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INSTRUCTIONS

FOR OPERATING THE

PREMOETTE SENIOR

NOS. 1A, 3 AND 3A

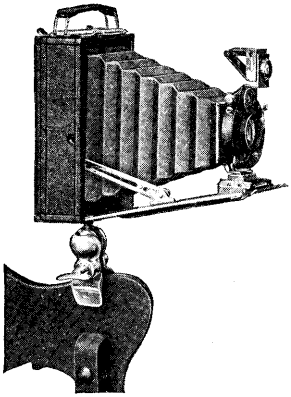
EASTMAN KODAK CO.

SUCCESSOR TO

ROCHESTER OPTICAL CO.

ROCHESTER, N. Y.

The Universal Clamp



The Universal Clamp is a convenience which takes the place of a tripod, and may be attached to any camera that is fitted with tripod sockets. It can be carried readily in the pocket, is very light, and may be attached to a chair, fence, the front board of an automobile, or other object which may be at hand. The clamp jaws are padded with felt.

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INSTRUCTIONS

FOR OPERATING THE

PREMOETTE SENIOR

NOS. 1A, 3 AND 3A

(Rapid Rectilinear and F. 7.7 Anastigmat Lens)

PUBLISHED BY THE

EASTMAN KODAK CO.

SUCCESSOR TO

ROCHESTER OPTICAL CO.

ROCHESTER, N. Y.

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Before Loading

BEFORE taking any pictures with the Premoette Senior Nos. 1A, 3 and 3A read the following instructions carefully and make yourself perfectly familiar with the instrument, taking especial care to learn how to operate the shutter. Work it for both time and instantaneous exposures before loading the camera.

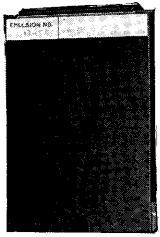
The first and most important thing for the amateur to bear in mind is that the light which serves to impress the photographic image upon the sensitive surface in a small fraction of a second when it comes through the lens, can destroy the film as quickly as it makes the picture. After the films have been developed and all *developer thoroughly washed out*, they may be quickly transferred in subdued white light to the fixing bath without injury.

EASTMAN KODAK COMPANY,
Successor to
ROCHESTER OPTICAL CO.,
Rochester, N. Y.

April, 1916.

PART I

SECTION 1



Premo Film Pack

The Premoette Senior Nos. 1A, (2½ x 4¼), 3 (3¼ x 4¼) and 3A (3¼ x 5½) are adapted to the use of the Premo Film Pack. As the cameras differ practically in size only, these instructions apply equally well to all.

To Load Camera

Procure a Film Pack of the proper size, 2½ x 4¼, 3¼ x 4¼ or 3A (3¼x5½) depending upon the size of the camera.

Press up on the two metal catches at the top of Camera and open hinged back.

Break or cut the small white slip on face of the Film Pack (Fig. 1) being careful that no part of it is overhanging or it will show in the picture, and place Pack in Camera so that the black paper tabs protrude from the top and the red label on the Film Pack is toward the back of the instrument, (Fig. 2.)

FIG. 1

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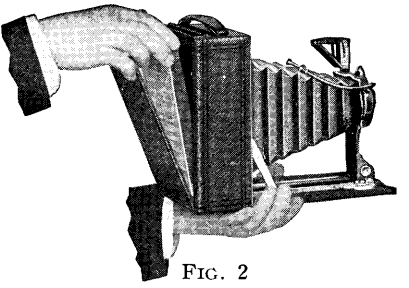

FIG. 2

Close the back and the catches will engage automatically.

The Camera now being loaded, proceed as follows:

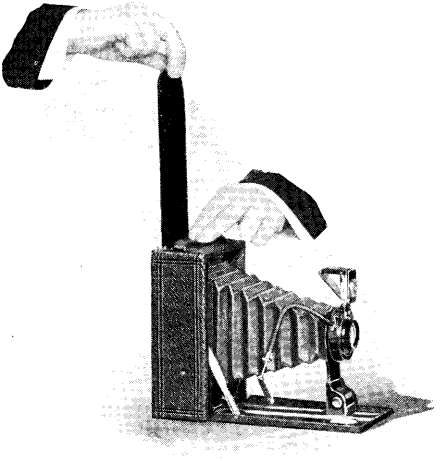

FIG. 3

SECTION 2

Operation of the Premo Film Pack

For the first exposure gently pull out tab marked "Safety Cover," holding the remaining tabs under the finger and thumb of the other hand to prevent the possibility of pulling out more than one tab at a time. (Fig. 3.)

When the red cross line appears, tear off from left to right by bending tab backward over the metal straight edge.

The first film is now presented for exposure.

Having made the exposure, pull out in a similar manner the black paper tab marked "No. 1" and tear off. Film No. 2 is now presented for exposure. Repeat the operation of pulling out and tearing off the black paper tabs one at a time, as often as additional exposures are to be made.

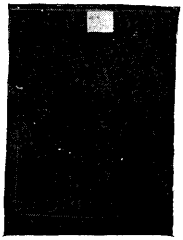

FIG. 4

Upon pulling out and tearing off tab No. 12 the pack is rendered light-tight (Fig. 4) and may be removed from the camera, reversing the operation as shown in Fig. 2, and a fresh one substituted.

NOTE—It is well to make a rule of always pulling out the tab immediately after each exposure, so that there will be no uncertainty when making the next exposure as to whether you have or have not pulled out the tab.

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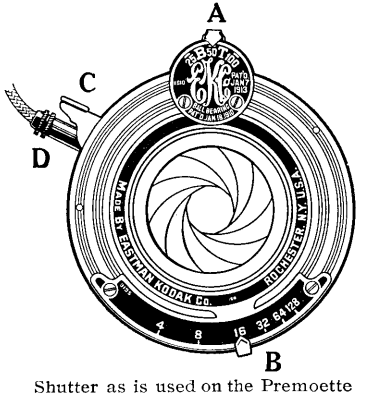
PART II

Making the Exposures

Before making an exposure with the Premoette Senior either time or instantaneous, be sure of four things:



Shutter as is used on the Premoette Senior when fitted with the **R. R. Lens**

FIRST—That the shutter is adjusted properly.

