

**Picture  
Taking**  
*with the*  
**Stereo  
Kodak**  
**No. 2** 

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*Price Ten Cents*

**P u b l i s h e d b y**  
**Eastman Kodak Co.**  
**Rochester, New York.**

## **EASTMAN KODAK COMPANY**

**ROCHESTER, N. Y.**

### **MANUFACTURERS OF**

Kodaks,  
Brownie Cameras,  
Eastman's Plate Cameras,  
Cartridge Roll Holders,  
Eastman's Solio Paper,  
Eastman's Sepia Paper,  
Eastman's Dekko Paper,  
Eastman's Ferro-Prussiate Paper,  
Eastman's Platinum Paper,  
Eastman's W. D. Platinum Paper,  
Eastman's Royal Bromide Paper,  
Eastman's Standard Bromide Paper,  
Eastman's Platino Bromide Paper,  
Eastman's Enameled Bromide Paper,  
Eastman's Matte-Enamel Bromide Paper,  
Eastman's Transparent Film,  
Eastman's Dry Plates,  
Eastman's Transparency Plates,  
Eastman's Flash Sheets, Flash Powder,  
Tripods and other Specialties.

*April, 1902.*

*INSTRUCTIONS FOR USING THE*  
*No. 2 STEREO KODAK*

*Manufactured by*  
*EASTMAN KODAK COMPANY*  
*ROCHESTER, NEW YORK*

## **BEFORE LOADING.**

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Before taking any pictures with the Kodak, read the following instructions carefully and make yourself perfectly familiar with the instrument, taking especial care to learn the construction of the shutters. Work them 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. Until it has been developed and fixed, therefore, the film must never be exposed to white light for even a fraction of a second, (this includes gaslight, lamplight, etc.,) or it will be ruined. Throughout all the operations of loading and unloading be extremely careful to keep the black paper wound tightly around the film to prevent the admission of light.

EASTMAN KODAK COMPANY.

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## PART I.

### LOADING THE KODAK.

The film for the Stereo Kodak is furnished in light-proof rolls 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.



The Film.

#### TO LOAD.

I. Take a position at a table as far as possible from any window and pressing on the bottom of Kodak pull out the nicked catch as indicated in Fig. I. and take the roll holder from the box. See Fig. II.

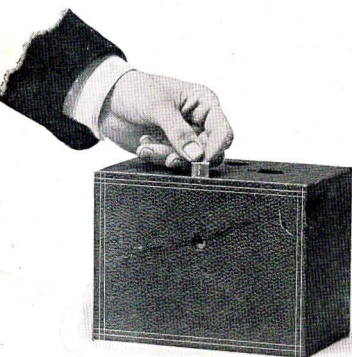


FIG. I.

II. Push out on the spring which is at the bottom of the recess at front left hand corner of the roll holder.

III. Put the full spool into the recess and slip the pins into place in the hole in axis of spool, (Fig. III.)



FIG. II.

allowing the spring to come back into place. Be sure and get the "Top" at the top. Each spool is marked on the end.

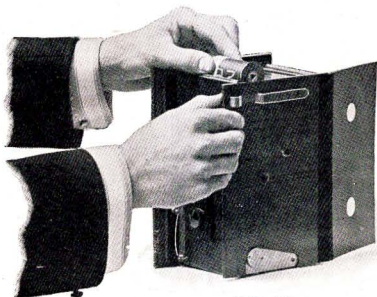


FIG. III.

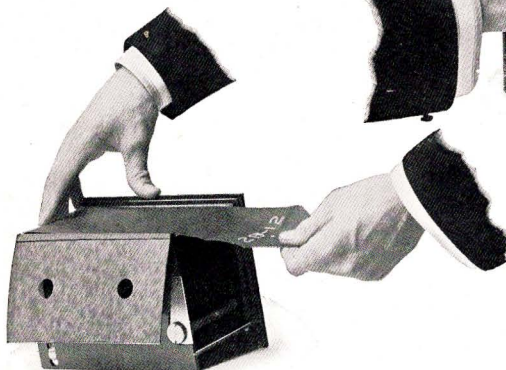


FIG. IV.

pull across the guide rollers, as shown in Fig. IV.

V. Thread into the slot in reel, being careful that the paper draws straight and true, and turn the key until the paper is taut. See Fig. V.

Fold the pasteboard flap up over the black paper and insert the camera body in the case once more.

*Throughout the foregoing operations, from the time the gum slip is cut on*

IV. Cut the gum slip that holds the end of the paper and holding the thumb of the left hand firmly against the roll, thread the black paper under the first cross piece and

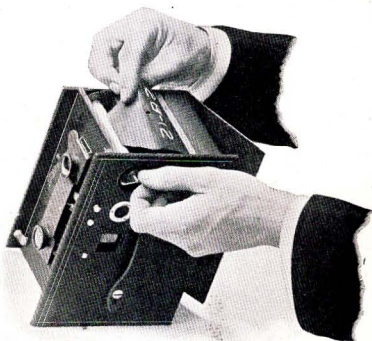
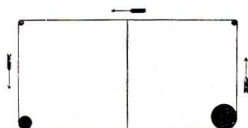


FIG. V.

