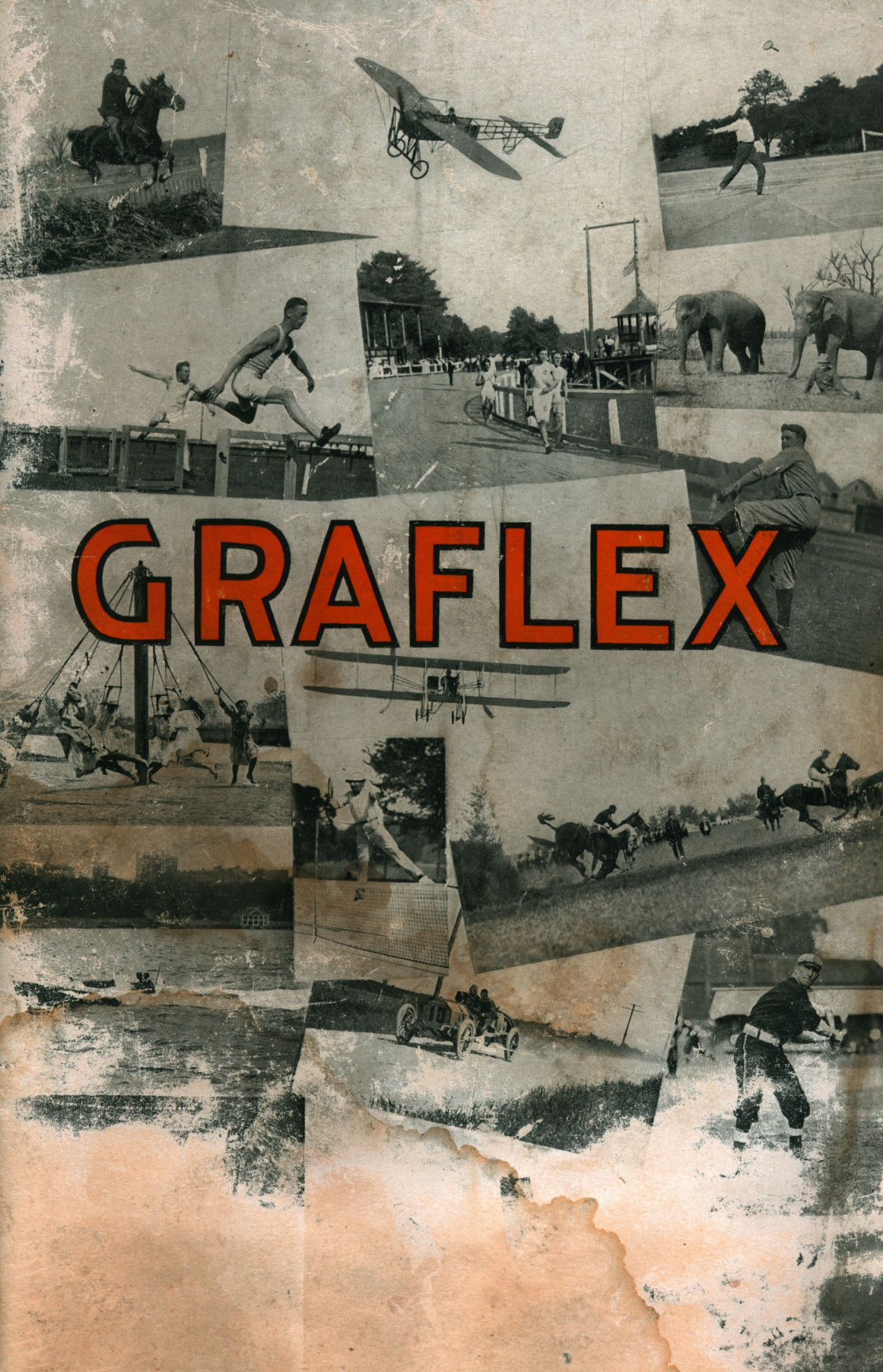


# GRAFLEX

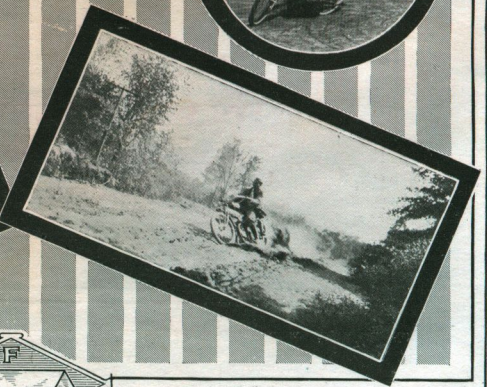
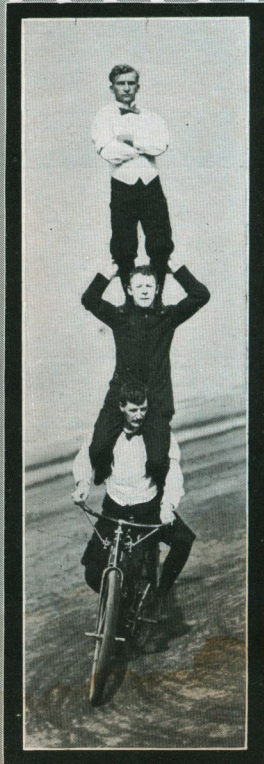


**GRAFLEX**  
AND  
**GRAPHIC**  
**CAMERAS**

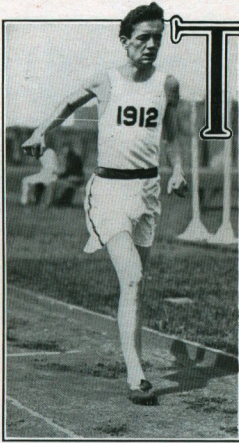
**1912**

**FOLMER & SCHWING DIVISION**  
EASTMAN KODAK COMPANY  
ROCHESTER · N · Y ·

# GRAFLEX



# THE GRAFLEX



TO those requiring a camera that will produce perfect results with the least degree of uncertainty, the Graflex offers more and better reasons for its selection than any other camera.

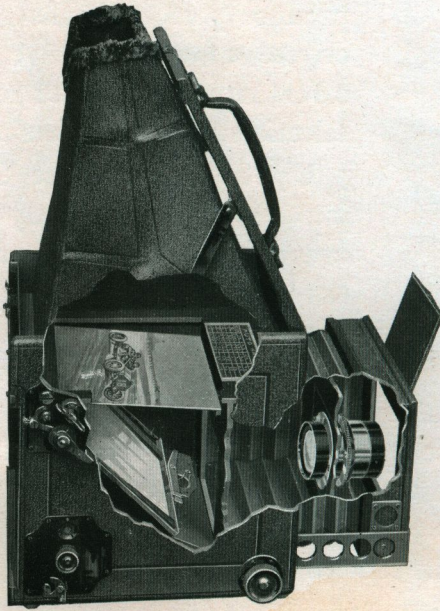
Up to the time the Graflex came into the field, extremely brief exposures were possible only under the most favorable light conditions, while the photographic portrayal of moving subjects on dark or cloudy days was impossible. The photographer had no assurance of the accuracy of focus, or that the negative would include the desired view, unless elaborate preparations were made, either by accurately measuring the distance between the subject and the camera or by focusing on the ground glass under the awkward focusing cloth.

The Graflex employing well known optical principles in a new way, completely eliminates uncertainty of focus and makes it possible to obtain fully timed negatives indoors, in the shade, or on cloudy days, with exposures of very short duration, while under favorable light conditions exposures as brief as one one-thousandth, or even one fifteen-hundredth, of a second may be made with full assurance of a fully timed negative. The principle of construction and method of operating the Graflex are extremely simple. The Graflex shows the image right side up the size it will appear in the negative up to the instant of exposure. This is accomplished by placing an optically perfect mirror in the body of the camera, at such an angle that



# GRAFLEX

the image projected by the lens is reflected from the mirror to a fine ground glass screen in the top of the camera (see illustration). The operator looking into the focusing hood sees the picture exactly as it will be reproduced in the finished print. The distance between the subject and the



Sectional Illustration showing  
Graflex Principle

camera is immaterial, as a slight turn of the focusing button instantly adjusts the focus as the subject approaches or recedes from the camera. This feature is of inestimable value to those who have been dependent upon the image as shown in the finder, on account of the finder image being so small that composition and arrangement of the subject is next to impossible. Another feature that adds great uncertainty to the results obtained with cameras fitted with finders is the fact that no matter how badly out of focus the subject may be on the plate or film, the image in the finder is always sharp. This necessitates the use of

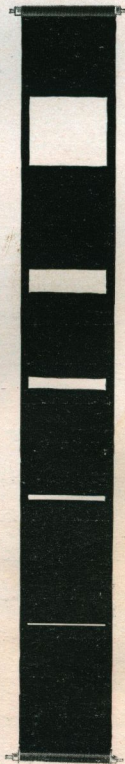


# GRAFLEX

another device of uncertain value that is eliminated by the Graflex, and that is the focusing scale. With the Graflex there is no guess work. A glance in the focusing hood shows instantly whether, or not, the subject is in focus. The Graflex operator knows to a certainty that with proper exposure, the finished print will be an exact reproduction of the image as seen on the focusing screen.

No less important than the reflecting principle as applied to the Graflex is the fact that the most highly efficient shutter ever designed is built into and part of every Graflex Camera. While the Graflex Focal Plane Shutter is so well known and extensively used that an extended description is unnecessary, there are still a few photographers who associate the term "Focal Plane" with exposures of extremely short duration,—overlooking the fact that the same optical principles that enable a shutter to secure a fully-timed negative in  $\frac{1}{1000}$  of a second, will also permit the making of perfect negatives under light conditions that with shutters of the usual type would result in badly underexposed negatives. For all kinds of photography indoors and out there is no shutter as efficient as the one supplied with the Graflex.

The Graflex Focal Plane Shutter consists of a long curtain with a number of fixed apertures varying from full size of negative to an eighth of an inch in width. These openings being fixed insure at all times an absolutely uniform rectangular aperture. This curtain operates as closely as possible to the surface of the plate or film when in position for exposure, the duration of exposure being regulated by the size of the curtain aperture employed, and by the rapidity with which it moves across the focal plane. The great advantage that a focal plane shutter has



Graflex Shutter Curtain



over those of the usual type will be instantly appreciated when it is considered that the Focal Plane Shutter permits the lens to work at its entire efficiency during the whole period of exposure. With shutters of the between lens type during only a small fraction of exposure time is the lens working at its full diaphragm opening, the remaining portion of the exposure period being utilized by the opening and closing of the shutter. The principle is illustrated

in the two diagrams on the following page.

<b>3.A. Graflex</b>				
TEN- SION	1/8 INCH	3/8 INCH	1/4 INCH	1/2 INCH
6	1000	330	160	75
5	825	270	130	60
4	655	215	105	50
3	490	160	75	35
2	330	105	50	20
1	175	55	25	10

Speed Table

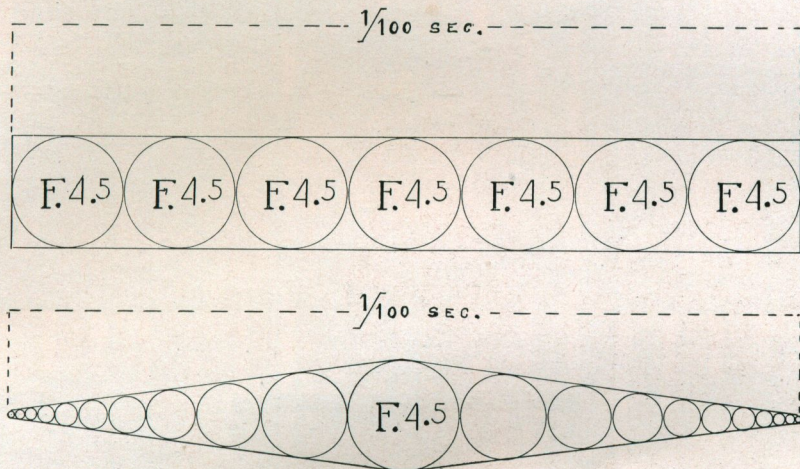
The shutter in every Graflex Camera is actuated to give automatic exposures from  $\frac{1}{10}$  to  $\frac{1}{1000}$  of a second, except in the Press Graflex where a speed of  $\frac{1}{1500}$  of a second may

be obtained. A speed table shows instantly the speeds obtained with the different tensions on the curtain spring and the various curtain apertures. The first vertical line of figures on the speed table indicates the tension on the curtain spring, the shutter curtain moving with the greatest rapidity when the spring is wound to the highest tension, —No. 6. The first horizontal line of figures ( $\frac{1}{8}$  inch,  $\frac{3}{8}$  inch, etc.) shows the width of the curtain aperture. Naturally, the narrower the opening moving across the focal plane, the shorter the exposure. The remaining numbers indicate parts of a second, 1000 showing that when the tension spring is wound to 6 and the curtain aperture  $\frac{1}{8}$  of an inch, the exposure will be  $\frac{1}{1000}$  of a second. If it is intended to give an exposure of  $\frac{1}{215}$  of a second the tension should be wound to 4 and the curtain aperture set at  $\frac{3}{8}$  of



# G R A F L E X

an inch, as indicated on the speed table. The shutter is arranged to give time exposures of any duration, and by setting the curtain at O (open) and allowing the rising mirror to commence, and the dropping curtain to terminate the exposure, automatic exposures of approximately  $\frac{1}{5}$  of a second may be made.



The diagram illustrates an exposure with the lens diaphragm set at  $f.4.5$ . The upper row of circles shows the exposure with a Focal Plane Shutter where the lens opening remains constant through the entire period of exposure. The Focal Plane Shutter allows the lens to work at its maximum efficiency during the entire exposure.

The lower row of circles illustrates an exposure with a shutter of the between lens type with the lens diaphragm set at  $f.4.5$ . A considerable portion of the period of exposure is consumed in the opening and closing of the shutter, allowing the lens to operate at the full diaphragm opening but a small portion of the total period of exposure.

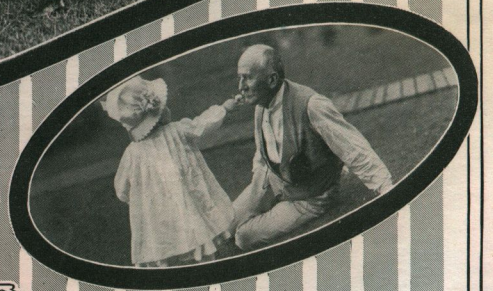
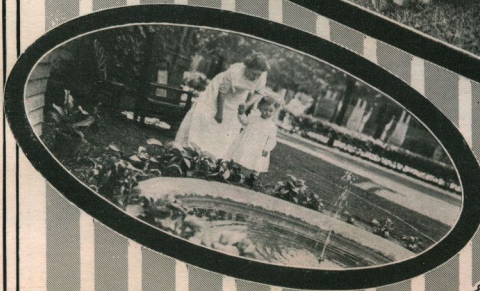
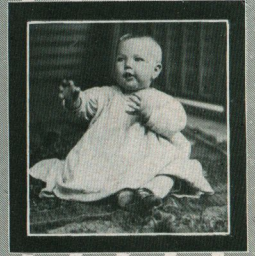
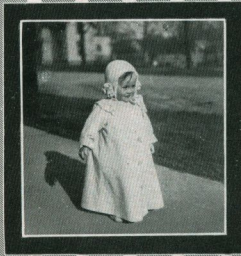
An exposure of  $\frac{1}{100}$  of a second is given as an example. The same principle applies to exposures of any duration.