(For time, instantaneous or bulb exposures as desired).

SECOND—That the diaphragm stop is set at the proper opening.

THIRD—That the camera is focused.

FOURTH—That an unexposed film is in position.

NOTE—Exposures are made by pressing push-pin at end of cable release D or pushing down on release C.

Avoid making too sharp a bend in the cable release, as by doing so it will be liable to kink.

SECTION I

Operating the Shutter

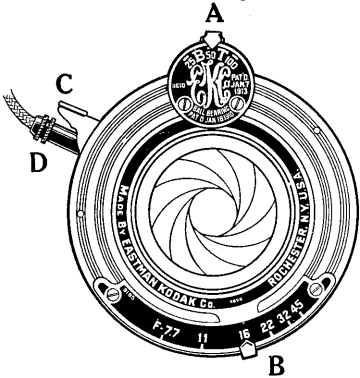
Perfect familiarity with the shutter is essential to successful picture taking with any camera. The following directions should therefore, be carefully read and the shutter operated several times before attempting exposures.

Instantaneous Exposures—"Snap Shots"

In taking instantaneous exposures the object should be in the broad open sunlight, but the camera should not. The sun should be behind the back or over the shoulder of the operator. If it shines directly into the lens it will blur and fog the picture.

"*Snap Shots*"

For all Ordinary Instantaneous Exposures.



Shutter as is used on the Premoette Senior when fitted with the **F. 7.7 Anastigmat Lens**

FIRST—Set the lever A at 25, 50 or 100, according to the time of instantaneous exposure desired.

NOTE—In bright light, set the lever at 100, the highest speed. In more subdued lights set at 50 or 25, but do not attempt to make any instantaneous exposures in very dull light.

SECOND—Set the lever B at No. 8 if the Camera is fitted with the **R. R. Lens** or use F. 11, if fitted with the **Anastigmat Lens.** Lever B controls the Iris diaphragm, and No. 8 or F. 11 is the proper opening for ordinary instantaneous exposures.

NOTE—For instantaneous exposures when the sunlight is unusually strong and there are no heavy shadows, such as in views on the seashore or on the water, use diaphragm No. 16. With *light* clouds or *slightly* smoky atmosphere use No. 4 or F. 7. 7 at 100 or No. 8 or F. 11 at 50 or 25. *With heavy clouds do not attempt instantaneous exposures.*

THIRD—Press push-pin or push down on release C. This makes the exposure.

NOTE—Press push-pin with a firm quick movement, at the same time be sure to hold the Camera rigid, as a slight jarring will cause a blurred negative.

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Time Exposures

FIRST—Set the lever A at the point T (time). This adjusts the shutter for time exposures.

SECOND—Set the lever B at No. 16, 32, 64 or 128 if Camera is fitted with the R. R. lens, or use F. 16, 22, 32 or 45 if fitted with the Anastigmat Lens. See instructions for use of stops, page 19.

THIRD—Press the push-pin. *This opens the shutter.* Time exposure by a watch. Again press the push-pin. *This closes the shutter.* Shutter may be opened by pressing release C, and closed by a second pressure if desired.

Bulb Exposure

When it is desirable to make a very short time exposure this is best accomplished by making a "bulb exposure."

FIRST—Set the lever A at the point "B" (bulb). This adjusts the shutter for bulb exposures.

SECOND—Set the lever B controlling the stops at No. 16, 32, 64 or 128 if the Camera is fitted with the R. R. lens, or use F. 16, 22, 32 or 45 if fitted with the Anastigmat Lens. See instructions for the use of stops, page 19.

THIRD—Press push-pin to open the shutter, and release it to close the shutter. *This makes the exposure.* The shutter will remain open as long as the push-pin is under pressure.

IMPORTANT

Do not oil any part of the shutter.

In case of accident return shutter to your dealer or to us for repairs. As a general rule, make exposures with the cable release instead of with the release C, as the cable release is less likely to jar the camera.

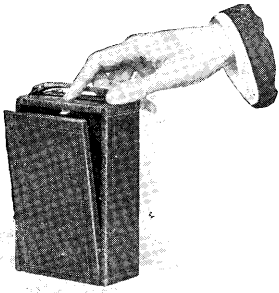

FIG. 1. Opening the Front

SECTION 2

At the front of camera bed and on the side opposite finder, you will see a scale marked 6, 10, 25 and 100 feet. This is for focusing the camera. Before extending bellows determine the distance of the principal object to be photographed.

Extending the Front

Grasp the lower part of front board, pushing in on the spring at the left side and pull out front of Camera (Fig. 2) until the little pointer on lower section of front board is in the slot directly over the figure on the scale corresponding nearest to the distance of the subject you wish to photograph.

Except when photographing at distances of 15 feet or less it is not necessary to estimate the distance with

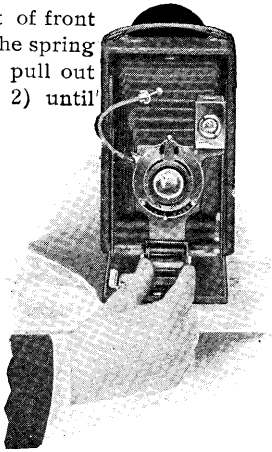

FIG. 2—Extending the Bellows and Focusing.

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any more than approximate accuracy; for instance, if the focus is set at 25 feet (the usual distance for ordinary street work) the sharpest part of the picture will be the object at that distance from the camera, but everything from 15 to 35 feet will be in good focus. For general street work the focus may be kept at 25 feet, but where the *principal object* is nearer or farther away, the focus should be changed accordingly. The focusing scale is divided for 6, 10, 25 and 100 feet. Everything beyond 100 feet is in the 100 feet focus. Nothing nearer than 6 feet can be focused without using the portrait attachment.

