

*The*

*Kodak*

*Manual.*

*The Kodak,*  
Copyrighted 1888.  
PATENTED IN THE UNITED STATES,  
GREAT BRITAIN, FRANCE, GERMANY, BELGIUM,  
AND AUSTRIA.  
*Other Patents pending.*

*The*

*Kodak*

*Manual.*

# THE KODAK MANUAL.

Is issued in four parts.

PART I. Directions for making the exposures.

PART II. Directions for reloading the Kodak.

PART III. Directions for making the negatives.

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PART IV. Directions for making the positives. (*In press.*)

Part 1.

MAKING THE  
EXPOSURES.

## CONTENTS.

- First.* Concerning the Kodak when received by the purchaser, and what should be done before using it.
- Second.* How to make Exposures in the Open Air (Outside) when the Sun is Very Bright.
- Third.* Table of Distances.
- Fourth.* How to make Exposures in the house (Interiors).
- Fifth.* General information.—Returning the Kodak to the factory for reloading.

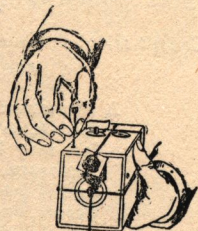
## FIRST.

**CAUTION.**—The Key must not be removed from the Kodak until Part II. has been carefully read. The Key holds the Kodak together; if it is taken out and the Kodak opened, the sensitive film may be ruined.

**E**VERY KODAK is tested before it leaves the factory and is known to be in working condition. That the purchaser may be assured of this fact it is tied and sealed.

*Follow these directions before breaking the Seal.*

1. *Pull the Cord* gently, (from one to two inches) and let it return; *do not let the cord snap back*; repeat this until you can not pull it further; [the strain should be no greater than in winding a watch].
2. *Press the Button.*—This will close the Shutter or Blind in front of the lens—if it be not already closed.



*Remove the seal and tape.*—In doing this the Cap which has thus far concealed the Shutter and lens will be released ; this Cap should be saved for Indoor views (Interiors.)



**The Kodak is now ready for use.**

*Consult table of distances, page 16, before going any further.*

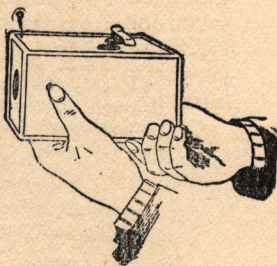
A memorandum book accompanies the Kodak, so arranged that full particulars may be noted concerning each Exposure, such as date, hour, subject, and if interior, light and time of exposure, and other incidents of interest Or, if desired, there may be simply a checking off of each Exposure on the tally card. If kept in either manner the number of Exposures remaining may be known at any time and without trouble of trying to remember.



## SECOND.

**H**OW to make Exposures with the Kodak in the Open Air when the Sun is Very Bright.

1. *Hold it Firmly* with both hands; the key side uppermost.



2. *Hold it Steady.* In order to do this let the right arm rest against the side, the left being extended to support the front.

Though the time needed for an Exposure is only a fraction of a second, the pressing of the Button requires enough force, that, unless the Kodak has some support, it may waver.

## The Principal Thing

To learn in the Kodak is to

### Hold it Steady

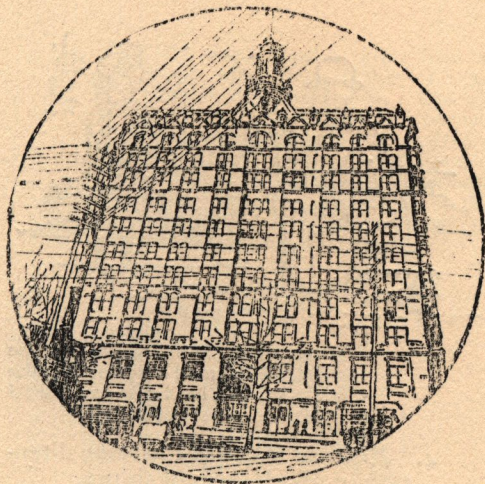
while pressing the button. To do this requires a little practice, and the user will do well to try it a few times with *the plug* in the front, going through all the motions of taking a picture *except turning* the key. Thus (plug in place)

1. Pull cord.
2. Press button.

Repeat several times, then take out the plug and proceed.

