

GRAFLEX

GRAFLEX AND GRAPHIC CAMERAS

1920

Eastman Kodak Company

Folmer & Schwing Department

Rochester, N.Y.



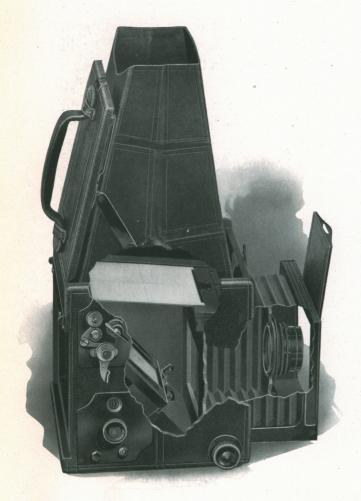
The GRAFLEX

HE Graflex has rightly been called "the camera that does the difficult things in photography—and does them well." But the Graflex does more than that—it makes pictures of average subjects with greater certainty than is possible with any other type of camera.

The Graflex widens the possibilities of pictorial achievement. The user of the Graflex quickly learns to appreciate this, and to almost disregard the character of subject, place, time or prevailing light. There is a certainty in getting results with the Graflex camera that largely increases the pleasure of picture-making.

Pictures that tell a story have a strong appeal, and hold the interest, whether they are faithful records of the stirring activities at the races; in the athletic and aviation field; pleasing poses of the youngsters caught at play; portraits within the home; or pictures made in the soft light of cloudy or rainy days—pictures that are easily within the scope of the Graflex.

With a Graflex, it is unnecessary to either estimate or measure the distance between the camera and subject to properly focus the lens. Looking into the focusing hood, one sees a full picture size reflection of the subject—and right side up. A slight turn of the focusing button instantly adjusts the lens and the focus of this reflected image, as the camera is moved about, to properly include the required detail. There is no guess work. The picture is shown just as it will appear in the finished print. This is accomplished by interposing a swinging mirror between the lens and camera back. The image projected by the lens is reflected upward and upon a ground glass focusing screen in the camera top. When the exposure is made, the mirror swings up out of the way, and the reflected image is projected upon the sensitized film or plate.



The GRAFLEX
REFLECTING PRINCIPLE

High illumination and uniform exposure of the film or plate are features of the Graflex Focal Plane Shutter that are as important as the reflecting principle. The Graffex is too frequently associated with "speed pictures" alone, without thought of the fact that the optical and mechanical principles that permit making fullytimed negatives in \(\frac{1}{1000}\) of a second, will also permit making perfect negatives when the light is poor. The Graflex Focal Plane Shutter has. therefore, a decided advantage over shutters of the usual type, because it allows the lens to work at its entire efficiency throughout the period of exposure—all the light entering the lens reaches the film or plate with every exposure. It is unquestionably the type of shutter that uses all the light there is. With shutters of the between the lens type, the lens is working at its full diaphragm opening during only a small fraction of the exposure, the remaining portion of the exposure period being utilized by

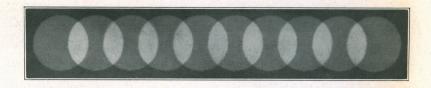


Graflex Shutter Curtain

the opening and closing of the shutter. This is illustrated on the next page.

The Graflex Focal Plane Shutter consists of a long curtain with a number of fixed apertures, varying from the full size of the negative to one-eighth of an inch in width. These openings are of fixed size and metal bound, insuring at all times an absolutely uniform rectangular aperture, and therefore, uniform exposure. The curtain operates as closely as possible to the surface of the plate or film when in position for exposure.

The duration of exposure is regulated by the size of the curtain aperture employed, and the tension on the curtain, which regulates the rapidity with which the aperture in the curtain moves across the recording plane.





The illustrations above are reproduced from actual photographs made at the Kodak Research Laboratory. The upper illustration shows that with a Graflex Focal Plane Shutter there is no diminishing of the volume of light due to the opening and closing of the shutter, the lens working at its full efficiency during the entire period of exposure. The lower cut shows how a between-lens shutter, when making short exposures, uses up most of the exposure period in opening and closing, allowing the lens to work at its full efficiency during only a small fraction of the exposure.

This is why the Graflex Focal Plane Shutter allows more light to reach the plate or film during the interval of exposure than any other shutter.

A shutter speed plate attached to the camera, gives the approximate shutter speeds in fractional parts of a second, obtainable with the various combinations of curtain apertures and tension numbers.

Exposure tables for views and speed work, provided with every Graflex leaving the factory, show at a glance the approximately correct shutter speed and lens stop to use for a great variety of subjects.

Picture-making with the Graflex is very simple. A suitable exposure is selected from the tables and the shutter is set. Focusing is done while watching the full picture size reflection on the screen, and when the best arrangement is shown, the exposure is made by a pressure of the mirror release lever. The mirror swings up out of the way, and in turn trips the shutter curtain. The mirror seats against an air cushion formed in the top of the camera, effectually preventing all vibration. Another exclusive Graflex feature is the safety device which prevents the re-winding of the shutter curtain until the mirror is set in focusing position, thus preventing premature exposure of the plate or film.

The Focal Plane Shutter in Graflex cameras can be operated at twenty-four instantaneous speeds ranging from ½0 to ½000 of a second. There are also adjustments for slow instantaneous speeds of about ½ of a second, and "time" exposures of any duration. The only exceptions are Press Graflex, where a speed of ½500 of a second may be obtained, and the Home Portrait Graflex, which has a maximum shutter speed of ½500 of a second.

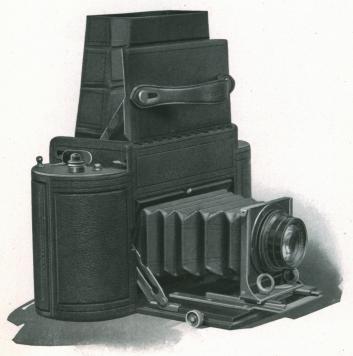
Every part of every Graflex is made and adjusted with the utmost precision and every Graflex is subjected to a rigid inspection and test before being placed on the market, insuring to the purchaser the greatest possible camera value.





Auto Graflex Shutter Control Mechanism

The rich appearance of the Graflex is fully in keeping with its mechanical excellence. 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. Although it is rarely necessary to use a tripod with the Graflex, tripod plates are provided, permitting the use of a tripod for prolonged time exposures.



The 1A GRAFLEX

Cutographic

The 1A GRAFLEX

autographics

COMPACTNESS and Kodak roll film convenience are featured in the 1A Graflex. Where these advantages are required in combination with the Graflex reflecting principle and Graflex Focal Plane Shutter efficiency in a camera that makes pictures of pleasing proportions— $2\frac{1}{2} \times 4\frac{1}{4}$ in.—the 1A Graflex will be found especially suitable.

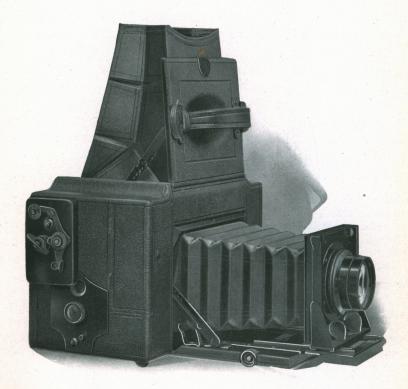
Another advantage is the *Autographic* feature which permits making directly after each exposure, a written record that will permanently appear upon the negatives. This permanent record affords a relief from all uncertainty and disappointment when positive identification of negatives is required.

When the camera is closed, the focusing hood folds neatly into the top, and the lens, bellows and reflecting mirror all recede into the camera body. Because of this very compact construction, the focusing screen is made a trifle narrower than the full width of the negative; this does not, in the slightest degree, interfere with accurate focusing.

Like other models of Graflex, this camera is equipped with the Graflex Focal Plane Shutter, affording variations in exposures from "time" to ½000 of a second. The shutter is fitted with a safety device which prevents winding of the curtain when the mirror is up; this insures the setting of the mirror and prevents fogging of the film.

Details Outside dimensions, closed, $9\frac{1}{2} \times 3 \times 5\frac{1}{4}$; focal capacity, $6\frac{1}{2}$ in.; weight, $3\frac{3}{4}$ lbs.; size of lens board, $2\frac{1}{4} \times 2\frac{3}{8}$ in.; minimum focus of lenses accommodated, $4\frac{3}{4}$ in. For Film only. Plate adapters are not supplied. Tripod socket in base of camera.

The Price			
1 116 1 1166			2½ x 4¼
1A Graflex without lens			\$104.00
With Kodak Anastigmat Lens f.4.5, No. 31			141.33
With B. & L. Kodak Anastigmat Lens, f.6.3, No. 2.			132.80
With B. & L. Tessar Lens, Series Ic, f.4.5, No. 14			155,20
Leather Case for 1A Graflex			8.25
Extra lens boards, each			.75
Autographic Film Cartridge, 12 exposures (No. A 116)			.60
Autographic Film Cartridge, 6 exposures (No. A 116)			.30



The 3A GRAFLEX

Autographic

The 3A GRAFLEX

autographics

THIS camera makes the very popular $3\frac{1}{4} \times 5\frac{1}{2}$ in pictures, and makes them the "Graflex way" upon Kodak roll film.

The focal length and speed of the lenses recommended; the bellows extension provided, and the variety of shutter speeds available permit a wide application of the 3A Graflex, including portraits within the home, close up work, landscapes and speed pictures.

It is frequently difficult to determine where, when or how certain pictures among a collection, were made. This is especially true if the negatives were made some time before, in distant places, or are of a technical character. The *Autographic* feature fitted to the 3A Graflex, provides against such uncertainty. At the time every picture is made, an identifying inscription can be recorded directly upon the film of each negative.

The surplus space at each end of the camera is converted into film storage pockets, each holding two rolls of film. This permits carrying in the camera sufficient film for fifty exposures, obviating any disappointment in picture making through lack of film, conveniently at hand.

The front of the camera is very rigid, and large enough to accommodate any of the well-known high-speed Anastigmat lenses having a suitable focal length—from $6\frac{1}{4}$ to $7\frac{1}{2}$ in. The lenses listed with the camera have been carefully selected, and where the full value of the 3A Graflex is required, a lens working at f.4.5 is especially recommended.

Twenty-four instantaneous speeds from ½0 to ½000 of a second, indicated by the shutter speed plate attached to the camera, as well as a slow instantaneous speed of about ½ of a second and "time" exposures of any duration, are provided for with the Graflex Focal Plane Shutter built into the camera.

The focusing hood, which opens automatically when the cover of the camera is raised, is amply large to enable the operator to focus perfectly. The focusing hood is also detachable, allowing easy access to the ground glass screen when prolonged use makes cleaning necessary. The back of the camera is hinged, and when opened affords easy access to the film compartments.

A metal stop is adjusted to the track at a point indicating the "infinity focus" of the lens, and when the front is drawn out to this point, distant objects may be photographed without focusing. This is



3A Graflex, Closed, Showing Autographic Feature

a valuable feature for general landscape work where none of the subjects are close to 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 exposures, and another in the side for vertical negatives.

Details Dimensions, 10 x 5 x 6%; focal capacity, 10 in.; weight, 7 lbs.; size of lens board, 3¼ x 3¼ in.; minimum focus of lenses accommodated, 6½ in. For Film only. Plate adapters are not supplied.