How to Use the Premoette Senior as a Fixed Focus Camera

Set focus at 25 feet.

Use speed of 1-25 of a second.

Set diaphragm midway between No. 8 and 16, or F. 11 and 16.

By following the above suggestions this camera can be used as a fixed focus instrument with the additional advantage of being instantly convertible to a focusing camera when conditions call for it. It must be remembered, however, that when using this Premo as a fixed focus type, it is necessary that the subject be in brilliant sunlight, in order to obtain a fully timed exposure.

Explanation

A lens is often spoken of erroneously as having a fixed focus.

There is no such thing as a universal or fixed focus lens, but in certain cameras, 3¼x4¼ and smaller (equipped with short focus lenses) the lens is immovable, i. e., set at a distance that is a compromise, as to its focus, between far and near points.

A camera with a lens so focused, used in combination with a relatively small stop, is designated a universal or fixed focus instrument.

With larger instruments this would be hardly practical, as it would necessitate the use of stop No. 32 or F. 22 at least, and this in turn would require a time exposure.

Use Stop No. 8 or F. 11

For all ordinary out-door work when the sun is very bright use stop No. 8 or F. 11. If a smaller stop be used, the light will be so much reduced that it will not sufficiently impress the image on the film and failure will result.

In views on the water when the sunlight is *unusually strong* and there are no heavy shadows, diaphragm No. 16 may be used.

If a smaller stop opening than No. 16 be used for snap shots *absolute failure will result.*

Locate the Image

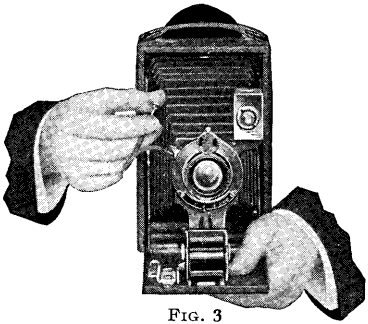

FIG. 3

Aim the camera at the object to be photographed and locate the image in the finder. (Fig. 3.) For

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horizontal picture with the Premoette Senior hold the camera as shown in Fig. 4, reversing the finder as indicated. Always look into the finder from directly over it, *not at an angle.* The finders give the scope of view and show a facsimile of the picture as it will appear, but on reduced scale.

Any object that does not show in the finder will not show in the picture.

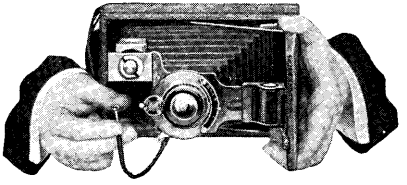
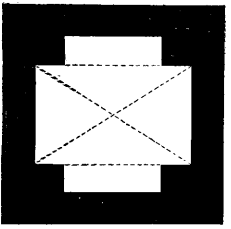
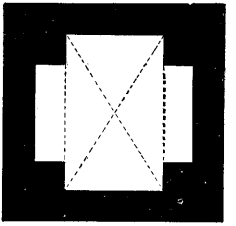


FIG. 4

It will be noticed that the top of the finder is notched as shown in Fig. 5. This is done so that the one finder will correctly show the view included when the camera is held in either horizontal or



VIEW INCLUDED WHEN MAKING A HORIZONTAL PICTURE.



VIEW INCLUDED WHEN MAKING A VERTICAL PICTURE.

FIG. 5

vertical position. As the pictures taken with the Premoette Senior are oblong it will readily be seen that unless the finder was made in this manner it could not correctly show the exact view intended when held in either position.

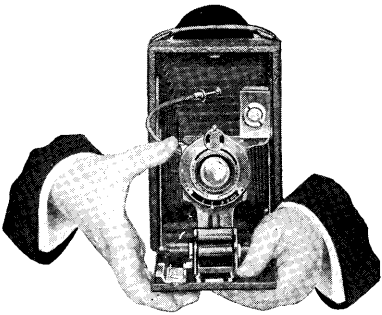


FIG. 6

Fig. 6 shows how to hold the camera when making exposures without the use of the cable release. Grasp the bed of the camera firmly with the left hand, steady it with the right and with the thumb of the right hand lightly press the exposure lever.

Hold it Level

The camera must be held level.

If the operator attempts to photograph a tall building while standing near it, by pointing the camera upward (thinking thereby to center it) the result will be similar to Fig. 7.

This was pointed too high. This building should have been taken from the middle story window of the building opposite.

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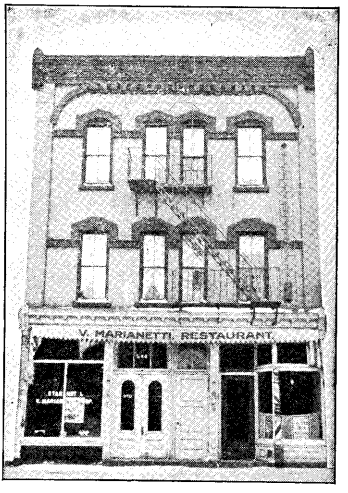

FIG. 7

The operator should hold the camera *level*, after withdrawing to a proper distance, as indicated by the image shown in the finder.

If the object be down low, like a small child or a dog, the camera should be held down level with the center of the object.

To Make Exposure

HOLD THE CAMERA STEADY,
HOLD IT LEVEL AND
PRESS PUSH-PIN

This makes the Exposure.

SECTION 3

Time Exposures—Interiors

Set camera in such a position that the finder will embrace the view desired.

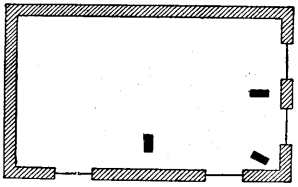

Diagram showing positions of Camera

The diagram shows the proper positions for the instrument. It should not be pointed directly at a window, as the glare of light will blur the picture. If all the windows cannot be avoided, pull down the shades of such as come within range of the lens.

To make a time exposure, place the camera on some firm support like a table or tripod, and focus as before described.