3. Hold it Level. The Kodak must be held level.

a. If the operator attempts to Photograph a tall building, while standing near it, by pointing the Camera upwards (thinking thereby to center it) the result will be similar to this :

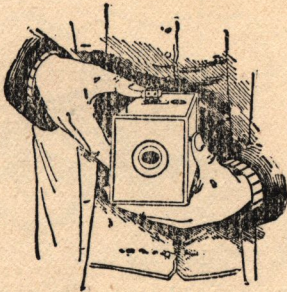


- b. This was pointed too high. This building should have been taken from the window of the middle floor of the building opposite.
- c. The operator should hold the Kodak level, after withdrawing to a proper distance ; see page 16 as to what the proper distance is.



- a.* If the object is low down on the ground, like a small child, or dog, the Kodak should be held down level with the center of the object.
4. *Point the Kodak* in the same direction in which the sun shines.
  - a.* The sun should shine directly upon the object.
  - b.* Photograph the sunny side.
  - c.* Do not attempt to Photograph the shady side.
  - d.* The sun should be at back of the Operator, or over his shoulder—never in front of him.

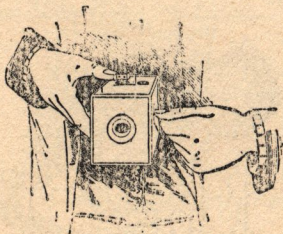
- e. The object must be away from all shade, whether it be that of trees, veranda, or anything else. The full, bright sun must shine (unobstructed) upon the side which it is desired to photograph. If the atmosphere is smoky the picture will be dull and flat.
- f. The sun must never shine on the front of the Kodak while the picture is being taken.



5. *Press the Button.*—To do this without swaying the camera to one side, grasp the Kodak as shown in

the cut, with the left thumb on the button and the ends of the fingers around the corner of the box, giving a leverage whereby the button can be depressed by a muscular contraction of the hand, as in the cut above.

*not* by pushing the whole hand against the camera, as here shown—

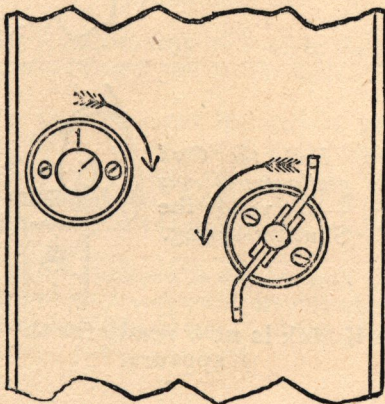
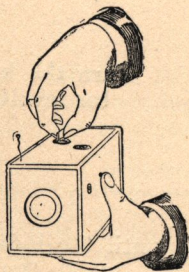


Not like this.

This would sway the camera and blur the picture.

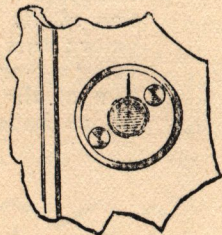
**The first Exposure has now been made.**

6. *Turn the key* so as to make one complete revolution of the indicator; this will bring a new section of the film before the lens.

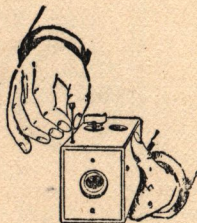


Turn the key to the left (the indicator revolves to the right)

until the indicator stands thus



7. *Pull the Cord  
gently several times*  
—this winds the  
Shuttter-spring.



**The Kodak is now ready for the next  
Exposure.**



If it is intended to make a note of this Exposure, or other incidents concerning it, do it *at once* and so keep a record of it.

It will be wise to make this order of procedure a *Habit*, for then the Kodak will be ready for any view that may be presented. You will not need to try to remember whether you "Pulled the Cord"—let the "Pull the Cord" be the last act of the exposure "gone before."

*Notice this.*

The Kodak cannot be used in the open air (out-of-doors) unless the Sun is Very Bright.

The Kodak cannot be used to photograph Race Horses, going at a fast gait, nor Express Trains in motion, unless especially adapted for this kind of work at the factory. It is designed for ordinary street scenes.

When the shutter is set to work quick enough to catch very swift moving objects, much of the light is lost, and the picture becomes a mere silhouette.

