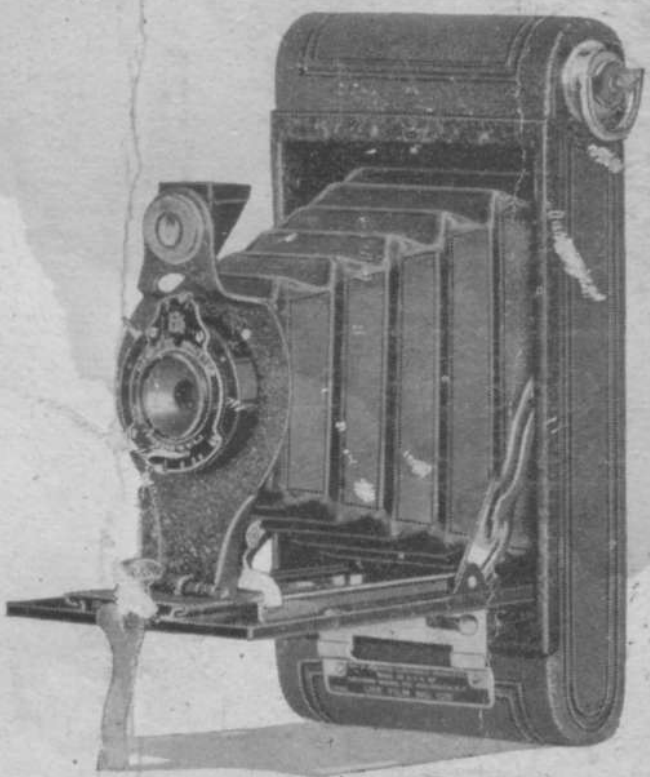
Picture taking with the

No. 2 Folding Cartridge Hawk-Eye Camera

(Model C)

Single Lens

(*Meniscus Achromatic*)



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Fits your Hawk-Eye Camera for head and shoulder portraits—it brings the image into sharp focus at short range.

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October, 1926.

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Published by

EASTMAN KODAK COMPANY

ROCHESTER, N. Y., U. S. A.

Order Film by Number

All Kodak Films are distinguished by the numbers on the ends of the cartons. The number also appears on the cartridge and on the camera.

120 is the number of the film for the No. 2 Folding Cartridge Hawk-Eye Camera, Model C.

Before Loading

Before taking any pictures with your camera, read the following instructions carefully. Make yourself familiar with the camera, taking especial care to learn how to operate the shutter (see page 10). Work it for both time and instantaneous exposures several times before loading the camera with film.

The first thing to remember is that the light, which serves to impress the photographic image upon the sensitive film in a fraction of a second when it comes through the lens, can destroy the film as quickly as it makes the picture. While loading and unloading, be very careful to keep the protective paper wound tightly around the film to prevent the light striking it.

CONTENTS

Loading the Camera

THE No. 2 Folding Cartridge Hawk-Eye Camera, Model C, can be loaded or unloaded in daylight. This should be done in a subdued light, not in direct sunlight. Use film No. 120 for this camera.

Fig. 1

1. Slide back the lock, Fig. 1. Take the front of the camera by the edges and lift the end on which the lock is fastened, then draw out and remove that part of the camera entirely. Fig. 2.

Fig. 2

In the winding end of the camera is an empty spool, this is the reel. The roll of film is to be placed in the opposite end.

2. Draw out the winding key as far as it will come, and remove the empty spool, Fig. 3.

Fig. 3

3. Remove the band that holds the end of the protective paper, unfold the end and thread the paper *as far as it will go*, into the *longer* opening of the slit in the empty spool. Each spool has one end slotted and the protective paper must be inserted in the empty spool *so that the slotted ends are*

on opposite edges of the paper. Give the empty spool three or four turns, enough to bind the paper on the reel. Be careful

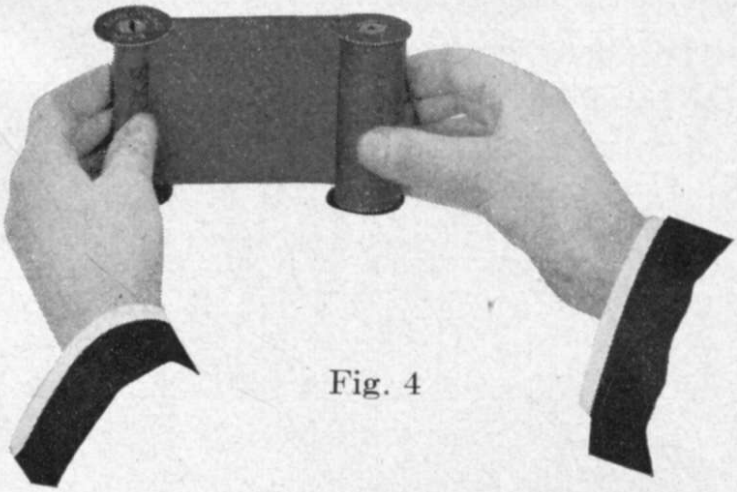


Fig. 4

that the paper draws straight and true, and that it does not loosen up on the full spool. See Fig. 4.

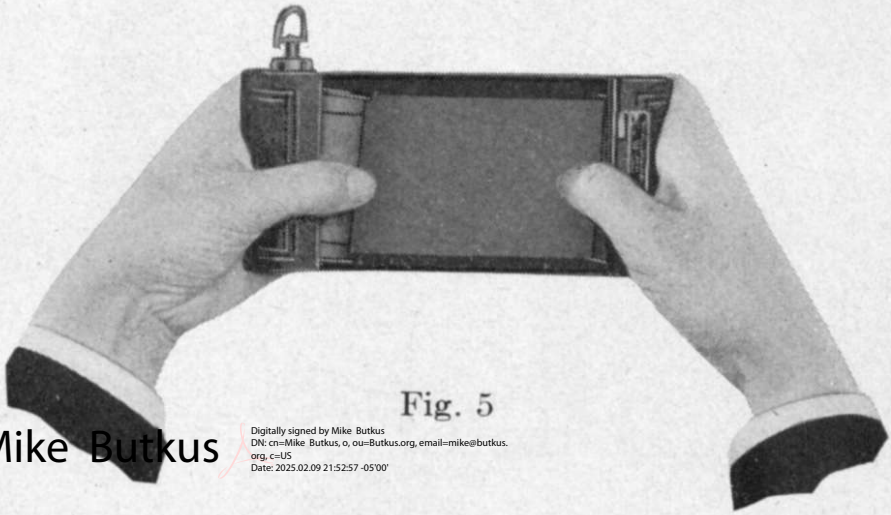


Fig. 5

4. Unroll about four inches of the protective paper and place the two spools into the film pockets at each end of the camera. Fig. 5.

Important: The empty spool or reel must be placed in the winding key end of the camera with its *slotted end towards the winding key.* The word "TOP" printed on the protective paper must be next to the winding key.

Push the full spool into the other pocket as far as it will go, so that the tension spring grips it.

Fig. 6

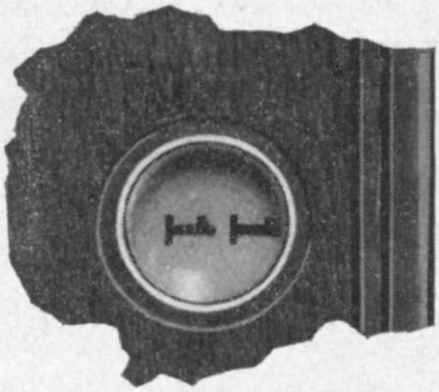
5. Press in and turn the winding key until it fits into the slot in the empty spool or reel, Fig. 6.

Caution: If too much of the paper is reeled off before the camera is closed, some of the film will be uncovered, fogged and ruined.

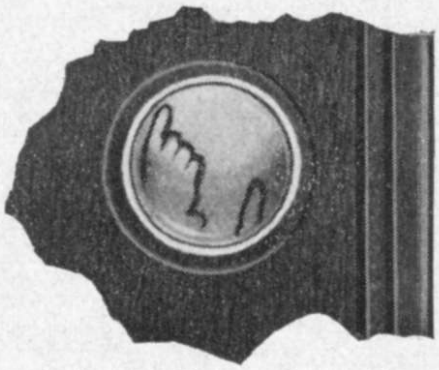
6. When replacing the front of the camera after it is loaded, first insert the end opposite the lock, the edge of the box must fit into the groove at the end of the front, then drop the end on which the lock is fastened into place. Push over the lock and make sure that it is fastened securely.