The operation of the Graflex is simple in the extreme. Focusing is done with a large milled head conveniently located at the right of the camera. Exposure is made by pressure on the lever at the left of the camera. This lever allows the mirror to swing up out of the cone of light, the mirror in turn tripping the shutter. As the mirror seats against an air cushion formed in the top of the camera, all vibration is effectually prevented. Another exclusive



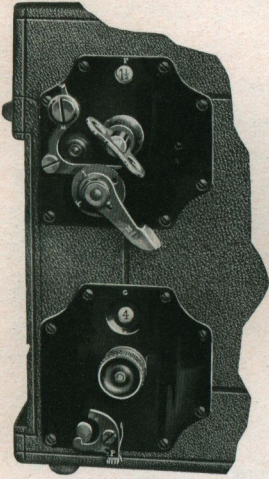


GRAFLEX



# GRAFLEX

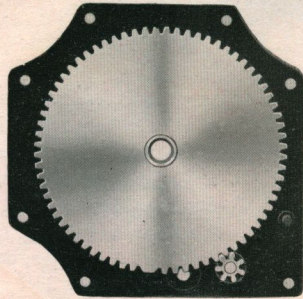
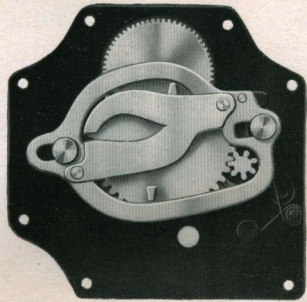
Graflex feature is the safety device which prevents the re-winding of the curtain when the mirror is up, thus preventing the fogging of the plate or film.



Shutter Control

Every part of every Graflex is made and adjusted with the utmost precision. Nothing is sacrificed for efficiency. Every Graflex is subjected to a rigid inspection and test before being placed on the market, insuring to the purchaser the greatest possible camera value.

The Graflex is constructed of mahogany covered with the finest grade of Persian Morocco leather, which harmonizes perfectly with the rich appearance given by the oxidized metal work and ebonized finish of all visible wood parts. In the Auto, Press and Naturalist models the front runs out on two side arms milled from heavy brass, working through metal guides. In the 1A, 3A and Revolving Back models the platform is fitted with a metal track running in guide ways milled with the utmost precision from brass of sufficient thickness to insure absolute rigidity. In the Auto, Press and Naturalist models the racking out of the front causes the lens cover to open instantly and automatically. A piano hinge allows the front to be opened, rendering lens and front board readily accessible. For those who wish to give prolonged exposures the Graflex is provided with tripod plates.



Shutter Control Mechanism



# GRAFLEX



## THE 1A GRAFLEX

Folmer's Patent February 5, 1907, and April 21, 1908

### Specifications

Outside dimensions, closed,  $5\frac{1}{2} \times 9\frac{1}{2} \times 3$ ; focal capacity,  $6\frac{1}{2}$  inches; weight, 59 ounces; 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.6.3</i> , No. 2 . . . . .	82.00
With B. & L.-Zeiss Tessar Lens, Series Ic, <i>f.4.5</i> , No. 14 . . . . .	100.50
With B. & L.-Zeiss Tessar Lens, Series IIb, <i>f.6.3</i> , No. 4 . . . . .	94.50
With Cooke Lens, Series II, <i>f.4.5</i> , No. 20 $\frac{1}{2}$ . . . . .	101.50
With Cooke Lens, Series IV, <i>f.5.6</i> , No. 25 . . . . .	98.00
Leather case for 1A Graflex, extra . . . . .	6.00
Extra lens boards, each . . . . .	.40



## THE 1A GRAFLEX

**F**OR those desiring a reflecting camera that is thoroughly efficient and occupies the least possible space, the 1A Graflex makes an ideal equipment.

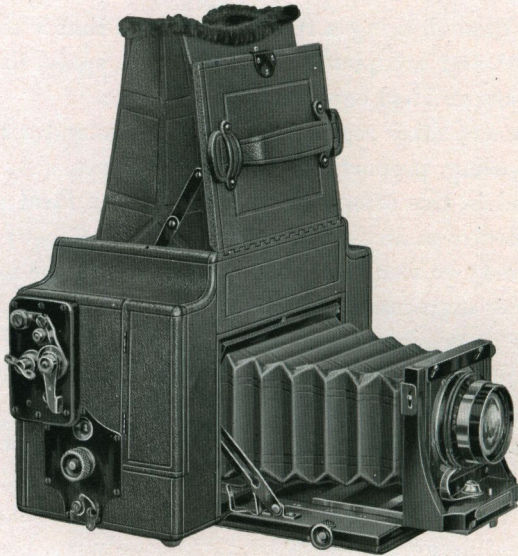
This camera takes regular 1A Kodak film and makes a picture of very pleasing proportions,  $2\frac{1}{2} \times 4\frac{1}{4}$  inches. As in the other Graflex models, this camera is equipped with a focal plane shutter, giving exposures of any duration from time to  $\frac{1}{1000}$  of a second, and the image may be seen the size it will appear in the negative, up to the instant of exposure, right side up. In order to make the camera as compact as possible the focusing screen is made a trifle narrower than the full width of the negative; this does not interfere in the slightest degree with accurate focusing.

The 1A Graflex is fitted with the safety device which prevents the winding of the curtain when the mirror is up; this insures the setting of the shutter, and what is more important, prevents the unintentional fogging of the film. The focusing hood folds compactly in the top of the camera, and when extended is held rigidly in position. The spring actuated eye-shield effectually prevents the admission of extraneous light. The platform is milled from heavy brass, a stop being adjusted at a point indicating the "universal focus" of the lens. This permits the use of the camera for general fixed focus work, as well as photography in which focusing must be done with the utmost accuracy. When the camera is closed the lens, mirror and bellows all recede into the body of the camera, making it possible to reduce the size to an extent never before attempted in a reflecting camera.

Another improvement which adds much to the ease of operation is the method of adjusting the 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 allows it to snap back into position, holding the spool securely in place and creating sufficient pressure to prevent play. The film pockets are provided with tension springs which prevent the rolls from unwinding.

Every detail of construction has been given the most careful consideration, making the 1A Graflex an ideal camera for the automobilist, tourist, or anyone desiring a thoroughly efficient reflecting camera contained in the least possible space.





## THE 3A GRAFLEX

Folmer's Patent February 5, 1907, and April 21, 1908

### Specifications

Dimensions,  $10\frac{1}{4} \times 5 \times 6\frac{1}{2}$ ; focal capacity, 10 inches; weight,  $6\frac{1}{2}$  pounds; size of lens board,  $3 \times 3$  inches; minimum focus of lenses accommodated, 6 inches.

### PRICES

3A Graflex without lens . . . . .	$3\frac{1}{4} \times 5\frac{1}{2}$ \$ <b>75.00</b>
With Zeiss Kodak Lens, <i>f</i> .6.3, No. 4 . . . . .	<b>105.50</b>
With B. & L.-Zeiss Tessar Lens, Series IIb, <i>f</i> .6.3, No. 5a . . . . .	<b>125.50</b>
With B. & L.-Zeiss Tessar Lens, Series Ic, <i>f</i> .4.5, No. 15a . . . . .	<b>132.50</b>
With B. & L.-Zeiss Protar Lens, Series VIIa, <i>f</i> .6.3, No. 7 . . . . .	<b>141.50</b>
With Cooke Lens, Series IV, <i>f</i> .5.6, No. 27 . . . . .	<b>129.00</b>
With Cooke Lens, Series II, <i>f</i> .4.5, No. 21 $\frac{1}{2}$ . . . . .	<b>132.50</b>
Leather case for 3A Graflex, extra . . . . .	<b>10.00</b>
Extra lens boards, each . . . . .	<b>.50</b>

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.

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



## THE 3A GRAFLEX

**A**LL the advantages of a reflecting camera of the highest possible type, with film simplicity and convenience, combine to make the 3A the most popular of the Graflex models.

The 3A Graflex makes pictures of the most pleasing proportions,  $3\frac{1}{4} \times 5\frac{1}{2}$ , on regular 3A Kodak Film, which may be obtained wherever camera supplies are sold.

Built into, and part of the 3A Graflex, is the regular Graflex Focal Plane Shutter, giving instantaneous exposures from  $\frac{1}{10}$  to  $\frac{1}{1000}$  of a second, as well as time exposures of any duration. This shutter is fitted with the safety device which prevents winding the shutter until the mirror is set. The front is exceedingly rigid and large enough to accommodate Anastigmat lenses working at the highest speed; this front runs out on a platform fitted with a metal track running in guideways, which are accurately milled from heavy brass.

The focusing hood, which opens automatically when the cover of the camera is raised, is shaped to fit the contour of the face, effectually excluding extraneous light and enabling the operator to focus perfectly. The back of the camera is hinged, and when opened affords easy access to the film compartments. The lower spool center in each end of the camera is spring actuated, and when drawn out and given a slight turn, locks open, which greatly facilitates loading and unloading the camera.

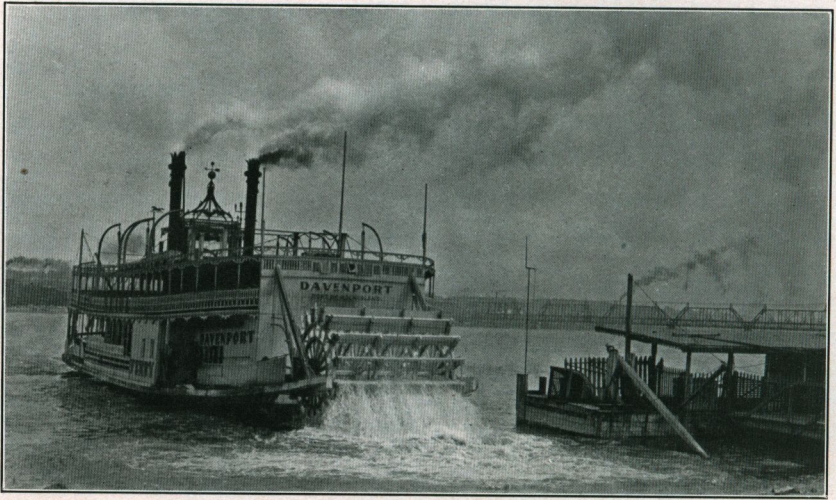
While it is rarely necessary to use a tripod with the Graflex, it is occasionally desirable to give prolonged time exposures with the camera on a tripod. For this purpose two tripod sockets are provided,—one in the base of the camera for horizontal, and another in the side for vertical negatives.

The surplus space at each side of the camera is converted into film storage pockets, each carrying two rolls of film. This permits the operator to carry in the camera sufficient film for fifty exposures.

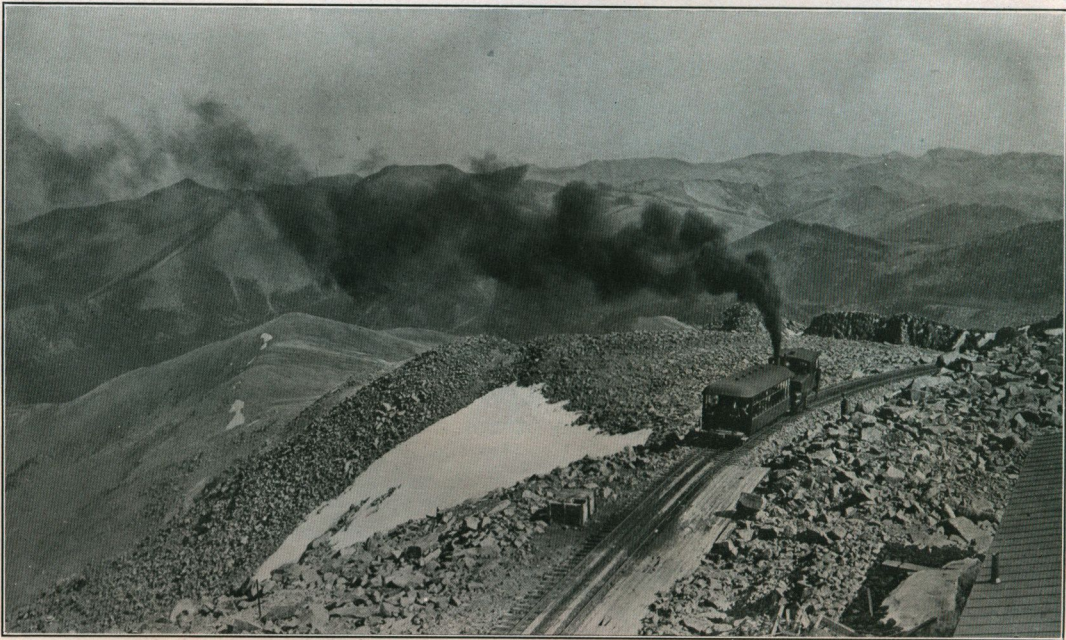
The body of the camera is made from selected mahogany, thoroughly kiln dried, lock-jointed and covered with the finest grade of Persian Morocco leather. All exposed wood parts are ebonized and harmonize perfectly with the brass parts, which are oxidized, giving a rich gun metal finish.

Any of the well known Anastigmat lenses may be fitted to the 3A Graflex, provided the lens is of suitable focal length. The fact





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



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

# GRAFLEX

3 A GRAFLEX—Continued



3 A Graflex Closed

that the 3 A will accept lenses having a focus as short as 6 inches as well as those of greater length, the camera having a bellows capacity of 10 inches, allows the operator of a 3 A Graflex to make photographs of subjects close to the camera. Our experience has proved that the best results will be obtained with the lenses listed with the camera.





GRAFLEX



## THE AUTO GRAFLEX

Folmer's Patent, February 5, 1907

**T**HE Auto Graflex is offered in three sizes:  $3\frac{1}{4} \times 4\frac{1}{4}$ ,  $4 \times 5$ , and  $5 \times 7$ , each of the models embodying the exclusive Graflex features and conforming with the detail given on pages 5, 6, and 7. The reflecting mirror and Graflex Focal Plane Shutter are a part of this instrument, the shutter permitting speeds from time to  $\frac{1}{1000}$  of a second. The new design of the focusing hood renders focusing particularly easy, as all extraneous light is effectually excluded.