The Price	
	31/4 x 51/2
3A Graflex without lens	
With Kodak Anastigmat Lens, f.4.5, No. 33	 173.33
With B. & L. Kodak Anastigmat Lens, f.6.3, No. 4	 156.80
With B. & L. Tessar Lens, Series Ic, f.4.5, No. 15a	192.53
Leather Case for 3A Graflex	10.50
Extra lens boards, each	.90
Autographic Film Cartridge, 10 exposures (No. A 122)	.90
Autographic Film Cartridge, 6 exposures (No. A 122)	.55

The prices of camera and film include the Excise War Tax.

REFER TO FITTING LENSES, PAGE 63.



Size of picture made with $2\frac{1}{2} \times 4\frac{1}{4} - 1$ A Graflex



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

The AUTO GRAFLEX

SIMPLICITY and rapidity in operation, plus adaptability to all-round photography and the interchangeable use of plates or film, briefly describes the Auto Graflex.

Any one of the three popular size models listed, is suitable for an almost unlimited variety of subjects, the exceptions being confined chiefly to classes of work requiring greater bellows capacity or long focus lenses.

The camera can be brought into action very quickly—an advantage when a good subject for a picture is unexpectedly encountered. Release of a catch brings the hood into focusing position and a slight movement of the focusing button advances the front and causes the lens shield to automatically open.

The back of the Auto Graflex does not revolve, but vertical pictures

can readily be made by first focusing in normal position and then making the exposure with the camera turned on its side



Any of the well-known Anastigmat lenses may be fitted to the Auto Graflex, although our experience has proved that the most satisfactory results will be obtained with the lenses listed with each model. Wide angle and short focus lenses can not be fitted to Graflex Cameras, as the lens must be far enough from the focal plane to provide room for the action of the mirror.

The 5×7 Auto Graflex differs slightly in construction from the $3\frac{1}{4} \times 4\frac{1}{4}$ and 4×5 sizes. The front, as well as the lens cover, is hinged, affording easy access to the lens, and the top front edge of the camera body is curved, similar to the Revolving Back Auto Graflex.

The Auto Graflex takes the regular Graflex plate holder, also the Graflex Magazine Plate or Cut Film Holder; the Graflex Film Pack Adapter and the Graflex Roll Holder.

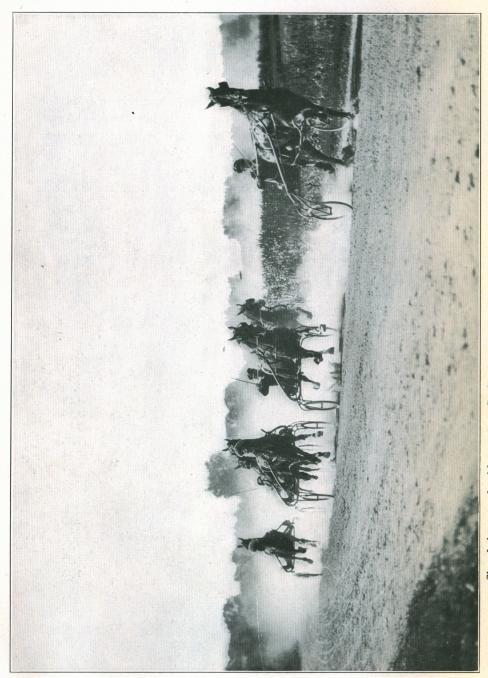
Details 31/4 x 41/4	4 x 5	5 x 7
Dimensions when closed $5\frac{3}{4} \times 5\frac{3}{8} \times 6\frac{1}{4}$	$6\frac{3}{4} \times 6\frac{1}{4} \times 7\frac{1}{4}$	91/4 x 81/4 x 83/4
Local capacity 7 in.	$8\frac{1}{2}$ in.	12 in.
Weight 3 lbs. 10 ozs.	5 lbs.	8 lbs.
Size of lens board $2\frac{7}{8} \times 2\frac{7}{8}$ in.	$3\frac{1}{4} \times 3\frac{1}{4}$ in.	4 x 4 in.
Minimum focus of lenses		
accommodated 5 in.	6 in.	$7\frac{1}{2}$ in.

The Price

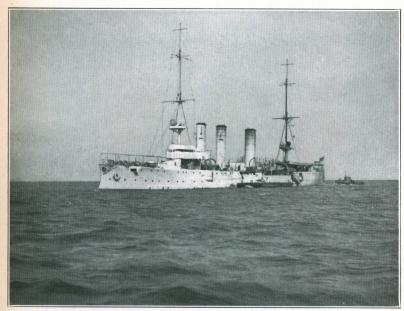
IR	Trice		
Auto Graflex without lens, includ-	31/4 x 41/4	4 x 5	5 x 7
ing one double holder	\$ 80.00	\$ 92.00	\$116.00
With Kodak Anastigmat Lens, f.4.5	No. 31 117.33	No. 32 135.20	No. 34 182.13
With B. & L. Kodak Lens, f.6.3	No. 2 108,80	No. 3 121.88	No. 5 167.20
With B. & L. Tessar Ser. Ic, f.4.5	No. 14 131.20	No. 15 151.73	No. 16 205.60
Graflex Roll Holder	12.00	13.25	14.50
Graflex Magazine Plate Holder .	15.50	16.50	18.75
Graflex Film Pack Adapter	6.00	6.75	8.75
Leather case for camera and roll			
holder	9,50	11.00	16.00
Leather case for camera and maga-			
zine plate holder	10.50	12.25	17.00
Leather case to hold six plate			
holders	6.00	6.75	7.75
Extra Graflex plate holders, each.	3.00	3.00	4.15
Extra lens boards, each	.90	.90	1.15
Ground glass panel, to interchange			
with plate holders	3.15	3.85	5.25
Premo Film Packs	.90	1.10	1.90
Eastman Graflex Roll Film, 6 exp.	No. 51 .45	No. 53 .55	No. 54 .95

The prices of camera and film include the Excise War Tax.

REFER TO FITTING LENSES, PAGE 63.



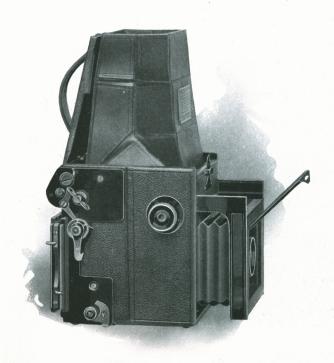
Size of picture made with 5 x 7 Auto Graflex, 5 x 7 Compact Graflex, Home Portrait and Press Graflex



Size of Picture made with 31/4 x 41/4 Auto Graflex



Size of Picture made with 4 x 5 Auto Graflex



AUTO GRAFLEX JUNIOR

AUTO GRAFLEX JUNIOR

HERE is a camera that combines small size with the advantages of the larger models of Auto Graflex; a camera that can be relied upon to make the difficult pictures as well as average views.

The short focal length of the speedy Anastigmat Lenses, recommended for use with this camera, and the available range in shutter speeds, insure a wide latitude of photographic work, and great depth of definition with lens stops of high illumination. The $2\frac{1}{4} \times 3\frac{1}{4}$ negatives, produced by this camera, show remarkable definition. If large pictures of favorite subjects are wanted, enlargements several times the size of the negative may readily be made.

Like the larger models, the Auto Graflex Junior has twenty-four different instantaneous shutter speeds and adjustment for time exposures.

When the top is raised, the hood is brought into focusing position, and the lens is uncovered as it is advanced into focus.

The Auto Graflex Junior is supplied with a cupped metal front threaded to accept the Kodak Anastigmat f.4.5 Lens; No. 13 B. & L. Tessar Series Ic Lens and the No. 1 B. & L. Kodak Anastigmat Lens.

Eastman Graflex Film, Premo Film Packs or Plates, whichever best suits the requirements, may be interchangeably used in the various Graflex attachments that fit the camera.

Details Dimensions closed, $5 \times 4\frac{3}{8} \times 5$; focal capacity, $5\frac{1}{2}$ in.; weight, 39 ozs.; minimum focus of lens accommodated, 4 in.

The Price							
							1/4 x 3 1/4
Auto Graflex Junior without lens, including one double	e p	ola	te	ho	ld	er	\$64.00
With Kodak Anastigmat Lens, f.4.5, No. 30							97.08
With B. & L. Kodak Anastigmat Lens, f.6.3, No. 1.							90.68
With B. & L. Tessar, Series Ic, f.4.5, No. 13							108.80
Graflex Roll Holder							11.50
Graflex Magazine Plate or Cut Film Holder							13.25
Graflex Film Pack Adapter							5.50
Ground glass panel, to interchange with plate holders							2.80
Leather case for camera and plate holder or roll holder							7.75
Leather case for six plate holders							5.50
Leather case for camera and magazine plate holder .							9.50
Extra Graflex plate holders, each							2.00
Premo Film Packs							.50
Eastman Graflex Roll Film, No. 50, 6 exposures							.25
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Revolving Back
GRAFLEX JUNIOR

Revolving Back GRAFLEX JUNIOR

A SPECIAL feature of this camera is the revolving back which permits making vertical pictures without turning the camera on its side. The back revolves to any position without removal, and without danger of fogging film or plate when the holder slide is removed.

The Revolving Back Graflex Junior makes the same size pictures as the Auto Graflex Junior and is similar in construction, excepting the body which is made a trifle longer to accommodate the greater length of mirror required for vertical focusing. This increase in length of body necessitates the use of a lens having a slightly greater focal length.

The shutter is the same as that supplied with other Graflex Cameras, permitting exposures of any duration from "time" to ½000 of a second and a safety device preventing the winding of the shutter curtain until the mirror is locked in focusing position.

The Revolving Back Graflex Junior has a depressed cupped metal front threaded to accept the Kodak Anastigmat f.4.5; B. & L. Tessar Lens, Series Ic, No. 15, and the B. & L. Kodak Anastigmat Lens No. 3.

Details Dimensions when closed	$6 \times 4\frac{1}{2} \times 6\frac{1}{2}$	4
Focal capacity	$7\frac{1}{4}$ in.	
Weight	3½ lbs.	
Minimum focus of lens accommodated	$5\frac{1}{4}$ in.	

The Price

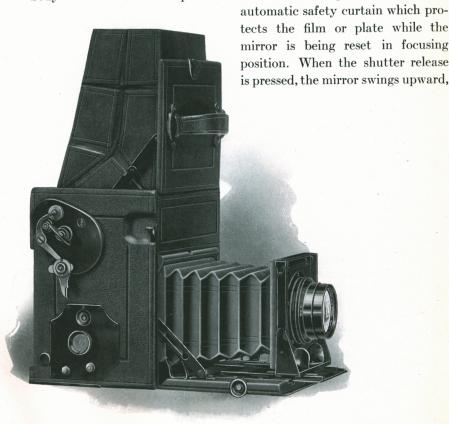
Revolving Back Graflex Junior, without lens, including	on	e	do	ub	le	21/4 x 31/4
plate holder						\$ 88.00
With Kodak Anastigmat Lens, f.4.5, No. 32						131.20
With B. & L. Kodak Anastigmat Lens, f.6.3, No. 3						117.88
With B. & L. Tessar Lens, Series Ic, f.4.5, No. 15						147.73
Graflex Roll Holder						11.50
Graflex Magazine Plate or Cut Film Holder, Model A						13.25
Graflex Film Pack Adapter			,			5.50
Ground glass panel, to interchange with plate holders						2.80
Leather case for camera and plate holder or roll holder						8.25
Leather case for six plate holders		. 1				5.50
Leather case for camera and magazine plate holder						10.00
Extra Graflex plate holders, each						2.00
Premo Film Packs						.50
Eastman Graflex Roll Film, No. 50, 6 exposures						.25

The COMPACT GRAFLEX

ESIGNED to combine all the advantages of Graflex construction; the smallest possible size for a reflecting camera making $3\frac{1}{4} \times 5\frac{1}{2}$ or 5×7 in. pictures, and the interchangeable use of Eastman Graflex roll film, Premo Film Packs and plates.