From the time the band on the roll of film is broken until the camera is closed, keep the protective paper wound tightly on the roll. If it should loosen, light will be admitted and the film ruined.

7. Turn the key and watch the red window. After ten or twelve turns, a warning hand will appear, then turn the key slowly until the figure 1 is in the center of the window.



Press in the winding key while turning it, to keep the key in the slot in the end of the spool.



The film is now in position for the first picture.

Making the Exposures

BEFORE an exposure is made, four things must be done:

First—The shutter must be adjusted for an instantaneous or time exposure.

Second—The diaphragm lever placed at the proper stop opening.

Third—The camera focused.

Fourth—An unexposed section of film turned into position.

Exposures are made by pressing the exposure lever C. See diagram of shutter on page 11.

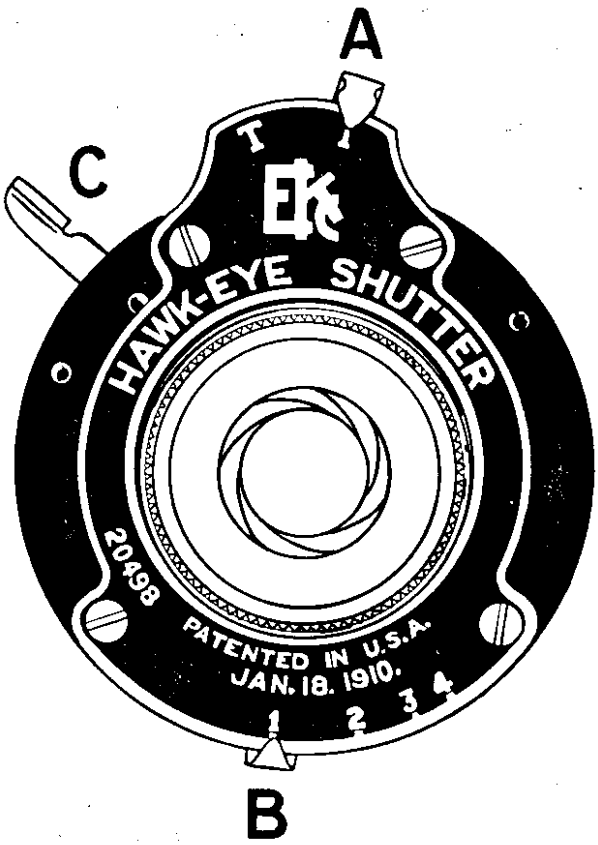
Operating the Shutter

Familiarity with the shutter is necessary for successful picture-taking with any camera. The following directions should be carefully read and the shutter operated several times before loading the camera.

Instantaneous Exposures

"Snapshots"

First—Move the lever A to "I." This adjusts the shutter for Instantaneous Exposures.



Second—Move the lever B to No. 1. Lever B controls the iris diaphragm and No. 1 is the proper opening for ordinary instantaneous exposures, of subjects such as street scenes, nearby views, etc., when the subject is in bright sunlight. See instructions for using the diaphragms or stops, on pages 18 and 19.

Third—Press the exposure lever C. *This makes the exposure.* Be sure to hold the camera steady, as a slight jar will cause a blurred negative.

Time Exposures

First—Move the lever A to the point "T" (time). This adjusts the shutter for Time Exposures.

Second—Move the lever B to Nos. 1, 2, 3 or 4, according to the time of the exposure and the nature of the subject. See instructions for the use of the diaphragms or stops given on pages 18 and 19, also the table for making Interior Time Exposures on pages 28 and 29, and the table for Time Exposures Outdoors, page 33.

Third—Press the exposure lever C. This *opens* the shutter. Time the exposure by a watch. Again press the exposure lever. This *closes* the shutter.

Important—*Do not oil any part of the shutter.* In case of accident, return the camera to your dealer or to us for repairs.

Instantaneous Exposures
"Snapshots"

When making ordinary instantaneous exposures or snapshots, the subject should be in the broad, open sunlight, but the camera must not. The sun should be behind your back or over your shoulder. If it shines directly into the lens it will blur and fog the picture.

Special instructions for making portraits are given on pages 30 and 31.

Use Stop No. 1

and make an instantaneous exposure for all ordinary outdoor work, such as nearby landscapes showing little or no sky, groups and street scenes, when the subject is in the bright sunlight. If a smaller stop is used for ordinary snapshots, the light will be so much reduced that it will not make a satisfactory picture.

For ordinary *landscapes*, in bright sunlight with clear sky overhead, use stop No. 2 and make an instantaneous exposure.

If a smaller stop opening than No. 2 is used for ordinary snapshots, *total failure will result*, except that an instantaneous exposure may be made using stop No. 3 for extremely distant views, marines, snow scenes and clouds only, in bright sunlight.

For views at the seashore and on the water, when the sunlight on the subject is *unusually strong* and there are no heavy shadows, make an instantaneous exposure and use stop No. 3.

To Focus the Camera

Raise the lever near the winding key, Fig. 1, draw it forward and push down the bed of the camera.

Fig. 1. *Opening the Front.*

On the bed of the camera is a focusing scale with slots marked 8, "Fixed" (25 feet) and 100 feet. This is for focusing the camera. The scale is marked both for feet and for meters and care should be taken not to confuse them.

Draw out the front of the camera by the knob on the slide plate, to the slot marked 100 feet where the front will lock automatically, Fig. 2, page 15. To set the focus for subjects that are nearer to the camera than 100 feet, press the spring catch or locking device on the side at the bottom

of the front standard, and draw out the front of the camera to the slot on the scale that is marked nearest to the estimated distance in feet, between the camera and the *principal object* to be photographed.

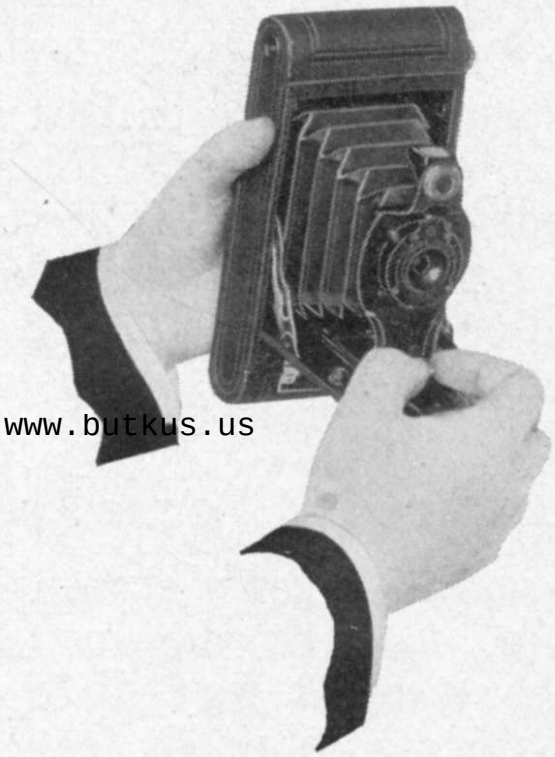


Fig. 2
Drawing out the front.

The distance from the subject to the camera can be estimated without measuring, unless the subject is close to the camera. For instance, if the focus is set at the slot marked "Fixed" (the usual distance for ordinary street work), everything about fourteen feet and beyond, will be in good focus. When the camera is focused in this manner, it may be used as a fixed-focus camera, and for

ordinary shapshots use stop No. 1. When the principal object is nearby or at a great distance, the focus should be changed accordingly. For distant views, set the indicator in the slot marked 100 feet, and when the subject is about 8 feet from the lens, set the indicator in the slot marked 8 feet. If a time exposure can be made the smallest stop can be used. This allows the subject to be about five feet from the camera, see table on page 17. The subject can be brought closer to the lens if a Kodak Portrait Attachment is used, see pages 31 and 32.