## THIRD.

### TABLE OF DISTANCES.

The Kodak lens being of very short focus the camera can be used at much closer quarters than any other. The range of focus being from  $3\frac{1}{2}$  feet up to the extreme distance, there is no necessity for focusing as with other lenses.

The following table will give the user of the Kodak a good idea of the proper distance to stand from the object to be photographed, to get the proper size. The further the object the smaller it will appear in the picture.

#### For Portraits :

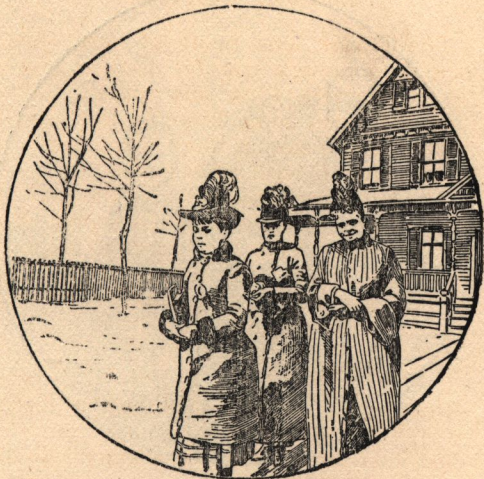
*Heads*, stand 3 feet from object, and the Kodak held level with the chin.

*Half length*, stand 6 feet from object, the Kodak held against the chest.

*Full length*, stand 9 feet from object, the Kodak held below the waist.

*Buildings*, one and one-half times the height.

For Groups :

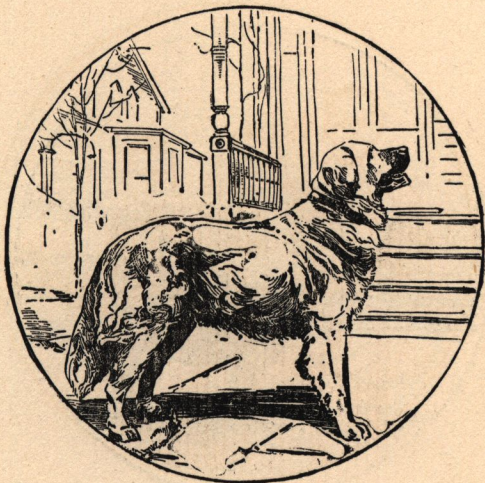


These ladies were 9 feet from the Kodak.

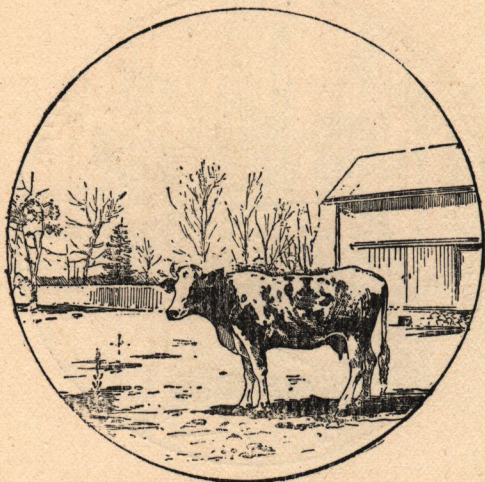


**These children were 6 feet from the Kodak.**

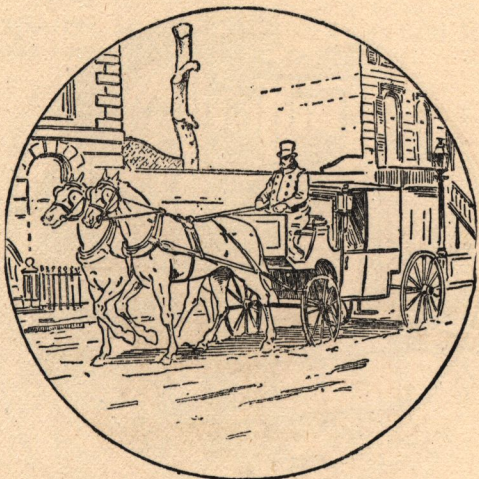
**For Animals :**



**This dog was 6 feet from the Kodak.**

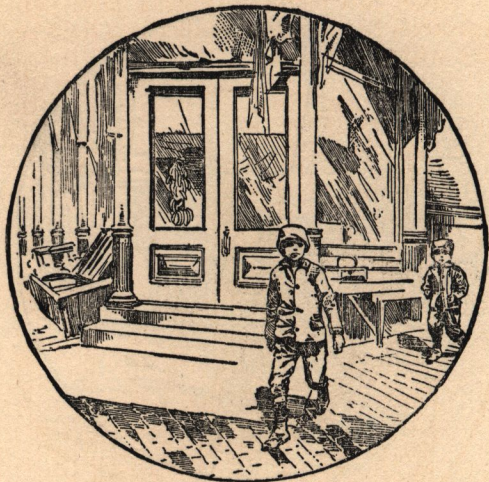


This cow was 15 feet from the Kodak.