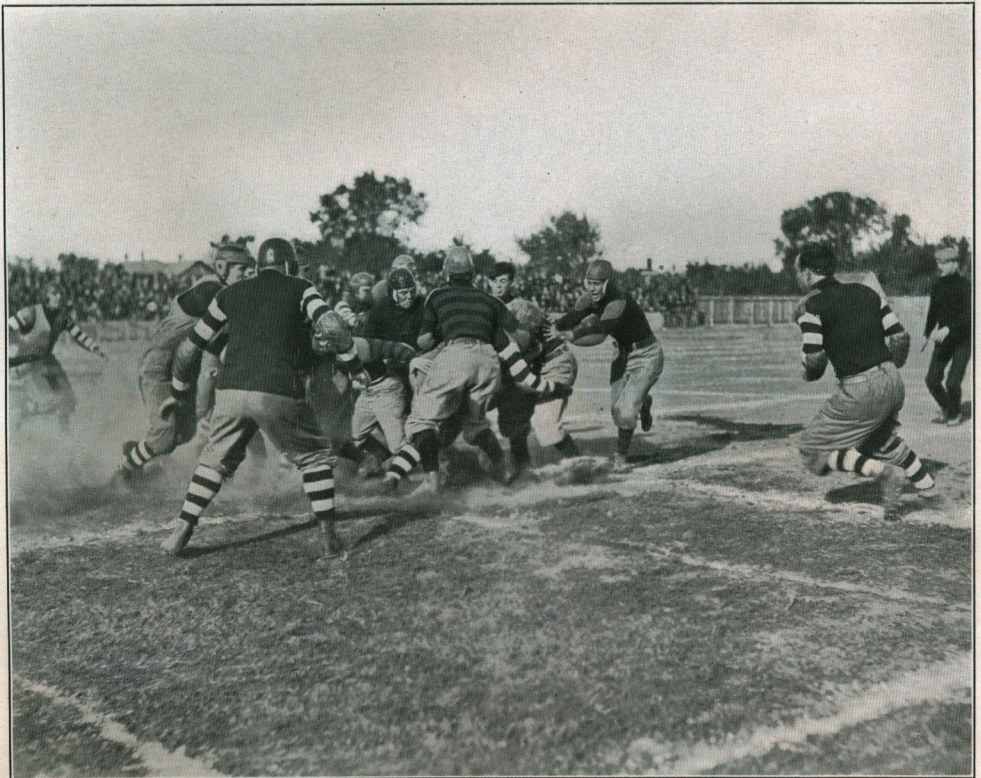
The Auto Graflex takes the regular Graflex plate holder, and is constructed to take the Graflex Magazine Plate Holder, which may be loaded with twelve glass plates; the Film Pack Adapter which takes the Film Pack, or the Cartridge Roll Holder which permits the use of daylight loading roll film.

The Auto Graflex may be fitted with any of the well known Anastigmats, although our experience has proved that the most satisfactory results will be obtained with the lenses listed with each model.

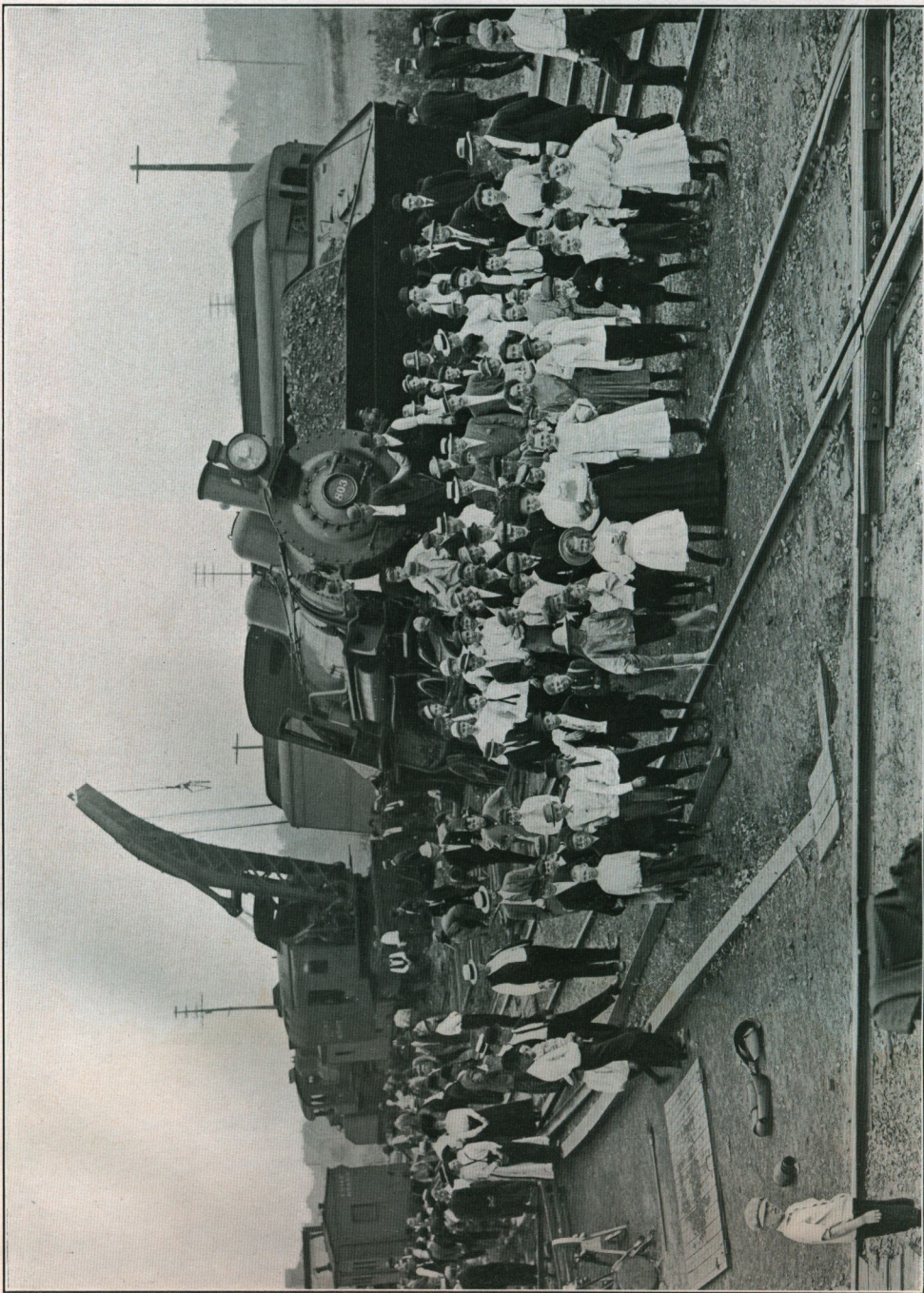




Exact size of picture made with  $3\frac{1}{4} \times 4\frac{1}{4}$  Auto Graflex



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



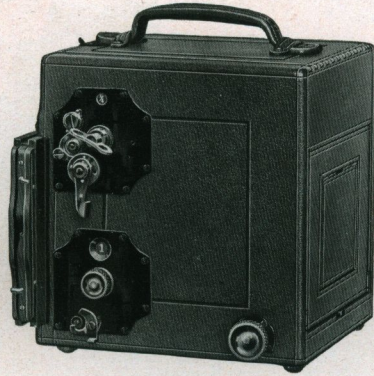
Exact size of picture made with 5 x 7 Auto Graflex and Press Graflex

# G R A F L E X

AUTO GRAFLEX—Continued

The Auto Graflex has surely established a new standard in camera construction. By the foremost photographers—professional 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.

No pains have been spared to make the Auto Graflex a thoroughly efficient instrument.



Auto Graflex Closed

Specifications

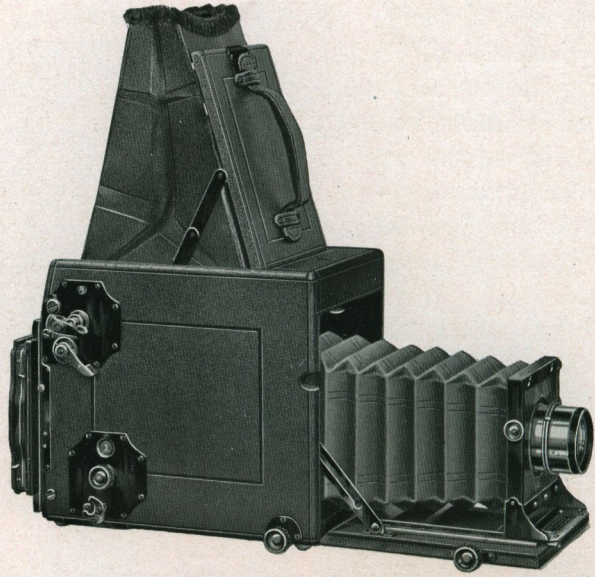
	3¼ x 4¼	4 x 5	5 x 7
Dimensions when closed . . .	6¼ x 5¾ x 6¾	7½ x 6½ x 7¾	9¼ x 8¼ x 9½
Focal capacity . . . . .	7 inches	8½ inches	12 inches
Weight . . . . .	4 lbs.	5½ lbs.	8½ lbs.
Size of lens board . . . . .	2¾ x 2¾ inches	3 x 3 inches	4 x 4 inches
Minimum focus of lenses accommodated . . . . .	5 inches	6 inches	7½ inches

**PRICES**

	3¼ x 4¼	4 x 5	5 x 7
Auto Graflex without lens, including one double holder . . .	<b>\$55.00</b>	<b>\$ 65.00</b>	<b>\$ 80.00</b>
With Zeiss Kodak Lens, f.6.3 . . . No. 2	<b>77.00</b>	No. 3 <b>92.00</b>	No. 5 <b>120.00</b>
With B. & L.-Zeiss Tessar, Series IIb, f.6.3 . . . . .	No. 4 <b>89.50</b>	No. 5 <b>101.00</b>	No. 6 <b>141.50</b>
With B. & L.-Zeiss Tessar, Series Ic, f.4.5 . . . . .	No. 14 <b>95.50</b>	No. 15 <b>112.00</b>	No. 16 <b>152.00</b>
With Cooke, Series IV, f.5.6 . . . No. 25	<b>93.00</b>	No. 26 <b>108.00</b>	No. 27 <b>134.00</b>
With Cooke, Series II, f.4.5 . . . No. 20½	<b>96.50</b>	No. 21 <b>112.00</b>	No. 22 <b>146.00</b>
Graflex magazine plate holder, Model B, extra . . . . .	<b>13.00</b>	<b>13.00</b>	<b>15.00</b>
Film Pack Adapter, leather covered, extra . . . . .	<b>4.50</b>	<b>5.00</b>	<b>7.50</b>
Cartridge Roll Holder, leather covered, extra . . . . .	<b>7.50</b>	<b>7.50</b>	<b>10.00</b>
Leather case for camera and Film Pack Adapter, with lock and key . . . . .	<b>8.00</b>	<b>9.00</b>	<b>12.00</b>
Leather case, for six plate holders, with lock and key . . . . .	<b>4.00</b>	<b>5.00</b>	<b>8.00</b>
Leather case for camera and magazine plate or roll holder . . . . .	<b>9.50</b>	<b>10.50</b>	<b>14.00</b>
Extra Graflex plate holders, each . . . . .	<b>2.50</b>	<b>2.50</b>	<b>3.50</b>
Extra lens boards, each . . . . .	<b>.50</b>	<b>.60</b>	<b>.70</b>
Ground glass panels to interchange with plate holders . . . . .	<b>2.00</b>	<b>2.50</b>	<b>3.50</b>



# G R A F L E X



## REVOLVING BACK AUTO GRAFLEX

Folmer's Patent February 5, 1907, and June 8, 1908

### Specifications

	$3\frac{1}{4} \times 4\frac{1}{4}$	4 x 5
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 . . . . .	$5\frac{1}{2}$ lbs.	$8\frac{1}{2}$ lbs.
Size of lens board . . . . .	3 x 3 inches	$3\frac{1}{2} \times 3\frac{3}{4}$ inches
Minimum focus of lenses accommodated . . . . .	7 inches	8 inches

### PRICES

Revolving Back Long Focus Auto Graflex, without lens, including one double plate holder	$3\frac{1}{4} \times 4\frac{1}{4}$ <b>\$110.00</b>	4 x 5 <b>\$125.00</b>
Fitted with Zeiss Kodak Anastigmat Lens . . . . .	No. 5 <b>150.00</b>	No. 6 <b>179.00</b>
Fitted with B. & L.-Zeiss Protar Lens, Series VIIa . . . . .	No. 10 <b>190.50</b>	No. 13 <b>230.00</b>
Fitted with B. & L.-Zeiss Tessar Lens, Series Ic . . . . .	No. 15a <b>167.50</b>	No. 17 <b>240.50</b>
Fitted with Cooke Lens, Series II . . . . .	No. 21 $\frac{1}{2}$ <b>167.50</b>	No. 22 <b>191.00</b>
Fitted with Cooke Lens, Series IV . . . . .	No. 27 <b>164.00</b>	No. 27 $\frac{1}{2}$ <b>205.00</b>
Graflex magazine plate holder, Model B, extra	<b>13.00</b>	<b>13.00</b>
Film Pack Adapter, leather covered, extra . . . . .	<b>4.50</b>	<b>5.00</b>
Cartridge Roll Holder, leather covered, extra . . . . .	<b>7.50</b>	<b>7.50</b>
Leather case for camera and Film Pack Adapter, with lock and key . . . . .	<b>10.00</b>	<b>11.00</b>
Leather case for six plate holders, with lock and key . . . . .	<b>4.00</b>	<b>5.00</b>
Leather case for camera and magazine plate holder or roll holder . . . . .	<b>11.00</b>	<b>13.00</b>
Extra Graflex plate holders, each . . . . .	<b>2.50</b>	<b>2.50</b>
Extra lens boards . . . . .	<b>.60</b>	<b>.70</b>



## REVOLVING BACK AUTO GRAFLEX

**I**N many lines of photographic work it is frequently necessary to make vertical negatives without turning the camera on its side, and for those desiring a camera of this type the Revolving Back Auto Graflex is particularly valuable.

The revolving or turn table back may be changed from horizontal to vertical, or any intermediate position, without danger of fogging the plate or film when the slide is drawn.