*the fresh roll of film, until the roll holder is once more in place in the case, keep the black paper wound tightly to prevent fogging the film.*

VI. Press on bottom of camera near tripod socket and push in the nicked catch at side.



The paper should be in this position for winding.

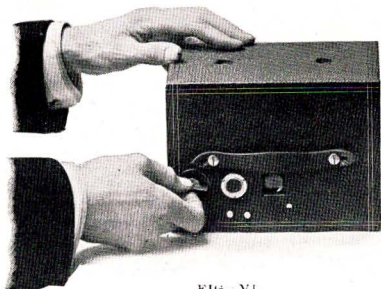


FIG. VI.

VII. The roll of film in the Kodak is covered with black paper and this must be reeled off before a picture can be taken. Turn the key slowly to the left and watch in the little red celluloid window at the back of the camera. (See Fig. VI.) When 15 to 18 turns have been given the figure 1 will appear. Turn key until figures 1 and 2 appear at the windows.

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

## PART II.

### MAKING THE EXPOSURES.

#### Section I.

#### INSTANTANEOUS EXPOSURES.

##### ("Snap Shots.")

The shutters are always set. The two buttons on top of camera in front of spirit level, operate the shutters. The button on the right marked (T) is for time exposures and the one on left (I) is for snap shots.

#### USE THE LARGEST STOP.

Snap Shots can only be made when the largest stop is in the lens. If a smaller stop be used the light will be so much reduced that it will not sufficiently impress the image on the film and failure will result.

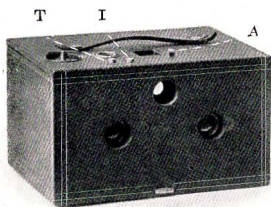


FIG. 1.

Button T in Fig. 1 is the time exposure button. Button I is for instantaneous exposures (snap shots).

Slide A (Fig. 1.) controls the stops, of which there are three. When it is clear down the largest stop is in place. This is the one to use for all snap shots, except where the sunlight is *unusually* strong, and there are no heavy shadows, such as views on the water or in tropical or semi-tropical climates, when the middle stop may be used.

The smallest stop must never be used for snap shots or *absolute failure* will result.

## LOCATE THE IMAGE.

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

Aim the Kodak at the object to be photographed and locate the image in the finder.

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

## HOLD IT LEVEL.

It is absolutely essential that the Kodak be held level. *If this is not done it will be impossible to obtain a proper stereoscopic effect.*

On top of camera will be found a spirit level. When the bubble in same is exactly in the center, the camera is level.

Fig. II. shows how to hold the camera for snap shots.

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

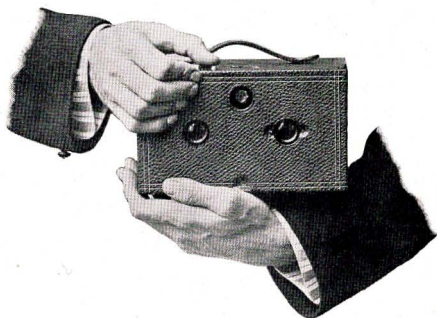


FIG. II.

**Hold the Kodak steady, hold it level and push the snap shot button.**

*This makes the exposure.*

**Turn the Key** slowly to the left until the next two numbers appear before the windows in back of Kodak.

The first exposure was made on Nos. 1 and 2, the second will be on Nos. 3 and 4, and so on.

Repeat the foregoing operations for each instantaneous picture.

## SINGLE PICTURES.

By closing the slide before the left hand lens as shown in Fig. III. the camera is transformed into a Kodak making  $3\frac{1}{2} \times 3\frac{1}{2}$  inch exposures. The Kodak is operated in

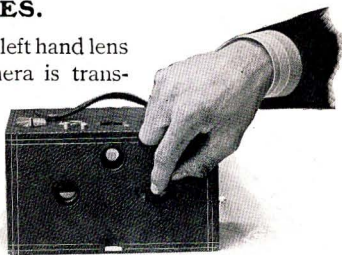


FIG. III.

exactly the same manner for single pictures as for stereoscopies.

Fig. IV. shows the manner of holding the camera for single exposure snap shots.

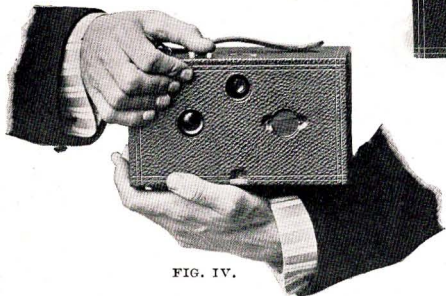


FIG. IV.

After each single exposure only one new section of film will, of course, be turned into position.