Fig. 1 shows the camera in position for a vertical exposure. The camera is also provided with tripod sockets and may be used on a tripod.

When it is desired to make a horizontal time exposure with the Premoette Senior, reverse the camera so that the tabs of the Film Pack will draw from the side instead of from the top, and pull down the lever at the side of the focusing scale.

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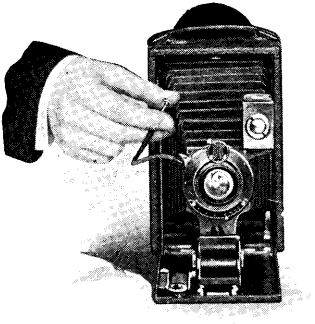

FIG. 1

Adjust the shutter for a time exposure as described on page 8.

All being in readiness, press the push-pin or lightly press the lever, once to open and again to close the shutter. Time the exposure by a watch. (See Fig.1)

Time Needed for Interior Exposures

The following table gives the time of the exposure required under varying conditions of light with the stop No. 16 in the lens. If the camera is fitted with the **R. R. Lens** and stop No. 8 is used, give only one-half the time, if the stop No. 128 is used give eight times the time of the table. When Camera is equipped with the **Anastigmat Lens** and stop F. 11 is used give only one-half the time, if the stop F. 45 is used give eight times the time of the table. The smaller the stop the sharper the picture. The No. 16 stop gives the best results for interiors:

White walls and more than one window:

bright sun outside, 4 seconds;
hazy sun, 10 seconds;
cloudy bright, 20 seconds;
cloudy dull, 40 seconds.

White walls and only one window:

bright sun outside, 6 seconds;
hazy sun, 15 seconds;
cloudy bright, 30 seconds;
cloudy dull, 60 seconds.

Medium colored walls and hangings and more than one window:

bright sun outside, 8 seconds;
hazy sun, 20 seconds;
cloudy bright, 40 seconds;
cloudy dull, 80 seconds.

Medium colored walls and hangings and only one window:

bright sun outside, 12 seconds;
hazy sun, 30 seconds;
cloudy bright, 60 seconds;
cloudy dull, 120 seconds.

Dark colored walls and hangings and more than one window:

bright sun outside, 20 seconds;
hazy sun, 40 seconds;
cloudy bright, 80 seconds;
cloudy dull, 2 minutes, 40 seconds.

Dark colored walls and hangings and only one window.

bright sun outside, 40 seconds;
hazy sun, 80 seconds;
cloudy bright, 2 minutes, 40 seconds;
cloudy dull, 5 minutes, 20 seconds.

The foregoing is calculated for rooms whose windows get the direct light from the sky, and for hours from three hours after sunrise until three hours before sunset.

If earlier or later the time required will be longer.

To Make a Portrait

Place the sitter in a chair partly facing the Camera (which should be located slightly higher than an ordinary table) and turn the face slightly towards the instrument, having the eyes centered on an object at the same level with the lens.

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Center the image in the finder. For a three-quarter figure the camera should be from 6 to 8 feet from the figure, and for a full figure from 8 to 10 feet, the background forming a contrast with the sitter.

Kodak Portrait Attachment

The attachment is simply an extra lens slipped on over the regular lens and in no way affects the operation of the lens except to change the focus.

Use the Kodak Portrait Attachment No. 3, for use with the Premoette Senior, No. 1-A and 3 with R. R. Lens.

Do., No. 6, with the *F.7.7* Lens.

Do., No. 5, for use with the No. 3-A with R. R. Lens.

Do., No. 7, with the *F.7.7* Lens.

By means of the Portrait Attachment large head and shoulders portraits of various sizes may be obtained. With the Atttachment in position and the focus set at 6 feet, the subject should be placed exactly 2 feet, 8 inches, from the lens.

At 10 feet focus, place subject 3 feet from lens.

At 25 feet focus, place subject 4 feet from lens.

At 100 feet focus, place subject 4½ feet from lens.

Time Exposures in the Open Air

When the smallest stop is in the lens the light admitted is so much reduced that time exposures out of doors may be made the same as interiors, but the exposures must be much shorter.

WITH SUNSHINE—1-5 second.

WITH LIGHT CLOUDS—From ½ to 1 second will be sufficient.

WITH HEAVY CLOUDS—From 2 to 5 seconds will be required.

The above is calculated for the same hours as mentioned above and for objects in the open air.

For other hours or for objects in the shadow, under porches or under trees, no accurate directions can be given; experience only can teach the proper exposure to give.

Time exposures cannot be made while the Camera is held in the hand. Always place it upon some firm support, such as a tripod, chair or table.

For exceedingly "short time" exposures, as above described use the "bulb exposure." See page 8.

Diaphragms

If using the model fitted with the DOUBLE LENS, (Rapid Rectilinear) the stops should be used as follows:

No. 4—For instantaneous exposures on *slightly* cloudy days.

No. 8—For *all ordinary instantaneous exposures* when the sun shines.

No. 16—For instantaneous exposures when the sunlight is unusually strong and there are no heavy shadows, such as in views on the seashore or on the water; also for interior time exposures, the time for which is given in the table on page 16.

Nos. 32 and 64—For interiors. *Never for instantaneous exposures.*

No. 128—For time exposures outdoors in cloudy weather. *Never for instantaneous exposures.* The time required for time exposures on cloudy days with smallest stop will range from 1-5 second to 5 seconds, according to the light. The smaller the stop the sharper the picture.

Absolute failure will be the result if you use the smallest stop for instantaneous exposures.

If the Camera is equipped with the F.7.7 ANASTIGMAT LENS, use the stops in the following manner:

F. 7.7—For instantaneous exposures on *slightly* cloudy days.

F. 11—For *all ordinary instantaneous exposures* when the sun shines.

F. 16—For instantaneous exposures when the sunlight is unusually strong and there are no heavy shadows, such as in views on the seashore or on the water; also for interior time exposures, the time for which is given in the table on page 16.

