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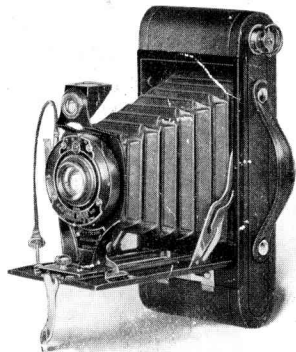
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EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

Picture taking with the

No. 2-A Folding *Autographic* Brownie Camera

Rapid Rectilinear Lens



EASTMAN KODAK COMPANY
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October, 1924.

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Form No. 337.24.

Picture taking with the

No. 2-A
Folding *Autographic*
Brownie Camera

Rapid Rectilinear Lens

Published by

EASTMAN KODAK COMPANY

ROCHESTER, N. Y.

Order Film by Number

All Kodak Films are distinguished by the numbers on the ends of the cartons.

A **116** is the number of the film for this camera (No. 2-A Folding Autographic Brownie). This number is on the carton, on the cartridge, and on the back of the camera.

Autographic film can be used in the earlier models of Brownies, "N.C." film can be used in Autographic Brownies, but to get *autographic results*, Autographic film must be used in an Autographic Brownie.

IMPORTANT

When Autographing film, bear down with the stylus as heavily as the paper will stand without tearing.

Before Loading

BEFORE taking any pictures with the No. 2-A Folding Autographic Brownie Camera, read the following instructions carefully. Make yourself familiar with the camera, taking especial care to learn how to operate the shutter. Work it for both time and instantaneous exposures several times before loading the camera with film.

The first thing for the beginner to bear in mind 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. Throughout the operations of loading and unloading, be very careful to keep the red paper wound tightly around the film to prevent the light striking it.

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PART I

Loading the Camera

THE film (A 116) for the No. 2-A Folding Autographic Brownie Camera is furnished in a light-proof cartridge and the camera can be loaded in daylight. This should be done in a subdued light, *not* in the glare of bright sunlight. It should also be borne in mind that after the seal is broken, care must be taken to keep the red paper tight on the spool, or it may slip and loosen sufficiently to ruin or fog the film.



THE FILM,
No. A 116

1. To load the camera, take a position where the daylight is somewhat subdued, not in the direct sunlight, and remove the front of the camera. To do this, push the metal lock to the right, Fig. 1, page 6. Then take the front of camera by the two metal edges and lift it upwards, first lifting the end on which the lock is fastened, Fig. 2, page 6, and remove that part of the camera entirely. The camera is now ready for loading.

2. At each end of the camera there is a recess for holding the film spools.



Fig. 1

There is an empty spool at the winding end of the camera; the fresh cartridge is to be inserted in the opposite end.

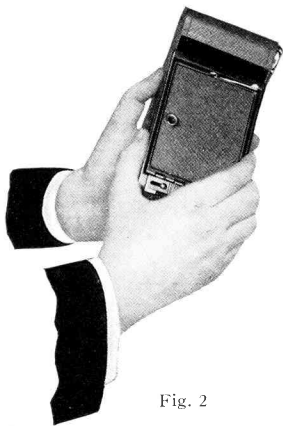


Fig. 2

6

The empty spool, which is used as the reel, must now be removed. This is done by first drawing out the winding key to the limit of motion, which will release the spool, it can then be readily removed. Fig. 3.

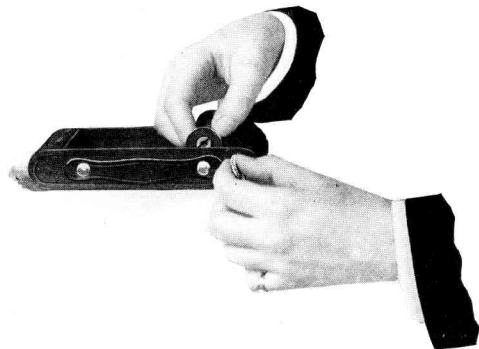


Fig. 3

3. Break and remove the gummed band that holds the end of the red paper, unfold the end and thread the red paper as far as it will go, into the longer opening of the slit in the empty spool, so that the slot in the end of the spool will be at the top, while at the same time the slot at the end of the full spool will be at the bottom of the cartridge. Then give the empty spool three or four turns, until the black lines on the outside of the paper are reached. Be careful that the paper draws straight and true. See Fig. 4.

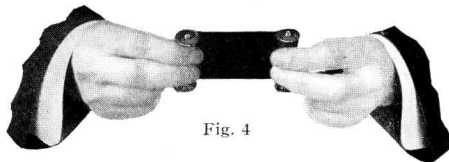


Fig. 4

7

4. The camera may now be loaded by first unrolling about four inches of the red paper and then placing the two spools into the film pockets at each end of the camera. Fig. 5.