## Section II.

## TIME EXPOSURES.

### INTERIORS.

#### I—PUT THE KODAK IN POSITION.

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

The diagram shows the proper position for the Kodak. It should not be pointed directly at a window, as the glare of light will blur the picture. If

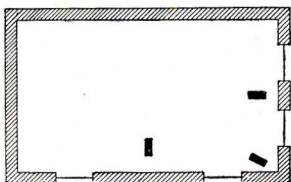


Diagram showing position of Kodak.

all the windows cannot be avoided, pull down the shades of such as come within the range of the finder.

To make a time exposure, place the Kodak on some firm support, like a table or tripod. When the Kodak has been properly arranged and is *perfectly level*, steady it with one hand, and with the other press the time exposure button once to open shutter (see Fig. I.), and give the proper time (using a watch if more than two seconds); press again to close. Turn a new film into position as described before. (See page 9.)

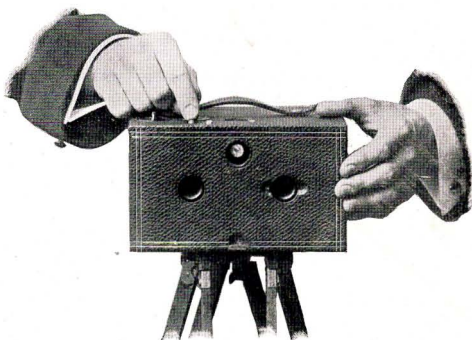


FIG. I.

### TIME FOR INTERIOR EXPOSURES.

This table is for the largest stop. When the second stop is used add one-half more time; when the smallest stop is used give four times the time of the table:

White walls and more than one window:

bright sun outside, 2 seconds;  
hazy sun, 5 seconds;  
cloudy bright, 10 seconds  
cloudy dull, 20 seconds.

White walls and only one window:

bright sun outside, 3 seconds;  
hazy sun, 8 seconds;  
cloudy bright, 15 seconds;  
cloudy dull, 30 seconds.

Medium colored walls and hangings and more than one window:

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

Medium colored walls and hangings, and only one window :

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

Dark colored walls and hangings, and more than one window :

bright sun outside, 10 seconds ;  
hazy sun, 20 seconds ;  
cloudy bright, 40 seconds ;  
cloudy dull, 1 minute, 20 seconds.

Dark colored walls and hangings and only one window :

bright sun outside, 20 seconds ;  
hazy sun, 40 seconds ;  
cloudy bright, 1 minute, 80 seconds ;  
cloudy dull, 2 minutes, 40 seconds.

The foregoing is calculated for rooms whose windows get the direct light from the sky and for hours from 3 hours after sunrise until 3 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). Centre image in the finder. For a bust picture the camera should be 6 feet from the figure ; for a three-quarter figure 8 feet and for a full figure 10 feet. The background should form a contrast with the sitter.

NOTE. In making portraits, where the subject is less than 6 feet from the camera, use the smallest stop and time accordingly. (See page 11.) Do not try to photograph objects nearer than 5 feet. As a general rule, use the middle stop for portraits.

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### **Section III.**

#### **TIME EXPOSURES IN THE OPEN AIR.**

When the smallest stop is in the lens the light admitted is so much reduced that time exposures out of doors may be made the same as interiors but the 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  $\frac{1}{2}$  to 1 second will be sufficient.

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

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

### STOPS.

Under certain conditions it is best not to use the largest stop. In making exposures out-doors, for instance, the light may be so weak as to make a snap-shot impossible, yet so powerful that with the large opening a "time" exposure could not be made quickly enough to avoid over-exposure. The remedy is to use the smallest stop, which admits only  $\frac{1}{4}$  as much light as the largest, thus lengthening the time of exposure that can be given without injury.

In making interior exposures, especially portraits, it is sometimes desirable to have the object quite close to the camera. In such cases greater sharpness is obtained by using the smallest stop.

If the smallest stop is used for instantaneous exposures the light will be so much reduced that it will not sufficiently impress the image upon the film and absolute failure will result.

By studying the following rules the beginner will quickly master the use of the stops :

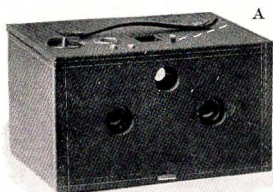


FIG. II.

Slide A controls stops and when in position shown above, the smallest stop is before the lens.

## STOPS.

The stops should be used as follows :

**1. THE LARGEST**—*For all ordinary instantaneous exposures when the sun shines.*

**2-3. THE MIDDLE**—For instantaneous exposures when the sunlight is unusually strong and there are no heavy shadows, such as in views on the sea-shore, or on the water, or in tropical or semi-tropical climates; also for interior time exposures, the time for which is given in the table on pages 11 and 12.

**1-4. THE SMALLEST**—For time exposures out doors in cloudy weather. *Never for instantaneous exposures.* The time required for time exposures on cloudy days with smallest stop will range from  $\frac{1}{2}$  second to 5 seconds, according to the light. The smaller the stop the sharper the picture.

When setting the stops always see that the one to be used is *brought to the center of the lens* where it catches.

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

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## Section IV.