What Depth of Focus Means

Suppose that the lens is used at its full opening, No. 1, with the focus at eight feet, an object eight feet distant will be sharp, but objects about six feet and about twelve feet distant will not be sharp. Stop the lens down to No. 2 and objects before and behind the exact point of focus will increase in sharpness and the area within which all objects will be sharp is increased. Go farther and use stop No. 4, and everything about four and three-quarters feet to about thirty-six feet will be sharp.

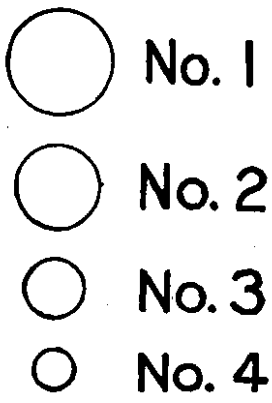
It will thus be seen that the smaller the stop the greater the depth of focus, that is, the greater the power of the lens to define

sharply, at the same time, objects nearer the camera and farther from the camera than the principal object in the picture, which, of course, is the object focused upon. It is obvious that with the small stops the exposure must be correspondingly increased.

The following table gives the depth of focus or range of sharp definition with the No. 2 Folding Cartridge Hawk-Eye Camera, Model C, when focused with different stop openings.

Stops	No. 1	No. 2	No. 3	No. 4
Distance Focused Upon	RANGE OF SHARPNESS			
	Ft. Ft.	Ft. Ft.	Ft. Ft.	Ft. Ft.
100 Ft.	22 to Inf.	17 to Inf.	13 to Inf.	9 to Inf.
"Fixed"	14 to Inf.	11½ to Inf.	9½ to Inf.	7½ to Inf.
8 Ft.	6½ to 11	6 to 13	5¼ to 18	4¾ to 36

"Inf." is the abbreviation for Infinity—meaning an unlimited distance from the lens.



These circles show the actual sizes of the stop openings or diaphragms of the shutter on the No. 2 Folding Cartridge Hawk-Eye

Camera, Model C, when fitted with the Single (Meniscus Achromatic) Lens. They clearly show the relative sizes of the stop openings and how their areas differ.

Diaphragms

The diaphragms, or stop openings as they are sometimes called, are the openings that regulate the amount of light passing through the lens. The openings are enlarged or reduced by moving the lever B, see page 11.

No. 1—For *all ordinary instantaneous exposures* of subjects such as nearby landscapes showing little or no sky, groups and street scenes, when the subject is in bright sunlight.

No. 2—For ordinary *landscapes*, in bright sunlight, with clear sky overhead, make an instantaneous exposure; also for Interior Time Exposures, the time for which is given in the table on pages 28 and 29.

No. 3—For instantaneous exposures, when the sunlight on the subject is *unusually strong* and there are no heavy shadows, such as views at the seashore and on the water, also for instantaneous exposures of extremely distant landscapes, marines, snow scenes and clouds only, in bright sunlight; and for Time Exposures.

No. 4—For Time Exposures Outdoors on cloudy days, the exposures required are given on page 33. *Never for instantaneous exposures.* The smaller the stop the sharper the picture, see pages 16 and 17.

Total failure will be the result, if stop No. 4 is used for *instantaneous exposures.*

Throughout this manual all exposures given for out-of-door subjects are for the hours between two and a half hours after sunrise and two and a half hours before sunset. If earlier or later the exposures must be longer. For subjects in the shadow, under porches or under trees, no definite directions can be given; experience only can teach the proper exposure to give.

Using the No. 2 Folding Cartridge Hawk-Eye as a Fixed Focus Camera

SET THE FOCUS AT "FIXED."

By setting the focus of your Hawk-Eye at "Fixed" (25 feet) it can be used as a fixed focus camera, 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 your camera as a fixed focus type, the subject must be in bright sunlight, to obtain a fully timed exposure.

The range of sharpness when the Hawk-Eye is adjusted as a fixed focus camera will be found in the table on page 17.

Explanation: A lens is often spoken of as having a fixed focus. There is no such thing as a fixed focus lens, but in certain cameras, 3¼ x 4¼ and smaller (equipped with short focus lenses), the lens can be 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 called a fixed focus camera.

Using the Finder

The finder above the shutter gives the scope of view and shows the picture as it will appear, but on a much reduced scale.

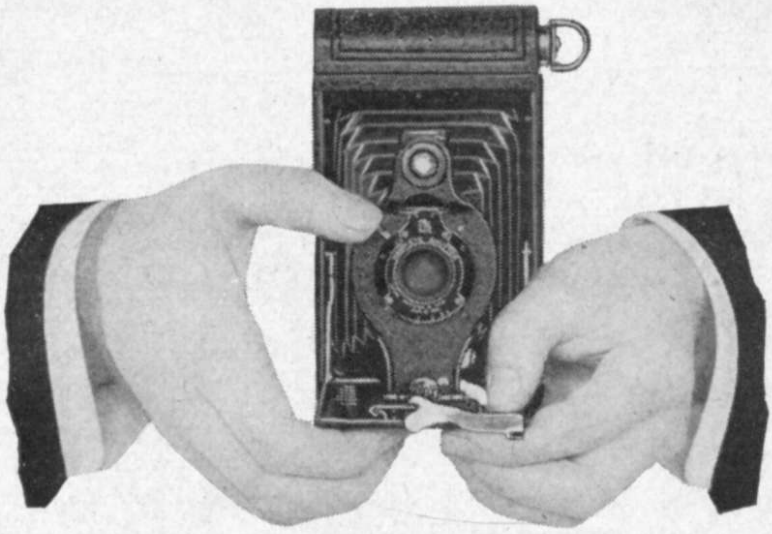


Fig. 3
Holding camera in vertical position.

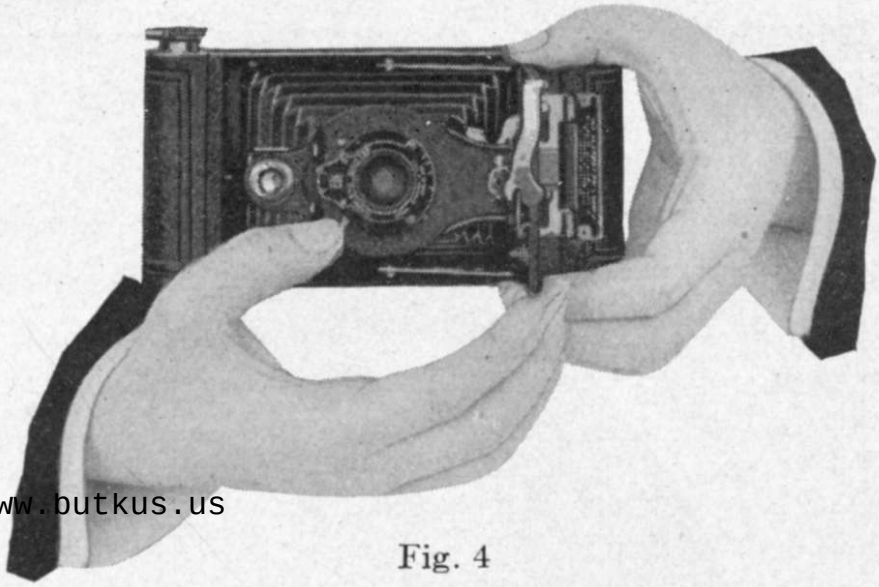
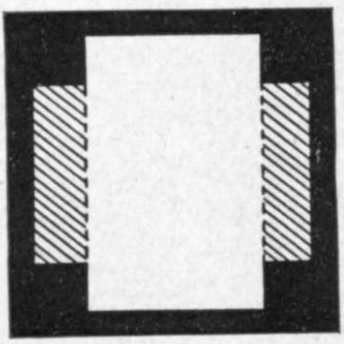


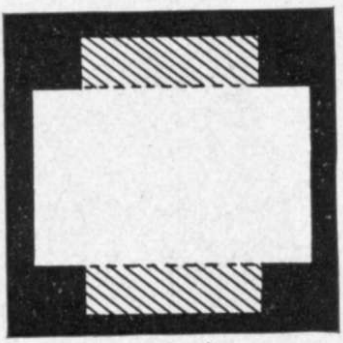
Fig. 4

Holding camera in horizontal position, showing finder properly turned.