The Anastigmat lenses listed with all sizes of the Compact Graflex were selected for their suitability of speed as well as focal length. For all-round photography, including high-speed work, portraiture indoors, and pictures made on dull or rainy days, the choice of a lens working at f.4.5 is urgently recommended. The lens board support is made of metal, and has a spring clamp which firmly grips the track at any desired point.

Time exposures of any duration; instantaneous speeds from ½0 to ½000 of a second, and slow instantaneous exposures of about ½5 of a second are available with the Graflex Focal Plane Shutter built into the body of the camera. A special feature of the Compact Graflex is the



trips the shutter curtain, making the exposure. Resetting the mirror causes the safety curtain to rise, closing the recording plane.

The focusing hood is amply large to afford full view of the focusing screen when making exposures with the camera held in position for making either horizontal or vertical negatives. The hood is also detachable, permitting easy access to the focusing screen when cleaning is required. The regular Graflex back takes the Graflex Plate Holder, Graflex Film Pack Adapter, Graflex Magazine Plate Holder and the improved Graflex Roll Film Holder.

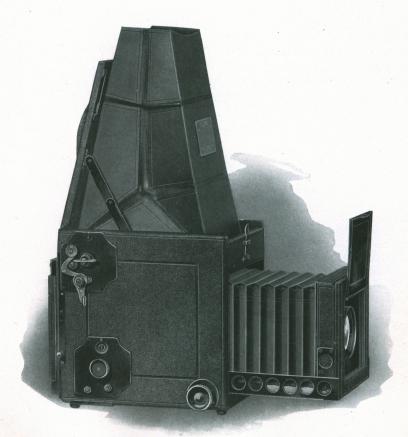
Two tripod sockets are provided, one in the base of the camera for horizontal, and another in the left side for vertical negatives.

Details			$3\frac{1}{4} \times 5\frac{1}{2}$	5 x 7
Dimensions when closed			7 x 47/8 x 7	$9\frac{1}{2} \times 7 \times 9\frac{1}{2}$
Focal capacity	٠.		10 in.	$12\frac{1}{2}$ in.
Weight			$5\frac{1}{2}$ lbs.	$8\frac{1}{2}$ lbs.
Size of lens board			31/4 x 31/4 in.	4 x 4 in.
Minimum focus of lens accommodated			$6\frac{1}{2}$ in.	$8\frac{1}{2}$ in.

Wide Angle Lenses cannot be used with Graflex Cameras.

The Price

Compact Graflex without lens, including one		5 x 7
double plate holder		\$144.00
With Kodak Anastigmat Lens, f.4.5	No. 33 173.33	No. 34 210.13
With B. & L. Kodak Anastigmat Lens, f.6.3	No. 4 156.80	No. 5 195.20
With B. & L. Tessar, Series Ic, f.4.5	No. 15a 192.53	No. 16 233.60
Graflex Roll Holder	13.25	14.50
Graflex Magazine Plate or Cut Film Holder,	17.00	18.75
Graflex Film Pack Adapter, leather covered,	6.75	8.75
Ground Glass Panels, to interchange with		
plate holders	3.85	5.25
Leather Carrying Case for camera and plate		
holder or roll holder	10.50	15.00
Sole Leather Case for camera and magazine.	11.50	16.00
Graflex Cut Film Holders		4.40
Extra Case for six plate holders	6.75	7.75
Extra Graflex Plate Holders	3.00	4.15
Extra Lens Boards, each	.90	1.15
Premo Film Packs	1.10	1.90
Eastman Graflex Roll Film, 6 exposures	No. 52 .55	No. 54 .95



Revolving Back
TELESCOPIC GRAFLEX

Revolving Back TELESCOPIC GRAFLEX

THE turn-table back and greater focal capacity than is provided with the Auto Graflex of the same size, are the distinctive features of the R. B. Telescopic Graflex.

The effective combination of the Graflex Focal Plane Shutter; the reflecting mirror and the high-speed anastigmat lens, assures great ease and certainty in successful picture making with the R. B. Telescopic Graflex. It is altogether an especially convenient and practical camera for the beginner as well as the professional.

The camera is brought into use quickly—pressure on a release located near the handle, causes the camera top to open, bringing the large, roomy hood into focusing position, while the lens cover automatically opens the instant the front is racked out.

The back revolves quickly from horizontal to vertical position. The camera body is made longer to accommodate the increased length of mirror required for vertical focusing.

Details	31/4 x 41/4	4 x 5
Dimensions when closed	$6\frac{3}{4} \times 5\frac{1}{2} \times 6\frac{7}{8}$	83/8 x 63/8 x 77/8
Focal capacity	8½ in.	12 in.
Weight	$4\frac{1}{2}$ lbs.	$6\frac{3}{4}$ lbs.
Size of lens board		33/4 x 33/4 in.
Minimum focus of lens accommodated .	$5\frac{3}{4}$ in.	71/8 in.

The Price

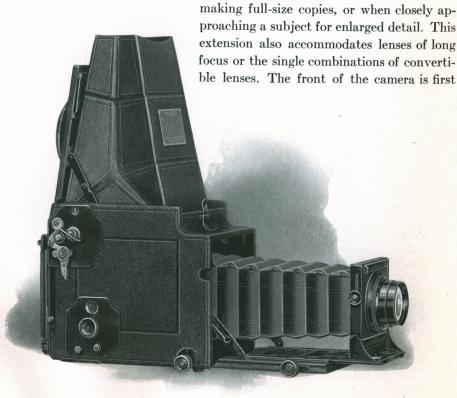
Telescopic R. B. Graflex without lens, including	31/4 x 41/4	4 x 5
one double plate holder and focusing panel .	\$120.00	\$136.00
With Kodak Anastigmat Lens, f.4.5	No. 32 163.20	No. 33 189.33
With B. & L. Kodak Anastigmat Lens, f.6.3.	No. 3 149.88	No. 5 187.20
With B. & L. Tessar, Series Ic, f.4.5	No. 15 179.73	No. 16 225.60
Graflex Roll Holder	12.00	
Graflex Magazine Plate or Cut Film Holder	15.50	16.50
Graflex Film Pack Adapter	6.00	6.75
Leather case for camera and roll holder	10.75	13.25
Leather case for camera and magazine	11.50	14.25
Leather case for six plate holders	6.00	6.75
Extra Graflex plate holders, each	3.00	3.00
Extra lens boards, each	.90	1.10
Premo Film Packs	.90	1.10
Eastman Graflex Roll Film, 6 exposures	No. 51 .45	No. 53 .55

Revolving Back AUTO GRAFLEX

THE long bellows draw provided with both sizes of the Revolving Back Auto Graflex, is a feature that at once increases the adaptability of this efficient camera.

While any one of the Anastigmat lenses of medium focal length listed, is used at normal focus for average views, the lens may also be racked forward far enough to give close up detail, or even full size reproductions of small objects. When the nature or location of the subject will not permit close approach, a large image of the subject is possible by the use of a long focus lens.

The front and rear bellows frames slide in grooves. When the camera front is racked out, the entire bellows will move with every adjustment of the rising and falling front. The camera bed is fitted with a telescopic rack of exceptional rigidity which may be drawn out beyond the edge of the platform, permitting the great bellows extension required when



racked forward with the inner focusing pinion, and beyond the bed by using the forward pinion.

With plate or film holder in position, the revolving back may be easily and quickly turned without removal, for making horizontal or vertical pictures. Merely press a button and revolve the back to the required position. If at any time direct focusing is desirable, the ground glass focusing panel is attached in place of the plate or film holder, and the lens is focused without the aid of the reflecting mirror.

When the camera top is opened after pressing the release catch near the handle, the focusing hood is automatically drawn into position. The hood is of ample size to permit accurate focusing for either horizontal or vertical pictures, and it is detachable, allowing easy access to the focusing screen should cleaning be necessary.

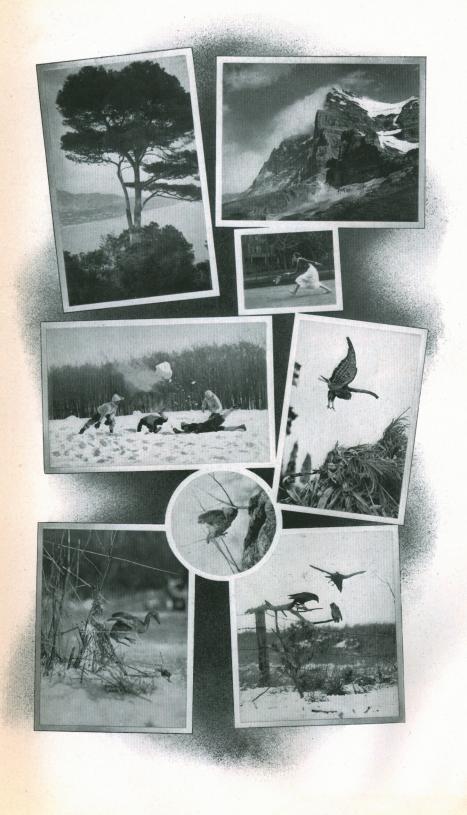
The Revolving Back Auto Graflex takes the Graflex Plate or Cut Film Holder; Magazine Plate or Cut Film Holder and Graflex Film Pack Adapter. Roll Film quality and convenience is provided with the Graflex Roll Holder and Eastman Graflex film.

Details									31/4 x 41/4	4 x 5
Dimensions when closed									$8\frac{1}{2} \times 5\frac{1}{2} \times 7$	10 x 6½ x 8
Focal capacity							٠.		$15\frac{1}{2}$ in.	$18\frac{1}{2}$ in.
Weight			٠.	١.					$5\frac{3}{4}$ lbs.	$7\frac{1}{2}$ lbs.
Size of lens board									3½ x 3½ in.	$3\frac{3}{4} \times 3\frac{3}{4}$ in.
Minimum focus of lenses	ac	co	m	m	oda	ate	ed		$7\frac{1}{8}$ in.	$8\frac{3}{8}$ in.