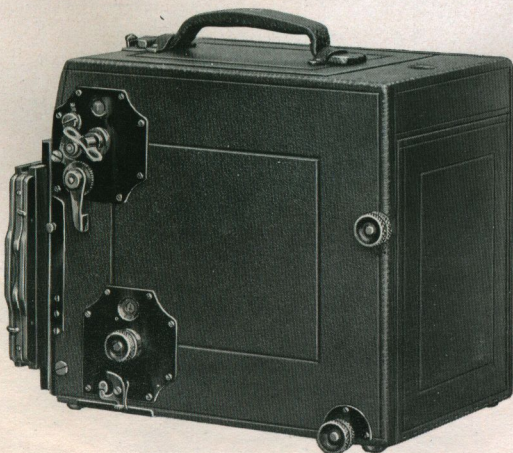
In order to intercept the rays of light for vertical as well as horizontal negatives, it is necessary to make the reflecting mirror a trifle longer than that supplied with cameras of the non-reversing type; this slightly increases the length of the body of the camera and also permits the use of long focus lenses. The front bed is fitted with a telescopic rack of exceptional rigidity which can be drawn out beyond the edge of the platform, giving the greatest possible bellows capacity. When short or medium focus lenses are used, the



Revolving Back Auto Graflex

bed may be dropped out of the cone of light and the rear pinion used for focusing. In using lenses of long focus or the single combinations of the convertible lenses, the front of the camera may be racked out beyond the edge of the bed by using the forward pinion.

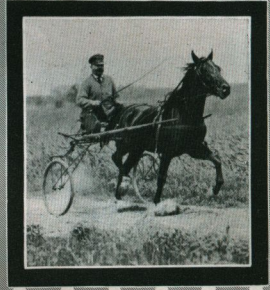
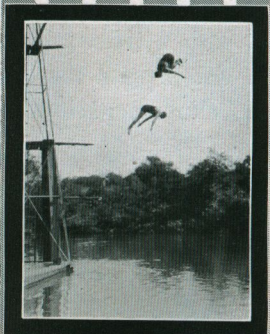
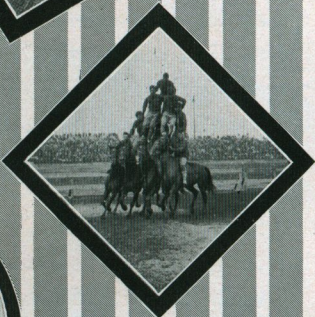
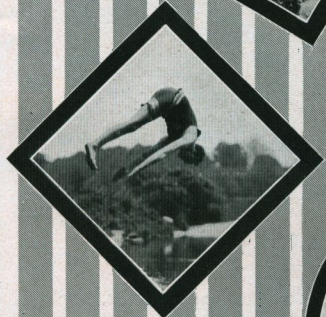
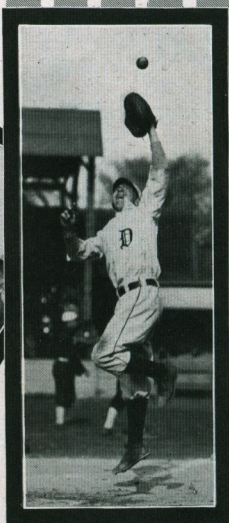
The Revolving Back Auto Graflex is fitted with a specially designed rising and falling front



Revolving Back Auto Graflex Closed

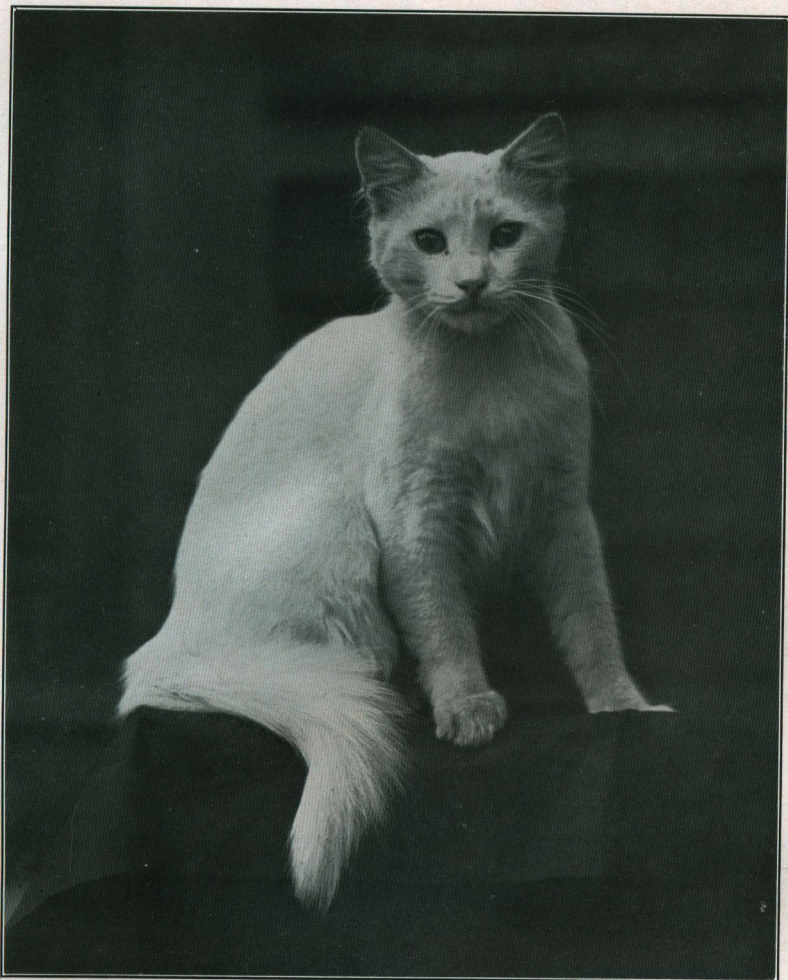


GRAFLEX



GRAFLEX

REVOLVING BACK AUTO  
GRAFLEX—Continued



Exact size of picture made with a 4 x 5 Revolving Back Auto Graflex

which permits full movement of the front regardless of the position of the bellows, as when the front is racked in as far as it will go, the entire bellows will rise, the front and rear bellows frames sliding in grooves.

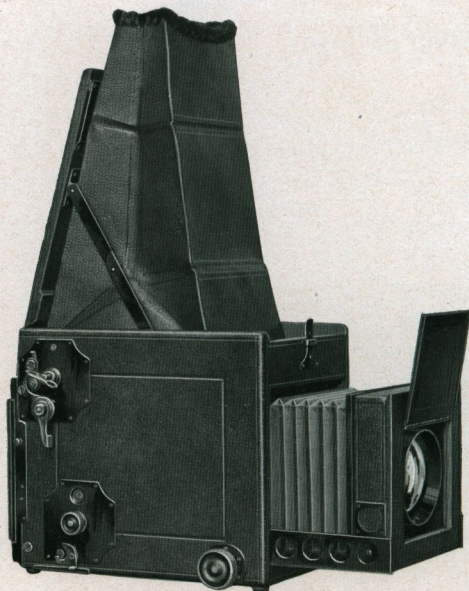
When opening the camera by pressing the release catch near the handle, the focusing hood automatically comes into position. This hood is of ample size to permit accurate focusing for either horizontal or vertical pictures.

The regular Graflex Focal Plane Shutter, actuated to give exposures from time to  $\frac{1}{1000}$  of a second, is part of this camera.

The Revolving Back Auto Graflex is made in two sizes,  $3\frac{1}{4} \times 4\frac{1}{4}$  and 4 x 5.







## THE TELESCOPIC REVOLVING BACK AUTO GRAFLEX

**Specifications**

Dimensions, when closed,  $9\frac{1}{2} \times 6\frac{3}{8} \times 8$  inches; focal capacity, 12 inches; weight,  $6\frac{3}{4}$  lbs.; size of lens board,  $4 \times 4$  inches; minimum focus of lens accommodated, 7 inches.

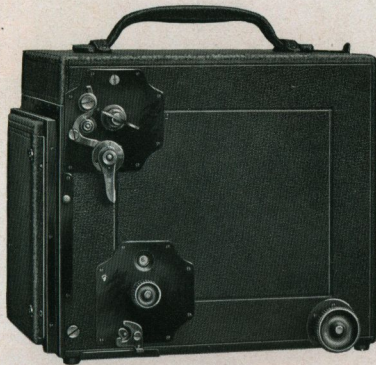
**PRICES**

	4 x 5
Telescopic R. B. Auto Graflex without lens, including one double plate holder . . . . .	<b>\$120.00</b>
With Zeiss Kodak Anastigmat, <i>f.</i> 6.3, No. 5 . . . . .	<b>160.00</b>
With B. & L.-Zeiss Tessar, <i>Ic, f.</i> 4.5, No. 15a . . . . .	<b>177.50</b>
With Cooke Lens, Series II, <i>f.</i> 4.5, No. 21 $\frac{1}{2}$ . . . . .	<b>177.50</b>
Graflex Magazine Plate Holder, Model B, extra . . . . .	<b>13.00</b>
Film Pack Adjuster, leather covered, extra . . . . .	<b>5.00</b>
Cartridge Roll Holder, leather covered, extra . . . . .	<b>7.50</b>
Leather case for camera and Film Pack Adjuster, with lock and key . . . . .	<b>11.00</b>
Leather case for camera and magazine plate holder or roll holder . . . . .	<b>13.00</b>
Extra Graflex plate holders, each . . . . .	<b>2.50</b>
Extra lens boards, each . . . . .	<b>.75</b>



## THE TELESCOPIC REVOLVING BACK AUTO GRAFLEX

**T**HIS camera is fitted with a revolving or turn-table back, similar to that supplied with the Revolving Back Auto Graflex, described on page 21, enabling the operator to make either vertical or horizontal negatives without turning the camera on its side.



Telescopic Revolving Back Graflex  
Closed

The camera can be brought into position for action quickly and easily. Pressure on a release, located near the handle, opens the camera and brings the hood into position for focusing, while the lens cover opens automatically the instant the front is racked out. An exceptionally large front board (4 x 4 inches) permits the use of the most rapid Anastigmat Lenses, and sufficient bellows capacity is provided for lenses of long enough focus to give the best pictorial effect.

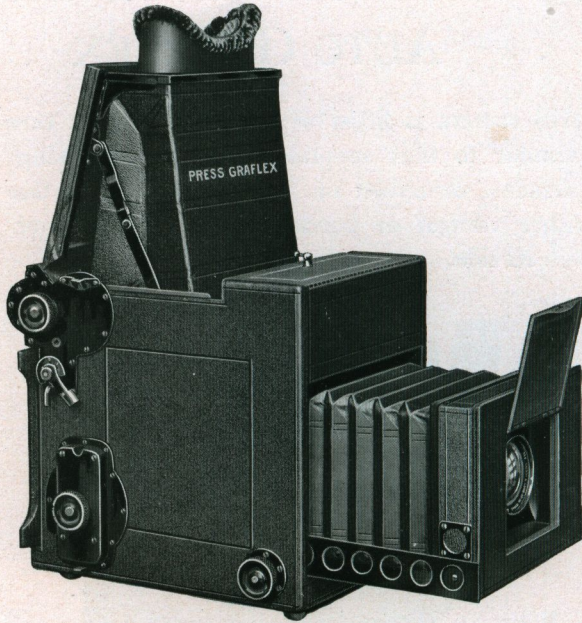
The regular Graflex Focal Plane Shutter and Reflecting Screen, as described on pages 5, 6 and 7, are part of this camera. The shutter is actuated to give automatic exposures from  $\frac{1}{10}$  to  $\frac{1}{1000}$  of a second, as well as time exposures of any duration.

The large, roomy focusing hood is attached in such a manner that it may be readily detached from the camera, rendering the focusing screen easily accessible for cleaning or replacing.

The Telescopic Revolving Back Auto Graflex is furnished in the 4 x 5 size only.



# G R A F L E X



## THE PRESS GRAFLEX

Folmer's Patent February 5, 1907, and June 8, 1909

### Specifications

Dimensions, 11 x 8 $\frac{3}{4}$  x 9 $\frac{3}{4}$ ; focal capacity, 14 inches; weight, 11 pounds; size of lens board, 4 x 4 inches; minimum focus of lenses accommodated, 8 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 . . . . .	176.00
With Cooke Lens, Series IV, <i>f</i> .5.6, No. 27 . . . . .	164.00
Graflex magazine plate holder, Model B, 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 . . . . .	15.00
Leather case for six plate holders, with lock and key . . . . .	8.00
Extra Graflex holders, each . . . . .	3.50
Extra lens boards, each . . . . .	.75



## THE PRESS GRAFLEX

**T**HE photographic department of the larger daily newspapers and illustrated magazines is rapidly becoming a factor of the utmost importance, and the Press Graflex is especially designed to meet the most exacting requirements of those engaged in this line of work.

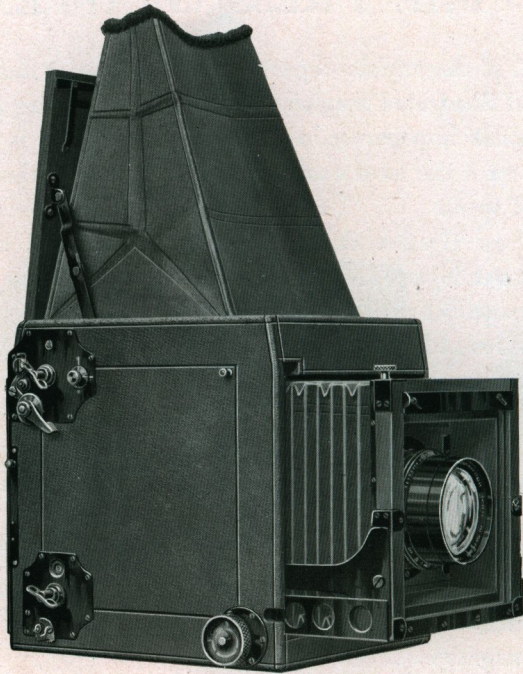
The Press Graflex is constructed to withstand very strenuous usage without injury to the mechanism, or throwing out of alignment the more delicate adjustments, and the shutter is speeded up to give exposures as brief as  $\frac{1}{1500}$  of a second, as well as time exposures of any duration.

When carrying this camera it is instantly accessible for focusing, as the top is opened by pressing a lever conveniently located near the handle; this automatically brings the focusing hood into position. The lens cover also opens the instant the front is racked out, permitting the camera to be brought into action with the least possible loss of time. This is a feature of great value to the newspaper photographer, who frequently has little or no time to prepare for making a negative.

The telescopic side arms are of sufficient length to give a bellows extension of fourteen inches, while the special construction of this camera will permit the use of lenses having a focal length as short as eight inches. The shutter curtain is wound by one complete turn of a large milled head, and the number indicating the size of the exposing aperture is reflected upward by a small right angle prism. This, together with the fact that the tension apertures are plainly visible when the camera is in its normal position, makes it unnecessary to turn the camera on its side to see either the aperture or tension index.

The focusing hood is large and spacious, giving a full, unobstructed view of the field, while the eye-shield closely fits the contour of the face, effectually excluding outside light. A detachable, spring actuated ground glass panel holds the plate holder or film pack adapter in place; this panel may be detached when using the Magazine Plate Holder or Cartridge Roll Holder, or may be used for focusing when the camera is on a tripod in an elevated position. The Press Graflex is fitted with two tripod plates for either vertical or horizontal negatives. The Press Graflex is made in the 5 x 7 size only.