### FLASH LIGHT PICTURES.

By the introduction of Eastman's Flash Sheets, picture taking at night has been wonderfully simplified. A package of flash sheets, a piece of card-board, a pin and a match complete the list of essential extras.

The cost then is :

One Package Eastman's Flash Sheets, 25c.

With flash sheets, no lamp is necessary; there is a minimum of smoke and they are far safer than any of the self-burning flash powders, 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 the 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 flash light, would be quite beyond the range of the art.

**PREPARATION FOR THE FLASH.**—The camera should be prepared for time exposure, as directed on page 10 of this Manual (except that the largest stop 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 card-board which has previously been fixed in a perpendicular position. If the card-board is white it will act as a reflector and increase the strength of the picture.

The flash sheet should *always* be placed two feet behind and two to 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 lenses 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 card-board a foot square placed under the flash sheet will prevent any sparks from the flash doing damage.

### **TAKING THE PICTURE.**

Having the Kodak and the flash sheets both in position and all being in readiness, press the time exposure button once to open the shutter, stand at arm's length and touch a match to the lower corner of the flash sheet. There will be a bright flash which will impress the picture on the sensitive film. Then push the button again to close the shutter. Turn fresh films into place with the key ready for another picture.

### **THE FLASH SHEETS.**

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 card-board, one above the other, the corners slightly over-lapping.

TABLE.

For 10 feet distance and light walls and hangings, use 1 sheet.								
"	10	"	"	"	dark	"	"	" 2 sheets.
"	15	"	"	"	light	"	"	" 2 "
"	15	"	"	"	dark	"	"	" 3 "
"	25	"	"	"	light	"	"	" 3 "
"	25	"	"	"	dark	"	"	" 4 "

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 8 feet, and for a full figure 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.

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 it. 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 Kodak 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's Flash Sheets burn more slowly than flash powders, producing a much softer light, and are, therefore, far pref-

erable 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'S FLASH CARTRIDGES, FLASH LAMPS AND FLASH POWDER.**

Eastman's Flash Cartridges or Eastman's Flash Lamp and Powder 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 powder or cartridges are only superior where absolutely *instantaneous* work is essential.

## PART III.

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### REMOVING THE FILM.

No dark room is required in changing the spools in the No. 2 Stereo Kodak. The operation should, however, be performed in a subdued light.

I. When the last film has been exposed, turn the key about 15 half turns until the letter S (stop) appears before the red window which is nearest the winding key.

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

III. Unloose the catch at the bottom and take the roll holder from the box, as shown in Figs. I. and II., page 5.

IV. Holding it taut so as to wind tightly, turn the key until the paper is all on the reel. See Fig. I.

V. Hold the reel tightly with one hand to prevent the paper from loosening, and fasten down the black paper by means of the gummed slip, which will be found at end of roll, to prevent the paper from unwinding. Loosen the key by turning to the right and pull it out.

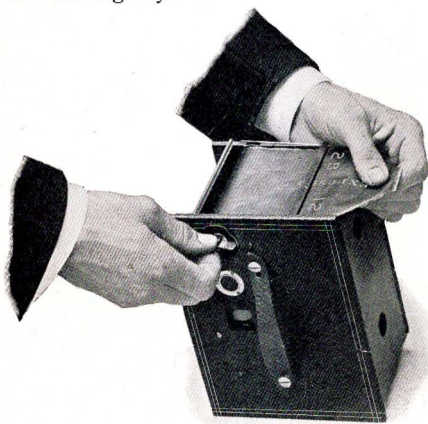


FIG. I.

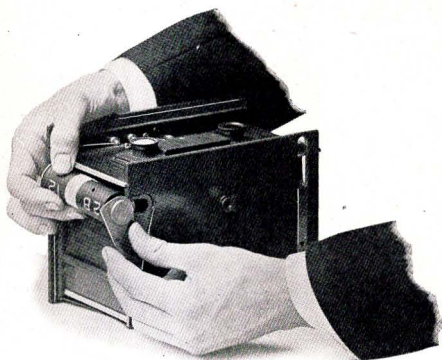


FIG. II.

VI. Remove the film from the Kodak by swinging the ratchet carrier out with the roll, which is then merely pulled away from the ratchet web, when it will be free. See Fig. II.

VII. Wrap up the roll immediately to prevent the light from injuring the film.

VIII. Now take the empty spool from its recess and transfer it to the winding end of the Kodak.

IX. Fit the web in ratchet carrier into the slotted end of the spool and swing ratchet-carrier and spool back into place; insert the key and turn to the left until it is screwed firmly into place. This forms a new reel.

X. Load as described in Part I, page 5. The roll of exposures can now be mailed to us for finishing (see Price-List), or you can do the developing and printing yourself.

NOTE: In mailing us film for development, do not fail to mark the package plainly with your name and address, and write us a letter of advice, with remittance.