The Price

Revolving Back Auto Graflex, without lens,	31/4 x 41/4	4 x 5
including one double plate holder and		
focusing panel	\$136,00	\$152.00
With Kodak Anastigmat Lens, f.4.5	No. 33 189.33	No. 34 218.13
With B. & L. Kodak Anastigmat Lens, f.6.3	No. 5 187.20	No. 6 221.33
With B. & L. Protar Lens, Series VIIa	No. 10 234.13	No. 13 282.13
With B. & L. Tessar Lens, Series Ic, f.4.5.	No. 15a 208.53	No. 17 296.00
Graflex Roll Holder	12.00	13.25
Graflex Magazine Plate or Cut Film Holder,	15.50	16.50
Graflex Film Pack Adapter	6.00	6.75
Leather case for camera and roll holder	12.25	15.00
Leather case for camera and magazine	13.25	16.00
Leather case for six plate holders	6.00	6.75
Extra Graflex plate holders, each	3.00	3.00
Extra lens boards	.90	1.10
Premo Film Packs	.90	1.10
Eastman Graflex Roll Film, 6 exposures	No. 51 .45	No. 53 .55



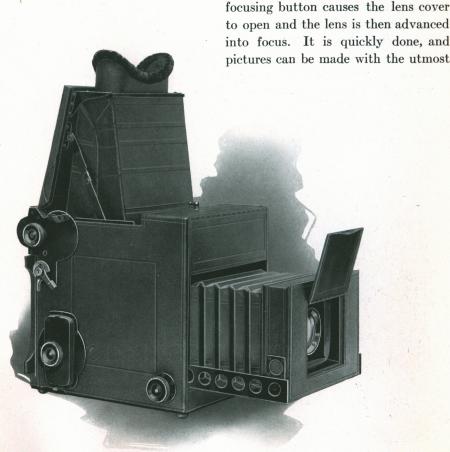


The PRESS GRAFLEX

ESPECIALLY designed for press and commercial photography, the Press Graflex is sturdily built to withstand excessively hard use.

A special feature of this camera, aside from the reinforced construction, is the range in instantaneous shutter speed—from ½10 to ½500 of a second, which not only affords a choice of exposures for average work but also for extremely rapid successive action. There are also adjustments for a slow instantaneous speed of about ½ of a second, as well as time exposures of any duration.

The Press Graflex can be brought into action very quickly. While carrying the camera in the hand, press a lever conveniently located near the handle and the camera top will rise, automatically bringing the hood into focusing position. A slight forward movement of the



certainty and the least possible loss of time. This is a feature of great value to the newspaper photographer who frequently has but a short time to prepare for making a negative.

The focal capacity is fourteen inches, and lenses having a focal length as short as eight inches can be properly fitted. This is a combination that gives great latitude in focusing upon both near and distant objects.

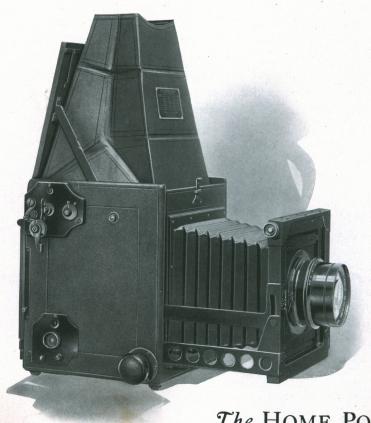
The shutter aperture and tension index numbers are both plainly visible when the camera is in normal focusing position, which is an aid when changing shutter speeds during fast work.

The focusing hood is large and spacious, 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 Graflex Film Pack Adapter in place. This panel is detached when using the Magazine Plate Holder or Graflex Roll Holder. When the camera is on a tripod, in an elevated position, it can be focused from the rear, with the mirror up and curtain set at O, by means of the ground glass panel. Two tripod sockets are provided so that the camera may be used in vertical or horizontal positions for prolonged exposures.

The Press Graflex is made in the 5 x 7 size only.

Details Dimensions, $11 \times 8\frac{1}{4} \times 9\frac{3}{4}$; focal capacity, 14 in.; weight, $11\frac{1}{2}$ lbs.; size of lens board, 4×4 in.; minimum focus of lens accommodated, 8 in.

The Price	5 x 7
Press Graflex without lens, including one double plate holder	
With Kodak Anastigmat lens f.4.5, No. 34	258.13
With B. & L. Kodak Anastigmat Lens, f.6.3, No. 5	 243.20
With B. & L. Tessar Lens, Series Ic, f.4.5, No. 16	 281.60
Graflex Roll Holder	 14.50
Graflex Magazine Plate or Cut Film Holder	 18.75
Graflex Film Pack Adapter, leather covered	 8.75
Leather case for camera and roll holder, with lock and key	 19.75
Leather case for camera and magazine holder, with lock and ke	
Leather case for six plate or cut film holders	
Extra Graflex plate holders, each	 4.15
Graflex cut film holders	 4.40
Extra lens boards, each	 1.15
Premo Film Packs	 1.90
Eastman Graflex Roll Film, No. 54, 6 exposures	 .95



The HOME PORTRAIT GRAFLEX

The HOME PORTRAIT GRAFLEX

It is in the home, where there are few facilities for controlling the light, that the Home Portrait Graflex shows its efficiency in securing fully timed short exposures. For outdoor pictures, on the lawn, in the gardens, on verandas, in the shade, the Home Portrait Graflex is most adaptable, and fast enough to secure sharp pictures of the subject moving about at will. Although this camera is primarily intended for portrait work, it is equally suitable for 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 one second, or instantaneous exposures of any duration up to ½500 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-in. opening and the next smaller, 2-in. opening, this would give the effect of a 9-in. curtain aperture, or the curtain may be adjusted to give the 7-in., 2-in. and the 1-in. opening. The shutter can also be 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 lens is raised or lowered and tilted to correct the false perspective frequently obtained in sitting figures or in groups where some of the figures are placed in front of others. By means of this device it is also 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. This tilting adjustment can also be employed in a manner similar to a rising and falling front, as when the lens is tilted the front describes an arc, moving up or down according to the way the tilting screw is turned. When the lens is centered, the front board and the focal plane are parallel.

The Revolving Back with which this camera is equipped permits making either vertical or horizontal negatives without turning 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



Home Portrait Graflex, Showing Revolving Back

on the release allows the back to revolve from a vertical to horizontal, or any intermediate position.

A ground glass focusing panel is supplied with the Home Portrait Graflex. This panel has a springactuated cover with side shields, and is used for focusing when the camera is on a tripod or in an elevated position.

The Home Portrait Graflex takes the regular 5 x 7 Graflex Plate Holder, Graflex Cut Film Holder, Magazine Plate or Cut Film

Holder, or Film Pack Adapter. Eastman Graflex film may be used with the Graflex Roll Holder.

A tripod socket is provided on a tripod for prolonged exposures. Two buttons, one on each side of the camera, are provided to enable the operator to use a shoulder strap for supporting the camera if required.

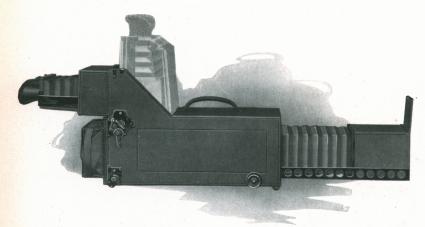
Details Dimensions, $9\frac{3}{4} \times 9 \times 10\frac{1}{2}$; focal capacity, 15 in.; weight, $11\frac{1}{2}$ lbs.; size of lens board, 5×5 in.; minimum focus of lens accommodated, $9\frac{7}{8}$ in.

The Price

Home Portrait Graflex without lens, including one double plate holder and focusing panel	5 x 7
Francis is a second of the sec	344.00
With B. & L. Tessar, Ic, f.4.5, No. 18	402.68
Graflex Roll Holder	14.50
Graflex Magazine Plate or Cut Film Holder	18.75
Graflex Film Pack Adapter, leather covered	8.75
Leather case for camera and roll holder, with lock and key	19.75
Leather case for camera and magazine holder, with lock and key,	22.00
Leather case for six plate or Portrait Film holders	7.75
Extra Graflex Plate holders	4.15
Graflex Portrait Holders	4.40
Extra lens boards, each	1.20
Premo Film Packs	1.90
Eastman Graflex Roll Film, No. 54, 6 exposures	.95

The prices of camera and film include the Excise War Tax.

REFER TO FITTING LENSES, PAGE 63.



The NATURALISTS' GRAFLEX

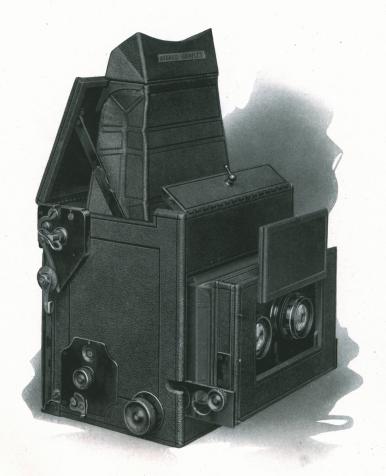
FOR photographing wild animals, birds or similar objects, where long focus or tele-photo lenses are required. Concealed behind a stone or log, the operator can focus from the rear of the camera without exposing too much of his person, or view the image with the focusing hood in vertical position as with other models of Graflex.

The B. & L. Telestigmat f.6.8 lens supplied with the Naturalists' Graflex has a focal length of $14\frac{1}{2}$ in. The size of the image is the same as would be obtained with a 24-in. lens. The brilliancy of the image is greater than with a telephoto system composed of telephoto attachment and positive lens.

Details Dimensions, $20\frac{1}{2} \times 6\frac{1}{4} \times 11$; focal capacity, $27\frac{1}{2}$ in.; weight, 8 lbs.; size of lens board, $4\frac{1}{2} \times 4\frac{1}{2}$ in.; minimum focus of lenses accommodated, $14\frac{1}{4}$ in.

The Price

Naturalists' Graflex, without lens, including one double plate	4 x 5
holder and focusing panel	\$216.00
With B. & L. Telestigmat Lens, f.6.8	349.33
Graflex Magazine Plate or Cut Film Holder	16.50
Film Pack Adapter, leather covered	6.75
Extra Graflex holders	3.00
Graflex Cut Film Holders	3.00
Graflex Roll Holder	13.25
Leather case for camera and roll holder or magazine holder	26.50
Premo Film Packs, 4 x 5	1.10
Eastman Graflex Roll Film No. 53, 6 Exposures	1.10
The second secon	.55



STEREO AUTO GRAFLEX

STEREO AUTO GRAFLEX

A CAMERA that makes two pictures of a subject with every exposure. Placed side by side and viewed through a steroscope, these two pictures merge into one, showing every object in natural relief and relative position, giving the full effect of roundness, thickness, depth and perspective—as the subject is actually seen with both eyes.

While the Stereo Auto Graflex Camera embodies every principle of Graflex construction, it is unlike any other form of stereo camera, not only in its unique design and perfect alignment, 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. But one image is shown on the ground-glass screen—right side up—not inverted. The subject is viewed just as one would see the finished stereogram through a stereoscope.

Two carefully matched lenses are mounted on the wide front board with a separation of $3\frac{1}{4}$ in between centers. A central partition, extending from the front board to the plate or film, prevents overlapping of the images projected by the two lenses. This partition cannot be removed. A rising front permits adjustment of the foreground in the pictures. The Stereo Graflex is fitted with the regular Graflex Focal Plane Shutter giving exposures from time to $\frac{1}{1000}$ of a second.

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

The Price

Stereo Auto Graflex without lenses, including one double plate	
holder and focusing panel	\$224.00
With matched pair B. & L. Kodak Anastigmat Lenses, f.6.3, No. 3	288.00
Graflex Roll Holder	14.50
Graflex Magazine Plate or Cut Film Holder	18.75
Graflex Film Pack Adapter, leather covered	8.75
Leather case for camera and roll holder, with lock and key	13.75
Leather case for camera and magazine holder, with lock and key.	15.00
Extra Graflex plate holders	4.15
Graflex Cut Film Holders	4.40
Extra lens boards, each.	3.00
Premo Film Packs, 5 x 7	1.90
Eastman Graflex Roll Film, No. 54, 6 exposures	.95

The prices of camera and film include the Excise War Tax.