F. 22, 32—For interiors. *Never for instantaneous exposures.*

F. 45—For time exposures outdoors in cloudy weather. *Never for instantaneous exposures.* The time required for time

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exposures on cloudy days with smallest stop will range from 1-5 second to 5 seconds, according to the light. The smaller the stop the sharper the picture.

Absolute failure will be the result if you use the smallest stop for instantaneous exposures.

"F." and "U. S." Systems.

A lens is said to work at a certain "speed," this means that the lens will cut sharp to the corners, with an opening a certain proportion of its focal length. It should be borne clearly in mind that this speed depends *not* upon the size of the opening but upon the size of the opening *in proportion to the focal length of the lens* (distance from lens to plate when focused on infinity). The lens that will cut sharp with the largest opening is said to possess the greatest speed.

Such openings are termed stop or diaphragm openings, and for convenience in estimating and timing exposures are arranged according to two systems, the f. system and the Uniform System, or U. S. system, as commonly abbreviated.

In the f. system, the proportional size or "value" of the stop opening is designated by "f.", and is the quotient obtained by dividing the focal length of the lens by the diameter of the stop.

Taking, for instance, a lens of 8 inch focus with a stop 1 inch in diameter and we find that $8 \div 1 = 8$; hence, 8 is the f. value of the stop and would be designated f.8. Suppose the stop is $\frac{1}{4}$ inch in diameter we would then have $8 \div \frac{1}{4} =$ f.32.

By the uniform system we understand that each higher number stands for an opening having *half*

the *area* of the preceding opening, each smaller stop (or higher number) requiring double the time of the one next larger.

With the f. system, each stop is a certain proportion of the focal length and not arranged with reference to the other openings.

As exposure meters and similar devices for determining the proper exposures are often based upon both the f. system and the U. S. system we append the following table showing the "f." value for each of the uniform system openings:

U. S. 4=f. 8	U. S. 32=f. 22
U. S. 8=f. 11	U. S. 64=f. 32
U. S. 16=f. 16	U. S. 128=f. 45

SECTION 4

Flash Light Pictures

By the introduction of Eastman Flash Sheets, picture taking at night has been wonderfully simplified. A package of flash sheets, a piece of cardboard, a pin and a match complete the list of essential extras, although a Kodak Flash Sheet Holder is a great convenience.

With flash sheets, no lamp is necessary; there is a minimum of smoke and they are far safer than any other self-burning flash medium, besides giving a softer light that is less trying to the eyes.

Many interiors can be taken with the flash sheets that are impracticable by daylight, either by reason of a lack of illumination or because there are windows in a direct line of view which cannot be darkened sufficiently to prevent the blurring of the picture.

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Evening parties, groups around a dinner or card table or single portraits may be readily made by the use of our flash sheets, thus enabling the amateur to obtain souvenirs of many occasions which, but for the flashlight, would be quite beyond the range of the art.

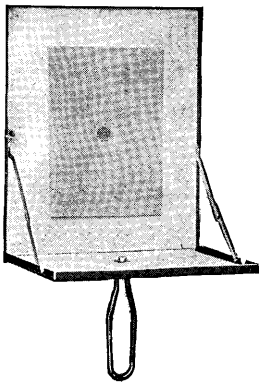
PREPARATION FOR THE FLASH.—The camera should be prepared for time exposures, as directed on page 15 of this manual (except that stop No. 8 or F. 11 must be used), and placed on some level support where it will take in the view desired.

Pin a flash sheet by one corner to a piece of cardboard which has previously been fixed in a perpendicular position. If the cardboard is white it will act as a reflector and increase the strength of the flash.

The flash sheet should *always* be placed two feet behind and two or three feet to one side of the camera. If placed in front, or on a line with front of Camera the flash would strike the lens and blur the picture. It should be placed at one side as well as behind, so as to throw a shadow and give a little relief in the lighting. The flash should be at the same height or a little higher than the camera. The support upon which the flash is to be made should not project far enough in front of it to cast a shadow in front of the Camera. An extra piece of cardboard a foot square placed under the flash sheet will prevent any sparks from the flash doing damage. However, by using the Kodak Flash Sheet Holder, all these contingencies are taken care of, and we strongly advise its use.

The Kodak Flash Sheet Holder

This holder may be held in the hand, *always between you and the flash sheet.* Or, it may be used on any Premo tripod, being provided with a socket for this purpose. The sheet is placed in position in the center of the larger pan over the round opening which has a raised saw-tooth edge extending half way around it. Press with the thumb on the sheet, so slight break is made and a portion of the sheet projects partially through the opening. Then to insure the sheet being more securely fastened, press around the notched edge, forcing this portion of flash sheet firmly into position on the pan.



Then to set off the flash, merely insert a lighted match, from behind, through the round opening.

Taking the Picture

Having the Camera and the flash sheet both in position and all being in readiness, open the camera shutter, stand at arm's length and touch a match from behind through the round opening in the center.

NOTE—If you are not using the Kodak Flash Sheet Holder, place the match in a split stick at least two feet long.

There will be a bright flash which will impress the picture on the sensitive film. Then push the

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lever to close the shutter and pull up tab ready for another picture.

The Flash Sheet

The size of the sheet required to light a room varies with the distance of the object farthest from the camera and the color of the walls and hangings.

TABLE

For 10 feet distance			light	walls	and	hangings	use 1 No. 1 sheet
" 10 "	"		dark	"	"	"	" 1 No. 2 sheet
" 15 "	"		light	"	"	"	" 1 No. 2 sheet
" 15 "	"		dark	"	"	"	" 1 No. 3 sheet

NOTE—Never use more than one sheet at a time in the Kodak Flash Sheet Holder.

TO MAKE A PORTRAIT.—Place the sitter in a chair partly facing the Camera (which should be located slightly higher than an ordinary table) and turn the face slightly towards the instrument, having the eyes centered on an object at the same level with the lens. The proper distance from the instrument to the subject can be ascertained by looking at the image in the finder. For a three-quarter picture this will be from 6 to 8 feet, and for a full figure from 8 to 10 feet.