### CLEAN LENSES.

Dusty or dirty lenses are frequently the sole cause for photographic failures. Lenses should be frequently examined by looking *through* the lens, and if found to be dirty, should be wiped, both front and back, with a clean, soft, linen handkerchief. It is well, also, to occasionally wipe out the inside of Kodak with a slightly damp cloth. In dusty summer weather this needs especial attention. Large spots of dust or dirt on the lenses will cause defects in the picture; while, if the lenses are evenly covered with a film of dust or dirt, the effect will be to cut off a great deal of the light and make the picture under-timed.

## **DIMMED FINDERS AND HOW TO MAKE THEM BRIGHT AGAIN.**

For some cause which is not thoroughly understood, glass will sometimes "sweat" to such an extent as to cover it with a sort of film, which, of course, makes it very dull whether it be used as lens or mirror. Glass that is tightly packed in cases as well as that which is exposed to the air is liable to take on this film, supposedly from peculiar atmospheric conditions.

Whatever the cause, the result is the occasional dimming of finders and lenses. In the case of lenses it is, of course, easy enough for anyone to wipe them off. With finders the trouble is sometimes in the mirror, which necessitates opening the finder and wiping the mirror by means of a soft cotton cloth on a bent wire. With many kinds of Kodaks anyone can readily get at the inside of the finder and in five minutes restore it to all its original brilliancy.

To clean the mirrors in the brilliant finders of the No. 2 Stereo Kodaks, simply remove the two screws which hold in frame on top of finder and lift out frame. Now turn the Kodak over and the "brilliant" lens of finder will drop out and the mirror can be easily cleaned.

## **IN GENERAL.**

We recommend everyone to do their own developing. With our Special outfit it is very simple and inexpensive, no regular dark room is required, and the operator can obtain proofs from the negatives as soon as they are dry.

If, however, the Kodaker prefers to have us "Do the rest," he can send his exposures to us by mail.

We have larger and better facilities for developing and printing and more skilled operators than any one else, and it is to our interest to get the *best results from every negative.*

# PART IV.

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## DEVELOPING.

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Provide an Eastman's Special 5 x 7 Developing and Printing Outfit.

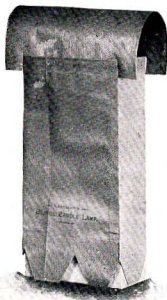


### \*THE OUTFIT CONTAINS:

1 Eastman's Candle Lamp, . . .	\$0 25	4 Ounce Bottle Solio Toning	
4 Developing Trays, . . .	60	Solution, . . .	30
1 Glass Beaker, . . .	12	1 Bottle of Bromide of Potas-	
1 5 x 7 Printing Frame, Special, . . .	35	sium, . . .	10
1 5 x 7 Glass for same, . . .	05	1 Ounce of Glycerine, . . .	05
1 Stirring Rod, . . .	05	1 Manual, . . .	10
1 Dozen Developing Powders, . . .	50		
1 Lb. Hyposulphite Soda, . . .	10		
2 Dozen Sheets 5 x 7 Solio			
Paper, . . .	60		3 17
		Price Complete, neatly packed, \$2.00	

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.

\*This outfit cannot be shipped by mail.



THE LAMP.

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 lamplight, *and would be spoiled if exposed to it even for a fraction of a second.*

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 Orange Candle Lamp, and light it as directed in the circular which comes in the box in which the lamp is enclosed.

The lamp gives a subdued yellow or orange 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 and with the *side* toward the operator.

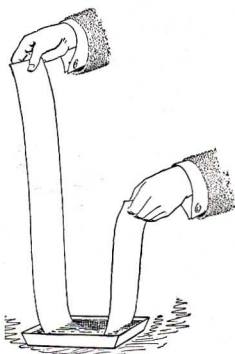
I. Fill one of the trays nearly full of water (first tray).

II. Open one of the developer powders, then put the contents (two chemicals) into the beaker and fill it up to the ring with *cold* water. Stir until dissolved with the wooden stirring rod and pour into second tray.

III. To develop Transparent Film unroll the film and detach the entire strip from the black paper.

IV. 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.

V. 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. If the



negatives have all had the same exposure, development can be completed before cutting the negatives apart—if, however, one or more pairs of negatives flash up more quickly than the others they should be cut out of the strip with a pair of shears and transferred back to the tray of *clear water*, where they may remain until the balance of strip has been developed and can then be developed one pair at a time. As the negatives have been exposed in pairs it will be readily seen that they should also be developed in the same manner. Be sure that any negatives put back in the tray of clear water are kept fully immersed.

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

VI. 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*.

Always cut the negatives apart in pairs, that is, leave the twin negatives attached to each other to avoid confusion in printing.

If you find the twelve (six Stereo) exposure strips too long to handle conveniently in the above manner we advise that you use the six exposure cartridges, as the great convenience of strip development more than offsets the short time taken to insert an extra spool.

### ANOTHER WAY.

We advise the foregoing method of development. If desired, however, the negatives may be cut apart before development is commenced, either by the following method or by the use of a No. 2 Film Cutting Board. (See price list, page 32.)

a. Unroll the film and cut the exposures apart in pairs as shown in Fig. I.