REFER TO FITTING LENSES, PAGE 63.



No. 0 GRAPHIC CAMERA

WITH the highly corrected Anastigmat Lens working at its full aperture—f.6.3, everything beyond twelve feet from this little camera will be in focus, and by using a smaller diaphragm objects at even a lesser distance than twelve feet will be in focus.

The No. 0 Graphic Camera makes negatives $1\frac{5}{8} \times 2\frac{1}{2}$ in. upon Eastman Kodak Film Cartridges. The negatives have such excellent definition and depth of focus that enlargements made from them, of any size up to 8×10 in., will retain all the brilliancy of contact prints.

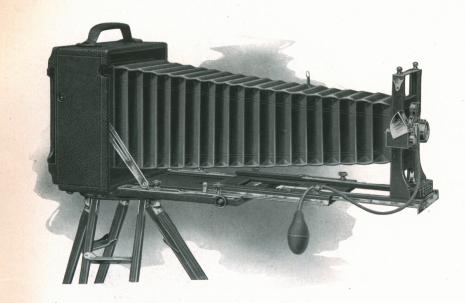
The Graflex Focal Plane Shutter built into the camera provides a variety of exposures from $\frac{1}{10}$ to $\frac{1}{500}$ of a second. And there are adjustments for prolonged time exposures.

The shutter capacity, the excellent lens provided, and the simple operation of this camera, make it possible for the merest novice in photography to secure a very large percentage of satisfactory pictures.

Details Dimensions, 5 x 31/2 x 31/4; weight, 25 oz.

The Price						15/8 x 2½
No. 0 Graphic Camera with Kodak Anastigmat	Lens,	f.6	.3			\$64.00
N. C. Film Cartridge, 6 exposures, No. 121						.20
N. C. Film Cartridge, 12 exposures, No. 121.						.35
Sole leather carrying case						5.50

The prices of camera and film include the Excise War Tax.



Revolving Back CYCLE GRAPHIC

ACAMERA built to meet the exacting requirements of advanced photography.

The great bellows capacity permitting the use of lenses of different focal lengths; the focusing back that can be revolved from horizontal to vertical positions without removal; the adjustable back swing and lens board; the adaptability to Photo-micrographic work of medium magnification; and the compact, rigid construction, all contribute toward satisfactory results with this practical camera.

The lenses of medium focal length listed with the different sizes of the Revolving Back Cycle Graphic, are used at normal focusing distances for general views, also for close up detail and copying, with the lens racked out within the limitation of the bellows draw.

The single elements of the Series VIIa, convertible Protar lenses, selected for use with this camera, have a focal length slightly greater than that of the whole lens. The focal capacity provided is more than sufficient to accommodate these long focus lenses, adapting the Cycle Graphic to landscape and commercial work; portraits and groups—wherever true perspective or larger reproductions of distant objects are required.



R. B. Cycle Graphic with Supplementary Wide Angle Bed

The camera front advances on telescopic tracks, reinforced by angle guides having binding screws which lock the bed rigidly in place. The construction of these tracks affords a wide base for the lens support and prevents any lateral or oscillating movement. The wide base block of the lens support is clamped to the camera bed with a heavy bolt, insuring the utmost rigidity and strength, thus adapting the Cycle Graphic to tele-photo and other extremely accurate work.

The front carrying the lens may be raised or lowered to the position giving the best pictorial effect on the focusing screen. The device is self-locking at any point.

The Revolving Back is made on the same principle as the Graflex Revolving Back. Releasing a small catch at the right of the camera, the ground glass focusing back may be revolved from horizontal to vertical position without removal from the camera. The entire back frame may also be removed, giving access to the interior of the camera. All Cycle Graphic cameras, with the exception of the 8 x 10 model, are provided with the revolving back.

A swing back, used for the preservation of vertical lines in the subject,

is adjusted by side arms running in a slotted plate on the camera bed, and locked with two binding screws.

The Revolving Back Cycle Graphic is converted into a film camera with the regular Premo Film Pack Adapter, which is interchangeable with the 4 x 5 and 5 x 7 Graphic Plate Holders. The Premo Film Pack principle of daylight loading and changing film greatly simplifies picture making. Open the Adapter; drop in a pack; pull out a paper tab—and the first film will be in position for exposure. To change film, pull out the next numbered paper tab. When the twelfth tab is drawn, the pack is sealed and may be removed in daylight. It's all very simple—and quick.

The adjustments on the 4×5 R. B. Cycle Graphic are slightly different from those provided with the other sizes of the same camera.

Details	4 x 5	5 x 7	$6\frac{1}{2} \times 8\frac{1}{2}$	8 x 10
Dimensions .	$6\frac{7}{8} \times 4 \times 7\frac{1}{8}$	$8\frac{3}{4} \times 4\frac{1}{4} \times 9\frac{1}{4}$	$10\frac{3}{8} \times 4\frac{1}{2} \times 10\frac{3}{8}$	$12 \times 5 \times 12$
Focal capacity	. 17 in.	$22\frac{1}{2}$ in.	26 in.	30 in.
Weight	$3\frac{3}{4}$ lbs.	$6\frac{1}{4}$ lbs.	$7\frac{1}{2}$ lbs.	$10\frac{1}{2}$ lbs.
Size of lens board	$1, 2\frac{1}{2} \times 2\frac{1}{2}$ in.	$3\frac{1}{8} \times 3\frac{1}{8}$ in.	$4\frac{1}{4} \times 4\frac{1}{4}$ in.	$4\frac{3}{4} \times 4\frac{3}{4}$ in.

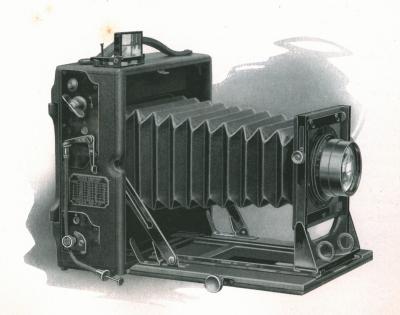
The Price

Including double plate holder and sole leather carrying case

Revolving Back Cycle Graphic with				
Graphic Rapid Rectilinear Lens	4 x 5	5 x 7	$6\frac{1}{2} \times 8\frac{1}{2}$	8 x 10*
and Automatic Shutter	\$ 95.14	\$110.97	\$142.71	\$174.28
With B. & L. Kodak Anastigmat	No. 3	No. 5	No. 6	
Lens, f.6.3, and Volute Shutter	143.86	182.68	227.19	
With B. & L. Protar Lens, Series	No. 7	No. 10	No. 13	No. 17
VIIa, and Volute Shutter	193.99	229.62	287.95	397.03
Extra Graphic plate holders	2.00	2.20	2.75	3.00
Premo Film Pack Adapters	2.00	3.00		
Graphic Cut Film Holders	2.00	2.20	2.75	3.00
Premo Film Packs	1.10	1.90		
Supplementary bed for Wide Angle				
Lenses	12.50	15.00	17.00	19.00
Extra lens boards	.70	.75	.90	.90

^{*} Furnished with reversible back only.

The prices of camera and film includes the Excise War Tax.



The SPEED GRAPHIC

The SPEED GRAPHIC

THE demand for Graflex Focal Plane Shutter efficiency in a light, compact, folding hand camera, was responsible for the Speed Graphic. And the camera has fulfilled the requirements.

The long bellows draw and large front board provide for the use of different lenses—varying in speed as well as focal length. This is a decidedly helpful feature in a hand camera, designed for wide application, because the lenses of medium focal length selected for average photographic subjects with the Speed Graphic, may also be used for making very nearly full-size reproductions of small objects and close-up detail with the same camera. Where pictures of an object must be made from a distance that will result in satisfactory perspective, lenses having a focal length nearly equalling the focal capacity of the camera, can be used.

The ground glass focusing panel has a spring cover with side shields, which is helpful in excluding side light while focusing. A rising front permits vertical adjustment of the subject. When pictures are made without the aid of this focusing panel, the subject is centered upon the plate or film, with the horizontal and vertical lines engraved on the lens of the Graphic Sight Finder, and the vertical sight bar. When not in use, the finder folds compactly.

The Graflex Focal Plane Shutter described on pages 5, 6, 7, is built into the body of Speed Graphic Cameras. The shutter provided with the $3\frac{1}{4} \times 4\frac{1}{4}$ model differs from that in the larger sizes. It has four instead of five curtain apertures and the shutter speeds are limited to $\frac{1}{500}$ of a second.

The Speed Graphic has a non-reversible back. When making vertical pictures, the camera is turned on its side. The back accepts the Graphic Plate Holder, the Graphic Cut Film Holder and the Premo Film Pack Adapter. Eastman Film quality and convenience, plus the greatest simplicity and rapidity in daylight loading and film changing, are the advantages gained with the use of the Premo Film Pack and the Premo Adapter. The pack is dropped into the adapter, which is then used like a plate holder, excepting that the film is changed for successive exposures by drawing consecutively numbered tabs.

The Speed Graphic is made of selected, kiln-dried mahogany especially treated to withstand climatic changes, and is covered with Morocco leather. All exposed wood parts are ebonized and the metal work is oxidized, producing a camera of attractive appearance. Two tripod

sockets are provided for making prolonged exposures, in either vertical or horizontal positions.

OD !!				
Details	$3\frac{1}{4} \times 4\frac{1}{4}$	4 x 5	$3\frac{1}{4} \times 5\frac{1}{2}$	5 x 7
Dimensions	$5\frac{3}{4}$ x $2\frac{3}{4}$ x $6\frac{1}{4}$	$6\frac{1}{2}$ x 4 x $6\frac{3}{8}$	$7 \times 3\frac{1}{8} \times 7\frac{1}{2}$	$8\frac{3}{4}$ x $3\frac{3}{4}$ x $9\frac{3}{8}$
Focal capacity .	10 in.	12 in.	12 in.	16 in.
Weight	$2\frac{1}{2}$ lbs.	$3\frac{1}{2}$ lbs.	$3\frac{3}{4}$ lbs.	$5\frac{1}{2}$ lbs.
Size of lens board	$2\frac{1}{2}$ x $2\frac{1}{2}$ in.	$3\frac{1}{4}$ x $3\frac{1}{4}$ in.	$3\frac{1}{4}$ x $3\frac{1}{4}$ in.	$3\frac{3}{4}$ x $3\frac{3}{4}$ in.

The Price
Including one double plate holder

	3¼ x 4¼	4 x 5	$3\frac{1}{4} \times 5\frac{1}{2}$	5 x 7
Speed Graphic without lens .	\$ 80.00	\$ 88.00	\$ 88.00	\$104.00
With Kodak Anastigmat Lens	No. 31	No. 32	No. 33	No. 34
f.4.5	117.33	131.20	141.33	170.13
With B. & L. Kodak Anastig-	No. 2	No. 3	No. 4	No. 5
mat Lens, $f.6.3$	108.80	117.88	124.80	155.20
With B. & L. Tessar Series Ic	No. 14	No. 15	No. 15a	No. 16
Lens, $f.4.5$	131.20	147.73	160.53	193.60
*Sole leather carrying case,				
with lock and key	9.50	10.00	10.00	12.75
Extra lens board	.70	.90	.90	1.10
Extra Graphic Plate Holders .	2.00	2.00	2.00	2.20
Graphic Cut Film Holders	2.00	2.00	2.00	2.20
Premo Film Pack Adapters	1.50	2.00	2.00	3.00
Premo Film Packs	.90	1.10	1.10	1.90

*Carrying cases for Speed Graphic Cameras hold the camera and plate holders as follows: $3\frac{1}{4} \times 4\frac{1}{4}$, 5 holders; 4×5 , 6 holders; $3\frac{1}{4} \times 5\frac{1}{4}$, 5 holders; 5×7 , 6 holders.