The flash should be on the side of the camera away from the face, that is, the sitter should not face it. The flash should not be higher than the head of the sitter.

For using Portrait Attachment, see page 18.

TO MAKE A GROUP—Arrange the chairs in the form of an arc, facing the Camera so that each chair will be exactly the same distance from the instrument. Half the persons composing the group should be seated and the rest should stand behind the chairs. If the group is large any number of chairs

may be used, but none of the subjects should be seated on the floor, as sometimes seen in large pictures, because the perspective would be too violent.

BACKGROUNDS.—In making single portraits or groups, care should be taken to have a suitable background against which the figures will show in relief; a light background is better than a dark one, and often a single figure or two will show up well against a lace curtain. For larger groups a medium light wall will be suitable.

The *finder* on the camera will aid the operator in composing the groups so as to get the best effect. In order to make the image visible in the finder the room will have to be well lighted with ordinary lamplight, which may be left on while the picture is being made, provided none of the lights are placed so that they show in the finder.

Eastman Flash Sheets burn more slowly than flash powders, producing a much softer light and are, therefore, far preferable in portrait work; the subject, however should be warned not to move, as the picture is not taken *instantaneously*, about one second being required to burn one sheet.

Eastman Flash Cartridges

Eastman Flash Cartridges may be substituted for the sheets if desired. We recommend the sheets, however, as more convenient, cheaper and capable of producing the best results. The cartridges are only superior when absolutely instantaneous work is essential.

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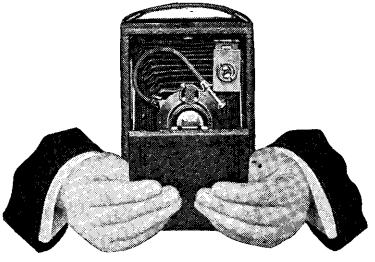
Closing the Camera

When through using the Camera fold the bellows by reversing the operation shown in Fig. 2, page 9, and press down on arm locks on each side of bed, as shown below. The bed will now close readily.



Closing the Camera

Before closing the bed of the camera, be careful to see that the front board has been pushed in to the limit of motion. If it is in proper position it will not interfere with the bed in closing.

Keep Dust Out of the Camera

Defective negatives are often caused by particles of dust which have collected on the inside of the camera and settle upon the film in particles that produce small dark spots upon the prints.

It is therefore well to wipe out the inside of camera and bellows occasionally, with a slightly damp cloth. In Summer weather or after the camera has remained idle for any length of time, this needs special attention.

Dimmed Finders and How to Make Them Bright Again

For some cause which is not thoroughly understood, glass will sometimes "sweat" to such an extent as to cover it with a sort of film, which, of course, makes it very dull whether it be used as a lens or mirror.

Whatever the cause, the result is the occasional dimming of finders and lenses. With finders the trouble is sometimes in the mirror, which necessitates wiping it by means of a soft cotton cloth. To clean the mirror in the finder on the Premoette Senior, wind the end of a handkerchief around the end of a lead pencil and pass between lens and mirror.

Clean Lenses

CLEAN LENS

Dirty or dusty lenses are frequently the cause for photographic failures. These pictures illustrate this point clearly. The sharp, full-timed picture on this page was taken with the lens clean and in good order. To produce the effect shown in the picture on page 28, the operator lightly

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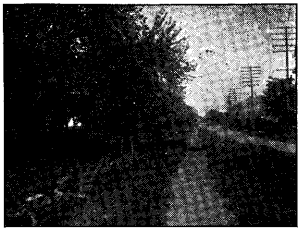
touched the face of the lens with his thumb, which was slightly damp with perspiration.



LENS SLIGHTLY DIRTY

Lenses should be frequently examined by looking *through* them, and if found to be dirty, should be wiped, both front and back, with a clean, soft linen handkerchief. In Summer weather this needs special attention. Large spots of dust or dirt on the lens will cause defects in the picture, while if the lens is evenly covered with a film of dust, dirt or moisture, the effect will be to cut off a great deal of light and make the picture undertimed.

PART III

SECTION 1

Developing Premo Film Pack Films in Premo Film Pack Tank

When using the 1A (2½ x 4¼), 3 (3¼ x 4¼) or 3A (3¼ x 5½) Premoette Senior, provide a No. 2 Premo Film Pack Tank, a box of No. 2 Premo Tank Developing Powders, and a pound of Kodak Acid Fixing Powder.

To Prepare the Developer

Remove the cover of the tank by turning it to the left. The cage or holder for the separate films can then be removed from the tank.

Put four or five ounces of lukewarm water into the solution cup and dissolve in it the contents of the large package, containing Sulphite and Carbonate of Soda. Fill the cup with cold water to the embossed ring—not to the top, this indicates the proper level for the developing fluid. If the tanks are not filled to this point, any portions of the film which projects will remain undeveloped. Now dissolve the contents of the small package, containing Pyro, in this solution and the developer will be ready.

The temperature of the developer when ready for use should be about 65 degrees Fahrenheit.

The developer must always be mixed fresh and used for only one pack of films.

To Prepare the Fixing Solution

Dissolve the package of Kodak Acid Fixing Powder as per directions on page 40. (This solution may be bottled and used over and over until it loses strength).

At this point all white light should be excluded from the dark-room. See page 37. If no dark-room is available, this work can be done at night in any room in which there is a tap of running water, care being taken that there is no white light in the room during the few minutes when the films are being transferred from the pack to the cage.

How to Remove Films from Pack for Development

When all exposures in the film pack have been made it is light tight, and may be taken from the

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camera in daylight. Provided exposed films have previously been removed, as described below, the Film Pack should be resealed immediately after removing it in daylight from the Camera after the twelfth exposure has been made, by moistening the inside of the corner flaps, when they may be stuck firmly to the sides.

When ready to develop, break the black seal at the sides and pull down bottom flap. (See Fig. 1.)