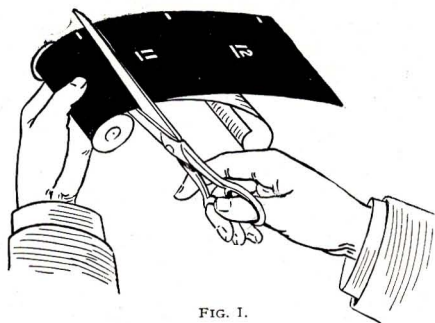


FIG. I.

In unrolling the film preparatory to development, care must be taken that the end be not allowed to roll up over the paper. The exposures should be cut apart with the **PAPER ON TOP**.

Fig. II shows a cartridge unrolled with the film on top. To correct this simply turn back the film as indicated by the dotted lines, thus bringing the film under the paper.

*b.* Put the exposures into the first tray pair by pair *face down*; put them in edgewise, to avoid air bells, and immerse them fully.

Cover the tray with a bit of brown paper to keep out the light from the lamp.

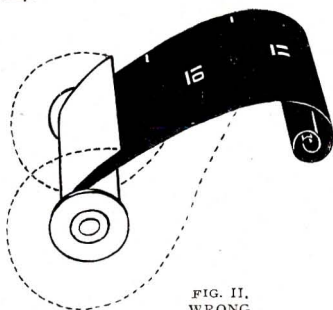


FIG. II.  
WRONG.

*c.* Take one pair of the exposures from the water and immerse it, *face down*, in the tray of developer (second tray). Rock it back and forth to prevent streaks and air bubbles; in about 1 minute the film will begin to darken in spots, representing the lights of the picture, and in about two minutes the operator will be able to distinguish objects in the picture. The developer should be allowed to act 5 to 10 minutes. The progress of the development may be watched by holding the negatives from time to time up to the lamp.

*d.* Transfer the developed film to the third tray and rinse two or three times with water, leaving it to soak while the next films are being developed.

**NOTE:** Six pairs of negatives can be developed one after the other in one portion of the developer; then it should be thrown away and a fresh portion mixed.

Only one pair of negatives should be developed at a time until the operator becomes expert, then he can manage three or four in the tray at one time and the developer will answer for two or three before being exhausted.

As each successive negative is developed it should be put with the preceding negatives, in the washing tray and the water changed twice to prevent the developer remaining in the films from staining them.

From this stage the treatment of negatives is the same whether they have been developed in pairs or in the strip.

**VII.** Put six tablespoonfuls of Hypo-sulphite of Soda into the fourth tray, fill two-thirds full of cold water, and stir until dissolved. This is called the fixing bath.

**VIII.** Immerse the negatives one by one in the fixing bath and leave until they are entirely clear of white spots and are transparent instead of milky by transmitted light, moving them about occasionally to ensure even fixing. This will require about 10 minutes.

IX. The yellow shade can be removed from the lamp as soon as all the exposures have been fixed.

X. Pour off the fixing solution into the slop bucket, and fill the tray with clear, cold water; repeat this at intervals of five minutes, five or six times, keeping the negatives in motion, or transferring them back and forth to tray No. 3, one by one, to ensure the water acting evenly upon them.

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.

XI. When the negatives are thoroughly washed, put one-half ounce of glycerine into one pint of water (four portions measured with the developer glass), stir well and soak the negatives in the solution for 5 minutes, then remove them and wipe off the surplus moisture with a soft, damp cloth, and pin them by the four corners, face up, to a flat surface to dry.

The glycerine solution may be used repeatedly.

Use all solutions cold, employing ice in extremely hot weather.

The trays and beaker should now be rinsed out and set away to drain and dry.

When the negatives are dry they are ready for printing, as described in Part V.

### **DEFECTIVE NEGATIVES.**

By following closely the foregoing directions, the novice can make seventy-five per cent., or upwards, of good negatives. Sometimes, however, the directions are not followed, and failures result.

To forewarn the Kodaker is to forearm him, and we therefore describe the common causes of failure.

#### **Under-Exposure.**

Caused by making snap-shots indoors, or in the shade, or when the light is weak, late in the day, or by closing the lens too soon on time exposures.

### **Over-Exposure.**

Caused by too much light.

Negatives develop evenly, shadows almost as fast as high lights. No contrast, and no deep shadows. Over-exposure can be overcome in the development by the addition of bromide of potassium to the developer. The printing and developing outfit includes a package of bromide with directions for its use. The novice will soon learn to recognize over-exposure and to apply the remedy.

After the bromide has been added to the developer, it should not be used for another negative unless it is known to have been over-exposed.

### **Over-Development.**

Caused by leaving the negatives too long in the developer.

In this case the negatives are very strong and intense by transmitted light and require a very long time to print. The remedy is obvious.

### **Under-Development.**

Caused by removal from the developer too soon.

An under-developed negative differs from an under-exposed one in that it is apt to be thin and full of detail, instead of harsh and lacking in detail. If the development is carried on as before directed, this defect is not liable to occur.