The prices of camera and film include the Excise War Tax.

SPEED GRAPHIC CAMERAS WITH GRAFLEX BACK

For those who wish to use Eastman daylight loading roll film, the back of the Speed Graphic Camera can be altered to accept the Graflex Roll Holder, described on page 54. With this Graflex back, all Graflex attachments may be used with the Speed Graphic Cameras, but no other than Graflex attachments can be used.

Prices for altering the backs of Speed Graphic Cameras to accept the Graflex attachments are as follows. The price includes ground glass focusing panel, but no plate or film holder.

31/4 x 41/4	4 x 5	$3\frac{1}{4} \times 5\frac{1}{2}$	5 x 7
\$13.50	\$13.50	\$13.50	\$14.50

The GRAFLEX FOCAL PLANE SHUTTER

To secure successful pictures of rapidly-moving subjects—on the speedway; the athletic field; swiftly-moving traffic—wherever there is rapid successive action, requires a shutter especially built for the purpose.

The Graflex Focal Plane Shutter can be operated at twenty-four instantaneous speeds ranging from ½0 to ½000 of a second, with adjustments for time exposures of any duration. The shutter contains five apertures—½8, ¾8, ¾4 and 1½ in. wide and one the full size of the recording plane. These apertures are metal bound. The shutter speed plate



attached to the side of the camera, gives the approximate shutter speeds, in fractional parts of a second, obtainable with the various combinations of the curtain apertures and tension numbers—1 to 6. The use of the highest tension number—6, and the smallest curtain aperture, ½, gives the highest shutter speed.

Placing the shutter curtain immediately in front of the sensitized plate or film, insures equal distribution and intensity of light upon every portion of the sensitized surface. There is no diminishing of the volume of light passing through the lens during the entire period of the exposure. The Graflex shutter transmits to the plate a greater volume of light, in a given time, than any other type of shutter, which means well-timed negatives at high shutter speeds, and in the soft light of cloudy or rainy days—wherever photography is possible.

The Graflex Focal Plane Shutter illustrated above, is furnished in natural wood finish for use with Eastman View Cameras. The ground glass focusing back is removed from the view camera and the shutter is attached in its place. The focusing back is then attached to the focal plane shutter.

Details	5 x 7	61/2 x 81/2	8x10
Dimensions 81	4 x 8½ x 2	$9\frac{3}{8} \times 9\frac{3}{8} \times 2\frac{1}{8}$	115/8 x 115/8 x 21/8
Weight	22 oz.	26 oz.	32 oz.

Graflex Focal Pla	ne Shutter, for Eastman 5x7 63	½x8½ 8x10
View Cameras	\$24.00	26.50 \$30.00



STEREOSCOPIC GRAPHIC

STEREOSCOPIC GRAPHIC

N many respects the Stereoscopic Graphic is like the Stereo Auto Graflex shown on page 36. Each camera possesses exclusive features.

The Graflex Focal Plane Shutter is part of the Stereoscopic Graphic, but the Graflex reflecting feature is omitted. Focusing must be done upon the screen attached to the camera back.

A central partition located in the camera extends from the front board to the plate or film, preventing overlapping of the images projected by the two lenses. This partition automatically adjusts itself to the varying positions of the camera front, and can be easily and quickly removed.

The focal capacity is $12\frac{3}{4}$ in., accommodating a matched pair of lenses for making stereo pictures, as well as a single lens of greater focal length for making full size 5×7 pictures, which is accomplished by removing the central partition in the camera, employed when making stereo negatives.

The front platform of the Stereoscopic Graphic can be dropped out of the way when short focus, wide angle lenses are used for special work. An extra pinion is set in the base of the camera for focusing wide angle lenses.

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

The Price

Stereoscopic Graphic without lenses, including one double plate	
holder	\$136.00
With matched B. & L. Kodak Anastigmat Lenses, No. 3, f.6.3.	200.00
With matched B. & L. Protar Lenses, Series V, No. 2	200.00
B. & L. Kodak Anastigmat Lens No. 5, f.6.3, for full size plate	
(5 x 7), extra	48.00
Leather carrying case	13.25
Extra lens boards	1.15
Graphic Plate Holders	2.20
Graphic cut film holders	2.20
Premo Film Pack Adapter	3.00
Premo Film Packs, 5 x 7	1.90

The prices of camera and film includes the Excise War Tax.

REFER TO FITTING LENSES, PAGE 63.

CIRKUT CAMERAS AND OUTFITS

THE Cirkut Camera develops innumerable possibilities for unusually attractive pictures, and there is probably no camera that has brought greater profit to the photographer. Cirkut group pictures of conventions, graduating classes and other public gatherings which occur in every locality; panoramic views of railroad or real estate development; farm, timber or fruit land, mining properties, manufacturing plants and views of towns and cities, are always in demand and bring quick returns.

In many respects, the Cirkut is operated like a regular view camera. The lens is focused upon a ground glass screen in the usual manner, but the Cirkut can be revolved upon the special tripod head, through a complete circle of 360 degrees. This makes it possible to secure a picture embracing any angle of view, and of any length within the capacity of the roll of film used. A motor driven mechanism revolves the camera and at the same time draws the film across the exposure slot. A scale is provided that gives the approximate length of film required for any subject as it is focused and composed on the ground glass back, and a register shows the exact amount of film consumed after the exposure



is made, making it possible to determine the amount of film remaining unexposed.

There are two types of Cirkuts: Cirkut Cameras for panoramic pictures exclusively, and Cirkut Outfits, which are for panoramic pictures and also for 5×7 or $6\frac{1}{2} \times 8\frac{1}{2}$ views, made upon Eastman Professional cut Film or plates.

The Revolving Back Cycle Graphic Cameras supplied with Cirkut Outfits Nos. 6 and 8 are fully described on pages 39 to 41.

1110 11100	
No. 5 Cirkut Camera complete, including Special Convertible Lens; 6½, 11 and 14 in., one No. 2 Crown Tripod, one Cirkut Tripod Top, Gears, Key and Carrying Case to hold complete outfit	\$151.59
No. 10 Cirkut Camera complete, including Turner Reich Lens Series II No. 4; 10½, 18 and 24 in. in Automatic Shutter, one F. & S. Professional Tripod, one Cirkut Tripod Top, one Bulb and Hose, Gears and two Carrying Cases to hold complete	
equipment	385.85
No. 10 Cirkut Camera without lens and shutter	297.15
No. 16 Cirkut Camera complete, including Turner Reich Lens Series II; 15, 24 and 36 in. in Automatic Shutter, one F. & S. Professional Tripod, one Cirkut Tripod Top, one Bulb and Hose,	
Gears and three Carrying Cases to hold complete equipment,	629.85
No. 16 Cirkut Camera without lens and shutter	454.75
No. 6 Cirkut Outfit complete, including Revolving Back Cycle Graphic, 5×7 , with Graphic Rapid Rectilinear Lens in Automatic Shutter, one 5×7 double Plate Holder, one $6\frac{1}{2}$ -in. Cirkut Attachment, one Cirkut Tripod Top, one $6\frac{1}{2}$ -in. Tripod Top, one No. 4 Crown Tripod, one Bulb and Hose, Gears and two Carrying Cases to hold complete equipment	214.47
No. 6 Cirkut Outfit with Turner Reich Lens Series II No. 2, in Shutter, Triple Foci, 71/2-12 and 18 in	265.44
No. 8 Cirkut Outfit complete, including Revolving Back Cycle Graphic, $6\frac{1}{2} \times 8\frac{1}{2}$, with Graphic Rapid Rectilinear Lens in Automatic Shutter, one $6\frac{1}{2} \times 8\frac{1}{2}$ double Plate Holder, one 8-in. Cirkut Attachment, one Cirkut Tripod Top, one $6\frac{1}{2}$ -in. Crown Tripod Top, one No. 4 Crown Tripod, one Bulb and Hose, Gears	
and two Carrying Cases to hold complete equipment	297.96
No. 8 Cirkut Outfit with Turner Reich Lens Series II No. 4, in Shutter, 10½, 18 and 24-in.	374.07
The prices of cameras include the Excise War Tax.	
Cirkut Method Booklet upon Request.	
2 di la la di la	

CIRKUT FILM

FILM for Cirkut Outfits Nos. 6 and 8 can not be used in Cirkut Cameras Nos. 10 and 16; nor can film for Cirkut Cameras Nos. 10 and 16 be used in Cirkut Outfits Nos. 6 and 8.

The Price

Film for No. 5 Cirkut Camera White Label 5 in. x 15 in., per roll	6 in. x 15 ft., per roll \$4.35 8 in. x 5 ft., per roll 1.90 8 in. x 10 ft., per roll 3.80 8 in. x 15 ft., per roll 5.70 8 in. x 20 ft., per roll 7.60 10 in. x 4 ft., per roll 1.90 10 in. x 6 ft., per roll 2.90 10 in. x 10 ft., per roll 4.80 10 in. x 15 ft., per roll 7.20 10 in. x 20 ft., per roll 9.60
$6\frac{1}{2}$ in. x 3 ft., per roll .95 $6\frac{1}{2}$ in. x 6 ft., per roll 1.90 $6\frac{1}{2}$ in. x 10 ft., per roll 3.10	For No. 16 Cirkut Camera White Label
For No. 8 Cirkut Outfit	8 in. x 5 ft., per roll 1.90 8 in. x 10 ft., per roll 3.80
Green Label	8 in. x 15 ft., per roll 5.70
$6\frac{1}{2}$ in. x 3 ft., per roll	8 in. x 20 ft,, per roll 7.60
6½ in. x 6 ft., per roll 1.90	10 in. x 4 ft., per roll 1.90
$6\frac{1}{2}$ in. x 10 ft., per roll 3.10	10 in. x 6 ft., per roll 2.90
8 in. x 4 ft., per roll 1.55	10 in. x 10 ft., per roll 4.80
8 in. x 8 ft., per roll 3.10	10 in. x 15 ft., per roll 7.20
8 in. x 12 ft., per roll 4.65	10 in. x 20 ft., per roll 9.60
	12 in. x 6 ft., per roll 3.45
For No. 10 Cirkut Camera	12 in. x 10 ft., per roll 5.70
	12 in. x 15 ft., per roll 8.55
$White \ Label$	16 in. x 6 ft., per roll 4.60
6 in. x 5 ft., per roll 1.45	16 in. x 10 ft., per roll 7.60
6 in. x 10 ft., per roll 2.90	16 in. x 20 ft., per roll 15.20

The GRAFLEX ILLUMINATOR

The prices of film include the Excise War Tax.