## THE HOME PORTRAIT GRAFLEX

### Specifications

Dimensions,  $8\frac{3}{4} \times 10\frac{1}{2} \times 11\frac{1}{4}$  inches; focal capacity, 18 inches; weight,  $9\frac{1}{2}$  lbs.; size of lens boards,  $5 \times 5$  and  $6\frac{1}{2} \times 6\frac{1}{2}$  inches; minimum focus of lenses accommodated,  $9\frac{1}{2}$  inches.

### PRICES

	5 x 7
Home Portrait Graflex without lens, including one double plate holder	<b>\$150.00</b>
With Zeiss Kodak Anastigmat Lens, <i>f</i> .6.3, No. 6 . . . . .	<b>204.00</b>
With B. & L.-Zeiss Tessar, <i>Ic</i> , <i>f</i> .4.5, No. 17 . . . . .	<b>265.50</b>
With B. & L.-Zeiss Tessar, <i>Ic</i> , <i>f</i> .4.5, No. 18 . . . . .	<b>312.00</b>
With Cooke Lens, Series II, <i>f</i> .4.5, No. 22 $\frac{1}{2}$ . . . . .	<b>270.00</b>
With Cooke Lens, Series IV, <i>f</i> .5.6, No. 27 $\frac{1}{2}$ . . . . .	<b>230.00</b>
Graflex Magazine Plate Holder, Model B, extra . . . . .	<b>15.00</b>
Film Pack Adjuster, leather covered, extra . . . . .	<b>7.50</b>
Cartridge Roll Holder, leather covered, extra . . . . .	<b>10.00</b>
Leather case for camera and holder, with lock and key . . . . .	<b>16.00</b>
Extra Graflex plate holder, each . . . . .	<b>3.50</b>
Extra lens board, $5 \times 5$ , each . . . . .	<b>.80</b>
Extra lens board, $6\frac{1}{2} \times 6\frac{1}{2}$ , each . . . . .	<b>1.00</b>



## THE HOME PORTRAIT GRAFLEX

**A**S its name implies, this camera is designed to meet the requirements of those making portraits at home.

Although this camera is primarily intended for portrait work, it is equally efficient in all other branches of photography where excessive shutter speed is not essential. The Home Portrait Graflex is fitted with a special Focal Plane Shutter which will give automatic exposures as long as  $\frac{1}{2}$  second, or instantaneous exposures of any duration up to  $\frac{1}{5000}$  of a second. By a unique adjustment increased illumination may be secured with automatic exposures, by adding one or more of the exposing apertures to the full curtain opening. This adjustment consists of an escapement, which permits the curtain to travel its full length, utilizing all apertures. As an example, the curtain may be set for the full 7-inch and the next smaller, 2-inch, opening, this would give the effect of a 9-inch curtain aperture, or the curtain may be adjusted to give the 7-inch, 2-inch and the 1-inch opening. The shutter is adjusted to give time exposures of any duration.

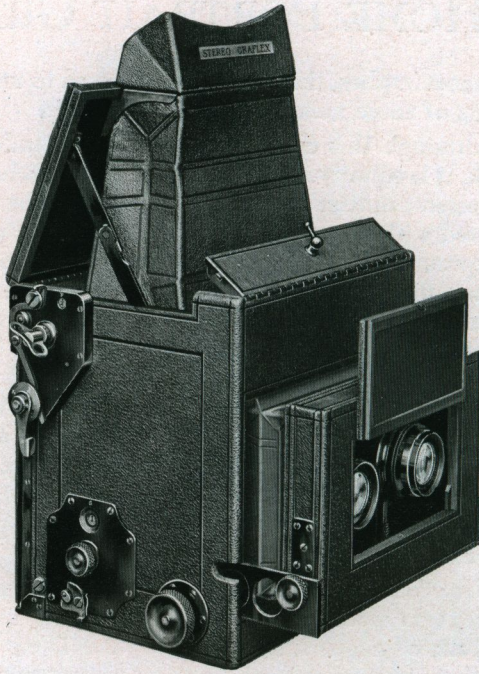
One of the special features of this camera that makes it exceptionally efficient in portrait work is the swinging front movement. By a slight turn of a quick acting screw, the front may be tipped either up or down to correct the false perspective frequently obtained in sitting figures or in groups where some of the subjects are placed in front of others. By means of this device it is possible to obtain just the diffusion required in the draperies. The fact that the image remains brilliantly visible while the adjustments are being made eliminates all uncertainty in regard to the effect secured.

The construction of the camera front is such that short, as well as long, focus lenses may be used. One lens board is flush with the front of the camera for use with medium or long focus lenses. Another smaller board fitted to the depressed front permits the use of lenses having shorter focal lengths. In addition to these features, the front is fitted with a raising and lowering device which affords ample movement in either direction.

The Revolving Back with which this camera is equipped will permit the making of either vertical or horizontal negatives without tipping the camera on its side. When changing the back from one position to another, it is not necessary to remove it from the camera. A slight pressure on the release allows the back to revolve from a vertical to horizontal, or any intermediate, position.

The Home Portrait Graflex takes the regular 5 x 7 Graflex Plate Holder, Magazine Plate Holder or Film Pack Adapter. For those who prefer roll film we supply the Graflex Cartridge Roll Holder, which takes 7-inch cartridge roll holder film. A tripod socket is provided that the camera may be used on a tripod for prolonged exposures.





## THE STEREO AUTO GRAFLEX

Folmer's Patent February 5, 1907

### Specifications

Dimensions, when closed,  $8\frac{1}{4} \times 9 \times 8\frac{3}{4}$ ; focal capacity, 8 inches; weight, 8 pounds; size of lens board,  $3 \times 5\frac{3}{4}$  inches; minimum focus of lenses accommodated,  $6\frac{1}{4}$  inches.

### PRICES

Stereo Auto Graflex without lenses, including one double plate holder	\$160.00
With matched pair Zeiss Kodak Lenses, <i>f</i> .6.3, No. 3 . . . . .	214.00
With matched pair B. & L.-Zeiss Tessar, Series IIb, <i>f</i> .6.3, No. 5 . . . . .	232.00
Graflex magazine plate holder, Model B, 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 . . . . .	12.00
Leather case for six plate holders, with lock and key . . . . .	8.00
Leather case for camera and magazine plate holder or roll holder, with lock and key . . . . .	14.00
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 STEREO AUTO GRAFLEX

**T**HERE is probably no branch of photography that affords greater pleasure than the making of stereoscopic pictures, and the steadily increasing number of purchasers of the Stereo Graflex indicates that stereo photography is growing in popularity.

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.

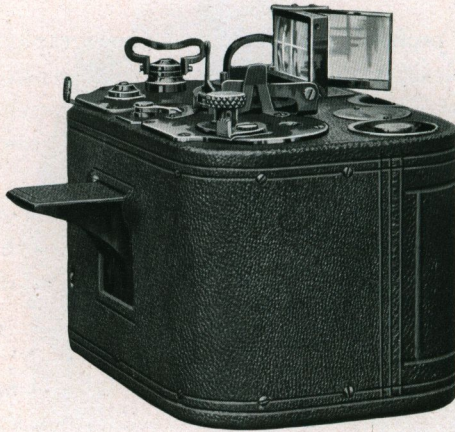
A rising front operated by a rack and pinion enables the operator to cut off the foreground when desired. The stereo partition is a part of the camera and is not removable.

The Stereo Graflex is fitted with the regular Graflex Focal Plane Shutter with safety device, giving exposures of any duration from time to  $\frac{1}{1000}$  of a second.





GRAFLEX



## THE NO. 0 GRAPHIC CAMERA

Folmer's Patent February 5, 1907, and April 21, 1908

**B**RIEFLY described 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 extreme simplicity of operation and the fact that it is unnecessary to focus makes it possible for the merest novice in photography to secure a very large percentage of perfect results. With the lens working at its full aperture of  $f.6.3$ , everything up to within twelve feet of the camera is in focus, and by using a smaller diaphragm this distance can be greatly decreased.

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



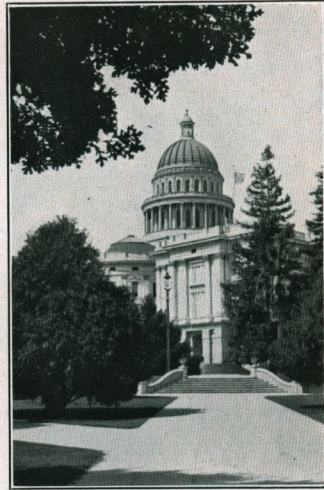
The lens is the Zeiss Kodak Anastigmat *f.6.3*, having a focal length of three inches. The diaphragm is controlled from the outside of the camera by a unique mechanical device, the lens opening being plainly shown on a dial on the top of the instrument.

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.

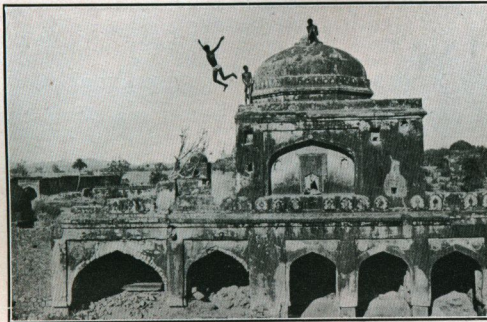
A speed table indicates the exposure speeds with varying tensions and the different curtain apertures.

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. Fitted to this finder is a small metal bound mirror which, when swung into position, converts the instrument into a deceptive angle camera, permitting the making of photographs at right angles to the line of vision.



Exact size of picture made with  
No. 0 Graphic Camera



Exact size of picture made with No. 0 Graphic Camera





**No. 0 GRAPHIC CAMERA**  
*Continued*

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 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.

Probably the most valuable feature of the No. 0 Graphic is the fact that the negatives made with this camera show such microscopic definition and marvelous depth, that the negatives may be enlarged to many times their original size and still retain all the brilliancy of a contact print. We provide a camera, the No. 0 Graphic Enlarging Camera, by means of which No. 0 negatives may be enlarged to  $6\frac{1}{2} \times 8\frac{1}{2}$  or smaller. The No. 0 Graphic Enlarging Camera is fully described on page 35.

The tourist who does not wish to carry a bulky photographic outfit, and who wishes to secure negatives that may be enlarged to any desired size, can make no better selection than the No. 0 Graphic.

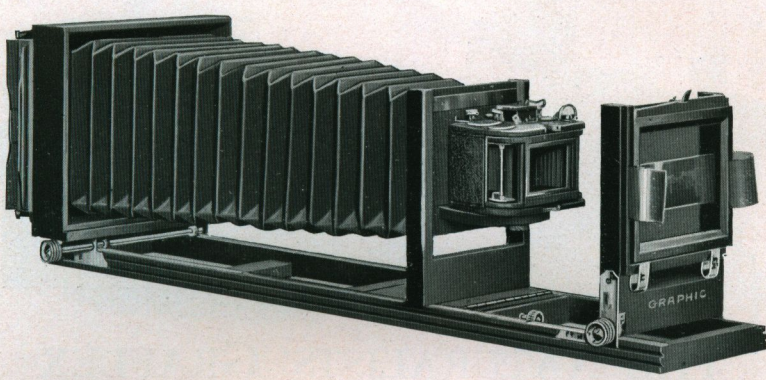
**Specifications**

Dimensions,  $5 \times 3\frac{1}{2} \times 3\frac{1}{4}$ ; weight, 25 ounces.

**PRICES**

No. 0 Graphic Camera . . . . .	<b>\$50.00</b>
Sole leather carrying case . . . . .	<b>4.00</b>





## THE NO. 0 GRAPHIC ENLARGING CAMERA

**W**ITH this camera enlargements  $6\frac{1}{2} \times 8\frac{1}{2}$  or smaller may be made from No. 0 Graphic negatives on Bromide or developing papers, with either daylight or artificial light, the resulting enlargement having all the brilliancy of a contact print.

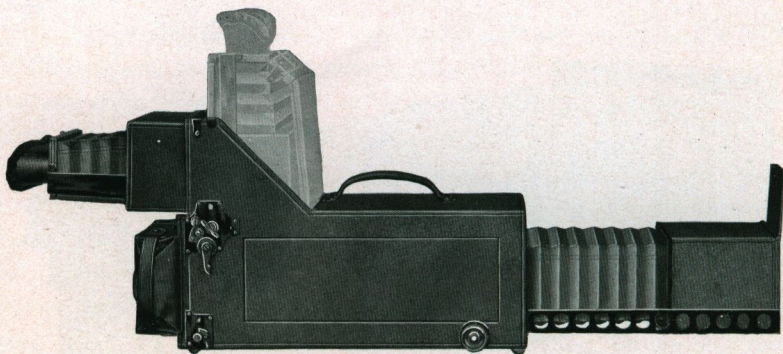
This camera is extremely easy to operate, and the making of enlargements with it is no more complicated than the making of prints in the usual way. The negative to be enlarged is placed in the carrier while the No. 0 Graphic is placed in position with the back removed and the lens shade elevated; the camera is then pointed towards the light and the image focused on the ground glass. After focusing a scribe line may be marked on the scale so that refocusing will not be necessary when making subsequent enlargements of the same size. The holder, containing a sheet of Bromide or developing paper, is then placed in position, the slide drawn and the exposure made. The fact that the lens used for making the negative is used for enlarging, all the brilliancy and detail are retained in the enlargement.

The No. 0 Graphic Enlarging Camera is furnished with mats for making 3 A ( $3\frac{1}{4} \times 5\frac{1}{2}$ ) enlargements only, although a negative  $4 \times 5$  and smaller may be enlarged to any size up to  $6\frac{1}{2} \times 8\frac{1}{2}$ , full capacity of camera.

**PRICE**

No. 0 Graphic Enlarging Camera, including holder . . . . . **\$24.00**





## THE NATURALISTS' GRAFLEX

Folmer's Patent February 5, 1907, and April 21, 1908

**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

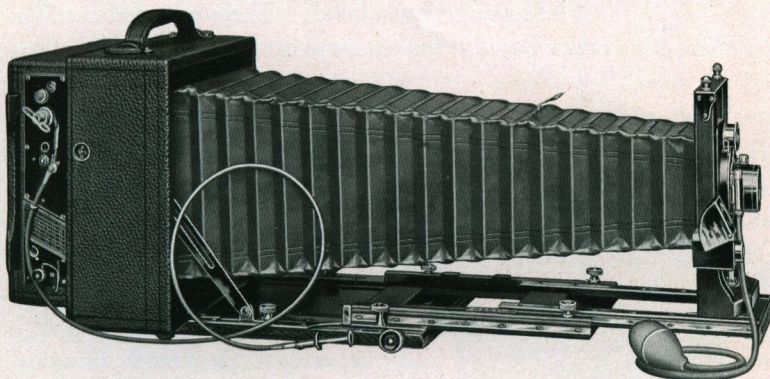
Dimensions,  $19 \times 6\frac{1}{2} \times 9\frac{3}{4}$ ; focal capacity, 26 inches; weight,  $7\frac{1}{2}$  pounds; size of lens board,  $4 \times 4$  inches; minimum focus of lens accommodated,  $12\frac{3}{4}$  inches.