### **Spots, Streaks, Etc.**

Air bells on the film in the developer or fixing baths are liable to cause spots, and streaks are caused by allowing the film to remain uncovered in part by the various solutions while in them.

White, milky spots are evidence that the negatives have not been properly fixed, and the negative should be put back into the fixing bath and then re-washed.

### **Always Develop Film Face Down.**

## PART V.

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### PRINTING.

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In making stereoscopic prints, the aim is to convey the idea of perspective and to depict animated life. This can be easily accomplished by following the instructions closely and by using a little care in the matter of trimming and transposing the negatives.

The operation of putting the Solio paper and the film face to face in printing, places the right hand print on the left hand side, and *vice versa*. To overcome this, trim and transpose the negatives before printing in the following manner: Lay the cutting guide, which accompanies this Kodak, on the face of the right hand negative so as to leave small margin for trimming on the right hand edge. Note some well-defined object in the middle distance which is intersected by the inner straight edge AA. Now transfer guide to left-hand negative so that line AA intersects same object at same point. If margins of negative remain on both left and right sides of guide-mask, cut off margin on left. Now place guide on right hand negative once more at identically the same spot as before and cut off margin from right hand end. It must be remembered that centers which you work from must be at such point as will allow slight trim at each side of mask. If first point tried does not give this result, try another. *There is a common center*. Keep mask parallel with bottom of film to insure vertical lines when cutting.

After the outer edges of negatives have been trimmed, cut the negatives apart at intersection and transpose. In transposing, bring the trimmed edges of both negatives together, both face up. Now, with gummed slips, paste the negatives face up to the glass of printing frame. On these lay a piece of Solio paper, face down. Replace back of printing frame and secure springs.

The operation of putting in the Solio paper should be performed in a subdued light, that is, in an ordinary room as far as possible from any window. The unused paper should be returned to its envelope and kept in a drawer away from the light.

The back of printing frame is hinged to permit the inspection of one section of the print at a time without destroying its register with the negatives.

The printing frame, when filled as directed, should be laid glass side up in the strongest light obtainable (sunlight preferred) until the light passing through the negatives into the sensitive paper has impressed itself upon it. The progress in printing may be examined from time to time by removing the frame from the strong light and opening one part of the hinged back, keeping the other section fastened to prevent the paper from shifting. The printing should be continued until the print is a little darker than the desired shade.

Place print without previous washing in the following combined toning and fixing bath :

4 oz. Eastman's Solio Toning Bath.  
8 oz. *Cold Water.*

Pour the toning solution into one of the trays and immerse the prints one after the other in the toning bath. Five or six prints can be toned together if they are kept in motion and not allowed to lie in contact. Turn the prints all face down and then face up and repeat this all the time they are toning. The prints will begin to change color almost immediately from reddish brown to reddish yellow, then brown to purple. The change will be gradual from one shade to another, and the toning should be stopped when the print gets the shade desired.

Twelve ounces of the diluted toning solution will tone two dozen prints ; after that a new solution should be made same as before.

When the proper shade has been attained in toning bath, the prints should be transferred for five minutes to the following salt solution to stop the toning :

Salt, 1 oz.  
Water, 32 ozs.

Then transfer the prints to the washing tray and wash one hour in running water, or in 16 changes of water.

The prints can then be laid out and dried between blotting papers. When dry, the prints are trimmed for mounting.

In trimming the prints, choose a base line that cuts a certain point in the foreground of each print, and trim along that line. The top should then be trimmed parallel with the base line.

Solio paper can be purchased ready trimmed for stereoscopic work. (See price list, page 31.)

If desired, the prints may be made without transposing the negatives. We advise the foregoing method, however, as once the negatives are transposed and pasted on the printing glass, as many prints as may be desired can be made without any further transpositions. By the other method, the prints are made before the negatives are trimmed and cut apart. The prints are then trimmed in the manner described for trimming negatives, and are transposed in mounting.

In making prints from single negatives the trimming of the negative is of course unnecessary. The print is made in the manner described in the foregoing and is trimmed and mounted as desired.

EASTMAN KODAK CO.,  
Rochester, N. Y.

## DON'T.

**Don't** fail to hold the Kodak level.

**Don't** try to make time exposures while holding the Kodak in hands.

**Don't** fail to turn two unexposed sections of film into place after each stereoscopic exposure.

**Don't** allow the black paper to loosen on the spool in loading and unloading the Kodak or the film will become fogged.