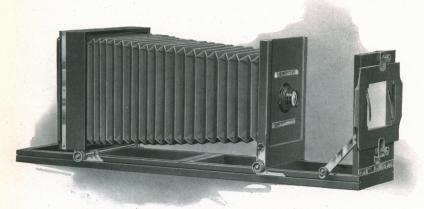
THIS attachment provides properly diffused artificial illumination for making enlargements with the Graflex Enlarging Camera, shown on page 51. The lamp house is provided with a switch socket accommodating a 60 Watt Mazda Lamp. The negative carrier will accept negatives of any size up to $3\frac{1}{4}$ x $5\frac{1}{2}$ or 4 x 5, and may be ad-



justed to any required position. The Illuminator can also be tilted to obtain correct alignment in negatives.

Outside Dimensions, 7 x 81/4 x 83/4

Graflex I	llumina	tor,	i	nclı	ıdiı	ng	6	fe	et	of	fle	exib	le	cc	ord	aı	nd	pl	ug	,		
without	lamp																				\$8.7	5



The GRAFLEX ENLARGING CAMERA

THERE is a great deal of pleasure and satisfaction in making large pictures from small negatives. Varied and beautiful pictorial effects are easily possible with the Graflex Enlarging Camera and the different grades of Eastman Bromide Paper which afford a choice that will be most suitable for the negative and character of the subject.

Enlargements 8×10 and smaller can be made from negatives of any size up to 4×5 or $3\frac{1}{4} \times 5\frac{1}{2}$. The No. 3 Kodak Anastigmat Lens having a focal length of $6\frac{1}{8}$ in. is recommended as most suitable for use with this camera. Lenses of shorter focal length that will properly cover the negative, may also be used. The enlargements can be made by daylight or by artificial light with the Graflex Illuminator shown on page 50.

Details Bellows capacity								28 in.
Length of bed		٠.	٠.					36 in.
Size of lens board								$4\frac{1}{4} \times 4\frac{1}{4}$ in.
Weight								83/ lbs

The Price

Graflex Enlarging Camera, 8 x 10, without lens, including one Bro-	
mide Paper Holder	\$41.72
With B. & L. Kodak Anastigmat Lens, f.6.3, No. 3, in barrel with	*
Iris Diaphragm	71.57
Graflex Illuminator, without lamp, provided with six feet of cord	. 1.01
and plug (see page 50)	8.75
Extra lens board	.60

The prices of camera include the Excise War Tax.



F. & S. FINGER PRINT CAMERA

THIS little Camera is not only thoroughly practical for securing photographically accurate records of finger prints, it is readily adapted to other uses where accurate photographic records are desired. There is often occasion for quickly obtaining a picture of a small pattern, signature, formula, label, photograph, or a portion of some printed or written matter. Its small size makes it most convenient for general use, especially in locations inaccessible to ordinary apparatus.

The camera is equipped with four miniature lamps operated by batteries contained in the camera. These lamps are located behind the front aperture and serve to illuminate the finger prints, or other subject when the photographic record is made. The lens is an f.6.3 Kodak Anastigmat which is permanently fixed in the camera at a point that renders a full sized reproduction of the finger print, with extreme definition.

Details Dimensions, 113/4 x 6 x 6; weight, with batteries, 5 lbs., 8 ozs.

The Price

F. & S. Finger-Print Camera complete with lens,	sh	utt	er,	tv	vo	ba	ıt-	
teries, ten lamps and one double plate holder, 21/2	1 X	31	4					\$52.00
Graflex Magazine Plate Holder (for 12 glass plates	, 2	1/4:	x 3	1/4)				13.25
Graflex Plate Holder, $2\frac{1}{4} \times 3\frac{1}{4} \dots \dots$								2.00
Leather Case for Camera								12.75
Extra batteries No. 789, each								1.00
Extra Mazda Miniature Lamps, each								.30
Extra Mazda Miniature Lamps, per carton of ten								3.00
Seed Process Plates, 21/4 x 31/4, per dozen								.40
Finger Print Developing Jar								1.65
Finger Print Developing Case, for 21/4 x 31/4 plates								1.65
그들이 나는 그리면 이 아무슨 아이들의 살아내려면 하게 되었다면 하는데								

The price of camera includes the Excise War Tax.

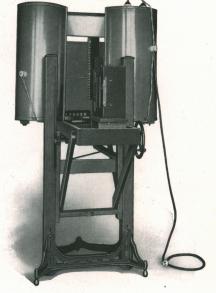
F. & S. Identification Outfit

THE F. & S. Identification Outfit was designed to meet the demand for a photographic outfit that will make identification pictures with the greatest ease and rapidity in operation, as well as economy in materials. The pictures made with this outfit are suitable, both in size and character, for mounting in badges to be worn by employees, for photographic passes or office records.

The entire operation from making the exposure to the finished picture or identification cards or passes, has been standardized, assuring great uniformity in the results. The lighting system for illuminating the subject, provides sufficient intensity to permit making exposures of very short duration.

Three hundred and sixty persons may be photographed in one hour. This time includes proper placing of the subject, adjustment of the height scale and numbering device. The identification pictures show not merely the person photographed, but the height in feet and inches, and the serial number.

The identification pictures are 15/16 in. wide by 15/8 in. high. The exposures are made upon Eastman Identification Film



No. 65, which is supplied in rolls of varying lengths. The portrait head very nearly fills the negative area, and seven negatives may be made upon a foot of film.

The Price

F. & S. Identification Outfit, complete, including camera, Kodak
Anastigmat lens f .6.3, two magazines, stand, reflectors, number-
ing device, height scale, background, cable and sockets, without
lamps

Eastman Identification Film No. 65

150 exp	osures				\$1.45	1000	exposures						\$ 8 70	
500					4.50		66	Ċ	•	·	•	•	13 18	

The price of outfit and film includes the Excise War Tax.

Descriptive catalogue upon request.



GRAFLEX ROLL HOLDER

1915 Model

ALL the advantages of daylight loading, film quality and convenience are provided with the Graflex Roll Holder and Eastman Graflex Film.

Graflex Roll Holders are interchangeable with plate holders on Graflex Cameras. They may be loaded, in daylight, while attached to the camera, in practically the same manner that a Kodak is loaded. A retarding ratchet is provided whereby the film may be drawn flat after it is in position for exposure, affording a true recording plane. The dark slide permits removal of the holder from the camera before the entire roll has been exposed.

The Price

GRAFLEX ROLL HOLDER

$2\frac{1}{4} \times 3\frac{1}{4}$	For Graflex Roll Holder Film No. 50									\$11.50
31/4 x 41/4	For Graflex Roll Holder Film No. 51					٠.				12.00
31/4 x 51/2	For Graflex Roll Holder Film No. 52									13.25
4 x 5	For Graflex Roll Holder Film No. 53									13.25
5 x 7	For Graflex Roll Holder Film No. 54									14.50
	Graflex Roll Holders will fit Grafley	x (Car	ne	ra	S	nl	y.		

EASTMAN GRAFLEX ROLL FILM

.45
.55
.55
.95

To avoid error order film by number.

The prices of Graftex Film include Excise War Tax.

GRAFLEX FILM PACK ADAPTER

Leather Covered

THE Graflex Film Pack Adapter converts a plate Graflex into a Daylight loading film camera—presenting all the advantages of film quality and convenience.

The Adapter is attached just like a plate holder, to all models excepting the 1A and 3A Graflex, which use Kodak roll film exclusively. The dark slide provides for removal of the Adapter at any time before the entire Film Pack is exposed.

To load: Open the hinged back and drop in a Premo Film Pack containing twelve exposures. An important feature is the rapidity and ease with which film is changed for successive exposures, and the provision for removing one or more exposed films from the Pack, immediately after exposure.

Graflex Film Pack Adapters are covered with the same fine grade of leather used on Graflex Cameras.



The Price

Graflex Film Pack Adapter, 2½ x 3½	31/4 x 41/4	4 x 5	$3\frac{1}{4} \times 5\frac{1}{2}$	5 x 7
Model A	\$6.00	\$6.75	\$6.75	\$8.75

PREMO FILM PACKS

Pack contains twelve exposures of Eastman N.C. Film, which is non-curling, non-halation and properly orthochromatic.

The Price

21/4 x 31/4	$3\frac{1}{4} \times 4\frac{1}{4}$	$3\frac{1}{4} \times 5\frac{1}{2}$	4 x 5	5 x 7
No. 320, \$0.50	No. 318, \$0.90	No. 322, \$1.10	No. 323, \$1.10	No. 315, \$1.90
T	he prices of Premo	Film Packs include	the Excise War Ta	x.

CARRYING CASE FOR CROWN TRIPODS

A CASE consisting of a long compartment for the Crown Tripod legs, and a smaller compartment attached to the side to hold the tripod top.

No. 1	Imitation	Walrus	Fabrikoid	\$5.00	No. 1	Sole	Leather			\$6.75
No. 2		"		5.50			6.6			7.25
No. 3	"	"	66	6.00			66	•	•	8.75
No. 4	"	"	66	6.75	No. 4		4.6			10.00

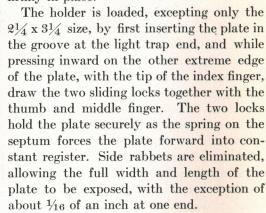
The GRAFLEX PLATE HOLDER

A SPRING finger cut-off excludes all light when the slide is drawn or replaced, preventing fogging of the plates. Another distin-

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F & S CO.

guishing feature is the deep and substantial groove on two edges that keeps the holder firmly in place.



Graflex Holders are made of selected cherry with ebonized finish.

The Price

2½ x 3½, each \$2.00 3½ x 4½, each 3.00 5 x 7, each	$3\frac{1}{4}$	X	$5\frac{1}{2}$,	ea	ch				\$3.00 3.00
4 x 5 Graflex Cut Film Holders, each. 5 x 7 Graflex Cut Film Holders, each.										

The GRAPHIC PLATE HOLDER

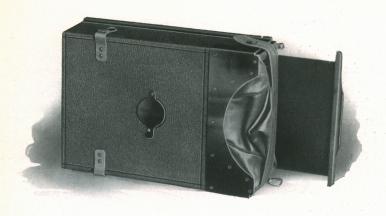
DESIGNED for use with Graphic Cameras, Graphic Plate Holders are not interchangeable with Graflex Holders. The principal features are the spring finger cut-off, which prevents the entrance of light when drawing or replacing the dark slide, the spring on the septum, the sliding locks and the absence of side rabbets.

Graphic Holders are made of selected cherry in natural finish.

The Price

$3\frac{1}{4} \times 4\frac{1}{4}$, each .	\$2.00	5 x 7 , each	\$2.20
4 x 5, each.	2.00	$6\frac{1}{2}$ x $8\frac{1}{2}$, each	2.75
$3\frac{1}{4} \times 5\frac{1}{2}$, each .	2.00	8 x 10 , each	3.00
C . 1: C . E:1	TT 11 4	01/ 01/ 10 10	

Graphic Cut Film Holders, 4×5 , 5×7 , $6\frac{1}{2} \times 8\frac{1}{2}$ and 8×10 , same price as Plate Holders.



The GRAFLEX MAGAZINE PLATE OR CUT FILM HOLDER

THE Graflex Magazine holds twelve glass plates or cut films, each in a separate metal septum. Cardboard pads of a thickness that will cause the cut film to lie in correct register, will be provided upon request. When plates are used, the cardboard pads are removed. Each septum is consecutively 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 sliding rod, and reinserted by hand in the rear of the magazine holder.

Springs at the back of the magazine force the septums forward, and bring the plate in the forward septum, into exact register. It is not necessary to expose all the plates or films before development, as one or more 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.