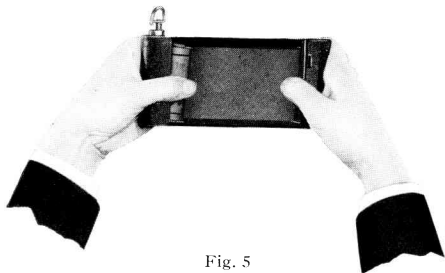


Fig. 5

Important

When inserting the spool of film be sure to get the top of the spool at the top of the camera (each spool is marked with the word "Top," on the red paper near the top of the spool). The winding key is on the top of the camera. If the spool of film is inserted wrong end up, the red paper instead of the film will face the lens, resulting in the total loss of the pictures.

5. After the spools have been placed in the pockets, push the full spool as far back as possible so that the tension spring may hold it securely in place, creating sufficient drag to keep the film taut.

Press in on the winding key in the top of camera and turn it to the left, until the web on the key fits into the slot in the top of the empty spool, which is the reel. Fig. 6.

Caution

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



Fig. 6

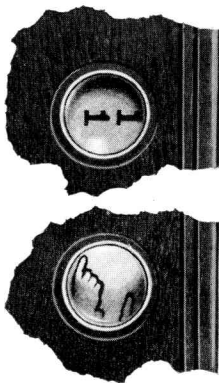
6. The camera must now be closed, reversing the operation shown in Figs. 1 and 2. When replacing the front of the camera after it is loaded, first insert the end opposite the lock, the edge of box must be in the metal groove at the end of the front, then drop the end on which the lock is fastened into place. Push over the metal lock and make sure that it is fastened securely.

Throughout these operations from the time the gummed band is broken on the fresh roll of film until the camera is closed, keep the red paper wound tightly on the roll. If it is allowed to loosen, light will be admitted and the film ruined.

7. The red paper must be partly reeled off before a picture can be taken. Turn the key to the left and watch the little red window in the back of the camera. When about ten or twelve turns have been given, an index hand will appear. This hand is a warning that the first number is approaching. Then turn the key slowly until figure 1 appears in the center of the red window.

Press in on the winding key while turning it, so as to keep the web on the key, in the slot in the end of the spool, and to prevent the key loosening and allowing the film and red paper to unwind.

The film is now in position for the first picture.



PART II

Making the Exposures

BEFORE making an exposure with the No. 2-A Folding Autographic Brownie, either time or instantaneous, be sure of four things:

First—That the shutter is adjusted properly; for an instantaneous, time or “bulb” exposure as desired.

Second—That the diaphragm lever is placed at the proper stop opening.

Third—That the camera is focused.

Fourth—That an unexposed section of the film is turned into position.

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 with film.

The shutter is self-setting. Exposures are made by pressing the push-pin of the cable release D or pushing down the exposure lever C. See diagram of shutter on page 12.

Do not make too sharp a bend in the cable release, or it will be likely to kink.

As a general rule, make exposures with the cable release instead of with the exposure lever C, as the cable release is less likely to jar the camera.

Instantaneous Exposures "Snapshots"

When making instantaneous exposures or snapshots, the subject should be in the broad, open sunlight, but the camera must 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.

Special instructions for making portraits indoors are given on page 34.

Use Stop U.S. 8 and Speed 25

For all ordinary outdoor work, such as street scenes, nearby views, etc., when the subject is in the bright sunshine, use stop U.S. 8 and speed 25. If a smaller stop is used for ordinary snapshots, the light will be so much reduced that it will not sufficiently impress the image on the film, and failure will result.

When making portraits out of doors, when the sun is shining brightly, have the subject in the shade of a building or a large tree, but with clear and unobstructed sky overhead—then use stop U.S. 4 and speed 25. By following this rule unpleasant and distorting shadows on the face will be avoided.

In views at the seashore and on the water, when the sunlight on the subject is *unusually strong* and there are no heavy shadows, stop U.S. 16 and speed 50 should be used.

For ordinary *landscapes*, in bright sunshine with clear sky overhead, use stop U.S. 16 and speed 25.

If a smaller stop opening than U.S. 16 is used for snapshots, *total failure will result*, except that U.S. 32 should be used for extremely distant views, marine, snow scenes and clouds, in bright sunshine, using speed 25.

Focus on the Subject

Pull up the lever on the front of the camera, at the winding end, see Fig. 1. This unlocks the bed of the camera. Then pull the lever forward and push down the bed of the camera.



Fig. 1. Opening the Front.

At the front of the camera bed and at one side there is a focusing scale which is to be used for focusing the camera. The focusing scale has three slots, marked 8, 25 and 100 feet.

NOTE—The focusing scale is marked both for feet and for meters and care should be taken not to confuse them.

It is not necessary to estimate the distance with more than approximate accuracy; for instance, if the focus is set at the slot marked 25 feet (the usual distance for ordinary street work), everything from about 15 feet to about 50 feet will be in good focus. When the camera is focused in this manner, it may be used as a regular fixed-focus camera, providing lever B, controlling the stops, is placed at U.S. 8. Where the principal object is nearby or at a great distance, the focus should be changed accordingly. For distant views, set the focus with 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. When the subject is close to the lens, then use a Kodak Portrait Attachment, see page 35, or use a small stop opening, see table below.

