Lens Fitted with Compound Shutter
14	3¼ x 4¼	5	\$ 40 50	\$ 57 50	\$ 56 75
15	4 x 5	6	47 00	65 50	63 25
15 <i>a</i>	5 x 7	7⅞	57 50	76 00	77 50
16	5 x 8	8¼	72 00	92 00	94 00
17	6½ x 8½	9½	115 50	135 50	137 50
18	8 x 10	11½	162 00	.....	.....
18 <i>a</i>	10 x 12	14	210 00	.....	.....
19	11 x 14	15½	252 00	.....	.....
20	14 x 17	19½	360 00	.....	.....

## BAUSCH & LOMB-ZEISS PROTAR, *Series VIIa*

No.	Size of Plate covered with Full Aperture Inches	Equivalent Focus of Single Protars, Ins.		Combined Equiva- lent Focus Inches	Speed <i>f</i>	PRICE		
		Front Lens	Back Lens			Lens in Barrel with Iris Diaphragm	Lens Fitted with Volute Shutter	Lens Fitted with Compound Shutter
4	4 x 5	8½	8	5½	6.3	\$ 56 00	\$ 73 00	\$ 70 50
5	4½ x 6½	11½	8	5½	7.	61 50	78 50	77 75
6	4½ x 6½	13½	8	6½	7.7	68 50	87 00	84 75
7	4½ x 7¼	11½	11½	6½	6.3	66 50	83 50	82 75
8	5 x 7	13½	11½	7	7.	73 50	92 00	89 75
9	5 x 8	16	11½	7½	7.7	86 00	104 50	106 00
10	5 x 8	13	13	7½	6.3	80 50	99 00	96 75
11	6½ x 8½	16	13	8½	7.	93 00	111 50	113 00
12	6½ x 8½	18	13	9½	7.7	114 50	134 50	134 50
13	6½ x 8½	16	16	9½	6.3	105 00	123 50	125 00
14	7 x 9	18	16	10	7.	127 00	147 00	147 00
15	7 x 9	23	16	10½	7.7	148 50	168 50	170 50
16	7 x 9	18	18	10½	6.3	147 50	167 50	167 50
17	8 x 10	23	18	11	7.	169 00	189 00	191 00
18	8 x 10	27	18	12½	7.7	199 50	219 50	.....
19	8 x 10	23½	23	13	6.3	186 00	206 00	208 00





### COOKE LENSES, *Series IIIa. Full Aperture, f.6.5*

DIMENSIONS IN INCHES			PRICE		
No.	Focus	Plates covered with Full Aperture	Lens Only	With Volute Shutter	With Compound Shutter
3	5	3 1/4 x 4 1/4	\$ 35 00	\$ 52 00	\$ 48 00
4	6 7/8	3 1/4 x 5 1/2	39 50	56 50	55 00
5	7 1/2	5 x 7	48 50	65 50	66 25
6	8 1/4	5 x 8	53 00	71 50	75 00
7	11	6 1/2 x 8 1/2	91 00	109 50	.....
8	13	8 x 10	120 00	140 00	.....

### COOKE LENSES, *Series IV. Full Aperture, f.5.6*

DIMENSIONS IN INCHES			PRICE	
No.	Focus	Plates covered with Full Aperture	Lens Only	With Volute Shutter
25	5	3 1/4 x 4 1/4	\$ 38 00	\$ 55 00
26	6	4 x 5	43 00	60 00
27	8	5 x 7	54 00	72 50
27 1/2 new	9 1/2	6 1/2 x 8 1/2	80 00	98 50
28 new	11	7 x 9	110 00	130 00
29	13	8 x 10	130 00	150 00
30 new	16	10 x 12	182 50	.....
31 new	18	11 x 14	208 00	.....

### COOKE LENSES, *Series II. Full Aperture, f.4.5*

DIMENSIONS IN INCHES				DIMENSIONS IN INCHES			
No.	Focus	Plates covered with Full Aperture	PRICE	No.	Focus	Plates covered with Full Aperture	PRICE
20	4	3 1/4 x 3 1/4	\$ 35 00	22 new	8	5 x 7	57 50
20 1/2	5	3 1/4 x 4 1/4	41 50	22 1/2 new	10 1/2	6 1/2 x 8 1/2	120 00
21	6 1/2	4 x 5	47 00	23 new	13	8 x 10	182 00

## OUR TERMS

**A**LL quotations are net and f. o. b. Rochester. We make no charge for packing, and guarantee safe arrival of goods when forwarded by express. Shipments by mail are always at the risk of purchaser, and postage must invariably be added to the cost.

Remittance can be made by draft on New York, post office or express money order, or registered letter. Personal checks, from parties unknown to us, will delay shipment of goods until check can be collected. Ten cents must be added to all personal checks to cover cost of exchange.

For the convenience of our customers, we suggest they purchase through a regular dealer in photographic goods, as they can thus save time and transportation charges.

**FOLMER & SCHWING DIVISION**

*EASTMAN KODAK COMPANY*

ROCHESTER, NEW YORK



1909