### PRICES

Naturalists' Graflex, $4 \times 5$ , without lens, including one double plate holder . . . . .	<b>\$150.00</b>
With B. & L.-Zeiss Protar Lens, Series VIIa, No. 19, <i>f</i> .6.3 . . . . .	<b>336.00</b>
B. & L. High Power, Tele-Photo Attachment, extra . . . . .	<b>37.00</b>
Graflex magazine plate or cut film holder, Model B, extra . . . . .	<b>13.00</b>
Film Pack Adapter, leather covered, extra . . . . .	<b>5.00</b>
Extra Graflex holders, each . . . . .	<b>2.50</b>



GRAFLEX

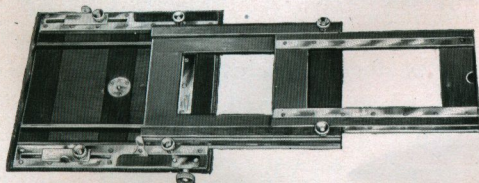


## REVOLVING BACK CYCLE GRAPHIC

**F**OR many years the Graphic Camera has held the reputation of being the foremost camera of its type, which accounts for its extensive use by an increasing number of photographers—both professional and amateur. For the technical worker the Revolving Back Graphic is particularly valuable, as its rigid construction and accurate adjustment make it indispensable for those engaged in scientific research, involving the application of photography.

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 is one of the features which has given the Graphic its prestige with scientific and advanced photographic workers.



Cycle Graphic Bed Extended

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

To allow the use of long-focus lenses, sufficient bellows capacity is provided. The front runs



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 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.



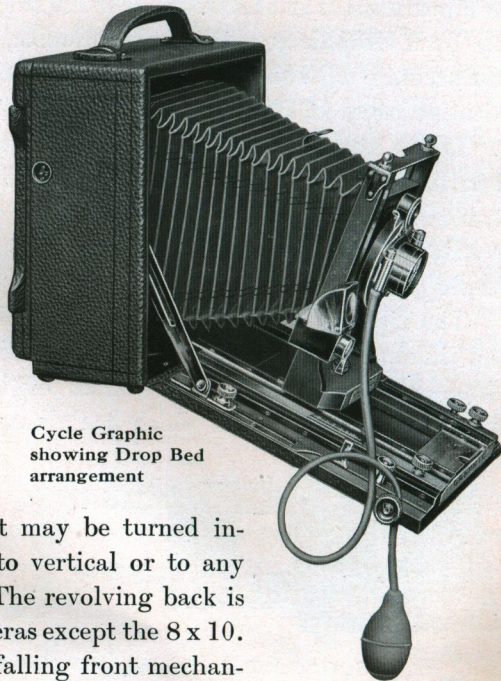
Rear of Cycle Graphic showing Revolving Back

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.

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.



Cycle Graphic showing Drop Bed arrangement



# GRAFLEX

## 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.

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 regular Premo Film Pack Adapter is interchangeable with the Graphic Plate Holder in the 4 x 5 and 5 x 7 sizes.

### Specifications

	4 x 5	5 x 7	6½ x 8½	8 x 10
Dimensions . . . . .	6⅝ x 4 x 7⅞	8¾ x 4¼ x 9¼	10⅝ x 4½ x 10⅝	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.	3⅞ x 3⅞ in.	4⅞ x 4⅞ 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	5 x 7	6½ x 8½	8 x 10*
	\$ 40.00	\$ 50.00	\$ 62.00	\$ 75.00
With Zeiss Kodak Anastigmat Lens and Compound Shutter . . . . .	No. 3	No. 5	No. 6	
	77.55	100.05	124.20	
With B. & L.-Zeiss Protar Lens, Series VIIa, and Compound Shutter . . . . .	No. 7	No. 10	No. 13	No. 17
	117.05	140.55	175.20	249.40
With Cooke Lens, Series III, and Compound Shutter . . . . .	No. 4d	No. 6d	No. 6½d	No. 8
	88.30	116.80	145.20	200.40
Extra plate holders, each . . . . .	1.00	1.25	1.75	2.00
Graflex Focal Plane Shutter, extra	17.00	18.00	20.00	23.00
Supplementary bed for Wide Angle Lenses . . . . .	7.00	7.50	8.00	9.00

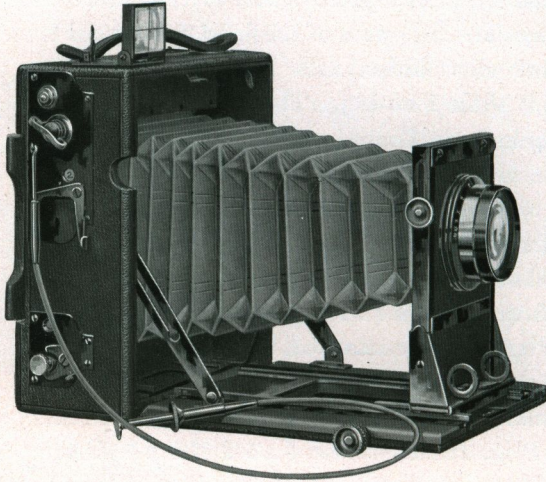
\*Furnished with reversible back only.

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 SPEED GRAPHIC

**Specifications**

	4 x 5	3¼ x 5½	5 x 7
Dimensions . . . . .	2⅞ x 7 x 8½	3½ x 7½ x 7½	3¾ x 9 x 9½
Focal capacity . . . . .	12 inches	12 inches	16 inches
Weight . . . . .	3 lbs.	3¼ lbs.	4¼ lbs.
Size of lens board . . . . .	3¼ x 3¼	3¼ x 3¼	3¾ x 3¾

**PRICES**

Including one double plate holder

	4 x 5	3¼ x 5½	5 x 7
Speed Graphic without lens . . . . .	<b>\$35.00</b>	<b>\$ 37.50</b>	<b>\$ 43.00</b>
With Zeiss Kodak Anastigmat Lens, <i>f.6.3</i> . . . . .	No. 3 <b>62.00</b>	No. 4 <b>68.00</b>	No. 5 <b>83.00</b>
With B. & L.-Zeiss Tessar, Series Ic, <i>f.4.5</i> . . . . .	No. 15 <b>82.00</b>	No. 15a <b>95.00</b>	No. 16 <b>115.00</b>
With B. & L.-Zeiss Protar, Series VIIa, <i>f.6.3</i> . . . . .	No. 4 <b>91.00</b>	No. 7 <b>104.00</b>	No. 10 <b>123.50</b>
With Cooke Lens, Series IV, <i>f.5.6</i> . . . . .	No. 26 <b>78.00</b>	No. 27 <b>91.50</b>	No. 27 <b>97.00</b>
With Cooke Lens, Series II, <i>f.4.5</i> . . . . .	No. 21 <b>82.00</b>	No. 21½ <b>95.00</b>	No. 22 <b>109.00</b>
Sole leather carrying case, with lock and key, to hold camera and five extra plate holders . . . . .	<b>7.00</b>	<b>7.50</b>	<b>8.50</b>
Extra lens boards, each . . . . .	<b>.40</b>	<b>.40</b>	<b>.50</b>
Extra plate holders, each . . . . .	<b>1.00</b>	<b>1.00</b>	<b>1.25</b>



## THE SPEED GRAPHIC

**T**HE Speed Graphic Camera is designed to meet the requirements of those desiring Focal Plane Shutter efficiency in a compact folding camera.

The Speed Graphic is made of selected, kiln-dried mahogany especially treated to withstand climatic changes. The front is large enough to accept the high speed Anastigmat lenses, and sufficiently firm to prevent vibration when the camera is used with the bellows extended to its full capacity. A piano hinge extending the full width of the camera attaches the camera body to the folding platform, which is framed and paneled to insure a maximum of rigidity without excessive weight. The extension track is made in the form of a frame, which is not only extremely rigid, but allows the lens to rest between the tracks when the camera is closed.

The Speed Graphic is covered with the best grade of Morocco leather, and the bellows, which is of ample length to accommodate the single combinations of convertible lenses, is made of black leather. All exposed wood parts are ebonized and the metal work is oxidized, producing an instrument of attractive appearance. The Speed Graphic is supplied with a non-reversible back, and when making vertical negatives the camera is turned on its side.

Built into and part of the Speed Graphic is the regular Graflex Focal Plane Shutter, as described on page 40. This shutter is actuated to give exposures of any duration from "time" to  $\frac{1}{1000}$  of a second.

The Speed Graphic includes the following adjustments:

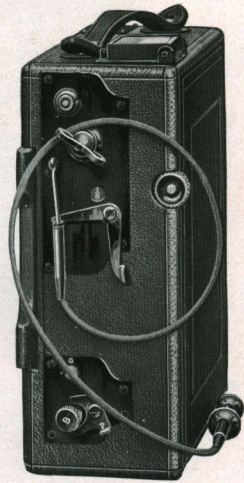
Rack and Pinion Focusing,

Direct View Finder,

Two Tripod Sockets,

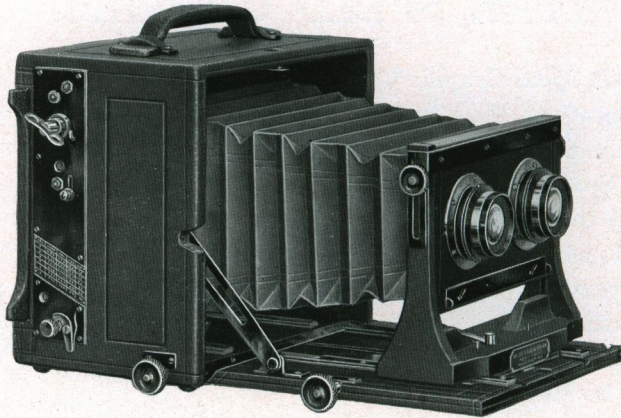
Removable Lens Board,

Rising Front.



Speed Graphic Closed





## THE STEREOSCOPIC GRAPHIC

*With Auto Graflex Shutter*

Folmer's Patents, November 5, 1901, February 5, 1907

### Specifications

Dimensions when closed,  $8\frac{7}{8} \times 5\frac{1}{2} \times 7\frac{7}{8}$ ; focal capacity,  $12\frac{3}{4}$  inches; weight, 6 pounds; size of lens board,  $3\frac{1}{8} \times 6\frac{1}{2}$  inches; minimum focus of lenses accommodated, 3 inches.

### PRICES

Stereoscopic Graphic without lenses, including one double plate holder	\$ 70.00
Stereoscopic Graphic with matched Graphic Rectilinear Lenses . . .	90.00
Stereoscopic Graphic with matched Zeiss Kodak Anastigmat Lenses, No. 3, <i>f.6.3</i> . . . . .	124.00
Stereoscopic Graphic with matched B. & L.-Zeiss Tessar Lenses, Series IIb, No. 4, <i>f.6.3</i> . . . . .	139.00
Stereoscopic Graphic with matched B. & L.-Zeiss Protar Lenses, Series VIIa, No. 7, <i>f.6.3</i> . . . . .	203.00
Stereoscopic Graphic with matched B. & L.-Zeiss Protar Lenses, Series V, No. 1 . . . . .	116.00
With matched Cooke Lenses, Series III, No. $3\frac{1}{2}$ , <i>f.6.5</i> . . . . .	145.00
Extra for Zeiss Kodak Anastigmat Lens No. 5, <i>f.6.3</i> , for full size plate . . . . .	40.00
Extra for B. & L.-Zeiss Protar Lens, Series VIIa, No. 10, <i>f.6.3</i> , for full size plate . . . . .	80.50
Leather carrying case, extra . . . . .	10.00
Graphic plate holders, extra . . . . .	1.25



## THE STEREOSCOPIC GRAPHIC

**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 oxidized 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.

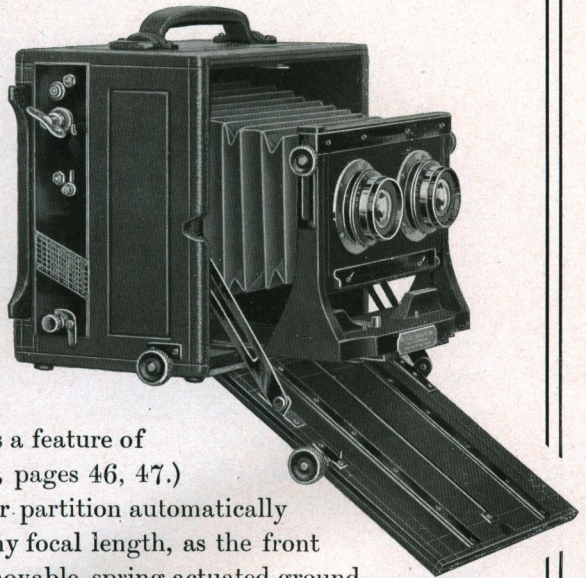
The front is securely fastened to a wide track of hard milled brass, preventing oscillation and side movement when the camera is racked out. Focus is adjusted by rack and pinion.

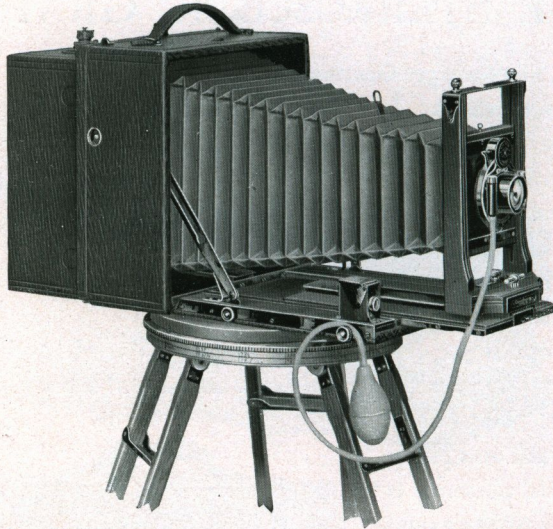
An extra pinion is set in the body of the camera for use with wide angle lenses when the front platform is dropped. The front adjusts for sky and foreground. Length of bellows is twelve inches.

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, pages 46, 47.)

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 the 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 5 x 7 work.





## CIRKUT CAMERAS AND OUTFITS

**F**OR many years the great field of Panoramic Photography has been 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 eyes see 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 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.



THE CIRKUT—  
Continued

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 Nos. 6 and 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.