Point the lens at the subject to be photographed and looking into the finder from directly over the center of it, include what you want and compose the picture by changing the direction of the lens.



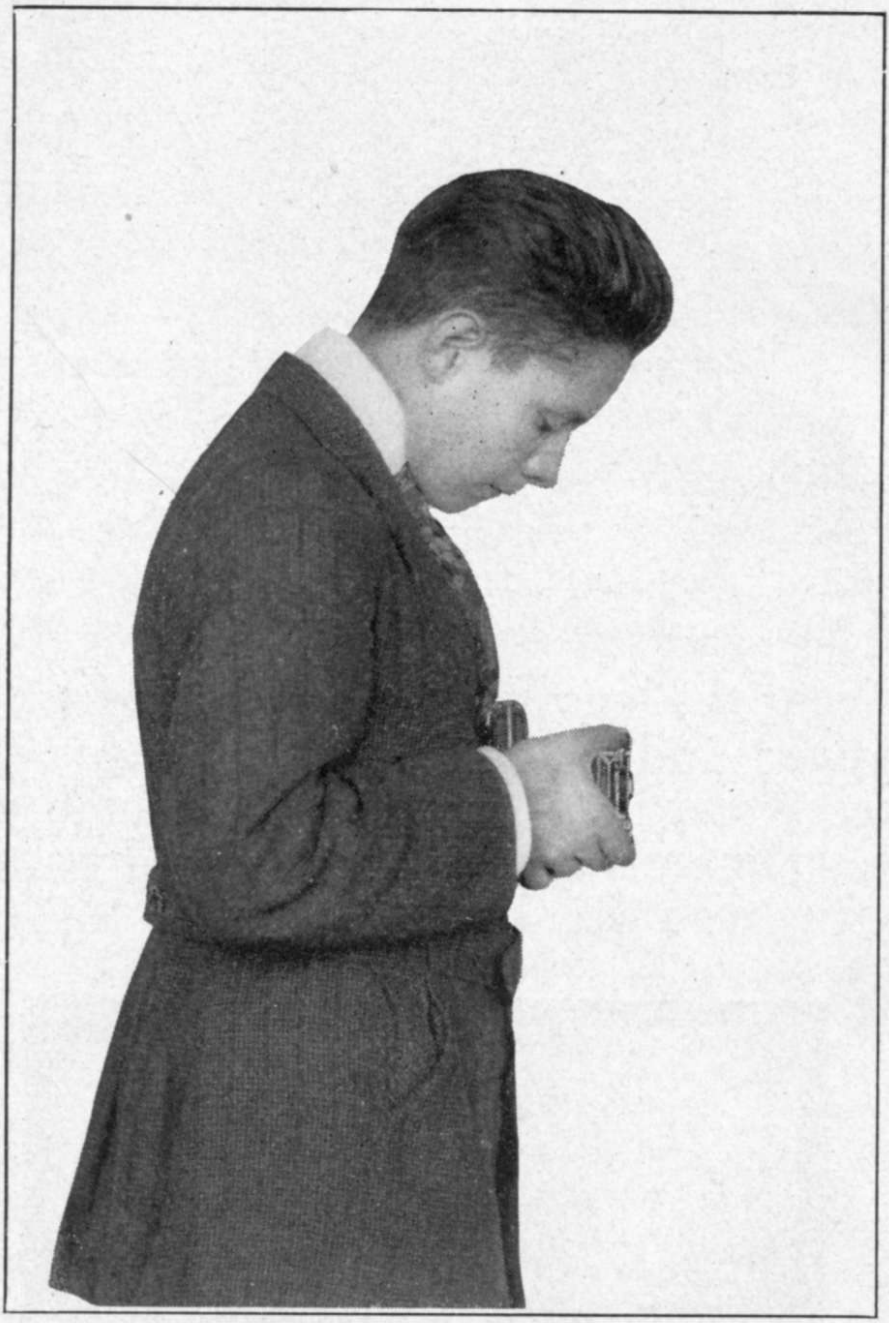
VIEW INCLUDED WHEN MAKING A VERTICAL PICTURE.



VIEW INCLUDED WHEN MAKING A HORIZONTAL PICTURE.

Fig. 5

It will be noticed that the top of the finder is notched, as shown in Fig. 5. This enables the one finder to serve when the



Important

When making snapshots with any camera, hold it firmly against the body. When pressing the exposure lever, hold the breath for the instant.

camera is held in either the vertical or the horizontal position.

Only what is seen in that part of the finder represented by the white area of the diagrams will be included in the picture.

Hold the camera steady—hold it level as shown in the illustrations, and press the exposure lever. *This makes the exposure.*

Hold the Camera Level

Fig. 6

Effect produced by tilting the camera.

The camera must be held level. If all of the subject cannot be included in the finder without tilting the lens upwards, move backwards until it is all included *with the camera held level.*

Tilting the camera to bring in the top of a tall building produces the distorted effect shown in Fig. 6, page 23. Sometimes a tall building can be photographed from a building opposite, at a level with the center of the subject.

If the subject is below the normal height like a small child or a dog, the camera should be held down level with the center of the subject.

Fig. 7

Turning a new section of film into position.

Turn a new section of film into position: Press in slightly on the winding key and turn it slowly, until the next number appears in the red window. Three or four turns will be sufficient. See Fig. 7, page 24. The warning hand appears only before No. 1 of each roll of film.

Time Exposures—Interiors

Place the camera on a table, chair, tripod or other firm support and focus it as described on pages 14 and 15. If a table or chair is used, place the camera not more than two or three inches from the edge, to avoid including part of the table or chair in the picture.

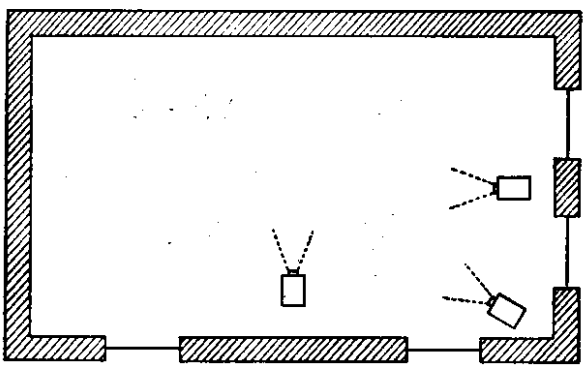


Diagram showing positions for camera.

The camera should be placed in such a position that the finder will include the view desired. The diagram shows three positions for the camera. It should not be pointed directly at a window, as the glare of light will blur the picture. If all the win-

dows cannot be avoided, draw the shades of those within range of the lens.

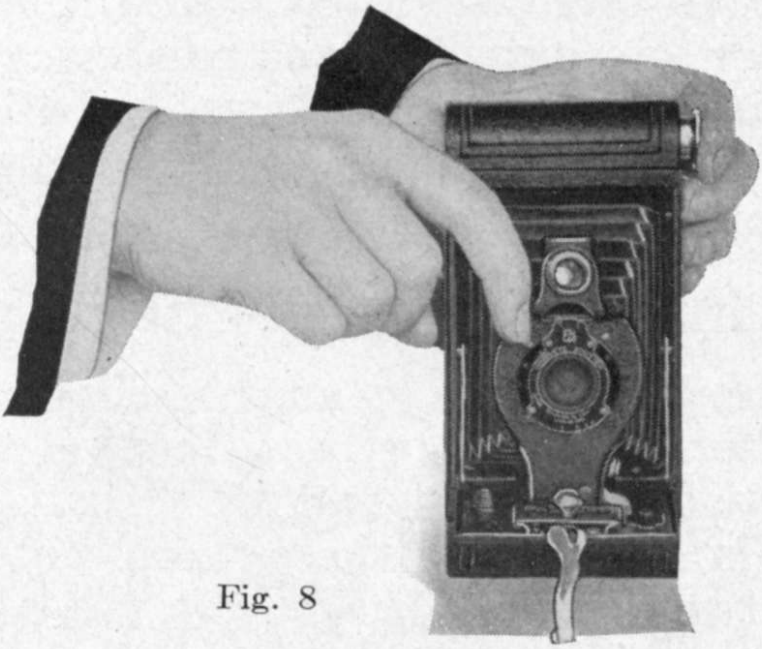


Fig. 8

For a vertical picture, use the locking lever on the bed of the camera as a support, and place the camera on a table or chair as in Fig. 8. The camera also has tripod sockets and may be used on a tripod.