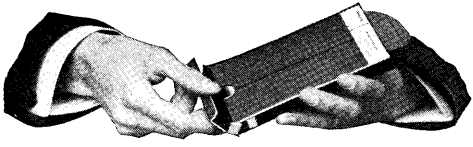


FIG. 1

This gives access to exposed film which may be removed as shown in Fig. 2.

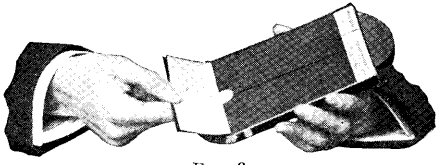


FIG. 2

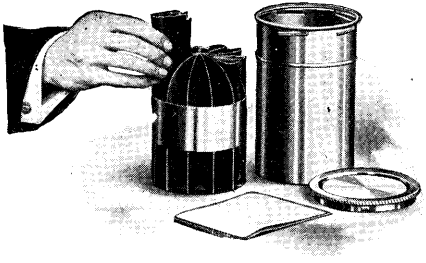
To remove one or more films for development before the entire package is exposed:

Take the camera to the dark-room, remove the pack and break the black seal as above. After removing the exposed film, the pack can be replaced without sealing in the camera before leaving the dark-room and everything is ready for additional exposures.

Important — When removing any films for development before all are exposed, do not remove papers of safety cover but leave same to protect top film after all have been exposed and the pack removed in daylight.

To Load the Films into Cage

When all is ready load each film into its respective compartment of the cage *without detaching the black paper*. This is readily done by holding the film between the thumb and fingers with the black paper toward the hand, and doubling the edges together as shown in Fig. 3. Slide them carefully down to



FIG, 3

the bottom of each compartment, with torn edge up, and see that the center piece protrudes between the edges of the film, preventing them from coming together during the process of development.

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When all the films are loaded, place cage into developing tank (Fig. 4) and raise and lower it slightly below the surface of the developer, two or three times, to expel air bubbles. Replace the cover of the tank by dropping it on and turning it to the right as far as possible.

The white light may now be turned on and the time noted. The time may be marked on the dial which appears on the face of the container that comes with the developing powders. During the process of development the tank should be turned end for end four or five times to procure uniform and even development. At the expiration of twenty minutes the top may be removed in dark room or very subdued light and the developer poured off. When removing cover of solution cup, place cup in palm of hand so as to obtain a firm grip on bottom of can. Then grip cover with other hand and turn slowly to left when cover will loosen readily. The tank should now be held under a tap of running water or immersed for a few seconds in a vessel of clear water. The films are then ready for fixing.

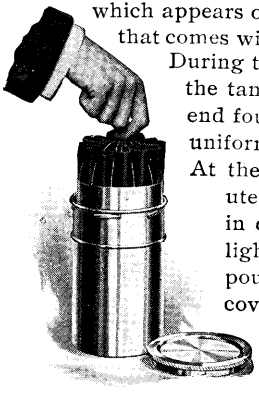

FIG. 4

The fixing bath may be prepared in a tray or other vessel, the cage taken from tank—the metal hook being intended for this purpose, and the films

removed from the cage, the black papers pulled off and films placed in the bath, leaving the tank and cage available for the next pack. The films should be moved about, two or three times, to insure evenness of fixing.

After the films have been fixed a sufficient length of time so that all the shadows are perfectly transparent and no yellowish spots appear, they should be placed in a tray under running water and washed for half an hour. Before washing be sure black papers are all detached. If running water is not available they should be left in the water about three-quarters of an hour and the water changed six or eight times to remove all trace of hypo.

After this process is completed, the films are taken from the tray and pinned up by the corner preferably to the edge of a shelf or some projecting surface which will not permit either side of the film to come in contact with any object, as otherwise the film will stick and ruin the negative. Or you may hang the negatives on a stretched string by means of a bent pin, running the pin through the corner of film to the head, then hooking it over the string.

The above instructions, if carefully followed, will produce the most satisfactory results, provided anything like proper exposures have been given. We recommend the use of the regular Premo Developing Powders in these tanks, as they have been compounded from the purest chemicals for this purpose. For those who wish to mix their own solutions, we give the following formulae:

NOTE—Avoirdupois weight is the standard used in compounding Photographic Formulae.

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Stock Developing Solution

Pyro Formula

Pyro Solution

Pyro	1 Oz.
*Sulphuric Acid	20 Minims.
Water	28 Ozs.

*If Eastman Permanent Crystal Pyro is used, the acid should be omitted.

Soda Solution

E. K. Co. Sulphite Soda (desiccated)*	3 Ozs.
E. K. Co. Carbonate Soda (desiccated)*	3 Ozs.
Water	30 Ozs.

*This solution is based on the strength of E. K. Co. Sulphite and Carbonate, and if possible, these chemicals should be used.

NOTE—If other brands of desiccated Carbonate of Soda are used a greater quantity will be required. If crystal sodas are used, take about three times the quantity of Carbonate and double the quantity of Sulphite.

For No. 2 Film Pack Tank—52 Ozs., take:

Pyro Solution	3 Ozs.
Soda Solution	3 Ozs.
Water	46 Ozs.

Develop 20 Minutes

Acid Hypo Fixing Bath

Water	64 Ozs.
Hypo	16 Ozs.

When thoroughly dissolved, add 4 ounces Velox Liquid Hardener, or the following hardening solution, dissolving the chemicals separately, and in the order named:

Water	5 Ozs.
E. K. Co. Sulphite of Soda	1 Oz.
Acetic Acid (28%)	3 Ozs.
Powdered Alum	1 Oz.

If preferred, 1 oz. Citric Acid can be substituted for Acetic.

This bath may be made up at any time in advance and be used so long as it retains its strength, or is not sufficiently discolored by developer carried into it to stain the negatives.