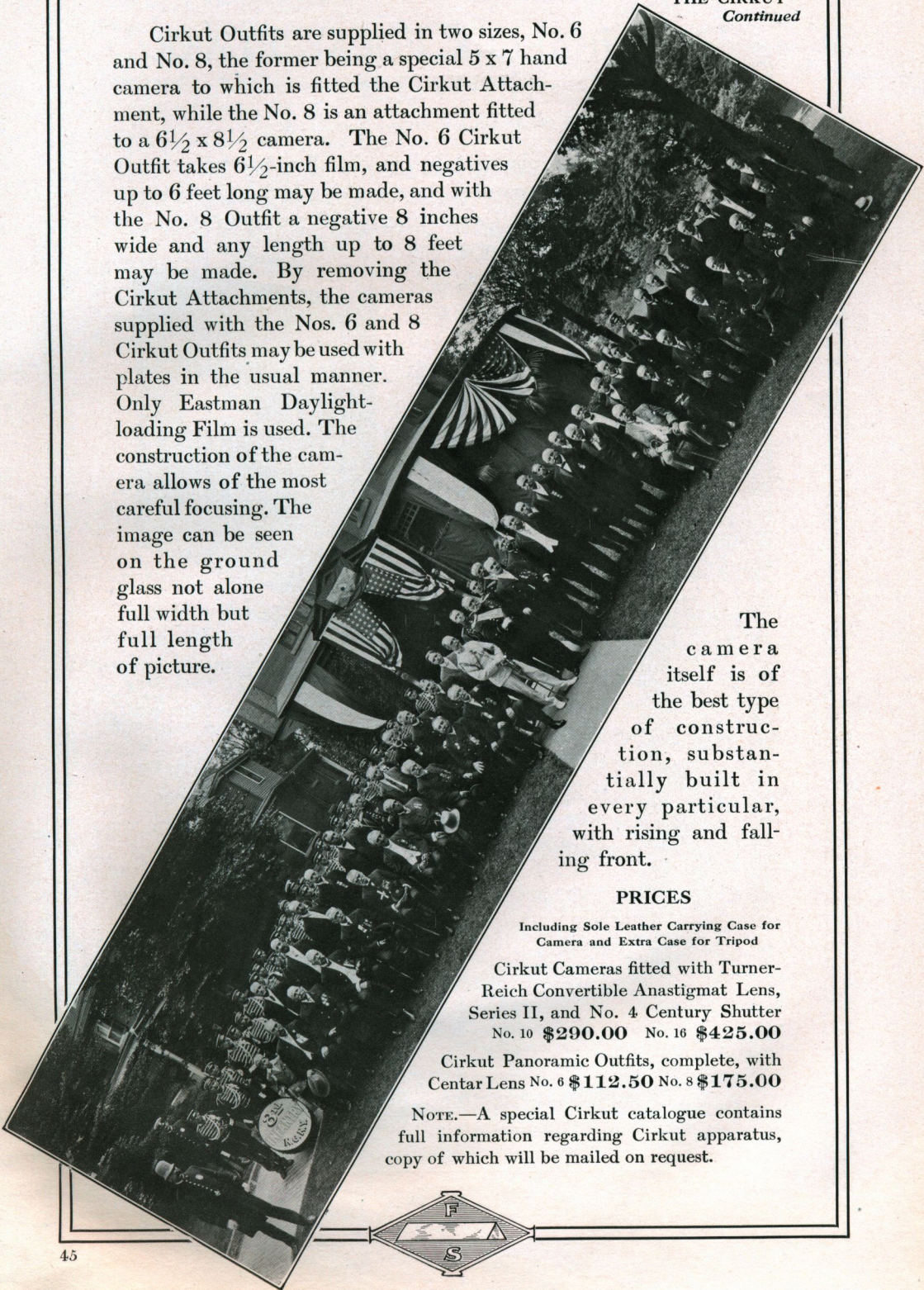
PRICES

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, with Centar Lens 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.

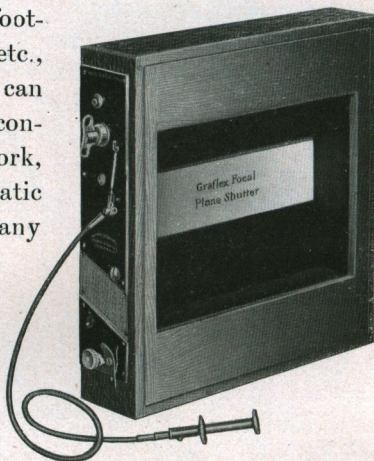


GRAFLEX

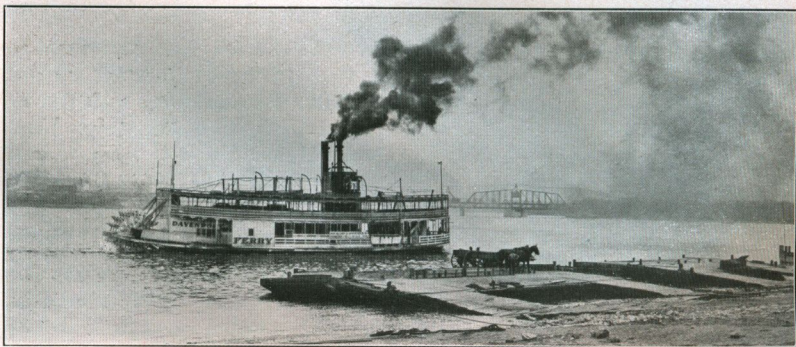
## THE GRAFLEX FOCAL PLANE SHUTTER

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



# G R A F L E X

## GRAFLEX FOCAL PLANE SHUTTER—Continued

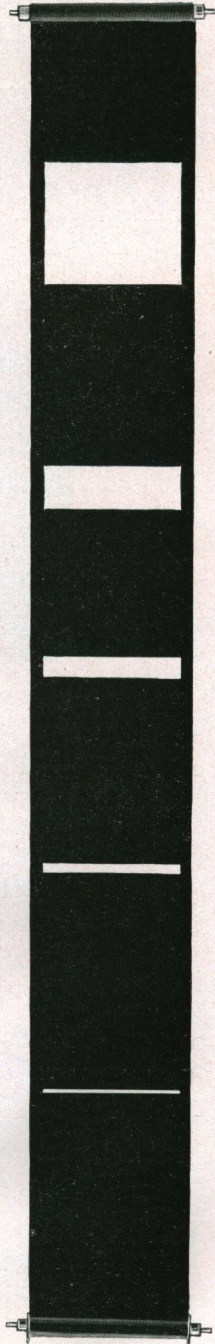
the lens, in other words the full efficiency of the aperture used is maintained during exposure. With the between-lens type of shutter there is only a fraction of the exposure given with the working aperture of the lens, varying from that down to the pinhole. It therefore follows that with the between-lens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

Graflex Focal Plane	4 x 5	5 x 7	6½ x 8½	8 x 10
Shutter . . . . .	\$17.00	\$18.00	\$20.00	\$23.00



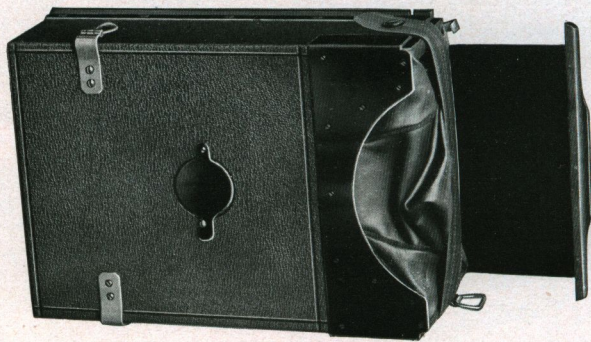




# THE GRAFLEX MAGAZINE PLATE HOLDER—MODEL A

*With Independent Dark Slide*

**T**HE Graflex Magazine Plate Holder is designed to carry twelve glass plate or cut films in metal septums. Each septum is numbered on the back, the number appearing at a ruby window in the back 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 the 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 its thickness. The serial numbers are placed in these depressions. Springs at the back of the magazine force the septums forward, and bring the plate in position for exposure into exact register. It is not necessary to expose all the plates before development, as one or more plates can be removed at any time in the dark room. The Magazine Holder may be removed from the camera at any time, as the dark slide effectually prevents the light from reaching the plates or films.

### Specifications

Dimensions . . . . .	3¼ x 4¼	4 x 5	5 x 7
Weight . . . . .	5¾ x 4¼ x 2⅞	6½ x 5 x 2¼	8¾ x 6¼ x 2½
	1¼ lbs.	1¾ lbs.	2¾ lbs.

### PRICES

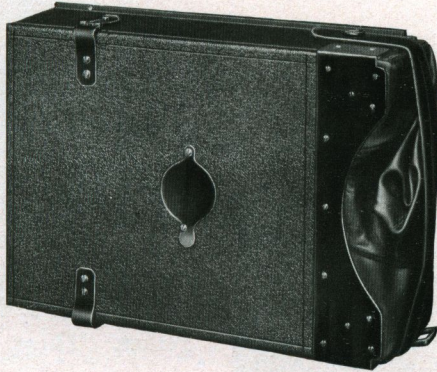
3¼ x 4¼, each . . . . .	\$14.50
4 x 5, each . . . . .	14.50
5 x 7, each . . . . .	17.00





# THE GRAFLEX MAGAZINE PLATE HOLDER—MODEL B

**T**HIS model of the Magazine Plate Holder is practically identical with the holder previously described, with the exception of the dark slide. In the Model B holder a thirteenth septum is provided; when the septum is in position in the front of the



holder it effectually excludes all light. In loading the holder the extra septum is placed in position first, and after the twelve exposures have been made it returns to the front, closing the magazine so that it may be detached from the camera in daylight.

**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 . . . . .	<b>\$13.00</b>
$4 \times 5$ , each . . . . .	<b>13.00</b>
$5 \times 7$ , each . . . . .	<b>15.00</b>



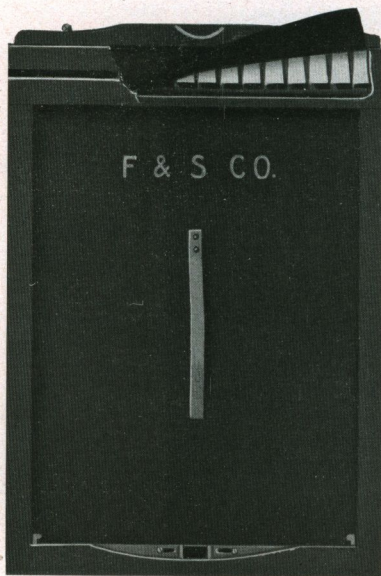
# THE GRAFLEX PLATE HOLDER

Folmer's Patent October 25, 1904

**T**HE Graflex Holder is simple, strong, practical and absolutely light-proof. It is constructed of well-seasoned, selected cherry, handsomely finished in black, and fitted with new spring finger cut-off, which excludes all light and prevents fogging of plates when drawing or replacing slides. The holder is grooved, instead of

tongued, affording increased thickness and strength without increase of space occupied.

The Graflex Holder is loaded by inserting one end of the plate under the rabbet where the slide is withdrawn, and placing the other end against the septum. With the thumb and forefinger draw the two sliding locks together. These locks hold the plate securely. They also 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  $\frac{1}{16}$  of an inch at one end.



Graflex Plate Holder showing Cut-off that will not warp, buckle or collect dust like hard rubber.

Graflex Plate Holders are fitted with a new special slide

## PRICES

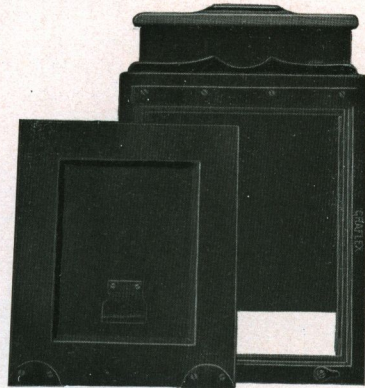
3 $\frac{1}{4}$ x 4 $\frac{1}{4}$ , each . . . . .	\$2.50
4 x 5, each . . . . .	2.50
5 x 7, each . . . . .	3.50





## GRAFLEX COLOR PLATE HOLDER

**T**HE 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

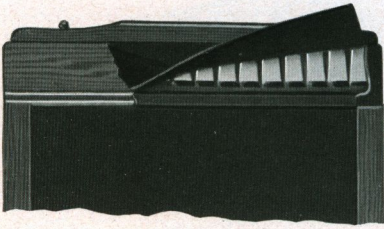
3½ x 4½, each		<b>\$4.50</b>
4 x 5, each		<b>5.00</b>
5 x 7, each		<b>6.25</b>



## 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  $\frac{1}{16}$  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.

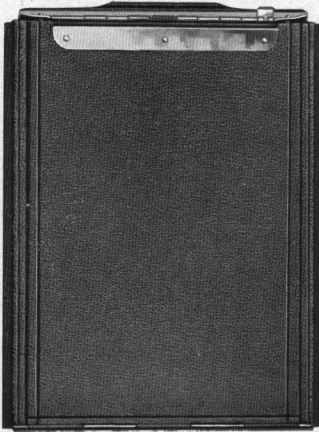
### PRICES

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



## GRAFLEX FILM PACK ADAPTER

### MODEL A



**T**HE Graflex Film Pack Adapter is covered with the same fine grade of leather that is used on the Graflex, and can be used with all the Graflex Cameras except the 1A and 3A, which instruments use roll films exclusively. The Graflex Film Pack Adapter takes the standard Premo Film Pack, and on all the Graflex Cameras except the Press, may be loaded without removing from the camera. On the Press Graflex the adapter is inserted in the same manner as a plate holder into a spring actuated back.

The entire operation of loading and unloading is effected in broad daylight. Exposures are made with the film pack as usual, but at any time the adapter slide may be inserted and the adapter removed in daylight.

**PRICES**—Graflex Film Pack Adapter, Model A      $3\frac{1}{4} \times 4\frac{1}{4}$       $4 \times 5$       $5 \times 7$   
\$4.50     \$5.00     \$7.50

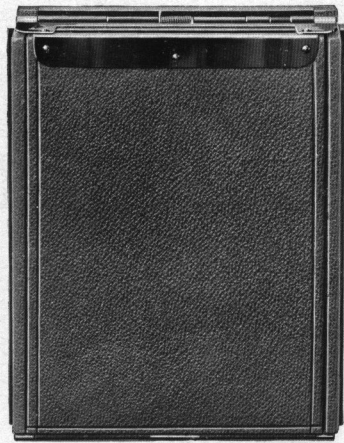
## GRAFLEX FILM PACK ADAPTER

### MODEL B—Without Slide

**A**ll focusing with a Graflex is done through the focusing hood in the top of the camera, it is seldom necessary to remove the Film Pack Adapter until all films have been exposed. For this reason we are now making a new Film Pack Adapter without slide.

This Adapter should meet with the immediate approval of Graflex users, not only because of the slight reduction in price that we are enabled to make, but also on account of the eliminating of an unnecessary separate part. Frequently the slide is lost or broken and many times failure results from the operator's neglect to draw the dark slide.

The Graflex Film Pack Adapter without slide will be known as Model B.