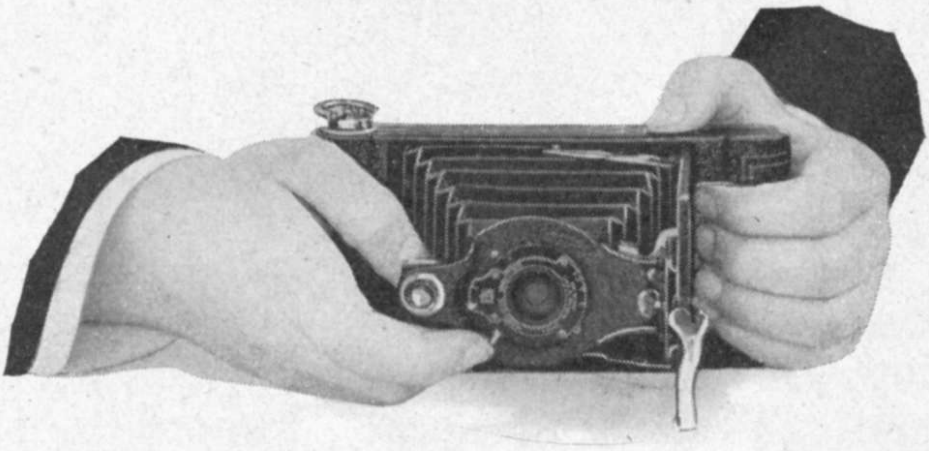


Fig. 9

To make a horizontal time exposure without a tripod, pull down the same lever at the front of the bed of the camera, that was used for the support when making a vertical exposure and place the camera in the position as shown in Fig. 9, page 26.

Adjust the shutter for a Time Exposure by placing the lever A at the top of the shutter exactly at the letter "T," see pages 11 and 12.

All being ready, press the exposure lever carefully, once to open, time the exposure by a watch, and again, press the lever to close the shutter.

Another Method

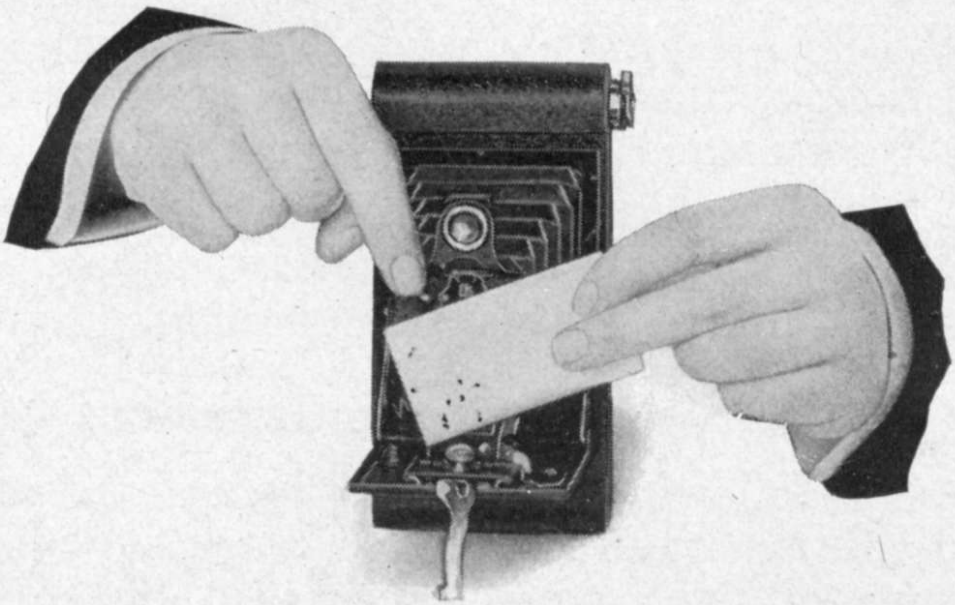


Fig. 10

Another method of making time exposures, which has much to recommend it, is as follows:

Hold a card or the hand close to the front of the camera, to cover the lens and exclude all light, Fig. 10, page 27. Press the exposure lever to open the shutter; remove the card and give the proper exposure; replace the card in front of the lens and again press the lever to close the shutter.

Some experienced amateurs prefer this method as it practically does away with all danger of jarring the camera during exposure, and thus blurring the picture.

Turn the Winding Key: Press in the winding key and turn the next section of film into position.

The camera is now ready for the next Interior Exposure.

Follow these directions for each successive exposure.

When the last Interior Exposure has been made, adjust the shutter for an Instantaneous Exposure, see pages 10 and 11.

Exposure Table for Interiors

The following table gives the approximate exposures required under varying conditions of light, when using stop No. 2. If stop No. 1 is used, give one-half the time. If stop No. 3 is used, give twice the time; with stop No. 4 give four times the exposures given in the table.

The smaller the stop the sharper the picture, see pages 16 and 17. Stop No. 2 gives the best average 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.

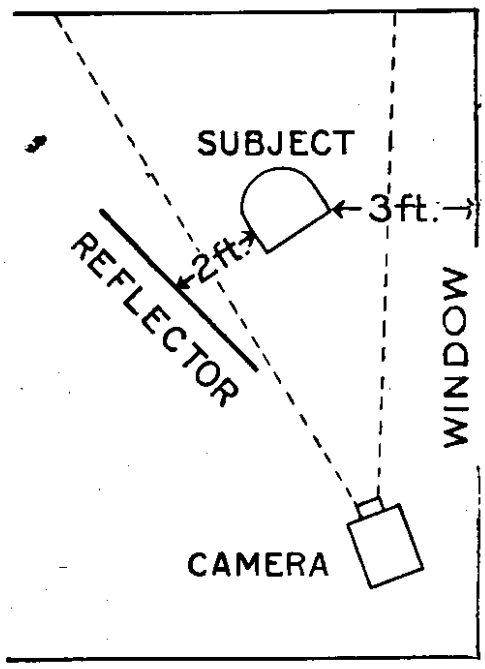
DARK COLORED WALLS AND HANGINGS AND MORE THAN ONE WINDOW:
bright sun outside, 20 seconds;
hazy sun, 40 seconds;
cloudy bright, 80 seconds;
cloudy dull, 2 minutes, 40 seconds.

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 exposures on page 29 are for rooms where windows get the direct light from the sky, and for the hours from three hours after sunrise until three hours before sunset. If earlier or later the exposures must be longer.

To Make a Portrait

The subject should be seated in a chair partly facing the light with the body turned slightly away from, and the face turned towards the camera which should be a little higher than an ordinary table. The subject should look at an object level with the lens, or directly at the lens. Compose the picture in the finder. For a three-quarter figure the camera should be about eight feet from the subject, and for a full-length figure about ten feet. The background should form a contrast with the subject; a light background usually gives a better effect than a dark one.



To get a good light on the face, follow the arrangement shown in the diagram. The reflector helps to get detail in the shaded part

of the face. A white towel or sheet thrown over a screen or other high piece of furniture will make a suitable reflector; place it at an angle and in the position indicated in the diagram on page 30.

"At Home with the Kodak," a booklet containing many diagrams and illustrations showing various lighting effects, can be had free from your dealer or from us.

If portraits are made out-of-doors when the sun is shining brightly, the subject should be in the shadow of a building or a large tree, but with clear and unobstructed sky overhead—place the camera on a tripod or some other firm support, use stop No. 3 or No. 4 and make a short Time Exposure of one or two seconds. By following this rule unpleasant and distorting shadows on the face will be avoided.

Kodak Portrait Attachment

The Kodak Portrait Attachment is an extra lens, which, when slipped over the regular lens makes large head and shoulder portraits. Place the Attachment over the lens and compose the picture in the finder.