Details					
Details	$2\frac{1}{4} \times 3\frac{1}{4}$	$3\frac{1}{4} \times 4\frac{1}{4}$	4 x 5	31/4 x 51/2	5 x 7
Dimensions,	5x31/8x21/8	61/x21/x41/	71/x23/x5	$7\frac{3}{8}$ x2 $\frac{1}{4}$ x4 $\frac{1}{2}$	91/v95/v61/
Weight	14 oz.	$1\frac{1}{2}$ lbs.	2 lbs.	2 lbs.	3½ lbs.

$2\frac{1}{4} \times 3\frac{1}{4}$	Graflex	Magazine	, .									\$13.25
31/4 x 41/4												15.50
4 x 5		"		,								16.50
$3\frac{1}{4} \times 5\frac{1}{2}$		46										17.00
5 x7	**			•								18.75

GRAPHIC SIGHT FINDER

A DIRECT vision, folding sight finder that is attached to the top or side of the camera body. The subject is centered upon the plate or film with the horizontal and vertical lines engraved on the lens, and the vertical sight bar.



The finder folds compactly. Pressure upon a spring brings the lens and sight bar automatically into position for use.

7,	D .
'I he	Price

$3\frac{1}{4} \times 4\frac{1}{4}$.					\$4.00	4	x 5						\$4.00
$3\frac{1}{4} \times 5\frac{1}{2}$.					4.00	5	x 7						5.50

GRAFLEX COLOR PLATE HOLDER

DESIGNED to provide correct register of focus in color photography without reversal of the ground glass focusing screen.

The holders will accept Autochrome Plates or other color plates ex-



posed through a screen. When using Auotchrome Plates, a sheet of black cardboard one thirty-second of an inch in thickness should be placed in the holder in order that the sensitized surface of the plate may be brought into correct register. When making photographs on color plates, which are exposed through a lined screen, it is unnecessary to use the cardboard backing, as the thickness of the screen brings the sensitized surface of the plate into the correct position.

Receding springs compensate for glass of varying thickness.

Graflex Color Plate Holders can be used only with the Graflex Back.

$2\frac{1}{4} \times 3\frac{1}{4}$, each	\$6.00	4 x5,	each	. \$7.50
3½ x 4 , (Lantern Slide), each,		$3\frac{1}{4} \times 5\frac{1}{2}$	each	. 8.00
$3\frac{1}{4} \times 4\frac{1}{4}$, each	7.00	5 x7,	each	. 9.00

EASTMAN PLATE TANK

THE best photographic results are dependent upon correctly developed negatives.

With the Eastman Plate Tank any number up to twelve plates may be developed at one time, by the time and temperature method. And all of the negatives will be of uniform quality.

The Price



KODAK FILM TANK



EASTMAN Graflex Film for Graflex Roll Holders and Kodak Film for the 1A and 3A Graflex Cameras can be developed in the Kodak Film Tank.

The "daylight all the way" method of development is not only convenient—it greatly simplifies making excellent negatives.

The Price

3½-inch Kodak Film Tank, for $3\frac{1}{4} \times 5\frac{1}{2}$ 3A Kodak Film, $2\frac{1}{2} \times 4\frac{1}{4}$ 1A Film and $3\frac{1}{4} \times 2\frac{1}{4}$ Eastman Graflex Film No. 50 \$6.00 5-inch Kodak Film Tank, for $4\frac{1}{4} \times 3\frac{1}{4}$ Eastman Graflex Film No. 51, 7.00 7-inch Kodak Film Tank, for $5\frac{1}{2} \times 3\frac{1}{4}$ Eastman Graflex Film No. 52, 5×4 Eastman Graflex Film No. 53 and 7×5 Graflex Film No. 54, 8.50

The CROWN TRIPOD



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

tically 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.

Carrying Cases for Crown Tripods are listed on page 55.

Details No. 1 Closed 16½ ins. Extended 4½ ft. Weight 36 ozs.	No. 2 17¼ ins. 4½ ft. 65 ozs.	No. 3 20 ins. 5½ ft. 70 ozs.	No. 4 $19\frac{1}{2}$ ins. $5\frac{1}{2}$ ft. 84 ozs.
No. 1 Crown Tripod with 4-inch	top		. \$ 9.25
No. 2 " " 6 "			9.75
No. 3 " " 6 "	"		. 11.50
No. 4 " " " 6½"	"		. 13.25

The CROWN TILTING TRIPOD TOP

THIS attachment is hinged in the center, permitting quick and rigid adjustment of the camera from horizontal to vertical or any intermediate position, without moving or adjusting the tripod legs. The camera can also be turned straight upward, or set at any degree of upward tilt down to horizontal position. Such tilting adjustments within the limitation of the swing back on the camera used, are especially helpful when photographing architectural subjects, as well as small objects that can not conveniently be attached to a support.



The Tilting Top is designed for use with Crown Tripods. Therefore, when ordering, mention the number of the tripod or the diameter of the tripod top with which the tilting top is to be used.

The Price

No. 1	Crown	Tilting	Tripod	Top	for	4	in.	Tripod	Head			\$2.75
No. 2	"	66	66	66	66	6	in.	6.6	6.6			3.30
No. 4	66		"	"	66	$6\frac{1}{2}$	in.	6.6	6.6			4.15
Profes	ssional	66	6.6	66	66	111/6	in.	66	66			8 95



For Pure Magnesium Only

APOWERFUL light in long or short flashes, can be produced with the Crown Flash Lamp.

The head of the lamp is removed to fill the chamber with magnesium powder. The wicking in the head is then saturated with alcohol, replaced and lighted. The

magnesium is blown upward through the spreader and into the center of the flame, where it is thoroughly consumed.

Explosive flash compounds of any kind must not be used with this lamp.

The Price



KODAK ANASTIGMAT f.4.5

THE Kodak Anastigmat Lens f.4.5 possesses all of the qualities essential to high-speed photography with Graflex Cameras or the Graflex Focal Plane Shutter, and is also especially suitable for home portraiture, groups, landscapes and other pictorial subjects.

The excellent definition and uniform illumination throughout the area of the perfectly flat field, obtainable with the full aperture f.4.5, fully meets the requirements of the amateur and professional photographer, who must frequently work under unfavorable light conditions.

The lenses are compactly mounted and provided with Iris Diaphragm, actuated by an outer ring bearing the numbers of the stop system. The mounting is finished throughout in black lacquer.

No.	Size of Plate covered with Stop f.4.5	Equivalent Focus	PRICE
No.	Inches	Inches	Lens in barrel with Iris Diaphragm
30	21/4 x 31/4	41/9	\$31.00
31	$3\frac{1}{4} \times 4\frac{1}{4}$	51/2	35.00
32	4 x 5	$6^{1/2}$	40.50
33	$3\frac{1}{4} \times 5\frac{1}{2}$	$7\frac{1}{2}$	50,00
34	5 x 7	83/4	62.00

B. & L. Kodak Anastigmat f.6.3

No.	Size of Plate covered with Stop f.6.3	Equivalent Focus	Pri	ICE
140.	Inches	Inches	Lens in Barrel	Lens in Volute Shutter
1	$2\frac{1}{2} \times 4\frac{1}{4}$	$4\frac{1}{2}$	\$25.00	\$48.00
2	$3\frac{1}{4} \times 4\frac{1}{4}$	5	27.00	50.00
3	4 x 5	$6\frac{1}{8}$	28.00	51.00
4	$3\frac{1}{4} \times 5\frac{1}{2}$	67/8	34.50	57.50
5	5 x 7	81/4	48.00	73.00
6	$6\frac{1}{2} \times 8\frac{1}{2}$	10	65.00	90.00

B. & L. Tessar, Series Ic, f.4.5

	Size of Plate	Equivalent	PRICE							
No.	covered with Stop f.4.5 Inches	Focus Inches	Lens in Barrel with Iris Diaphragm	Lens Fitted with Volute Shutter						
13	21/4 x 31/4	41/2	\$ 42.00	\$ 65.00	1.					
14	$3\frac{1}{4} \times 4\frac{1}{4}$	51/2	48.00	71.00						
15	4 x 5	$6\frac{1}{2}$	56.00	81.00						
15a	5 x 7	71/2	68.00	93.00						
16	5 x 8	81/2	84.00	111.00						
17	$6\frac{1}{2} \times 8\frac{1}{2}$	97/8	135.00	162.00						
18	8 x 10	117/8	190.00							
18a	10 x 12	145/8	245.00							
19	11 x 14	153/4	295.00							
20	14 x 17	193/4	420.00							

B. & L. Protar, Series VIIa

	Size of Plate	Equivaler Single Prota	nt Focus of ars. Inches	Combined		Pri	CE
No.	covered with Full Aperture Inches	Front Lens	Back Lens	Focus Inches	Speed f	Lens in Barrel with Iris Diaphragm	Lens fitted with Alumi- num Volute Shutter
4	4 x 5	83/4	83/4	$5\frac{1}{16}$	6.3	\$ 64.00	\$ 87.00
5	4½ x 6½	$11\frac{3}{16}$	83/4	55/8	7.	70.00	93.00
6	4½ x 6½	$13\frac{3}{4}$	83/4	61/8	7.7	79.00	104.00
7	$4\frac{1}{2}$ x $7\frac{1}{4}$	$11\frac{3}{16}$	$11\frac{3}{16}$	63/8	6.3	75.00	98.00
8	5 x 7	133/4	$11\frac{3}{16}$	7	7.	84.00	109.00
10	5 x 8	$13\frac{3}{4}$	$13\frac{3}{4}$	77/8	6.3	92.00	117.00
11	$6\frac{1}{2} \times 8\frac{1}{2}$	$16\frac{3}{16}$	133/4	81/2	7.0	107.00	132.00
12	$6\frac{1}{2} \times 8\frac{1}{2}$	187/8	133/4	91/8	7.7	132.00	159.00
13	$6\frac{1}{2} \times 8\frac{1}{2}$	$16\frac{3}{16}$	$16\frac{3}{16}$	91/4	6.3	122.00	147.00
14	7 x 9	187/8	$16\frac{3}{16}$	10	7.0	147.00	174.00
15	7 x 9	231/4	$16\frac{3}{16}$	107/8	7.7	173.00	200.00
16	7 x 9	187/8	187/8	$10\frac{13}{16}$	6.3	171.00	198.00
17	8 x 10	231/4	187/8	117/8	7.0	197.00	
18	8 x 10	271/8	187/8	123/4	7.7	232.00	
19	8 x 10	$23\frac{1}{4}$	231/4	131/4	6.3	216.00	

FITTING LENSES

THE focal length of the lens selected must be suitable for the Graflex camera with which it is to be used, and the lens must also be correctly fitted and mounted so that the flange is parallel to the sensitive film or plate, if the best photographic results are expected. Therefore, in justice to ourselves, and for the purpose of avoiding errors, our guarantee applies only to cameras that are shipped from our factory with lenses attached.

When lenses of suitable focal length are sent to us for fitting, a nominal charge will be made for the work.

WIDE ANGLE LENSES CANNOT BE USED WITH GRAFLEX CAMERAS

TERMS

THE prices in this catalogue are strictly net, except to regular dealers who carry our goods in stock. These prices, owing to unsettled conditions, are, however, subject to change without notice. For the convenience of our customers we recommend that they make their purchases from a dealer in photographic goods, as by so doing they can save both time and transportation charges.

Eastman Kodak Company

Folmer & Schwing Department
Rochester, N. Y.

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