What Depth of Focus Means

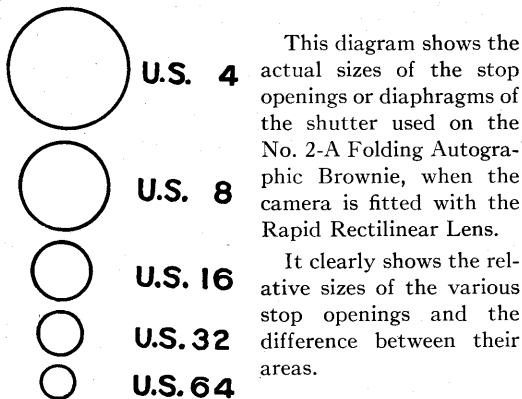
Suppose that the lens is used at its full opening, U.S. 4, and the focus is set at eight feet, an object eight feet distant will be sharp, but objects seven and ten feet distant will not be sharp. Stop the lens down to U.S. 16 and those objects each side of the exact point of focus will increase in sharpness. Go farther and use stop U.S. 64, and everything from about five feet and one-quarter to about seventeen 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. But it is obvious that with the small stops the exposure must be correspondingly increased.

The following table will be a help in finding the range of sharp definition or depth of focus when the No. 2-A Folding Autographic Brownie Camera (when it is fitted with the Rapid Rectilinear Lens) is focused with different stops:

STOPS	U.S. 4	U.S. 8	U.S. 16	U.S. 32	U.S. 64
Distance Focused Upon	RANGE OF SHARPNESS				
	Ft.	Ft. Ft.	Ft. Ft.	Ft. Ft.	Ft. Ft.
100 Ft.	35 to Inf.	28 to Inf.	21 to Inf.	17 to Inf.	12 to Inf.
25 Ft.	17½ to 46	15½ to 68	13½ to Inf.	11 to Inf.	9 to Inf.
8 Ft.	7¼ to 9¼	7 to 9¾	6½ to 10½	6 to 13	5¼ to 17

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



This diagram shows the actual sizes of the stop openings or diaphragms of the shutter used on the No. 2-A Folding Autographic Brownie, when the camera is fitted with the Rapid Rectilinear Lens.

It clearly shows the relative sizes of the various stop openings and the difference between their areas.

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Diaphragms

The diaphragms, sometimes called stops, should be used as follows:

U.S. 4—For instantaneous exposures on *slightly* cloudy days, use speed 25; also for portraits out of doors, when the sun is shining, see page 14.

U.S. 8—For ordinary outdoor work, such as street scenes, nearby views, etc., when the subject is in bright sunshine, use speed 25.

U.S. 16—For open views, etc., 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, use speed 50; for ordinary *landscapes*, in bright sunshine, with clear sky overhead, use speed 25; also for Interior Time Exposures, the time for which is given in the table on pages 32 and 33.

U.S. 32—For instantaneous exposures of extremely distant views, marine, snow scenes and clouds, in bright sunshine, use speed 25; also for Time Exposures.

U.S. 64—For Time Exposures Outdoors in cloudy weather. *Never for instantaneous exposures.* The exposure required for time exposures on cloudy days with smallest stop will range

from one second to eight seconds, according to the light, see page 36. The smaller the stop the sharper the picture, see page 16.

Total failure will be the result, if the smallest stop (U.S.64) is used for instantaneous exposures.

NOTE—In all the instructions in this manual where the subject is out of doors, the exposures given are calculated for hours from 2½ hours after sunrise until 2½ hours before sunset. If earlier or later the time required will be longer. 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.

Drawing Out the Front

Draw out the front of the camera by means of the round post on the slide plate, to the slot marked for the distance desired, 8, 25 or 100 feet, and the camera will be in focus for the distance at which you place the catch. Fig. 2.

The catch or locking device is on the left side at the bottom of the front standard. To set the focus,

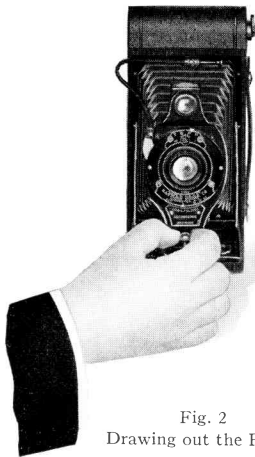


Fig. 2
Drawing out the Front.

press the lever, and draw out the front of camera to the division marked for the distance desired.

How to Use the No. 2-A Folding Autographic Brownie as a Fixed Focus Camera

SET FOCUS AT 25 FEET.

USE SPEED 25.

SET DIAPHRAGM AT U.S. 8.

By following the above suggestions this camera 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 this camera as a fixed focus type, it is necessary that the subject be in bright sunlight, in order to obtain a fully timed exposure.

The range of sharpness when the camera is adjusted as above will be found in the table on page 16.

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 is immovable, that is, 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 fixed focus camera.

Using the Finder

Point the lens at the object to be photographed and locate the image in the finder which is placed on the front of the camera.

For a vertical exposure hold the camera as shown in Fig. 3, page 20. For a horizontal picture the camera must be held as in Fig. 4, page 20, turning the finder as indicated.

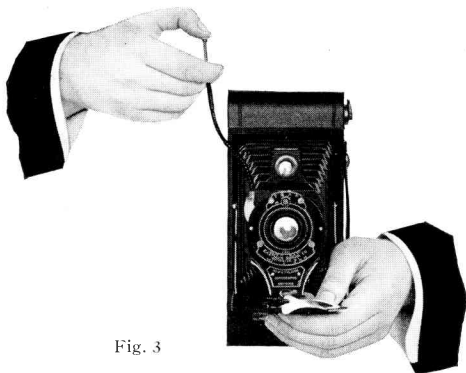


Fig. 3

Hold the camera steady,—hold it level as shown in illustrations, and press the push-pin of the cable release. *This makes the exposure.*

Always look into the finder from directly over it, *not at an angle*. The finder gives the scope of view and shows a facsimile of the picture as it will appear, but on a reduced scale.

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 the vertical or the horizontal position.

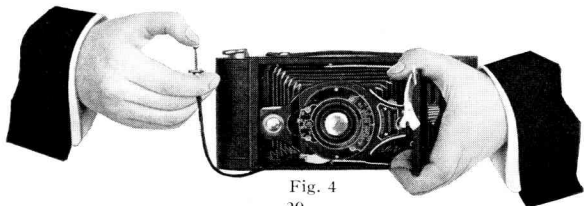
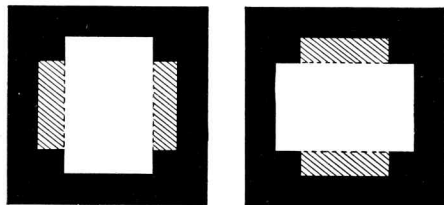


Fig. 4



VIEW INCLUDED WHEN
MAKING A VERTICAL
PICTURE.

VIEW INCLUDED WHEN
MAKING A HORIZONTAL
PICTURE.

Fig. 5

Remember that only the view included within the white area of the diagrams will show in the picture.

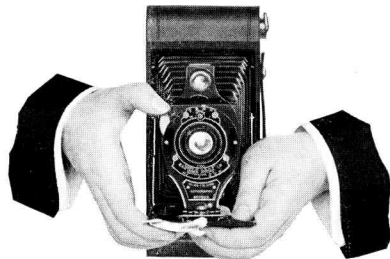
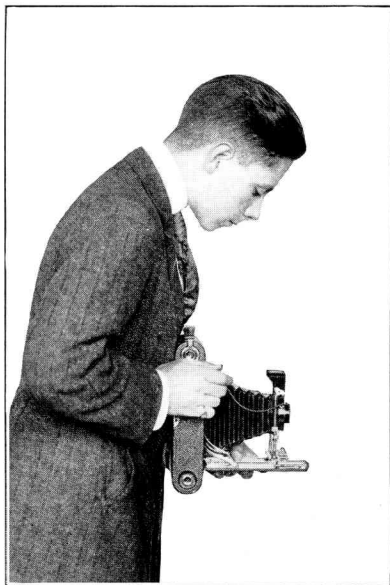


Fig. 6

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



Important

When making instantaneous exposures with any camera, hold it firmly against the body as



shown in illustrations. When operating the cable release or pushing down the exposure lever, hold the breath for the instant.

Hold the Camera Level

The camera must be held level.

If an attempt is made to photograph a tall building while standing near it, by pointing the camera upwards (thinking to center it), the result will be similar to Fig. 7.

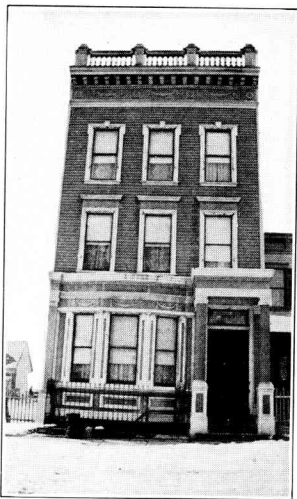


Fig. 7

Effect produced by tilting the Camera.

When making this picture the camera was pointed upwards. This building should have been taken from a building opposite, and at a level corresponding with the middle of the subject.

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

The Autographic Feature

The Autographic Brownie has a spring-door on the back covering a narrow slot through which the writing is done upon the red paper. The slot has an automatic safety spring border which presses the papers into contact with the back of the film when the door is open, thus securing the sharp printing of the image of the writing. This slot is placed so that normally the writing comes between the exposures.

The Autographic Record as a Guide

Many amateurs have distinctly improved the quality of their work by making notes, at the time of exposure, of the prevailing conditions, as: Bright light, 1/25 sec., stop U.S. 8, which can be easily abbreviated to: B, 1/25, 8. By keeping such records the amateur can quickly find the causes of failure, if any. By comparing negatives and records he will soon get a line on his errors and when he knows what his errors are, he can easily correct them. It is obvious that the best way to make these records is autographically—*on the film, at the time.*

4 lb. Brook Trout, E.G.C. 6/23/16

Band Concert, Maplewood Pk. 7/3/16

George Edward learns to walk, 7/10/16

Empire State Express, Feb. 3 1/200 sec

Moving Day, 111 Fulton Ave. 2/7/16

Flood, Erie, Pa. 8/3/15 - 6.30 P.M.

AUTOGRAPHIC RECORDS

The Method

The Autographic Records above are merely to suggest a few of the thousand and one ways in which these may be used to add value to your negatives.

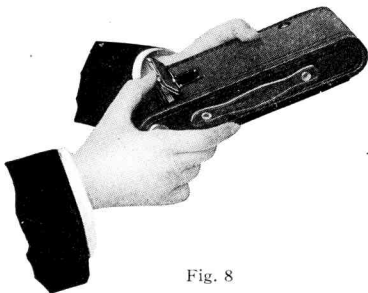


Fig. 8

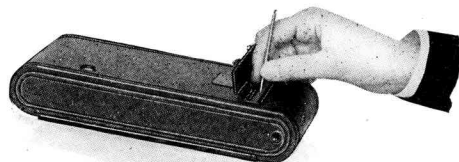


Fig. 9

Position of stylus when writing record data on Autographic Film used in Autographic Brownie.

After the picture is taken, lift up the spring-door on the back of the camera with the thumb (Fig. 8). Use the stylus, held in as upright a position as is convenient (Fig. 9), and write on the strip of exposed red paper any memorandum desired, such as the title of the picture, the date, or details in regard to the exposure, light, stops, etc.

To get a clear impression, press firmly on both the up and down strokes. While writing or afterwards the sun should not be allowed to shine upon the paper. The action of the stylus permits the light to record the writing upon the film. After finishing the writing the door should be left open for the printing, in accordance with the following table:

Expose to the sky, but not to the sun:

	INDOORS	
	CLOSE TO WINDOW	
	OUT OF DOORS	
BRILLIANT LIGHT	2 to 5 Seconds	5 to 7 Seconds
DULL LIGHT	5 to 10 Seconds	10 to 15 Seconds

Expose to Artificial Light:

INCANDESCENT ELECTRIC LIGHT, distance two inches, 30 to 60 seconds.

WELSBACH GAS LIGHT, distance six inches, 30 to 60 seconds.

Close the spring-door before winding the next section of film into place.

Caution: To place the writing accurately in the space between the negatives it is important that the film should be turned so that the exposure number is in the center of the red window in the back of the Brownie.

Turn a new section of film into position: Press in slightly on the winding key in the top of the camera, and turn it slowly to the left, until the next number appears in the red window. Three or four turns will be sufficient to accomplish this. See Fig. 10. The warning index hand appears only before No. 1 of each roll of film.

Repeat these operations for each picture.

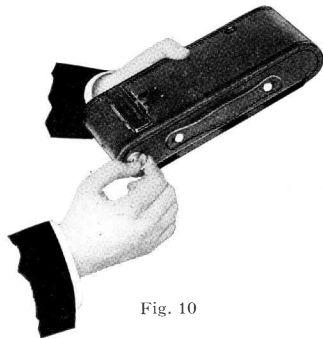


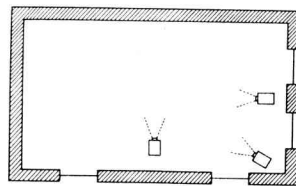
Fig. 10

Turning a new section of film into position.

Important—When you have made the exposure on the last section of the film and have made the autographic record of it, turn the winding key of the Brownie until the letter A appears in the center of the window in the back of the camera. Raise the spring-door and write your name on the red paper, expose it to the sky the same as was done when making the exposure records, then close the spring-door and finish winding film and red paper for removal from the camera. The film is now ready to send to your finisher, and when developed will be readily identified by the autographic copy of your name which you wrote on the red paper.

Time Exposures—Interiors

To make a Time Exposure, open the front and focus the camera as when making an Instantaneous Exposure, see pages 15 and 16, then place the camera in position on a table, chair, tripod or some other firm support. 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.

Place the camera in such a position that the finder will include the view desired. The diagram shows the proper 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 windows

cannot be avoided, pull down the shades of such as come within range of the camera.

Fig. 11 shows the camera in position for a vertical exposure. The camera also has tripod sockets and may be used on a tripod.

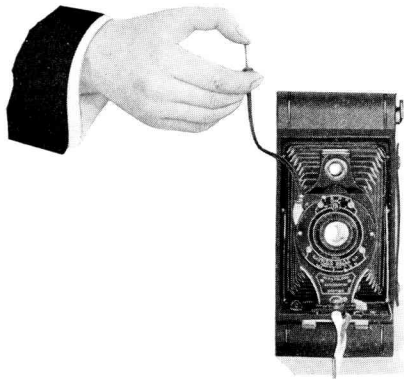


Fig. 11

To make a horizontal time exposure without the use of a tripod, pull down the same lever at the front of the bed of the camera, that was used for the support when taking a vertical exposure and place the camera in the position as shown in Fig. 12.

Adjust the shutter for a Time Exposure, as described on page 13.

All being ready, press the push-pin of the cable release, or press the exposure lever, once to open and again to close the shutter. Time the exposure by a watch.

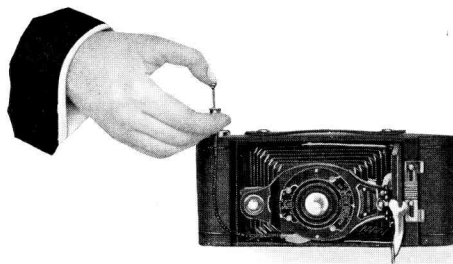


Fig. 12

Another Method

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

Hold the hand or a card close to the front of the camera, so as to cover the lens and exclude all light (Fig. 13, page 32). Push down the exposure lever to open the shutter; remove the hand and give the proper exposure; replace the hand in front of the lens and again press the lever to close the shutter.

Caution: If using the hand be careful not to touch the lens or it will leave a mark.

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: After making the autographic record, press in slightly on the winding key and turn the next section of film into position, as described on page 28.

The camera is now ready for the next Interior Exposure.

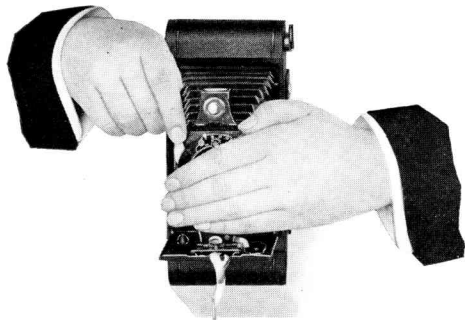


Fig. 13

Follow the directions given for each successive exposure.

When the last Interior Exposure is made, adjust the shutter for an Instantaneous Exposure, see page 12.

Exposure Table for Interiors

The following table gives the approximate time of the exposure required under varying conditions of light. The time given in the table is with stop U.S. 16 in the lens. If stop U.S. 8 is used, give one-half the time; with stop U.S. 4 give one-fourth the time; with stop U.S. 32 give twice the time; and if stop U.S. 64 is used, give four times the exposures given in the table. The smaller the stop the sharper the picture, see page 16. Stop U.S. 16 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.

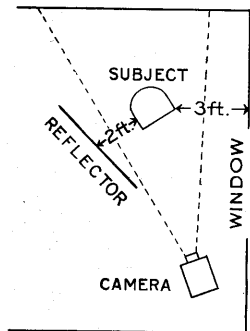
DARK COLORED WALLS AND HANGINGS AND ONLY ONE WINDOW:

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

The exposure table on page 33 is calculated for rooms where 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

Have the subject in a chair partly facing the light, and turn the face slightly towards the camera which should be a little higher than an ordinary table. The eyes of the subject should be centered on an object at the same level with the lens. Arrange the image in the finder. For a three-quarter figure the camera should be about 8 feet from the subject and for a full-length figure about 10 feet. The background should form a contrast with the subject. When making portraits indoors, a light background usually gives a more pleasing effect than a dark one.



To obtain a satisfactory illumination of the face, have the subject, camera and window in the positions as shown in the diagram. It is advisable to use a reflector, to obtain more detail in the shaded part of the face. A white towel or sheet thrown over a screen or high piece of furniture will make a

suitable reflector; place it at an angle and in the position as indicated in the diagram.

For instructions describing other methods to produce various lighting effects, ask your dealer or write to us for a copy of the booklet: "At Home with the Kodak."

Instructions for making portraits outdoors, when the sun is shining, are given on page 14.

Kodak Portrait Attachment

By using the Kodak Portrait Attachment, large head and shoulder portraits of various sizes may be obtained.

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

With the Attachment over the lens and the focusing indicator placed at the proper point on the scale, the subject must be at the exact distance from the lens, as given in the table below:

8 feet point	2 feet 9 inches
25 " " " " " " " "	8 " "
100 " " " " " " " "	4 " 2 "

Use **Kodak Portrait Attachment No. 3** with the No. 2-A Folding Autographic Brownie Camera.

Kodak Diffusion Portrait Attachment

The Kodak Diffusion Portrait Attachment is a supplementary lens used in exactly the same manner as the regular Kodak Portrait Attachment. It produces a true, soft-focus effect entirely free from objectionable "fuzziness" or out-of-focus appear-

ance. By using this Attachment, portraits are made more artistic, due to the softening effect of diffusion.

Use **Kodak Diffusion Portrait Attachment No. 3** with the No. 2-A Folding Autographic Brownie Camera.

Time Exposures—Outdoors

When the smallest stop (U.S. 64) is used, 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.

For very short time exposures as described below, use the "Bulb" Exposure, see page 13.

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

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

With Heavy Clouds—From four seconds to eight seconds will be required.

The above table is calculated for hours from 2½ hours after sunrise until 2½ hours before sunset, and for objects in the open. 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 must not be made while the camera is held in the hands. Always place it upon some firm support, such as a tripod, table or chair.

Flash-light Exposures

By using Eastman Flash Sheets, picture taking at night is very 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 essential extras, although a Kodak Flash Sheet Holder is a great convenience.

With flash sheets 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.

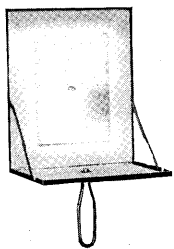
Many interiors can be taken with the flash sheets that are impracticable by daylight, either by reason of a lack of illumination or because there are windows in a direct line of view which cannot be darkened sufficiently to prevent the blurring of the picture.

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

Preparation for the Flash—The shutter should be adjusted for a Time Exposure, as described on page 13 (stop U.S. 8 must be used), then place the camera on some firm, level support where it will include the view desired, see pages 29 and 30.

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 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 placed in front, or on a line with the front of 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. 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. By using the Kodak Flash Sheet Holder, however, 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 tripod, it 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 a slight break is made and a portion of the sheet projects partially through the opening. To insure the sheet being more securely

fastened, press around the notched edge, forcing this portion of the flash sheet firmly into position on the pan.

To set off the flash, insert a lighted match, from behind, through the round opening in the center.

Taking the Picture

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

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

There will be a bright flash which makes the picture. Press the push-pin or push the exposure lever to close the shutter. Make the autographic record by following the table as given on page 28, and turn the next section of film into place with the winding key, 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:

For ten feet distance and light walls and hangings, use one No. 1 sheet; with dark walls and hangings, use one No. 2 sheet.

For fifteen feet distance and light walls and hangings, use one No. 2 sheet; with dark walls and hangings, use one No. 3 sheet.

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

To Make a Portrait—Have the subject in a chair partly facing the camera (which should be a little higher than an ordinary table) and turn the face slightly towards the camera, having the eyes centered on an object at the same level with the lens. The proper distance from the camera to the subject can be ascertained by looking at the image in the finder. For a three-quarter figure this will be about 8 feet and for a full-length figure about 10 feet.

For use of the Kodak Portrait Attachment, see page 35.

The flash should be on the side of the camera away from the face, that is, the subject should not face it: The flash should be at about the same height or a little higher than the head of the subject.

To Make a Group—Arrange the chairs so that each chair will be at the same distance from the camera. Half of 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 the result would not be pleasing, because the perspective would be too violent.

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 lace curtain. For larger groups a medium light wall will be suitable.

The finder on the camera will be a help in composing the picture so as to get the best effect. To make the image visible in the finder the room will have to be well lighted. The lights may be left on while the picture is being made, if none of them show in the finder.

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

Closing the Camera

To disengage the front from the lock on the focusing scale so that it may be pushed back, press in with the finger on the catch, which is located just above the focusing scale, then slide back the front a short distance. The catch may then be released and the front pushed back into the camera box.

Close the camera by pressing down the arm locks at each side of the standard and raise the bed as shown in the illustration, Fig. 14, page 42.

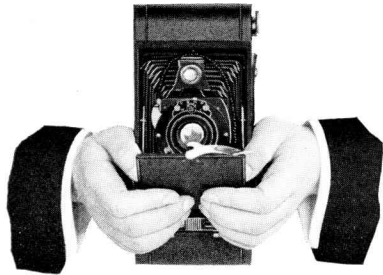


Fig. 14
Closing the Bed of Camera.

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. The front standard must be pushed back *to*, and *only to*, the limit of motion.

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

Do not make too sharp a bend in the cable release, when closing the camera, or it will be likely to kink.

PART III

Removing the Film

WHEN changing the spools of film in the Brownie Camera, do not make the change in the *direct* sunlight. It can be done in the open, but to avoid all liability of fogging the edges of the film, it should be done in a subdued light.

1. When the last section of film has been exposed and the autographic record of your name has been made, according to instructions on page 29, give the winding key about twelve extra turns. This covers the film with red paper again.

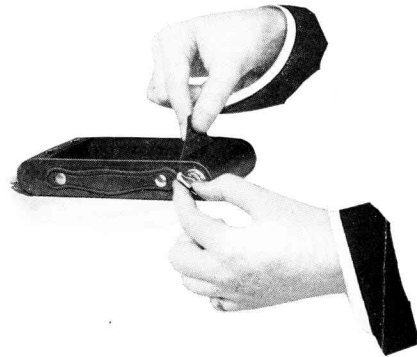


Fig. 1
Holding red paper taut while turning key.

2. Provide another spool of film (No. A 116) to fit the camera, take a position where the daylight is somewhat subdued, *not* in the direct sunlight and remove the front of the camera as described on pages 5 and 6.

3. Holding the paper taut so as to wind tightly, turn the key until the paper is all on the reel. See Fig. 1, page 43.

4. Hold the ends of the red paper and the sticker together, to prevent the paper from loosening on the roll. If the sticker folds under the roll, when wound, turn the winding key to bring it up.

5. Draw out the winding key as far as it will go, and lift out the roll of film as shown in Fig. 2.

6. Fold over about half-an-inch at the end of the red paper (to make subsequent breaking of the seal easy) and then seal with the sticker.



Fig. 2
Lifting out roll of exposed 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 load the camera with fresh film as described in Part I, page 5.

Important

Film should be developed as promptly as possible after exposure. The quality of the image on all sensitized products is retained by immediate development after exposure.

Load your Brownie with Kodak Film.

Look for this Trade Mark on the box:

EASTMAN
Autographic

*“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’s 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 red paper inside the flanges of the spool.

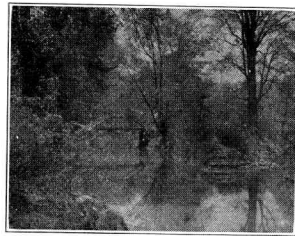
Keep Dust Out of the Camera

Defective negatives are sometimes caused by particles of dust which have collected on the inside of the camera and settle upon the film. This dust produces small, light spots on the negatives which make dark spots on the prints.

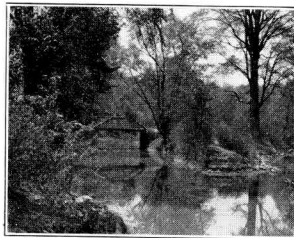
It is, therefore, well to wipe out the inside of camera and bellows occasionally with a slightly damp cloth. If the camera has not been used for some time, this needs special attention.

Clean Lenses

Dirty or dusty lenses are sometimes the cause of poor pictures. The pictures on page 47 illustrate this point clearly. The gray, flat, indistinct picture at the top of the page was taken with a dirty lens, the surfaces of which were covered with an accumulation of dust. The sharp, clear, distinct picture was made by the same lens after it had been carefully cleaned.



DIRTY LENS



CLEAN LENS

from the back of the camera, and if the lens is dirty, it should be wiped, both front and back, with a clean, soft linen 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 cut off a great deal of light and make the picture gray and flat.

Lenses should be frequently examined. Remove the front of the camera from the back, as described on pages 5 and 6 (when there is no film in it) then open and draw out the front of the camera. Adjust the shutter as when making a Time Exposure and open it; the largest stop (U.S. 4) should be in position. Hold the camera so that the front is towards the light, then look through the lens

Finishing the Pictures

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

The instructions in this booklet are ample for the manipulation of the camera under every condition that is likely to be encountered. Similarly, those who wish to do their own developing and printing will find equally full instructions accompanying the Kodak Film Tanks (for developing in daylight), or our Outfits for tray or dark-room use.

To develop Film (No. A 116) used in the No. 2-A Folding Autographic Brownie Camera, provide, preferably, a 2½-inch Kodak Film Tank. (This film may be developed in the larger Tanks that are made for use with films of longer spool length—but not so economically.)

If the dark-room method of 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 great pleasure in the finishing of the pictures as in the taking of them, and are able to produce, by the simple methods we have perfected, work of the highest order.

We never lose interest in the purchaser of a Brownie. We are not only willing, but are anxious at all times, to help solve any problems that he may encounter, either by sending on the necessary printed instructions or by individual correspondence, through our Service Department. Such customer, in availing himself of the knowledge of our experts, puts himself under no obligations to us. He is simply availing himself of one of the things that he is entitled to when he buys a Brownie or a Kodak—and that is, Kodak service.

EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

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AUTOGRAPHIC FILM CARTRIDGE, No. A 116, 2½ x 4¼, 12 exposures.....	\$.60*
6 exposures.....	.30*
CARRYING CASE for the No. 2-A Folding Autographic Brownie Camera.....	1.60
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No. 3, package of ½ dozen.....	.84
KODAK FLASH SHEET HOLDER.....	1.25

EASTMAN FILM DEVELOPING CLIPS (nick- eled), 3½-inch, per pair.....	\$.30
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All prints furnished unmounted unless otherwise specified.

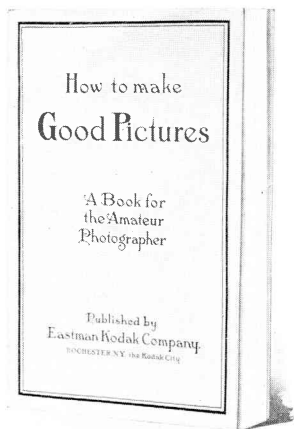
NOTE—When mailing film for development, mark the pack-
age plainly with your name and address, and write a letter of
instructions, with remittance.

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A PRACTICAL book for the amateur. It describes in a simple, understandable way every phase of photography that the amateur is likely to be interested in, such as various methods of making exposures, developing, printing, enlarging, making lantern slides, coloring, etc. Profusely illustrated. 168 pages.

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