**Don't** separate twin negatives until they have been trimmed.

**Don't** fail to push back slide in front of left lens after you have finished making single exposures.

**Don't** put your trays away without washing them.

**Don't** let the hypo get out of its place—the fixing tray.

**Don't** try to make snap-shots indoors, on shady verandas or on dark days. You will only waste your film.

## PRICE LIST.

No. 2 Stereo Kodak for pictures $3\frac{1}{2} \times 3\frac{1}{2}$ stereoscopic,	\$15.00
Leather Hand Carrying Case with shoulder strap,	2.00
Transparent Film Cartridge, 12 exposures, $3\frac{1}{2} \times 3\frac{1}{2}$ , for 6 pictures stereoscopic,	.60
Do., 6 exposures for 3 pictures stereoscopic,	.30
Do., Double-Two, exposures for 2 pictures stereoscopic,	.20
Solio Paper, $3\frac{1}{4} \times 6$ , per pkg. of 2 doz.,	.25
Eastman's Special 5 x 7 Developing and Printing Out- fit, including Solio Paper and Toning Solution for 24 prints, (see page 21),	2.00
Eastman's Hydrochinon Developer Powders, per doz.,	.50
Do., per $\frac{1}{2}$ doz.,	.25
Do., in hermetically sealed glass tubes, per box of 5 tubes,	.25
Eastman's Pyrogallie Developer Powders, per doz.,	.50
Do., per $\frac{1}{2}$ doz.,	.25
Do., in hermetically sealed glass tubes, per box of 5 tubes,	.25
Eastman's Eikonogen Developer Powders, per doz.,	.50
Do., per $\frac{1}{2}$ doz.,	.25
Do., in hermetically sealed glass tubes, per box of 5 tubes,	.25
Eastman's Dekko Developer Powders, per doz.,	.50
Do., per $\frac{1}{2}$ doz.,	.25
Do., in hermetically sealed glass tubes, per box of 5 tubes,	.25
No. 1 Kodak Tripod, folds in 4 sections (Folding Lugs),	3.75
No. 1 Eastman Tripod, folds in 3 sections,	2.25
Bulls-Eye Tripod, folds in 2 sections,	1.50
Combined Toning and Fixing Solution for Solio, per 8 oz. bottle,	.50
Toning and fixing Solution can be shipped by mail in 4 ounce bottles as follows: 4 ounces Toning Solu- tion ( <i>20c. extra postpaid</i> ),	.30
Kodak Push Pins (for pinning up film negatives while drying), per box of 12,	.25
Eastman's Indexed Negative Albums to hold 100 $3\frac{1}{2} \times 3\frac{1}{2}$ film negatives,	.75

Hyposulphite Soda, pulverized, per pound, . . .	\$ .10
Bromide Potassium, per ounce bottle, . . .	.15
Eastman's Flash Lamp, . . .	1.25
Eastman's Flash Powder, per ounce, . . .	.60
Eastman's No. 1 Flash Cartridges, per pkg., ½ doz., .	.60
Eastman's No. 2 Flash Cartridges, per pkg., ½ doz., .	.40
Eastman's No. 3 Flash Cartridges, per pkg., ½ doz., .	.25
Eastman's Flash Sheets, per pkg., ½ doz., . . .	.25
Eastman's Photo Paste, per 3 oz. tube, . . .	.15
Eastman's Photo Paste, per 5 oz. tube, . . .	.25
Eastman's Kodak Dark Room Lamp, No. 1, 1 in. wick, .	1.50
Eastman's Kodak Dark Room Lamp, No. 2, ¾ in. wick, .	1.00
Eastman's Improved Orange Candle Lamp, . . .	.25
Developing, Printing and Mounting, per pair, . . .	.25
Developing only, per pair, . . .	.12
Printing and Mounting only, per pair, . . .	.16

On orders for developing and printing less than one-half dozen, 25 cents extra will be charged. Prints are always furnished mounted unless otherwise ordered.

Eastman's Film Developing Clips for holding film during strip development, 3½ inch, per pair, . . .	.25
"Picture Taking and Picture Making," 120 pages, profusely illustrated, card covers, . . .	.50
Stereo Mounts, gray, per doz., . . .	.09
Eastman's Film Cutting Board, for cutting up films for development. Order No. 2 for use with No. 2 Stereo Kodak Films, . . .	.25

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### TERMS.

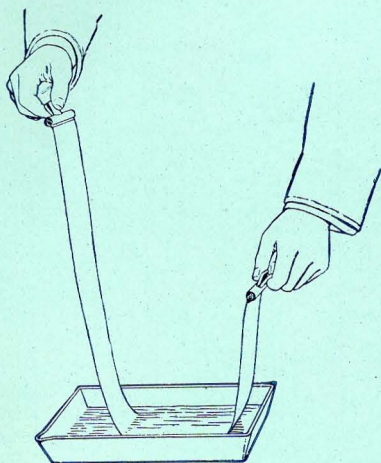
The foregoing prices are strictly net, except to regular dealers who carry our goods in stock.

For the convenience of our customers we recommend that they make their purchases from a dealer in photographic goods, as by so doing they can save both time and expressage.

EASTMAN KODAK COMPANY,  
Rochester, N. Y.

# Eastman's

## Film Developing Clips



do away with the possibility of stained or poisoned fingers. A great convenience in strip developing. Heavily nickeled and suitable for hanging up film while drying.

**One pair  $3\frac{1}{2}$  inch for use with  
No. 2 Stereo Kodak Films, 25c.**

*Sold by Kodak dealers everywhere.*

**EASTMAN KODAK CO.**

**Rochester, N. Y.**

***"If it isn't an Eastman  
it isn't a Kodak."***