The subject must be at one of the distances from the camera, given in the table on page 32. Measure the distance carefully from the lens to the face, and place the focusing indicator according to the table:

DISTANCE BETWEEN SUBJECT AND LENS MUST BE	THE FOCUSING INDICATOR MUST BE SET AT
2 feet 9 inches.....	8 feet
3 " 8 "	"Fixed"
4 " 2 "	100 feet

When making portraits, the most pleasing results are obtained with the subject four feet two inches from the lens and the focus set at 100 feet. The Attachment can also be used for making pictures of flowers and similar subjects, the shorter distances will then be found more satisfactory.

The exposure when using the Attachment is the same as without it.

Use *Kodak Portrait Attachment No. 8* with the No. 2 Folding Cartridge Hawk-Eye Camera, Model C.

Kodak Diffusion Portrait Attachment

The Kodak Diffusion Portrait Attachment is a supplementary lens used in the same manner as the regular Kodak Portrait Attachment. It produces a true, soft-focus effect free from objectionable "fuzziness" or out-of-focus appearance. By using this Attachment, portraits are made more artistic, due to the softening effect of diffusion.

Use *Kodak Diffusion Portrait Attachment No. 8* with the No. 2 Folding Cartridge Hawk-Eye Camera, Model C.

Time Exposures—Outdoors

When stop No. 4 is used, the light passing through the lens is so much reduced that time exposures out-of-doors may be made the same as interiors, but the exposures must be much shorter.

Adjust the shutter for making a Time Exposure, as described on page 12.

With Sunshine—The shutter can hardly be opened and closed quickly enough to avoid over-exposure.

With Light Clouds—From one to three seconds will be sufficient.

With Heavy Clouds—Four seconds to eight seconds will be required.

These exposures are for the hours from two and a half hours after sunrise until two and a half hours before sunset, and for subjects in the open. For other hours or for subjects in the shadow, under porches or under trees, the lighting conditions vary so greatly that no definite instructions can be given; experience only can teach the proper exposure to give.

Time Exposures must not be made with the camera held in the hands. Always place it upon some firm support, such as a tripod, table or chair.

Flash-light Exposures

Eastman Flash Sheets make picture-taking at night easy. A package of flash sheets, a piece of cardboard, a pin, a split stick about two feet long and a match complete the list of necessary extras, although a Kodak Flash Sheet Holder is a great convenience.

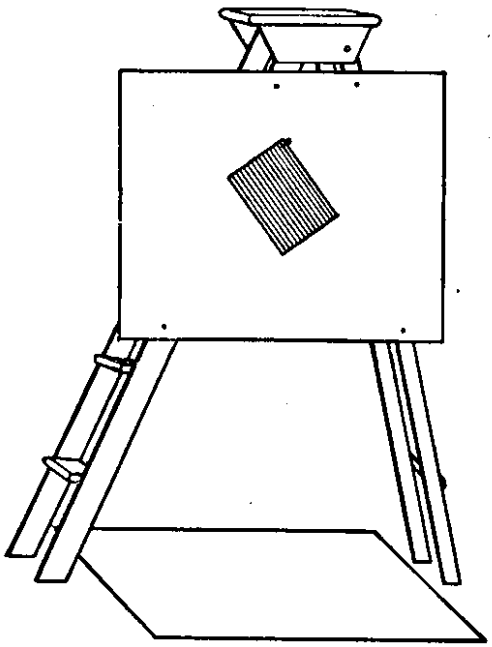
With flash sheets there is little smoke. They are safer than any other self-burning flash medium, besides giving a softer light that is less trying to the eyes.

Flash sheets make possible the photographing of many interiors that could not be taken otherwise, either for lack of illumination or because there are windows in a direct line of view which must have the shades drawn to prevent the blurring of the picture.

Evening parties, groups around a dinner or card table or single portraits may be readily made by using flash sheets, providing souvenirs of many occasions, which, but for the flash-light, would be impossible.

Preparation for the Flash

Adjust the shutter for a Time Exposure, as described on page 12 (stop No. 1 must be used). Place the camera on some firm, level support where it will include the view desired, see page 25.

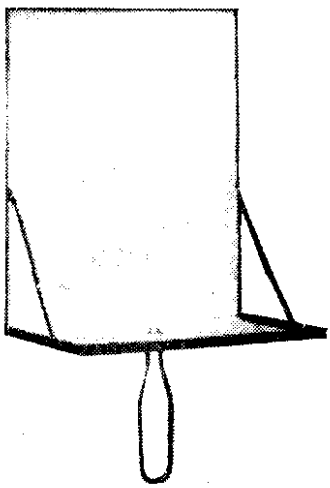


Pin a flash sheet by one corner to a piece of cardboard. This cardboard should be tacked to a step-ladder or similar object. See diagram. White cardboard should be used; this acts as a reflector and increases the light on the subject.

The flash sheet should be placed two feet behind and two or three feet to one side of the camera. If it is in front, or on a line with the camera, the light from 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 a little higher than the camera. An extra piece of cardboard, a foot square or larger, placed under the flash sheet will prevent any sparks doing damage. By using the Kodak Flash Sheet Holder,

this is taken care of, and we strongly advise its use.

Kodak Flash Sheet Holder



The holder offers a most effective method of burning flash sheets. It can be held in the hand, or by unscrewing the handle it can be used on a tripod. It must be held at arm's length and with the flash sheet facing the subject.

Place the flash sheet in position and press the center of it into the hole in the back of the holder, forcing a part of it through the hole. Make the sheet secure by pressing it against the notched edge of the hole.

The Flash Sheet

The size of the sheet required, depends upon the distance of the object farthest from the camera, and the color of the walls and hangings:

With the subject ten feet away, with light walls and hangings, use one No. 1 sheet; with dark walls and hangings, use one No. 2 sheet. The focusing indicator should be set for eight feet on the scale.

With the subject fifteen feet away, with light walls and hangings, use one No. 2 sheet; with dark walls and hangings, use one No. 3 sheet. The focusing indicator should be set at "Fixed" on the scale.

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

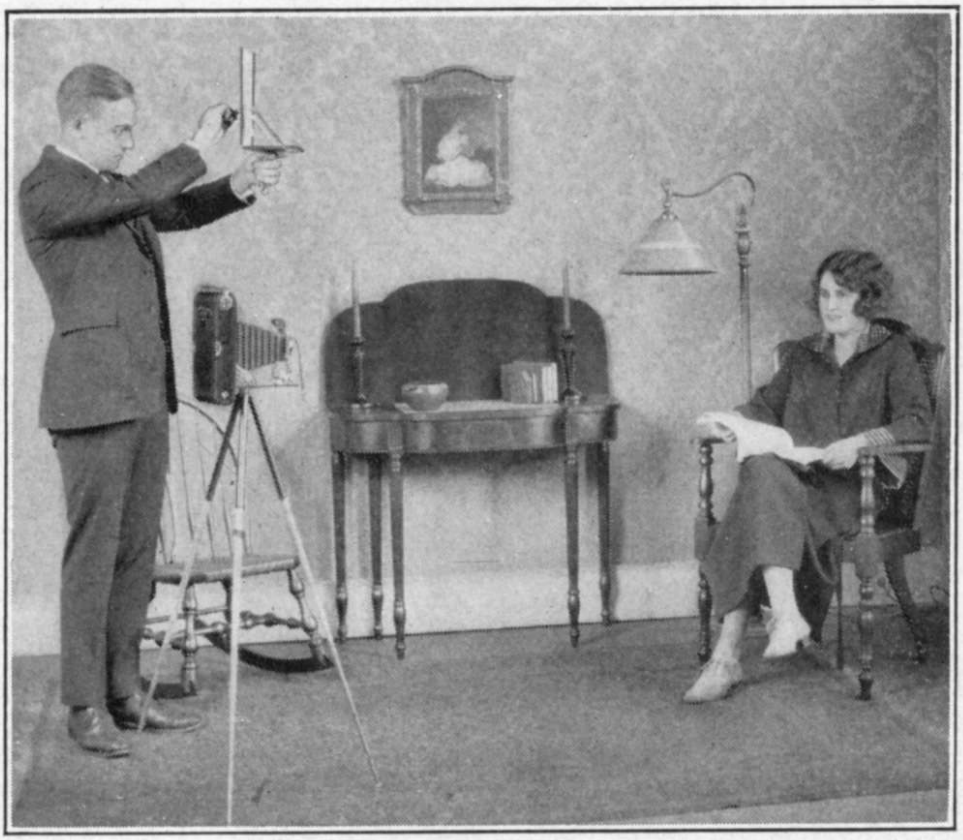
Taking the Picture

With the camera and flash sheet in position and all being ready, open the camera shutter, and with the holder at arm's length apply a lighted match from behind, through the round opening.