Time and Temperature

It sometimes happens that the amateur is not able to obtain or maintain the standard or normal temperature of 65 degrees Fahr. when using the Premo Tank and Premo Tank Powders. In such cases the following table will be found of value:

Temperature	Time—One Powder	Time—Two Powders
70 Degrees	15 Minutes	8 Minutes
69 "	16 "	
68 "	17 "	9 "
67 "	18 "	
66 "	19 "	
65 " NORMAL	**20 " NORMAL**	**10 " NORMAL**
64 "	21 "	
63 "	22 "	
62 "	23 "	11 "
61 "	24 "	
60 "	25 "	
59 "	26 "	12 "
58 "	27 "	
57 "	28 "	
56 "	29 "	13 "
55 "	30 "	
54 "	31 "	
53 "	32 "	14 "
52 "	33 "	
51 "	34 "	
50 "	35 "	15 "
49 "	36 "	
48 "	37 "	
47 "	38 "	16 "
46 "	39 "	
45 "	40 "	17 "

Temperature of Developer must not exceed 70 degrees Fahr., as above that point there is danger of the film frilling. 45 degrees Fahr. is the lowest temperature at which the developing powders can be dissolved and even at this temperature the powder must be finely crushed and added slowly to the water.

It is best to use the normal temperature (65°) when possible as the use of a developer that is colder than normal has a slight tendency to increase the contrast in a negative, while the use of a developer warmer than normal slightly flattens the resulting negative

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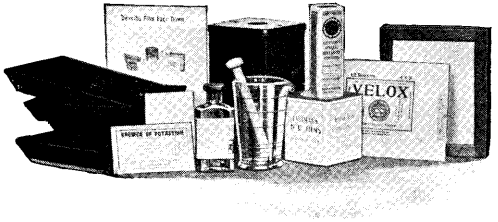
SECTION 2

Developing Premo Film Pack Film by the Dark-room Method

If you are to develop the contents of a 2½ x 4¼ or 3¼ x 4¼ Film Pack, an Eastman A B C Developing and Printing Outfit will be found most economical.



A B C Developing Outfit

The Outfit Contains:

1	Kodak Candle Lamp	$ .25
4	Developing Trays	.40
1	4-oz. Graduate	.15
1	4 x 5 Printing Frame	.25
1	4 x 5 Glass for same	.05
1	Stirring Rod	.05
1	Box (5 tubes) Eastman Special Developing Powders	.25
½	Pound Kodak Acid Fixing Powder	.15
2	Dozen Sheets 4 x 5 Velox Paper	.40
1	2-oz Bottle Nepera Solution	.10
1	Package Potassium Bromide	.10
		$2.15

Price, complete, (including Instruction Book), neatly packed, $1.50.

If to develop the contents of a 3A (3¼ x 5½) Film Pack an Eastman 3A Developing and Printing Outfit will be found convenient.

The outfit is similar to the A. B. C. (described on page 36) except that the Velox paper, printing frame and trays differ as to size.

Also, provide a dark room having a shelf or table, and a pitcher of cold water (preferably ice water), and a pail for slops.

By a dark-room is meant one that is wholly dark—not a ray of light in it. Such a room can easily be secured at night almost anywhere. The reason a dark-room is required is that the film is very rapid, and therefore, extremely sensitive to white light, either daylight or lamplight, and *would be spoiled if exposed to it*, even for a fraction of a second.

The Lamp

Having provided such a room or closet, where, when the door is closed, no ray of light can be seen, set up on the table or shelf the Kodak Candle Lamp.

The lamp gives a subdued red light which will not injure the film unless it is held too close to it. Set the lamp on the table at least eighteen inches from the operator. Never use a yellow light or fog will be the result.

1. Fill one of the trays nearly full of water (first tray).

2. Open one of the developer powders, then put the contents (two chemicals) into graduate and fill it up to the 4 ounce mark with water. Stir until dissolved, with the wooden stirring rod, and pour into second tray.

For removing Film from Film Pack, see page 29.

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After removing the exposed films from the Pack, the black paper to which they will be found attached should be removed and each film placed, emulsion side down, in a tray of water. (The emulsion side, or face, is the dull side.) They should be allowed to stand two or three minutes and then each film should be placed separately in the developing tray, still face down. The tray should be rocked gently from time to time, the films never being allowed to mat together, and the progress of development ascertained by holding the film up to the light of the lamp.

NOTE—When making an examination of the film, do not hold it close to the lamp for any length of time, as it would be liable to fog.

Complete development, giving sufficient length of time to bring out what detail you can in the thinnest negatives. Do not check the development too soon, or the detail will be lost and the negative will be void of contrast, weak and flat; neither continue it too long, as fog and flatness will result.

It usually requires a longer time to develop instantaneous exposures, as they are rarely fully timed, and a film or plate which has not had full exposure requires longer time for development.

There is no harm in having your negatives of different density. This can be set right in the printing. The difference in density does not affect the difference in contrast.

After completing development transfer to the third tray and rinse two or three times with clear, cold water, and transfer to fixing bath (see page 40).

Developing Formula for Dark-Room Development

We recommend using Eastman Special Developer Powders, which are furnished in packages and are compounded by simply adding the amount of water marked on each package. The following formula will also be found satisfactory:

Pyro Formula

SOLUTION A

Pyro	1 Oz.
Sulphuric Acid	20 Minims.
Water	28 Ozs.

SOLUTION B

E. K. Co. Sulphite of Soda, (desiccated)*	3 Ozs.
E. K. Co. Carbonate of Soda, (desiccated)*	2 "
Water	28 "

To Develop

Take Solution A 1 oz., Solution B 1 oz., Water 8 ozs.

*If crystals are used, double the quantity.

NOTE—If other brands of desiccated Carbonate of Soda are used a greater quantity will be required. If crystal sodas are used, take about three times the quantity of Carbonate and double the quantity of Sulphite.

NOTE—Temperature of all developing solutions should be 65° Fahr.

Fixing

We recommend the use of Kodak Acid Fixing Powder, or the following formula:

Acid Hypo Fixing Bath

Water	64 Ozs.
Hypo	16 Ozs.

When thoroughly dissolved, add 4 ounces Velox Liquid Hardener, or the following hardening solution, dissolving the chemicals separately in the order named: