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PICTURE TAKING

WITH THE

No. 3 and No. 3A FOLDING BROWNIE CAMERAS

(Meniscus Lens)

Published by the
EASTMAN KODAK COMPANY
ROCHESTER, N. Y., U. S. A.

KODAK
Trade Mark, 1888

EASTMAN KODAK COMPANY

ROCHESTER, N. Y.

Manufacturers of

Kodaks
Brownie Cameras
Kodiopticons
Kodak Film Tanks
Kodak Dry Mounting Tissue
Velox Paper
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Eastman Non-Curling Film
Tested Chemicals
Tripods and Other Specialties

May, 1913

Picture Taking with the No. 3 *and* No. 3A Folding Brownie Cameras

(*Meniscus Lens*)

Published by the
EASTMAN KODAK COMPANY
ROCHESTER, NEW YORK

CONTENTS.

Before Loading

BEFORE taking any pictures with the 3 and 3A Folding Brownie Camera read the following instructions carefully, and make yourself perfectly familiar with the instrument, taking especial care to learn how to operate the shutter. Work it for both time and instantaneous exposures several times before threading up the film.

The first and most important thing for the amateur to bear in mind is that the light which serves to impress the photographic image upon the sensitive film in a small fraction of a second when it comes through the lens can destroy the film as quickly as it makes the picture. After the film has been developed and all *developer thoroughly washed out*, it may be quickly transferred in subdued white light to the fixing bath without injury. Throughout all the operations of loading and unloading, be extremely careful to keep the duplex paper wound tightly around the film to prevent the admission of light.

EASTMAN KODAK CO.,

Rochester, N. Y.

ORDER FILM BY NUMBER

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

124

is the number of film for the No. 3 Folding Brownie.

122

is the number of film for the No. 3-A Folding Brownie.

NOTICE

The Duplex paper (black on one side, red on the other), now used in Kodak cartridges is superior to black paper, in that it has no deleterious effect upon the keeping qualities of the film, and absolutely does away with number markings.

In watching for numbers through the red window, one should now look for black numbers on red paper, instead of, as formerly, white numbers on black paper.

Wherever the term "duplex paper" is used in this manual, reference is made, of course, to this black and red paper.

PART I

Loading the Camera

THE film for these Cameras is furnished in light-proof cartridges and the instrument can, therefore, be loaded in daylight. The operation should, however, be performed 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 duplex paper taut on the spool, otherwise it may slip and loosen sufficiently to fog the film.

The Film

1. To load the camera, take a position at a table where the daylight is somewhat subdued and open back of camera by pressing on concealed springs at rear upper corner of each side of

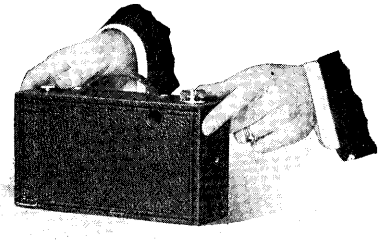


FIG. 1

camera as shown in Fig. 1. The back of camera will loosen and may be allowed to drop down.

2. The camera having been opened, an empty spool having a slit in it will be seen in the winding end of the

camera. This forms the reel onto which the film is wound after exposure. The full spool is to be placed in the recess at the opposite end of the camera. To accomplish draw out the center pins. See Fig. 2.

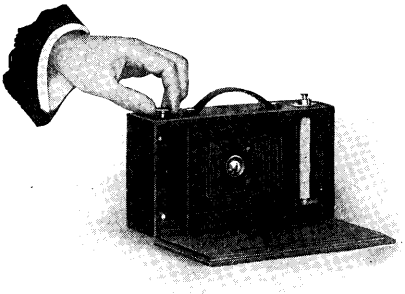


FIG. 2

3. Drop the film cartridge into the recess as shown in Fig. 3.

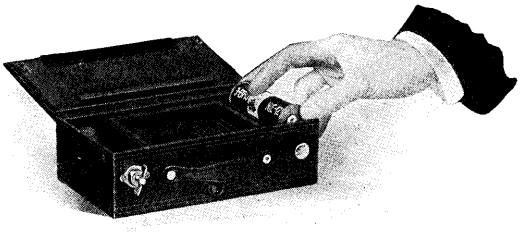


FIG. 3

Important

Be sure and get the top of spool at top of camera (each spool is marked on the end) when inserting, otherwise your film will come on the wrong side of

duplex paper when reeled off and total failure will result. Push spool pins back into position, This centers the axis pins in the spool which is to revolve upon them.

FIG. 4

4. Now remove the gummed slip that holds down the end of duplex paper and pass the duplex paper across opening in the back of the camera, and thread into slit in reel, Fig 4. Be careful in so doing that the paper draws straight and true, and give the spool two or three turns (to the left from the key end). Fig. 5.

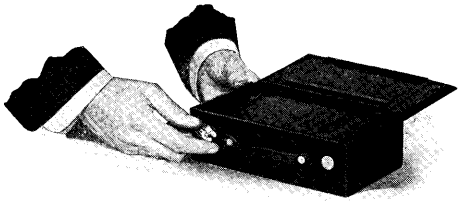


FIG. 5

Caution

If you turn off too much of the duplex paper before the camera is closed, the film will be uncovered and ruined.

5. The camera is now to be closed, reversing the operation shown in Fig 1.

Throughout the foregoing operations, from the time the gummed slip is cut on the fresh roll of film until the back of camera is closed, keep the duplex paper wound tightly on the roll. If it is allowed to loosen, light will be admitted and the film fogged.

6. The roll of film in the camera is covered with duplex paper and this must be reeled off before a picture can be taken.

Turn the key to the left for about fifteen turns until an index hand appears before the little red window in back of camera, this hand is a warning that you are approaching Fig. 1, then turn key very slowly until Fig. 1 appears before the red window, (Fig. 6).

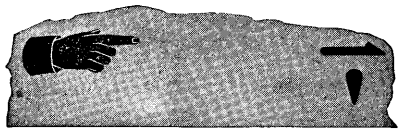


FIG. 6

The film is now in position for taking the first picture.

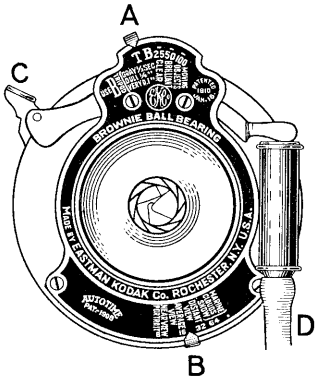
Load Your Kodak with Kodak Film

Look for this trade mark on the box

PART II

Making the Exposures

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



FIRST — That the shutter is adjusted properly.

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

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

THIRD — That the camera is focused.

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

SECTION I

Operating the Shutter

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

NOTE—to attach the tube D simply moisten the end a trifle and it will be found to slip into place readily.

If preferred the following instructions may be used :

Directions

For using the Autotime Scale with the Brownie Ball Bearing shutter fitted with R. R. Lens

This shutter requires no setting to operate.

Exposures may be made by bulb or lever.

Indicator at "T" sets for time exposure.

Press the bulb firmly. This opens the shutter. Time exposure by a watch. Again press the bulb. This closes the shutter. Shutter may be opened by pressing release, and closed by a second pressure, but great care should be taken not to jar the camera.

Indicator at "B" makes exposure when bulb is compressed or lever depressed.

Indicator at 25, 50 or 100 gives speeds ranging between approximately 1-25, 1-50 and 1-100 of a second.

Do not oil any part of this shutter.

Kind of Light

Top Scale

MOVING OBJECTS: Set the indicator at "100" for all rapidly moving objects.

BRILLIANT: Or intense sunshine. Use *only* when sunshine is clear and intense and is shining directly on the principal part of picture.

CLEAR: This is used for all ordinary sunshine and also for intense sunshine, when it is *not* shining directly on principal part of picture or when part of the subject is in shadow.

GRAY: Hazy or dull sunshine, best judged by the shadow cast by the sun which would be called "half shadow"—a distinct shadow but not as strong as with "brilliant" or "clear."

DULL: Where a very faint shadow is barely visible.

VERY DULL: Sky completely overcast—no shadow of any kind visible.

NOTE—With "moving objects," "brilliant" or "clear" the camera may be held in the hand. For "gray," "dull" or "very dull" the camera should be used with tripod or set on some steady support and indicator A set at B, making an exposure of ½, ¾ or 1 second as the case may be.

Kind of Picture

Bottom Scale

MARINE, CLOUDS, SNOW: Use this division where any one of these is the *principal* subject in the picture.

MARINE: When view is nearly all water, with ships or yachts at a long distance.

Exception—Marine or Distant Views may be taken at open lens and instantaneous when conditions require it—such as from decks of moving vessels when the light is poor.

SNOW: Distant snow scene only.

CLOUDS: Refers to no other subjects.

DISTANT VIEW: For landscapes, mountain views, etc., where the whole view is removed some distance, or in other words, a general view, *without* a principal object in the foreground.

AVERAGE VIEW: A general landscape *with a principal object in the foreground*, the general landscape being in the nature of a background to the principal object. The camera is always set at 100 feet, but the subject in the foreground may be quite close to the camera as follows: With 4A, 35 feet; with 3A, 22 feet; with 3, 13 feet.

NEAR VIEW, PORTRAIT: Portraits themselves, and all other views where the camera is focused at less than 100 feet, are classed as for general portraiture.

But when the sun is shining and the subject is under a porch or trees where no sky is visible overhead, set the lower pointer at shadow and use "Clear" for time.

When the subject is on the shady side of a building with good reflected light set the lower pointer at Portrait and use "Clear" for time.

May also be used for moving objects.

NOTE—Expose always for the principal subject in the picture which you wish to bring out.

General

Rapidly Moving Objects require the use of Moving Objects and Near View Portrait.

Ordinary Moving Objects, such as people walking, street traffic, etc., can be taken with "brilliant" or "clear."

In case it is desirable to cut down the aperture in order to gain the full depth of the focus of your lens it is only necessary to move the speed pointer the same number of divisions toward "Very Dull" as you move the aperture pointer toward the smaller opening. You will then secure the same resultant exposure, with the increased definition desired. The reverse of this is also true, and by this means any aperture or any speed can be used within the limits of proper exposure.

In cities where the light is modified by high buildings use slightly larger aperture than indicated.

The markings are for summer at midday. During winter or for morning or afternoon, use next larger aperture than one indicated.

If preferred the following instructions may be used.

"Snap Shots"

For all Ordinary Instantaneous Exposures

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

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

SECOND—Set the lever B at No. 8. Lever B controls the Iris diaphragm and No. 8 is the proper opening for ordinary instantaneous exposures.

NOTE—For instantaneous exposures when the sunlight is unusually strong and there are no heavy shadows, such as in views on the seashore or on the water; use the diaphragm No. 16. With *light* clouds or *slightly* smoky atmosphere use largest diaphragm. *With heavy clouds do not attempt instantaneous exposures.*

THIRD—Compress the rubber bulb on tube D or press down the release C. This makes the exposure.

NOTE—Squeeze the bulb with a firm, quick movement, as a slight jarring of the camera will cause a blurred negative.

Time Exposures

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

SECOND—Set the lever B at No. 16, 32, 64 or 128. See instructions for use of stops, page 22.

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

Bulb Exposure

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

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

SECOND—Set the lever B controlling the stops, at No. 16, 32, 64 or 128 as desired. See page 22.

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

NOTE—This method will not answer for a long time exposure for the reason that when the compressed air has leaked out, the shutter will close of itself.

Do not oil any part of the shutter.

In case of accident return shutter to your dealer or to us for repairs.

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

SECTION 2

Instantaneous Exposures—"Snap Shots"

To take instantaneous pictures the object must be in the broad open sunlight, but the camera should not. The sun should be behind the back or over the shoulder of the operator.

Focus on the Subject

1. Press the concealed button as shown in Fig. 1, and push down the bed of camera to the limit of motion.

2. Grasp the bottom of front board to pull out the front.

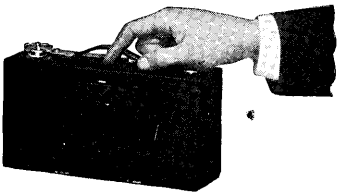


FIG. 1. Operating the Front

3. At the front of camera bed and on the side opposite finder, you will see a scale with slots marked 6, 8, 10, 15, 25 and 100 feet. Fig. 2.

NOTE—The scale on the 3-A Brownie is also marked for 12 and 50 feet.

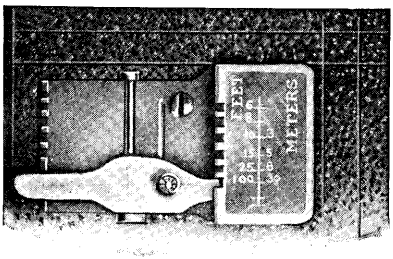


FIG. 2

This is for focusing the camera. Before extending bellows set the catch in the slot corresponding to the distance away of the principal object to be photographed.

The catch is set by downward pressure on the lever and then moving to the right or left. Except when working at distances of 15 feet or less it is not necessary to estimate the distance with any more than approximate accuracy; for instance, if the focus is set at 25 feet (the usual distance for ordinary street work) the sharpest part of the picture will be the objects at that distance from the camera, but everything from 12 to 50 feet will be in good focus. For general street work the focus may be kept at 25 feet, but where the principal object is nearer or farther away, the focus should be moved accordingly. For distant views set the focus at 100 feet.

Extending the Front

Now extend front of camera to limit of motion (Fig. 3). This sets the focus for the distance you have

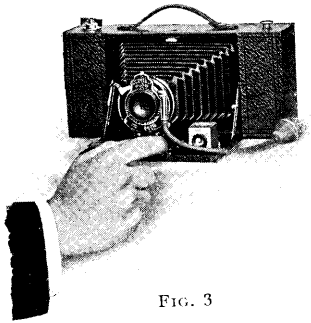
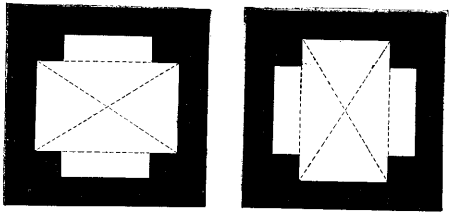


FIG. 3

placed the catch on the scale. A click will be heard when the front locks.

Making the Exposure

Aim the camera at the object to be photographed and locate the image in the finder, which is at the left hand corner of front-board.



VIEW INCLUDED WHEN MAKING A HORIZONTAL PICTURE.

VIEW INCLUDED WHEN MAKING A VERTICAL PICTURE.

FIG. 4

The finder shows the scope of view and gives a fac-simile of what the picture will be. It will be noticed that the top of the finder is notched as shown in Fig. 4. This is done so that the one finder will correctly show the view included when the Kodak is held in either horizontal or vertical position. As the pictures taken with the Folding Brownie Cameras are oblong it will readily be seen that unless the finder was made in this manner it could not correctly show the exact view intended when held in either position. Hold the camera steady as the least jarring will cause a blurred negative. Also hold it level as shown in Fig. 5, and press the bulb. This makes the exposure.

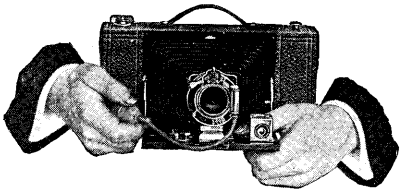


FIG. 5—Pressing Snap Shot Lever.

For a vertical exposure the camera must be held on its side. Reverse the finder so that it will be available

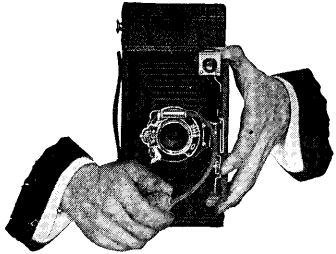


FIG. 6—Making Vertical Exposure.

for vertical exposures. The finder gives the scope of view and shows a fac-simile of the picture as it will appear, but on a reduced scale. Any object that does not show in the finder will not show in the picture.

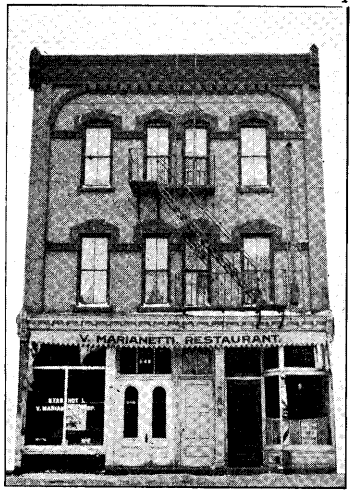


FIG. 7

Hold it Level

The camera must be held level.

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

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

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

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

TURN A NEW SECTION OF FILM INTO POSITION. Turn the key in top of camera slowly to the left, until the next number appears before the red window. Three or four turns will be sufficient to accomplish this. See Fig 8. The warning hand appears only before No. 1.

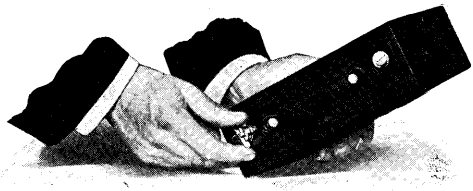


FIG. 8—Turning New Film Into Position.

Repeat the foregoing operations for each picture.

SECTION 3

Time Exposures—Interiors

1. Place the camera in position on a tripod or some other firm support. Fig. 9.

Set camera in such a position that the finder will embrace 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 the range of the camera.

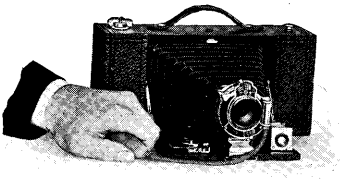


Fig. 9 – Making a Time Exposure.

Make the exposure as described on page 10.

Time Needed for Interior Exposures

The following table gives the time of exposure required under varying conditions of light with the stop No. 16 in the lens. If the stop No. 8 is used give only one-half the time, if stop No. 64 is used give four times the time of the table. The smaller the stop the sharper the picture. The No. 16 gives the best results for interiors.

White walls and more than one window:

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

White walls and only one window:

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

Medium colored walls and hangings and more than one window:

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

Medium colored walls and hangings and only one window:

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

Dark colored walls and hangings and more than one window:

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

Dark colored walls and hangings and only one window;

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

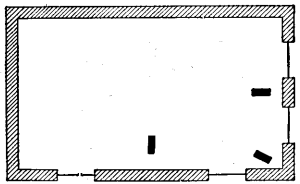


Diagram Showing Positions of Camera

The foregoing is calculated for rooms whose windows get the direct light from the sky and for hours from

three hours after sunrise until three hours before sunset.

If earlier or later the time required will be longer.

To Make a Portrait

Place the sitter in a chair partly facing the light, and turn the face slightly toward the camera (which should be at the height of an ordinary table). Place the camera in a vertical position and center image in the finder. For a three-quarter figure the camera should be from six to eight feet, and for a full figure from eight to ten feet. The background should form a contrast with the sitter.

Kodak Portrait Attachment

By means of a Kodak Portrait Attachment used with the Folding Brownie Cameras, head and shoulder pictures of increased size may be obtained.

The attachment is simply an extra lens slipped on over the regular lens and in no way affects the operation of the camera except to change the focus. Price 50 cents. Be sure and specify what camera the attachment is to be used with when ordering. With the Attachment in position and the focus set at 6 feet the subject should be placed exactly 2 feet, 8 inches from the lens.

At 8 feet focus, place subject 3 feet from the lens.
At 15 feet focus, place subject 3½ feet from the lens.
At 25 feet focus, place subject 4 feet from the lens.
At 100 feet focus, place subject 4¼ feet from lens.

Time Exposures in the Open Air

When the stop No. 64 is in the lens the light admitted is so much reduced that time exposures out of doors

may be made the same as interiors but the exposure must be much shorter.

WITH SUNSHINE—The shutter can hardly be opened and closed quickly enough to avoid over exposure.

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

WITH HEAVY CLOUDS—From 1 to 2 seconds will be required.

The above is calculated for the same hours as mentioned above and for objects in the open air. For other hours or for objects in the shadow, under porches or under trees, no accurate directions can be given; experience only can teach the proper exposure to give.

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

For exceedingly short time exposures, as above described, use the "bulb exposure." See page 10.

Diaphragms

The stops should be used as follows:

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

No. 16—For instantaneous exposures when the sunlight is unusually strong and there are no heavy shadows; such as in views on the seashore or on the water; also for interior time exposures, the time for which is given in the table on page 19.

Nos. 32, 64 and 128—For interiors and time exposures outdoors. *Never for instantaneous exposures.*

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

Flash Light Pictures

By the introduction of Eastman Flash Sheets, picture taking at night has been wonderfully simplified. A package of flash sheets, a piece of cardboard, a pin

and a match complete the list of essential extras, although an Eastman Flash Sheet Holder is a great convenience.

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

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

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

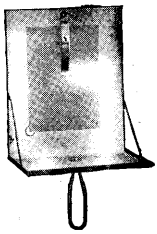
PREPARATION FOR THE FLASH.—The camera should be prepared for time exposures, as directed on page 13 of this manual (except that stop 8 must be used), and placed on some level support where it will take in the view desired.

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

The flash sheet should *always* be placed two feet behind and two or three feet to one side of the camera. If placed in front, or on a line with front of Kodak, the flash would strike the lens and blur the picture. It should be placed at one side as well as behind, so as to throw a shadow and give a little relief in the lighting. The flash should be at the same height or a little

higher than the camera. The support upon which the flash is to be made should not project far enough in front of it to cast a shadow in front of the Kodak. An extra piece of cardboard a foot square placed under the flash sheet will prevent any sparks from the flash doing damage. However, by using the Eastman Flash Sheet Holder, all these contingencies are taken care of, and we strongly advise its use.

The Eastman Flash Sheet Holder



This holder may be safely held in the hand, *always between you and the flash sheet.* Or, it may be used on any Kodak tripod, being provided with a socket for this purpose. The sheet is held by a spring finger, in such position that its lower corner projects part way across the circular opening in the holder, as shown in illustration.

Then to set off the flash, merely touch a match from behind, to the corner of the sheet through this opening.

Taking the Picture

Having the Kodak and the flash sheets both in position and all being in readiness, open the camera shutter, stand at arm's length and touch a match from behind to the lower corner of the flash sheet.

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

There will be a bright flash which will impress the picture on the sensitive film. Then close the shutter and turn a fresh film into place with the key, ready for another picture.

The Flash Sheet

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

When two or more sheets are to be used they should be pinned to the cardboard, one above the other, the corners only very slightly over-lapping.

TABLE

For 10 feet distance and light walls and hangings use one No. 1 sheet.

For 10 feet distance and dark walls and hangings use one No. 2 sheet.

For 15 feet distance and light walls and hangings use one No. 2 sheet.

For 15 feet distance and dark walls and hangings use one No. 3 sheet.

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

TO MAKE A PORTRAIT.—Place the sitter in a chair partly facing the Kodak (which should be at the height of an ordinary table) and turn the face slightly towards the Kodak. The proper distance from the camera to the subject can be ascertained by looking at the image in the finder. For a three-quarter picture this will be from 6 to 8 feet, and for a full figure from 8 to 10 feet.

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

For using the portrait attachment see page 21.

TO MAKE A GROUP—Arrange the chairs in the form of an arc, facing the Kodak so that each chair will be exactly the same distance from the camera. Half the persons composing the group should be seated and

the rest should stand behind the chairs. If the group is large any number of chairs may be used, but none of the subjects should be seated on the floor, as sometimes seen in large pictures, because the perspective would be too violent.

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

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

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

Eastman Flash Cartridges

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

Closing the Camera

1. To disengage front from catch so that it may be pushed back, press down with thumb (Fig. 10) on lever of focusing device. See Fig. 2, page 14.

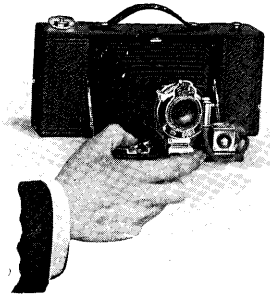


FIG. 10

2. Keep lever pressed and slide back front a short distance with forefinger. The lever may then be released and front pushed back into the camera box.

3. Close front by pressing down on arm locks on each side of bed as shown in Fig. 11. The bed will now close readily.

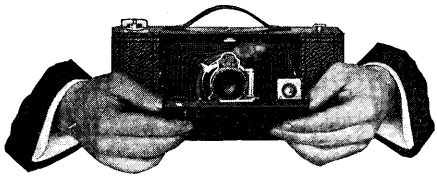


FIG. 11—Closing Front.

PART III

Removing the Film

No dark room is required in changing the spools in the Brownie Camera.

The operation can be performed in the open air, but to avoid all liability of fogging the edges of the film it had best be performed in a subdued light.

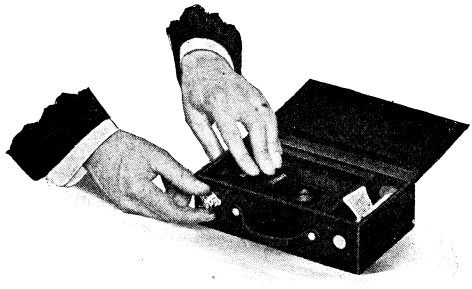


FIG. 1

Showing how duplex paper leaves reel

1. When the last film has been exposed give the key a dozen extra turns. This covers the film with duplex paper again.

2. Provide an extra spool of film to fit this camera and take a position at a table as far as possible from any window.

3. Open the back as described on page 5.

4. Holding the paper taut so as to wind tightly, turn the key until paper is all on reel. (Fig. 1 and Fig. 2.)

5. Hold ends of duplex paper and sticker together,

to prevent paper from loosening on reel. If sticker folds under roll raise it with the point of a lead pencil.

6. Pull out spool pin and winding key, and lift out roll of film as shown in Fig. 3.

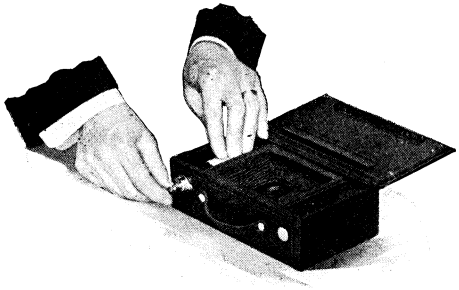


FIG. 2

7. Fold over half inch at end of duplex paper (so as to make subsequent breaking of the seal easy) and then seal with sticker.

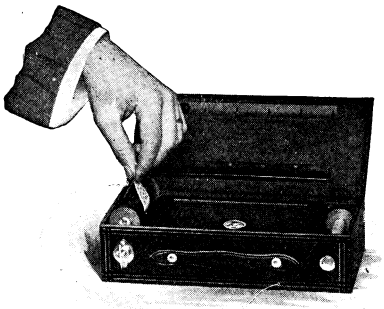


FIG. 3—Removing Roll

8. Wrap up exposed film immediately to prevent the possibility of light being admitted.

9. Now transfer empty spool to the winding side, fitting the key web into slotted end of spool, centering pin in same in hole in axis of spool.

10. Load as described in Part I.

The roll of exposures can now be mailed to us for finishing, or you can do the developing and printing yourself.

"Cinch Marks"

If the film and paper loosen up a trifle when taken from the camera, many amateurs are likely 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 negative than this tight drawing of the film, as it abrades the surface, making fine parallel scratches running lengthwise of the film, which, in some cases, will ruin the negative. *Do not "cinch" the cartridge.* It simply needs to be wound tightly enough so that duplex paper keeps inside the flanges.

PART IV

Developing

There is no necessity of working in a dark room or waiting until night to develop film, it can be done in daylight at any time and place. And the daylight methods of developing film give better results than the dark room way.

Film may be developed in daylight by the Kodak Film Tank method. Detailed directions for developing will be found in the manual which accompanies the goods. The operations are given briefly in the following pages.

We recommend the Kodak Film Tank method particularly for its simpleness, and the uniformly good negatives which it gives.

Developing with a Kodak Film Tank

For use with No. 3 or 3A Folding Brownie provide a 3½ inch Kodak Film Tank.

The Kodak Film Tank consists of a wooden box, a light-proof apron, a "transferring reel," a metal "solution cup" in which the film is developed, and a hooked rod for removing film from solution. There is also a dummy film cartridge with which one should experiment before using an exposed cartridge. The various parts of the outfit come packed in the box itself.

1. Take everything out of the box. Take apron and Transferring Reel out of solution cup.

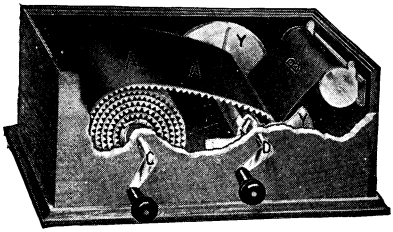


FIG. I

2. Insert the axles marked C and D in the cut, in the holes in the front of box. The front will be towards you when the spool carrier in end of box is at your right.

3. The axle "C" must be pushed through the hollow spindle which will be found loose in the box. The two lugs on this spindle are to engage the hooks at end of apron. The axle "D" must be pushed through the hollow rod of the Transferring Reel to hold reel in position as indicated in the illustration. The flanges at each end of the Transferring Reel are marked "Y" in the illustration.

4. Attach one end of the apron to spindle through which axle "C" passes by means of the metal hooks which are to be engaged with the lugs on the spindle. The corrugated side of the rubber bands is to be beneath the apron when it is attached. Turn to the left on axle "C" and wind entire apron on to spindle maintaining a slight tension on apron in so doing by resting one hand on it.

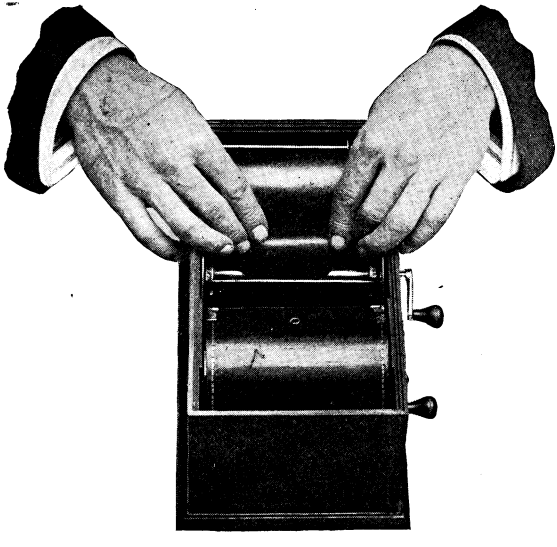


FIG. 2.

5. Insert film cartridge in spool carrier and close up the movable arm tight against end of spool. Have the duplex paper ("B" in Fig. 1) lead from the top.

Important

Film to be used in the Kodak Film Tank must be fastened to the duplex paper at both ends. All films are fastened at one end at our factory. For instructions on how to fasten the other end, see Film Tank Manual.

6. Break the sticker that holds down the end of duplex paper, thread the paper underneath wire guard

on transferring reel (Fig. 2) through which axle "D" passes and turn axle slowly to the right until the word "stop" appears on duplex paper.

7. Now hook apron to lugs on axle "D" in precisely the same manner that you hooked the opposite end to axle "C" except that axle "D" turns to the right.

8. Turn handle half a revolution so that apron becomes firmly attached and put on cover of box. Turn axle "D" slowly and steadily until duplex paper, film and apron are rolled up together on transferring reel. As soon as this is completed the handle will turn very freely.

9. Prepare developing solution in solution cup according to directions in Kodak Film Tank Manual.

10. Remove cover from box and draw out axle "D," holding apron and duplex paper with other hand to keep end of apron from loosening.

11. Remove entire Transferring Reel (now containing apron, duplex paper and film) which is freed by pulling out axle "D," and insert immediately in the previously prepared developer.

In removing reel do not squeeze the apron but hold it loosely or slip a rubber band about it to keep from unrolling.

Using the Solution Cup

12. Having filled Solution Cup, lower Transferring Reel into cup, with end containing cross bar up (Fig. 3.) Let reel slide down slowly. The operation of removing reel from box can be done in the light of an ordinary room but for safety it is well that the light should not be too bright. The total length of time for development is 20 minutes.

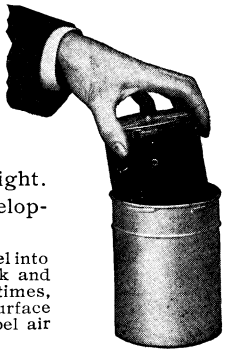


FIG. 3

Note—Immediately after lowering reel into solution cup catch it with the wire hook and move gently up and down two or three times, but not allowing reel to come above surface of developing solution. This is to expel air bubbles.

Allow development to proceed for about two minutes with cover of solution cup off, then place the cover on the cup (Fig. 4) putting lugs on cover into grooves and tighten cover down by turning it to right.

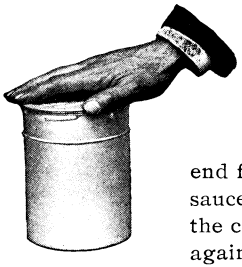


FIG. 4

Now turn the entire cup end for end and place in a tray or saucer to catch any slight leak from the cup. At the end of three minutes again reverse the cup, and, thereafter reverse every three minutes until the time of development (20 minutes) has elapsed. Turning the solution cup allows the developer to act evenly and adds brilliancy and snap to the negatives.

13. The wire hook is to be used for lifting the reel out of the cup. Hook to the cross bar in one end of reel. When the end of reel containing cross bar is at the bottom of cup, the hook is just long enough to catch the cross bar.

14. When development is completed pour out developer and fill cup with clear, cold water and pour off three times to wash the film. Then remove transferring reel, separate film from duplex paper and place immediately in the Fixing Bath which should be in readiness, prepared in accordance with directions on page 41.

The film may be separated from duplex paper in light of an ordinary room if the developer is thoroughly washed out.

The operation of separating film and duplex paper should be done over a bowl, bathtub, or sink.

If the Tank is not to be used again immediately the apron and tank should be washed and wiped dry. The apron will dry almost instantly if immersed for a moment in very hot water.

Keep apron wound on Transferring Reel when not in use. Never leave apron soaking in water.

Developing Several Rolls of Film at Once

Several rolls of film may be developed at the same time if the operator wishes. To do this it is necessary to have a "Duplicating Outfit" consisting of 1 Solution Cup, 1 Transferring Reel and 1 Apron for each additional roll of film to be developed. The extra rolls of film may then be wound on to Transferring Reels as previously described and immersed in the Solution Cups.

Time and Temperature for Tank Development

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

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

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

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

Developing in the Dark Room

Provide an Eastman A B C Developing and Printing Outfit for the No. 3 Folding Pocket Brownie and for the No. 3 A provide a No. 3 A Developing and Printing Outfit, which is similar to the A B C Outfit with the exception of course that provision is made for the difference in size.

A B C Developing Outfit

The Outfit Contains:

1	Kodak Candle Lamp	$ .25
4	Developing Trays	.40
1	4-oz. Graduate	.15
1	4 x 5 Printing Frame	.25
1	4 x 5 Glass for same	.05
1	Stirring Rod	.05
1	Box (5 tubes) Eastman Special Developing Powders	.25
½	Pound Kodak Acid Fixing Powder	.15
2	Dozen Sheets 4 x 5 Velox Paper	.50
1	2-oz. Bottle Nepera Solution	.10
1	Package Bromide Potassium	.05
1	Instruction Book	.10
		$2.30

Price, complete, neatly packed, $1.50.
This outfit cannot be shipped by mail.

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

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

The Lamp

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

The lamp gives a subdued red light which will not injure the film unless it is held close to it.

Set the lamp on the table at least eighteen inches from the operator.

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

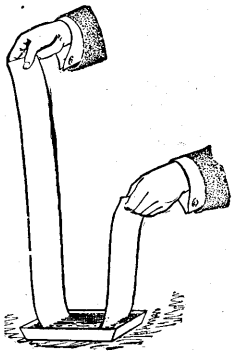
2. Open one of the developer powders, then put the contents (two chemicals) into graduate and fill it up to the four ounce mark with cold water. Stir until dissolved, with the wooden stirring rod and pour into the second tray.

3. To develop, unroll the film and detach the entire strip from the duplex paper.

4. Pass the film through the tray of clean cold water as shown in the cut, holding one end in each hand. Pass through the water several times, that there may

be no bubbles remaining on the film. When it is thoroughly wet with no air bubbles, it is ready for development.

5. Now pass the film through the developer in the same manner as described for wetting it and shown in cut. Keep it constantly in motion, and in about one minute the high lights will begin to darken and you will readily be able to distinguish the unexposed sections between the negatives, and in about two minutes will be able to distinguish objects in the picture. Complete development in the strip, giving sufficient length of development to bring out what detail you can in the thinnest negatives. There is no harm in having your negatives of different density. This can be set right in the printing. The difference in density does not affect the difference in contrast.



Keep the strip which is being developed constantly in motion, allowing the developer to act 5 to 10 minutes. The progress of the development may be watched by holding the negative up to the lamp from time to time.

When developing Eastman N. C. Film, use a red lamp and take care not to hold the film close to the lamp for any length of time. This film is very rapid and is orthochromatic, therefore liable to fog unless handled very carefully.

6. After completing development, cut the negatives apart with a pair of shears, transfer to the third tray and rinse two or three times with clear cold water.

NOTE—Avoirdupois Weight is the standard used in compounding Photographic chemicals.

Fixing

Provide a box of Kodak Acid Fixing Powder and prepare a fixing bath as per directions on the package. Put this into a tray (fourth tray of an Eastman developing outfit) or wash bowl. When the Powder has thoroughly dissolved add to the solution as much of the Acidifier, which you will find in a small box inside the large one, as directions call for. As soon as this has dissolved the Fixing Bath is ready for use. Any quantity of the bath may be prepared in the above proportions.

Pass the film face down (the face is the dull side) through the fixing solution as shown in cut on page 40, holding one end in each hand. Do this three or four times and then place one end of the film in the tray still face down and lower the strip into solution in folds. (If the negatives have been cut apart immerse them singly.) Gently press the film where the folds occur, not tightly enough to crack it, down into the solution a few times during the course of fixing.

This insures the fixing solution reaching every part of the film. Allow the film to remain in the solution two or three minutes after it has cleared or the milky appearance has disappeared. Then remove for washing.

N. C. Film must always be fixed in an acid bath. There is nothing superior to the Kodak Acid Fixing Bath, but the following formula may be used if desired:

Water	16 ounces
Hyposulphite of Soda	4 ounces
Sulphite of Soda (desiccated)	¼ ounce

When fully dissolved add the following hardener:

Powdered Alum	⅛ ounce
Citric Acid	⅛ ounce

This bath may be made up at any time in advance and may be used so long as it retains its strength, or is

not sufficiently discolored by developer carried into it, as to stain the negatives.

Note.—If you are using an Eastman developing outfit the fixing solution must only be used in tray No. 4, and the negatives, after fixing, must not be put in either No. 1 or No. 2 trays. Neither must any of the fixing solution be allowed to touch the films, through the agency of the fingers or otherwise, until they are ready to go into the fixing bath, otherwise they will be spotted or blackened so as to be useless.

Washing

There are several ways of washing film. It may be placed in tray or wash bowl of cold water and left to soak for five minutes each in five changes of cold water, moving about occasionally to insure the water acting evenly upon it, or it may be given, say two changes as above and then left for an hour in a bowl with a very gentle stream of water running in and out.

Drying with Clips

Drying N. C. Film Negatives

After tank development when thoroughly washed snap an Eastman Film Developing Clip on each end of the strip and hang it up to dry or pin it up. Be sure, however, that it swings clear of the wall so that there will be no possibility of either side of the film coming in contact with the latter.

In drying, N. C. Film should be cut up into strips of *not more* than six exposures in length.

In tray development when the film has been cut up pin by one corner to the edge of a shelf or hang the negatives on a stretched string by means of a bent pin, running the pin through the corner of the film to the head, then hooking it over the string.

Over-Development

Over-development may be caused by a mistake in leaving films in the developer too long, by using solutions too warm or by those who mix their own developer in getting the developing agent too strong.

In this case the negative is very strong and intense by transmitted light and requires a very long time to print. The remedy is to reduce by use of Eastman Reducer or by the following method:

Reducer

First soak the negatives 20 minutes in water, then immerse in:

Water	6 ounces
Hyposulphite of Soda	½ ounce
Ferri-Cyanide Potassium (saturated solution)	20 Drops

Rock tray gently back and forth until negative has been reduced to the desired density, then wash 10 minutes in running water or in four changes of water.

Negatives may be reduced locally by applying the above solution to the dense parts with a camel's hair brush, rinsing off the reducer with clear water occasionally to prevent its running onto the parts of the negative that do not require reducing.

Under-Development

This defect would be caused by a mistake in removing film from the developer too soon, by using solution too cold or by an error in compounding chemicals. It is obvious that neither of these defects will occur in Tank Development, if instructions are properly followed.

Intensification by Re-Development

There are a number of different processes for intensifying under-developed negatives, the most common being by means of Bichloride of Mercury, and Sodium Sulphite or Ammonia.

This method, though simple to use, has its disadvantages, as it builds up the highlights out of proportion to the weaker portions of the negative, and also, unless carefully handled is apt to produce iridescent stains, or granular markings that are impossible to remove.

While the method of intensification by re-development is only comparatively new, the now common use of Velox and Royal Re-developer for Sepia tones on Velox and Bromide prints will make this the most effective means of intensification.

Velox or Royal Re-Developer may be used in exactly the same manner as for producing Sepia tones on developing paper.

Negatives intensified by re-development are built up evenly, without undue contrast and without the chance of staining.

The advantage of being able to use the chemicals for two different purposes (Sepia toning prints or intensifying negatives) is obvious, the result in either case being all that could be desired.

PART V

Printing on Velox Paper

Eastman N. C. film negatives yield beautiful, soft black and white effects when printed on the Regular Velvet Velox developing out paper furnished with the A. B. C. or 3 A developing and printing outfit.

Manipulation

Velox prints may be successfully made, using daylight for exposure. Select a north window, if possible, as the light from this direction will be more uniform. *Owing to its sensitiveness the paper should be handled in subdued light, otherwise it will be liable to fog.* Proper precautions should be taken to pull down the window shades and darken the room sufficiently during manipulation. If the light is too strong for printing it should be subdued or diffused by the use of several thicknesses of white tissue paper. Owing to the varying intensity of daylight uniform results are not as certain as when using artificial light. In the following instructions for manipulating Velox, it must be understood that artificial light, preferably gas with a Welsbach burner, will be the light used. A kerosene lamp, fitted with a round burner (known as Rochester burner), may be used, but owing to the decidedly yellow light this affords, a considerably longer exposure will be necessary than when using a Welsbach light.

The comparative exposures with Velox using various sources of light is as follows:

Size of Negative	Distance from Light	Welsbach Burner	32 C. P. Elec. or 6 ft. gas Burner	16 C. P. Elec. or 4 ft. gas Burner	Average Oil Lamp
4 x 5 or Smaller	7 inches	10 Sec.	20 Sec.	30 Sec.	40 Sec.

Having provided a suitable light and a convenient place to work, arrange three trays before you on your work table in this order:

Nepera Solution	Clean Water	X	Kodak Acid Fixing Bath as directed on page
1	2	Towel	41

Proper temperature is important and for best results the developer should be 70 degrees Fahr. and the fixing bath and wash water 50 degrees Fahr. If the developer exceeds 70 degrees the prints are liable to fog and the emulsion soften. If too cold, chemical action is retarded, resulting in flat, weak prints.

Printing

Velox may be safely manipulated ten feet from the ordinary gas flame.

Having everything in readiness, open the printing frame and lay the negative back down upon the glass —(the back is the shiny side). Place upon the negative a sheet of the Velox paper face down.

The paper curls slightly, the face or sensitive side being concave; an absolute test is to bite the corner of the sheet; the sensitive side will adhere to the teeth.

The paper not used must be kept covered in its envelope.

Place the printing frame the correct distance from the artificial light used, holding the frame away from the burner a distance equal to the diagonal of the negative. See exposure table, page 46.

We suggest before making the first exposure the cutting of a piece of Velox paper into strip about an inch wide and placing one of them over an important part of the negative, make the exposure, using your best judgment as to the distance from the light and the time of printing. Develop it, and if not satisfactory try another strip varying the time as indicated by the first result. When the desired effect is secured, you can make any number of prints from the same negative, and if the time of exposure, distance from light as well as the time of developing are identical, all the prints should be equally good. By comparing your other negatives with the one you have tested, you will be able to make a fairly accurate estimate of exposure required by any negative.

After taking the exposed piece of paper from the printing frame, in a safe place previously selected, it is ready for development. The dry print should be immersed face up in the developer (Tray No. 1) and quickly and evenly covered with the solution. Regular Velox should be developed not to exceed 20 seconds; Special Velox about twice as long. No exact time can be given, as the strength of developer used would make a difference in the time.

As soon as the image has reached the desired depth remove from the developer to the second tray and rinse for a moment, turning the print several times, then place it in the acid fixing bath (Tray No. 3,) keeping the print moving for a few seconds, the same

as was done when rinsing, so as to give even and thorough fixing, preventing stains and other troubles. Leave the print in this solution until thoroughly fixed; this will take about fifteen minutes. When fixed remove from the fixing bath and wash thoroughly for about an hour in running water, then dry. After drying, prints may be trimmed and mounted.

Do not use a fixing bath that has been used for fixing film.

You should be systematic in working, remembering that cleanliness is essential in photography. Care must be taken to prevent the Hypo fixing bath in any way getting into the tray containing the developer. Have a clean towel when beginning the work and wipe your hands each time after you have handled prints in fixing bath.

Details

CLEAN DISHES: CLEAN HANDS: The faintest trace of Hyposulphite of Soda will spoil the prints if it gets into contact with them before the proper time. Great care should therefore be used to have both hands and trays clean.

DEVELOPER once used should not be carried over and used the next day or subsequently.

Don't

Don't use a tray for developing which has previously been used for hypo solution, pyro developer or final washing.

Don't use an old fixing solution, it is liable to cause trouble.

Difficulties: Their Cause and Remedy

VEILED WHITES: Caused by forcing development, fogged paper.

REMEDY: Give more time, screen light. Also caused when image flashes up in developer by too much exposure, in which case give less time.

MUDDY SHADOWS: Caused by developer being used for too many prints. Remedy, use fresh developer.

CONTRASTY PRINTS. Caused by insufficient time or negative too harsh. Remedy, give more time; make softer negatives.

FLAT PRINTS: Caused by overtiming or negatives flat. Remedy, give less time in first instance, and if trouble is with negatives, give negatives less time; develop further.

STAINS. Caused by forcing development, or chemically dirty dishes or hands, insufficient fixing, foreign chemicals. Remedy, do not allow chemicals other than those given in formulae to come in contact with paper; use fresh fixing bath—keep prints in constant motion the entire 15 minutes they remain in fixing, and if due to forcing development give more time in printing.

ROUND, WHITE SPOTS: Caused by air bells which form on face of print when developer is first flowed on. Remedy, use more developer, break air bells with finger.

Ask us or your dealer for a copy of the Velox Book.

Keep Dust Out of the Camera

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

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

Coloring Velox Prints

The various surfaces of Velox are particularly well adapted for coloring, and prints may be made extremely interesting through the many beautiful effects obtained by the use of Velox Transparent Water Color Stamps. No experience is necessary when using these colors and any amateur can secure excellent results as full directions accompany each set of stamps.

Put up in book form, they will be found most convenient. Each book contains twelve colors, arranged in perforated leaflets, making twenty-four stamps of each color.

The stamps will also be found most desirable for the coloring of Bromide enlargements, lantern slides, etc., and in fact for all work where perfect blending and transparency of color is required. See Price List.

EASTMAN KODAK CO,

Rochester, N. Y.

PART VI

Mounting

The most satisfactory method for mounting prints is by the use of Kodak Dry Mounting Tissue, as by the use of this tissue the print lies perfectly flat in absolute contact even on the thinnest mount and absolutely without curl.

The tissue comes in flat sheets, dry, not sticky, and easy to handle and being water proof protects the print from any impurities in the mount stock.

For multiple mounting and folders the tissue is ideal.

The process of mounting is as follows:

Lay the print on its face and tack to the back a piece of tissue of the same size as the print by applying the point of a hot flatiron to small spots at opposite ends.

Turn the print face up and trim print and tissue to the same size. Place in proper position on mount and cover the print with a piece of smooth paper and press the whole surface with a hot flatiron.

Press, don't rub.

The iron should be just hot enough to siss when touched with the wet finger. If the iron is too hot the tissue will stick to the mount and not to the print, if too cold the tissue will stick to the print and not to the mount.

Remedy: Lower or raise the temperature of the iron and apply again.

When mounting with paste, lay the wet print face down on a sheet of glass and squeegee off all surplus water, then brush over the back with thin starch paste, lay the print on the mount, then cover the print with a clean sheet of blotting paper and press into contact with squeegee or rubber print roller.

EASTMAN KODAK COMPANY,

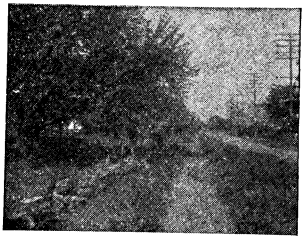
Rochester, N. Y.

Clean Lenses

Dirty or dusty lenses are frequently the cause for photographic failures. These pictures illustrate this point clearly. The sharp, full timed picture at top was taken with the lens clean and in good order. To produce the effect shown in the picture at bottom, the operator lightly touched the face of the lens with his thumb, which was slightly damp with perspiration.

CLEAN LENS

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



DIRTY LENS

The Kodak Correspondence College

A Course Which Will Increase Your Photographic Pleasure by Helping You to make Better Pictures.

Tuition two dollars which includes a handsome cloth bound copy, Library Edition, of the School Text Book

"HOW TO MAKE GOOD PICTURES"

Application for Membership in the Kodak Correspondence College.

Eastman Kodak Co.,
Rochester, N. Y.
K. C. C. Dept.

Gentlemen:—I am the owner of a (name camera and size).....

.....

and wish to be enrolled as a member of "The Kodak Correspondence College."

I therefore enclose herewith { *Draft* / *P. O. Money Order* / *Express Money Order* } *for two dollars, for which please send me a volume, Library Edition, of "How to Make Good Pictures" and a certificate of membership entitling me to a full course in "The Kodak Correspondence College."*

Name).....(Street and No.).....

(City).....(State).....

Tear Off Here

Be Sure to Use Pure Chemicals

To get the best negatives from your films—to get the best prints from your negatives—it is imperative that the chemicals which you use be absolutely pure.

For all our film and papers we furnish powders and solutions mixed in just the proper proportions and compounded from the purest chemicals, rigidly tested in our own laboratories.

But we go even further than this. For those who prefer to mix their own solutions by formula, we have prepared a line of carefully tested standard photographic chemicals.

Don't mar good films and plates and good paper with inferior chemicals.

This seal stands for the highest purity. Be sure it is on the package before purchasing.

EASTMAN KODAK COMPANY,
Rochester N. Y.

PRICE LIST

No. 3 Folding Brownie Camera for pictures 3¼ x 4¼, Meniscus Lens and Brownie Ball Bearing Shutter, fitted with Autotime scale	$ 9 00
Do., with R. R. Lens and Brownie Ball Bearing Shutter, fitted with Autotime scale	11 00
Carrying Case for same	1 00
Kodak Portrait Attachment for No. 3 Folding Brownie	50
Kodak Color Screen, No. 3 for use with No. 3 Folding Brownie	75
No. 3A Folding Brownie for pictures 3¼ x 5½, with Meniscus Lens and Brownie Ball Bearing Shutter, fitted with Autotime scale, not loaded	10 00
Do., with R. R. Lens and Brownie Ball Bearing Shutter, fitted with Autotime scale	12 00
Carrying case for same	1 00
Kodak Portrait Attachment for No. 3A Folding Brownie	50
Kodak Color Screen No. 5 for use with 3A Folding Brownie	1 00
Brownie N. C. Film Cartridge, No. 124, 12 exposures 3¼ x 4¼	70
Do., 6 exposures	35
Do., Double Two Cartridges (4 exposures)	25
N. C. Film Cartridge, No. 122, 10 exposures, 3¼ x 5½	70
Do., 6 exposures	40
Do., Double Two (4 exposures)	30
3½ inch Kodak Film Tank	5 00

Duplicating Outfit for same, consisting of 1 Solution Cup, 1 Transferring Reel, and Apron ..$ 2 50
Kodak Tank Developer Powders for 3½ inch Film Tank, per pkg., ½ dozen..... 20
Kodak Acid Fixing Powder, per 1 lb. pkg..... 25
Do., per ½ lb. pkg..... 15
Do., ¼ lb. pkg..... 10
Eastman Hydrochinon, and Pyro Developer Powders, per doz. pairs (for dark room development)..... 50
Do., per ½ doz. pairs 25
Eastman Hydrochinon, Eikonogen, Pyro and Special Developer Powders in hermetically sealed glass tubes (per box of 5 tubes)..... 25
Glass Stirring Rod Thermometer..... 60
Velox Paper, per doz. sheets, 3¼ x 4¼..... 15
Do., 3¼ x 5½..... 15
Velox Transparent Water Color Stamps, complete Booklet of 12 colors 25
Velox Transparent Water Color Stamp Outfit, consisting of Artist's Mixing Palette, three special Camel's Hair Brushes, and one book of Velox Transparent Water Color Stamps, (12 colors) 75
Nepera Solution for developing Velox, 4 oz. bottle 20
Solio Paper, per pkg. 2 doz. sheets, 3¼ x 4¼.... 20
Do., 3¼ x 5½..... 25
Eastman Printing Masks No. 7 for use with No. 3 Folding Brownie Negatives, each..... 06
Do., for use with No. 3 A Folding Brownie Negatives, No. 8, each..... 10
Combined Toning and Fixing Solution for Solio, per 8 oz. bottle 50

Do., 4 oz. bottle (in mailing case including postage, 50c)	$ 30
Kodak Print Roller, double, 6 in	50
Flexo Print Roller single, 4 in	15
Eastman Film Clips, nickeled, 3½ inch, per pair	25
Kodak Film Clips, wooden, 5 inch, per pair	15
Eastman Flash Sheets, No. 1, per pkg., ½ doz.	25
Do., No. 2	40
Do., No. 3	60
Eastman Flash Sheet Holder	1 00
Eastman Photo Blotter Book for blotting and drying prints	25
Kodak Dry Mounting Tissue, 3¼ x 4¼, 3 doz. sheets, per pkg	10
Do., 3¼ x 5½, 2 dozen	10
Eastman Reducer, per box, 5 tubes	25
Velox Re-developer, per pkg	50
Eastman Film Negative Album, to hold 100 3¼ x 4¼ or 3¼ x 5½ film negatives	1 00
Bulls-Eye Tripod	1 50
Kodak Metal Tripod, No. 0	1 60
Do., No. 1	2 50
Do., No. 2	3 25
Leather Carrying Case, for Nos. 0, 1 or 2	1 50
Bevplane Mounts Carbon Black and Scotch Gray, for prints, 3¼ x 4¼ per 100	85
Do., per 50	45
Do., per 100, 3¼ x 5½	90
Do., per 50, 3¼ x 5½	45
Artist's Album, black, white or sepia leaves, for 20 pictures, 3¼ x 4¼	20
Do., 3¼ x 5½	30
Forum Album, 25 leaves, size, 5½ x 7	35

Do., 11 x 14	$1 25
Developing, printing and mounting on Velox, 3¼ x 4¼, per roll of 12 exposures	1 50
Do., unmounted	1 38
Developing, only	70
Developing, printing and mounting on Velox, 3¼ x 4¼, per roll of 6 exposures	75
Do., unmounted	69
Developing, only	35
Printing, unmounted on Velox, each	07
Printing and mounting on Velox, each	08
Developing, printing and mounting on Velox, 3¼ x 5½, per roll of 10 exposures	1 50
Do., unmounted	1 40
Developing only	80
Developing, printing and mounting on Velox, 3¼ x 5½, per roll of 6 exposures	90
Do., unmounted	84
Developing only	50
Printing unmounted on Velox, each	09
Printing and mounting on Velox, each	10

All prints furnished unmounted unless otherwise specified.

No orders executed for less than 25 cents

8 x 10 Bromide enlargement mounted on card	75
10 x 12 Do	1 00
11 x 14 Do	1 25

EASTMAN KODAK CO.
Rochester, N. Y.