If the Kodak Flash Sheet Holder is not used, the match must be held in a split stick *at least two feet long.*

There will be a bright flash which makes the picture. Close the shutter and wind a new section of film into place, ready for the next picture.

To Make a Portrait—The subject should be seated in a chair partly facing the camera, which should be a little higher than an ordinary table. The face should be turned towards the camera, and the subject should look at an object level with the lens, or directly at the lens.



Making a Portrait by Flash-light

Find the distance the subject should be from the camera by looking in the finder. For a three-quarter figure this will be about eight feet.

The flash should be at the side of the camera away from the face, that is, the subject should not face it, and it should be slightly higher than the subject's head.

For large head and shoulder portraits use the Kodak Portrait Attachment, see page 31.

To Make a Group—Half the group should be seated and the other half standing behind them. Arrange the chairs at

an equal distance from the camera. Any number of chairs may be used, but none of the subjects should sit on the floor because the perspective would be too violent, and the result would not be pleasing.

Backgrounds—When 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 curtain. For larger groups a medium light wall will be suitable.

Compose the group for the best effect, then look in the finder to see that all are in the picture. To make the image visible in the finder, the room must be well lighted. Any lights that do not show in the finder may be left on during the exposure.

Eastman Flash Sheets burn more slowly than flash powders, producing a much softer light and are better for portraits. The subject should be warned not to move, as the picture is not taken *instantaneously*; the flash lasts about one second.

Eastman Flash Cartridges

Eastman Flash Cartridges may be substituted for the sheets if desired. We recommend the sheets as more convenient, cheaper and capable of producing the best

results. The cartridges are recommended only for *instantaneous* work.

Closing the Camera

Release the spring catch on the lower part of the front standard, from the slot in the focusing scale, and push back the front into the camera box, *as far as it will go.*

Press down the arm locks at each side of the standard and raise the bed as in Fig. 11.

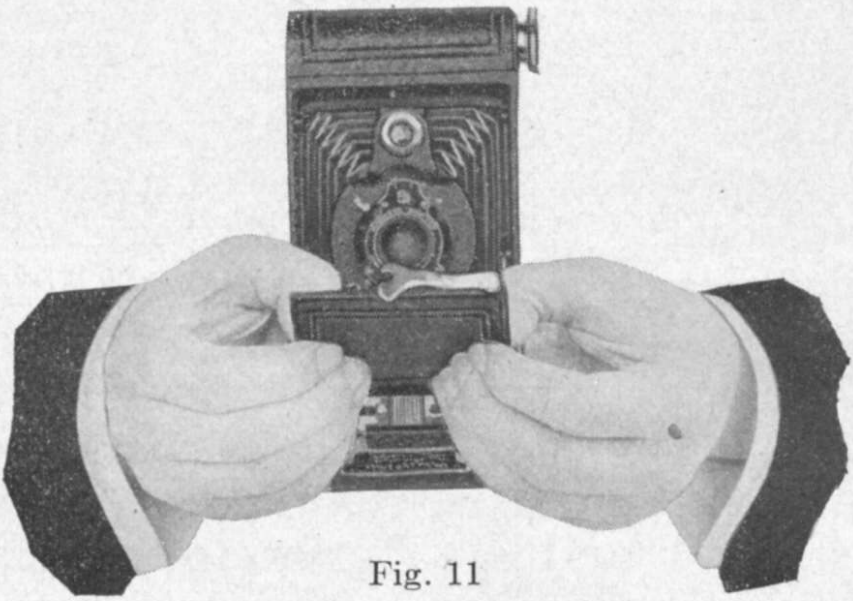


Fig. 11

Closing the Bed of Camera.

Caution: Before closing the bed of the camera make sure that the finder is in the position for making a vertical exposure or in the upright position.

If the finder and front standard are not in proper position they will interfere with the bed when closing.

Removing the Film

THE camera can be loaded or unloaded in daylight. This should be done in a subdued light, not in direct sunlight.

1. When the last section of film has been exposed, give the winding key about twelve turns to cover the film with the protective paper.

2. Remove the front of the camera as described on page 5.

3. Holding the paper taut, turn the key until all but about an inch of the paper is on the reel, see Fig. 1.

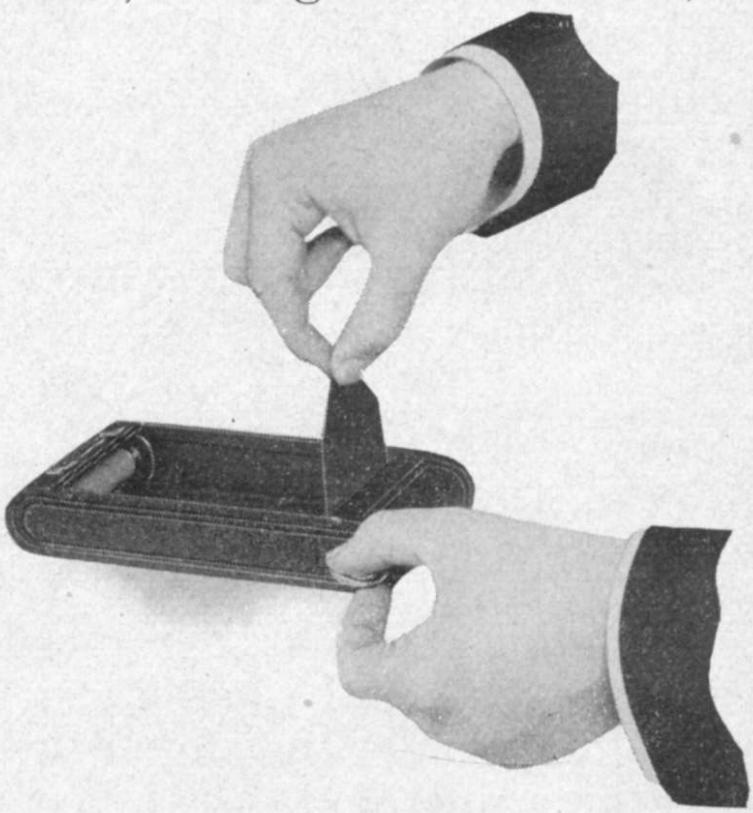


Fig. 1
Holding the paper taut while turning key.

4. Hold the ends of the protective paper and the sticker together, to prevent the paper from loosening. If the sticker folds under the reel, turn the winding key to bring it up.

5. Draw out the winding key to release the spool, and lift out the roll of film, Fig. 2.

Fig. 2.
Lifting out roll of exposed film.

6. Fold under about half-an-inch of the protective paper, and fasten with the sticker. Folding under the end of the paper makes the breaking of the seal easy, when ready to develop the film.

7. Wrap up the exposed film immediately to prevent the possibility of light being admitted. It is now ready for developing and printing.

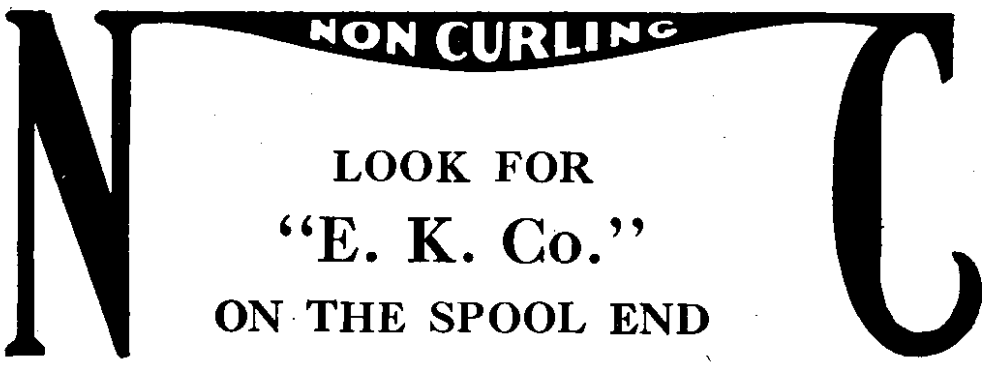
8. Remove the empty spool and place it in the winding end of the camera.