**PRICES**—Graflex Film Pack Adapter without slide, Model B . . . . .  $3\frac{1}{4} \times 4\frac{1}{4}$       $4 \times 5$       $5 \times 7$   
\$3.75     \$4.00     \$6.00



## THE CROWN TRIPOD

Folmer's Patent June 23, 1903

**T**HE 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 shellaced. 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 16 $\frac{1}{4}$  inches and weighs, with top, 36 ounces. When extended to its full capacity, it stands 4 $\frac{1}{3}$  feet high.

The No. 2, closed, measures 17 $\frac{1}{4}$  inches long and weighs, with top, 65 ounces. When extended, it has a height of 4 $\frac{2}{3}$  feet.

The No. 3, closed, measures 20 inches long and weighs, with top, 70 ounces. When extended, it has a height of 5 $\frac{1}{2}$  feet.



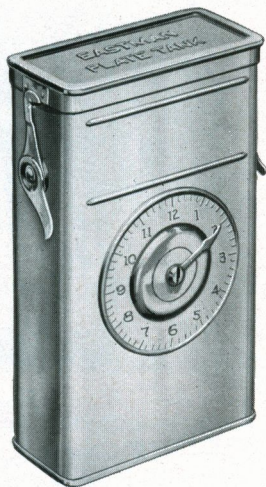
### PRICES

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



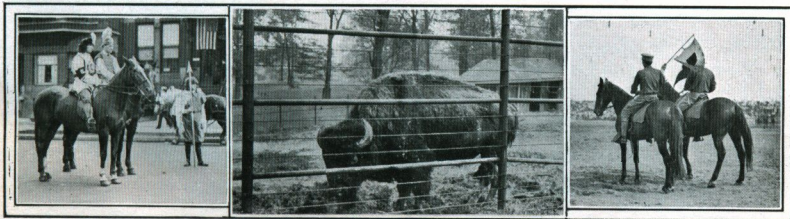
## THE EASTMAN PLATE TANK

**T**HE 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.



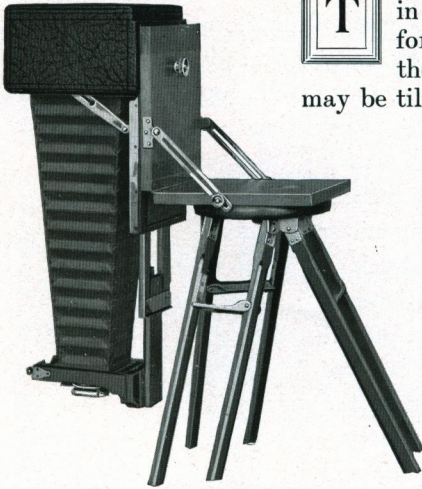
### PRICES

Eastman Plate Tank, 4 x 5, including solution cup, plate rack, and loading block . . . . .	<b>\$3.50</b>
Ditto, 5 x 7 . . . . .	<b>4.50</b>
Kit for 4 x 5 tank, to take 3¼ x 4¼ plates . . . . .	<b>.50</b>
Kit for 5 x 7 tank, to take 4¼ x 6½ plates . . . . .	<b>.75</b>
Eastman Plate Tank Developer Powders, for 4 x 5 tank, per package, ½ dozen . . . . .	<b>.20</b>
Ditto, for 5 x 7 tank, per package, ½ dozen . . . . .	<b>.35</b>
Kodak Acid Fixing Powder, per 1-pound package . . . . .	<b>.25</b>





## CROWN TILTING TRIPOD TOP



**T**HE Crown Tilting Tripod Top is made in two sizes, Nos. 1 and 2, and designed for use with the Crown Tripods. By the aid of this attachment the camera may be tilted at any angle upward or downward, and also reversed for vertical pictures without changing the back or removing it from the tripod. Its portability and compactness will at once commend it to the photographer, especially for out-of-door use.

The top is perfectly rigid, no matter what position it may occupy.

**PRICES**

Crown Tilting Tripod Top No. 1 . . . \$3.00  
 Crown Tilting Tripod Top No. 2 . . . 3.50

## CROWN FLASH LAMP

*For Pure Magnesium Only*

**T**HE Crown Flash Lamp is so constructed that the magnesium powder is stored in the body of the lamp and blown up through the center of flame, thoroughly consuming it and producing a powerful light. The head of lamp is filled with lamp-wick, saturated with alcohol. This gives a large flame, which is very essential in a perfect flash lamp. The head of lamp is removable in order to fill the magazine with magnesium powder. A safety disc is provided, to protect the hand when using the lamp. Tube and mouth pieces are also furnished.

The double spreader will not clog up and is more powerful than any other lamp of double its cost now on the market. Long or short flashes can be made.

The Crown is the perfection of flash lamps, being safe, economical and reliable. It is finished in polished nickel and presents a very handsome appearance. This lamp is intended for use with pure magnesium only, and explosive flash-powder of any kind must not be used with it.



**PRICE**

Crown Flash Lamp . . . . . \$1.50



## 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.



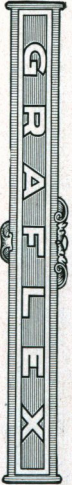
## GRAFLEX AND GRAPHIC CAMERAS

CAMERA	Zeiss Kodak <i>f.6.3</i>			B. & L.-Zeiss Tessar Ic, <i>f.4.5</i>			B. & L.-Zeiss Tessar IIb, <i>f.6.3</i>			B. & L.-Zeiss Protar VIIa, <i>f.6.3</i>			Cooke Lens IV, <i>f.5.6</i>			Cooke Lens II, <i>f.4.5</i>		
	No.	In.	Price	No.	In.	Price	No.	In.	Price	No.	In.	Price	No.	In.	Price	No.	In.	Price
1-A Graflex . . . .	2	5	\$ 82 00	14	5	\$100 50	4	5 $\frac{3}{8}$	\$ 94 50	..	..	.....	25	5	\$ 98 00	20 $\frac{1}{2}$	5	\$101 50
3-A Graflex . . . .	4	6 $\frac{7}{8}$	105 50	15a	7 $\frac{1}{16}$	132 50	5a	7 $\frac{1}{16}$	125 50	7	6 $\frac{3}{8}$	\$141 50	27	8	129 00	21 $\frac{1}{2}$	6 $\frac{1}{2}$	132 50
3 $\frac{1}{4}$ x4 $\frac{1}{4}$ Auto Graflex	2	5	77 00	14	5	95 50	4	5 $\frac{3}{8}$	89 50	..	..	.....	25	5	93 00	..	..	.....
4 x 5 Auto Graflex	3	6 $\frac{1}{8}$	92 00	15	6	112 00	5	6 $\frac{1}{8}$	101 00	..	..	.....	26	6	108 00	..	..	.....
5 x 7 Auto Graflex	5	8 $\frac{1}{4}$	120 00	16	8 $\frac{1}{4}$	152 00	6	8 $\frac{1}{4}$	141 50	..	..	.....	27	8	134 00	22	8	146 00
5 x 7 Press Graflex	5	8 $\frac{1}{4}$	150 00	16	8 $\frac{1}{4}$	182 00	6	8 $\frac{1}{4}$	171 50	13	9 $\frac{1}{4}$	215 00	27	8	164 00	22	8	176 00
5 x 7 H. P. Graflex	6	10	204 00	17	9 $\frac{7}{8}$	265 50	..	..	.....	..	..	.....	27 $\frac{1}{2}$	9 $\frac{1}{2}$	230 00	22 $\frac{1}{2}$	10 $\frac{1}{2}$	270 00
3 $\frac{1}{4}$ x4 $\frac{1}{4}$ R. B. Graflex	5	8 $\frac{1}{4}$	150 00	15a	7 $\frac{1}{16}$	167 50	..	..	.....	10	7 $\frac{3}{4}$	190 50	27	8	164 00	21 $\frac{1}{2}$	7	167 50
4 x 5 R. B. Graflex	6	10	179 00	17	9 $\frac{7}{8}$	240 50	..	..	.....	13	9 $\frac{1}{4}$	230 00	27 $\frac{1}{2}$	9 $\frac{1}{2}$	205 00	22	8	191 00
4 x 5 T. R. B. Graflex	5	8 $\frac{1}{4}$	160 00	15a	7 $\frac{1}{16}$	177 50	..	..	.....	..	..	.....	..	..	.....	21 $\frac{1}{2}$	7	177 50

CAMERA	Fitted with Zeiss Kodak Anastigmat Lens, <i>f.6.3</i>		Fitted with B. & L.-Zeiss Tessar, Series Ic, <i>f.4.5</i>		Fitted with B. & L.-Zeiss Protar, Series VIIa, <i>f.6.3</i>		Fitted with Cooke Series III Lens, <i>f.6.5</i>	
	Compound Shutter		Compound Shutter		Compound Shutter		Compound Shutter	
	No.	Price	No.	Price	No.	Price	No.	Price
4 x 5 Revolving Back Cycle Graphic	3 L } 2 S }	..... \$ 77 55	15 L } 2 S }	..... \$ 97 55	7 L } 2 S }	..... \$117 05	4D L } 1 S }	..... \$ 88 30
5 x 7 Revolving Back Cycle Graphic	5 L } 2 S }	..... 100 05	16 L } 4 S }	..... 137 80	10 L } 2 S }	..... 140 55	6D L } 3 S }	..... 116 80
6 $\frac{1}{2}$ x 8 $\frac{1}{2}$ Revolving Back Cycle Graphic	6 L } 3 S }	..... 124 20	17 L } 4 S }	..... 187 70	13 L } 3 S }	..... 175 20	6 $\frac{1}{2}$ D L } 3 S }	..... 145 20
8 x 10 Reversible Back Cycle Graphic	.....	.....	.....	.....	17 L } 4 S }	..... 249 40	8 L } 4 S }	..... 200 40

Extra for Graflex Focal Plane Shutter, fitted    4 x 5 . . . \$17 00    5 x 7 . . . \$18 00    6 $\frac{1}{2}$  x 8 $\frac{1}{2}$  . . . \$20 00    8 x 10 . . . \$23 00

CAMERA	Fitted with Zeiss Kodak Anastigmat Lens, <i>f.6.3</i>	Fitted with B. & L.-Zeiss Tessar, Series Ic, <i>f.4.5</i>	Fitted with B. & L.-Zeiss Protar, Series VIIa, <i>f.6.3</i>	Fitted with Cooke Lens, Series IV, <i>f.5.6</i>	Fitted with Cooke Lens, Series II, <i>f.4.5</i>
4 x 5 Speed Graphic	No. 3 . . . \$ 62 00	No. 15 . . \$ 82 00	No. 4 . . \$ 91 00	No. 26 . . \$ 78 00	No. 21 . . \$ 82 00
3 $\frac{1}{4}$ x 5 $\frac{1}{2}$ Speed Graphic	No. 4 . . . 68 00	No. 15a . . 95 00	No. 7 . . 104 00	No. 27 . . 91 50	No. 21 $\frac{1}{2}$ . . 95 00
5 x 7 Speed Graphic	No. 5 . . . 83 00	No. 16 . . 115 00	No. 10 . . 123 50	No. 27 . . 97 00	No. 22 . . 109 00



# GRAFLEX

## 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	6⅞	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	3½ x 4½	5⅝	\$ 34 50	\$ 51 50	\$ 49 00
5	4 x 5	6	36 00	53 00	52 25
5k	3½ x 5½	6⅞	46 00	63 00	60 50
5a	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	14⅝	158 50	178 50	.....
9a	11 x 14	16⅝	178 00	.....	.....
10	14 x 17	19⅞	252 00	.....	.....
11	16 x 20	23	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
15a	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	9	115 50	135 50	137 50
18	8 x 10	11⅞	162 00	.....	.....
18a	10 x 12	14	210 00	.....	.....
19	11 x 14	15⅞	252 00	.....	.....
20	14 x 17	19	360 00	.....	.....

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

No.	Size of Plate covered with Full Aperture Inches	Equivalent Focus of Single Protars, Ins.		Combined Equivalent 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	8	8	5⅞	6.3	\$ 56 00	\$ 73 00	\$ 70 50
5	4½ x 6½	11	8	5	7.	61 50	78 50	77 75
6	4½ x 6	13	8	6	7.7	68 50	87 00	84 75
7	4½ x 7	11	11	6	6.3	66 50	83 50	82 75
8	5 x 7	13	11	7	7.	73 50	92 00	89 75
9	5 x 8	16	11	7⅞	7.7	86 00	104 50	106 00
10	5 x 8	13	13	7	6.3	80 50	99 00	96 75
11	6½ x 8½	16	13	8	7.	93 00	111 50	113 00
12	6½ x 8	18	13	9	7.7	114 50	134 50	134 50
13	6½ x 8½	16	16	9	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	10⅞	7.7	148 50	168 50	170 50
16	7 x 9	18	18	10	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	12	7.7	199 50	219 50	221 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**

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

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

No.	DIMENSIONS IN INCHES		PRICE	
	Focus	Plates covered with Full Aperture	Lens Only	With Compound Shutter
25	5	3 $\frac{1}{4}$ x 4 $\frac{1}{4}$	\$ 38 00	\$ 50 00
26	6	4 x 5	43 00	57 50
27	8	5 x 7	54 00	70 25
27 $\frac{1}{2}$ new	9 $\frac{1}{2}$	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	80 00	100 00
28 new	11	7 x 9	110 00	132 00
29	13	8 x 10	130 00	152 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**

No.	DIMENSIONS IN INCHES		PRICE
	Focus	Plates covered with Full Aperture	
20	4	3 $\frac{1}{4}$ x 3 $\frac{1}{4}$	\$ 35 00
20 $\frac{1}{2}$	5	3 $\frac{1}{4}$ x 4 $\frac{1}{4}$	41 50
21	6 $\frac{1}{2}$	4 x 5	47 00
21 $\frac{1}{2}$ new	7	5 x 7	57 50
22 new	8	5 x 7	66 00
22 $\frac{1}{2}$ new	10 $\frac{1}{2}$	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	120 00
23 new	13	8 x 10	182 00

**COOKE TELAR LENS, f.7**

No.	Camera Extension Necessary for Objects at Infinity	Equivalent to Lenses of	Diameter of Lens Cell	For Plates	PRICE In Iris Mount
1	4 $\frac{1}{2}$ "	8 "	1 $\frac{3}{8}$ "	2 $\frac{1}{2}$ x 4 $\frac{1}{4}$	\$22 50
2	5 $\frac{1}{2}$ "	10 $\frac{3}{4}$ "	1 $\frac{3}{8}$ "	3 $\frac{1}{4}$ x 4 $\frac{1}{4}$	30 00
2 $\frac{1}{2}$	7"	13 $\frac{1}{2}$ "	2 $\frac{1}{8}$ "	4 x 5	42 00
3	8 $\frac{1}{2}$ "	16"	2 $\frac{3}{8}$ "	5 x 7	49 00
4	11 $\frac{1}{2}$ "	22"	3 $\frac{1}{8}$ "	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	98 00

**OUR TERMS**

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

Remittance can be made by draft on New York, postoffice 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, N. Y.