9. Replace the front of the camera as described on page 9.

Important: Film should be developed as soon as possible after exposure. The quality of the image on all sensitized products is retained by prompt development after exposure.

It is a good plan to reload the camera as soon as an exposed film has been removed, to be ready for the next pictures. Use film No. 120 for the No. 2 Folding Cartridge Hawk-Eye Camera, Model C. Load the camera as described on pages 5 to 9 inclusive.

Load your camera with Kodak Film. Look for this Trade Mark on the box:



"If it isn't Eastman, it isn't Kodak Film."

"Cinch" Marks

If the film and paper loosen up a trifle when taken from the camera, there is an inclination to take the cartridge in the hand and wind it as closely as possible, "cinching" it tightly with a twisting motion. There is nothing more likely to injure the negatives than this tight drawing of the film, as it rubs the surface, making fine parallel scratches running lengthwise of the film, which, in some cases, will ruin the negatives. *Do not "cinch" the cartridge.* It simply needs to be wound tightly enough to keep the paper within the flanges of the spool.

Clean Lenses

Dirty or dusty lenses make poor pictures. The pictures below illustrate this clearly. The gray, flat, indistinct picture was taken with a dirty lens, the surfaces of which were covered with dust. The sharp, clear,

Made with Dirty Lens. *Made with Clean Lens.*

distinct picture was made with the same lens after it had been carefully cleaned.

Lenses should be frequently examined. Remove the front of the camera as described and shown in Figs. 1 and 2 on page 5 (when there is no film in it) then open and draw out the front as in Figs. 1 and 2 on pages 14 and 15. Adjust the shutter for a Time Exposure and open it; the largest stop (No. 1) should be in position. Hold the camera with the front towards the light, then look through the lens from the back, and if it is dirty, wipe the front and back of the lens with a clean handkerchief.

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 hold back a great deal of light and make the picture gray and flat.

Keep Dust Out of the Camera

It is advisable to wipe out the inside of the camera and bellows occasionally with a slightly damp cloth, especially if the camera has not been used for some time.

Finishing the Pictures

THERE are two distinct steps in the making of photographs—the picture *taking* and the picture *finishing*. To free our instruction books from unnecessary details, which might be confusing, we give with the camera the directions for picture *taking* only.

The instructions in this booklet are ample for the handling of the camera under practically all conditions. Similarly, those who wish to do their own developing and printing will find equally full directions accompanying the Kodak Film Tanks (for developing in daylight), or our Outfits for tray or dark-room use.

To develop film No. 120, used in the No. 2 Folding Cartridge Hawk-Eye Camera, obtain a "Brownie" Kodak Film Tank. This film may be developed in the larger Tanks, but not so economically.

The film (No. 120) may also be developed in daylight in the No. 2 Brownie Developing Box; the method of developing film in the Box is different from that of the Tank.

If dark-room development is preferred, an Eastman A B C Developing and Printing Outfit should be obtained.

In keeping with our plan and purpose to provide the users of our cameras with every help in the production of good pictures, we will be glad to furnish such developing and printing instructions, at any time, whether a tank or outfit is purchased or not.

With the Kodak Film Tank and Velox paper, many amateurs find as much pleasure in the finishing of the pictures as in the taking of them, and are able to produce excellent pictures by the simple methods we have worked out.

We never lose interest in anyone who obtains one of our cameras. We are not only willing, but are anxious at all times, to help solve any problems that may arise, either by sending the necessary printed instructions or by individual correspondence, through our Service Department. Making use of the knowledge of our experts places you under no obligation. Kodak Service is free—anyone who obtains a Kodak or a Hawk-Eye Camera is entitled to it.

EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

PRICE LIST

KODAK FILM CARTRIDGE, No. 120, 2¼ x 3¼, six exposures	$ .25
KODAK PORTRAIT ATTACHMENT, No. 8, for the No. 2 Folding Cartridge Hawk-Eye Camera, Model C	.75
KODAK DIFFUSION PORTRAIT ATTACHMENT, No. 8	1.25
KODAK COLOR FILTER AND KODAK SKY FILTER, No. 8, each	.75
No. 2 BROWNIE DEVELOPING BOX	1.75
"BROWNIE" KODAK FILM TANK	4.00
Duplicating Outfit for above Tank	1.75
DEVELOPER POWDERS, for No. 2 Brownie Developing Box or "Brownie" Kodak Film Tank, six powders	.20
EASTMAN A B C DEVELOPING AND PRINTING OUTFIT, for dark-room development and printing (4 x 5 or smaller), complete	2.00
KODAK ACID FIXING POWDER, one pound	.25
Half pound	.15
Quarter pound	.10
VELOX PAPER, 2¼ x 3¼, one dozen	.12
NEPERA SOLUTION, for developing Velox, four-ounce bottle	.28
KODALOID PRINTING MASK, No. 3, for 2¼ x 3¼ negatives	.10
VELOX TRANSPARENT WATER COLOR STAMPS, complete booklet of twelve colors	.50
VELOX WATER COLOR OUTFIT, consisting of Artist's Mixing Palette, three special Camel's Hair Brushes, and one book of Velox Transparent Water Color Stamps (twelve colors)	1.00

Eastman Reducer and Stain Remover, package of five tubes	$ .50
Velox Re-developer, twelve tubes	1.08
Solio Paper, 2¼ x 3¼, two dozen	.20
Combined Toning and Fixing Solution for Solio, eight-ounce bottle	.50
Four-ounce bottle	.30
Eastman Pyro Developer Powders, box of five tubes	.25
Eastman Hydrochinon Developer Powders, box of five tubes	.30
Eastman Special Developer Powders, box of five tubes	.35
Thermometer Stirring Rod	1.25
Kodak Dark-room Lamp, oil, ⅝-inch wick	1.25
Brownie Safelight Lamp, an electric dark-room lamp	1.75
Eastman Flash Sheets, No. 1, package of half-dozen	.35
No. 2, package of half-dozen	.56
No. 3, package of half-dozen	.84
Kodak Flash Sheet Holder	1.25
Eastman Film Developing Clips, 3½-inch, per pair	.30
Kodak Junior Film Clips, No. 1, each	.15
Kodak Trimming Board, five-inch	.75
Kodak Metal Tripod, No. 0	2.75
Flexo Tripod	2.00
Kodak Negative Album, to hold 100 2¼ x 3¼ negatives	1.25

KODAK DRY MOUNTING TISSUE, 2¼ x 3¼, three dozen sheets	$ .10
KODAK PHOTO BLOTTER ROLL for drying prints	1.50
BALTIC MOUNTS for prints 2¼ x 3¼, per 50	1.30
RHODES ALBUM, flexible leather cover, loose-leaf, with 50 black leaves, size 7 x 11	2.75
Cloth cover	1.25
FLEXO PRINT ROLLER, single, four-inch	.35
"HOW TO MAKE GOOD PICTURES," an illustrated book of helpful suggestions	.50

Developing, Printing and Enlarging

Developing Film, 2¼ x 3¼, six exposure cartridge	$ .15
Velox Prints, 2¼ x 3¼, unmounted, each	.07
Mounted, each	.09

All prints unmounted unless otherwise specified.

When mailing film for developing, printing or enlarging, mark the package plainly with your name and address, and write a letter of instructions, with remittance.

Bromide Enlargements, mounted on cards:

8 x 10, each	$ 1.00
10 x 12, each	1.40
11 x 14, each	1.75

On enlargement orders, if, in our opinion, an enlargement will be improved by double mounting, we will do so at an additional charge of ten cents.

All prices subject to change without notice.

EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

SERVICE DEPARTMENT

Additional Assistance for Making Better Pictures

ALTHOUGH we give in this manual the essential directions for using the camera it accompanies, there are amateurs who wish for further knowledge of photography.

The Service Department is at their service, *your* service.

Do not hesitate to call on us for information on any photographic subject.

We are at your service, write to us—there is no charge, no obligation.

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