These horses were 25 feet from the Kodak.

For Street Scenes :

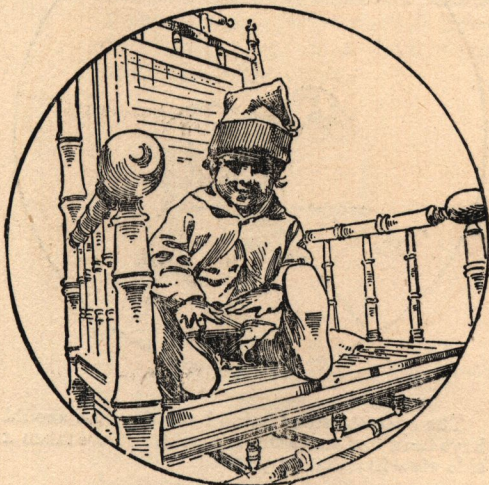


The Kodak was 8 feet from the first figure in the foreground.

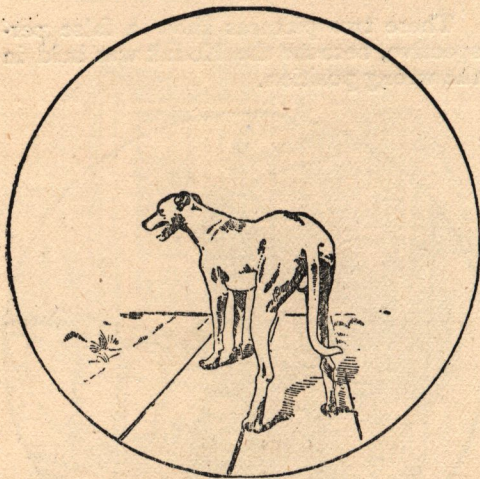


### FALSE PERSPECTIVE.

These two pictures show a false perspective, because the Kodak was held in the wrong position.



The feet were too near; the operator should have stood further to the left.

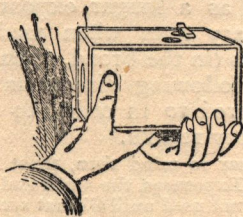


The operator stood behind the dog ; he should have been further to the left, so as to have taken a side view like that on page 19.

## FOURTH.

**H**OW to make Exposures within the House.

1. Stand in some dark place, facing whatever light there may be, and point the Kodak toward the person of the operator, who should have on a dark coat, or a dark wrap thrown over the chest.



While in this position,

2. Press the Button repeatedly until the Shutter refuses to revolve.

Without changing the position of the Kodak, gently push the shutter wide open with the finger; it will catch when on the center, and thus open the lens.

3. Wipe the lens with a soft handkerchief, the finger may have blurred it.
4. Put on the *cap* or *plug*.

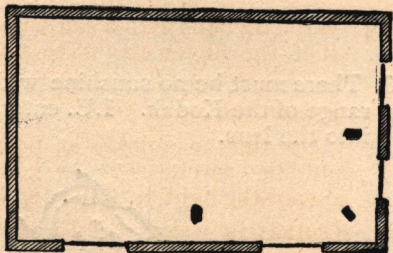
Do this as quickly as possible, and be careful not to point it toward the light until the cap is on.

**The Kodak is now ready for Interiors.**

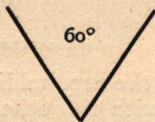
But as a longer exposure is necessary than when made out-of-doors (in the broad, open sunlight) the following directions must be adhered to in order to get satisfactory results.

Bear in mind then, these "Interior" Exposures, the Cord and Button are not used until all that are intended to be made are made. The Cord should then be pulled and the Button pressed in order to close the Shutter, before taking out the plug for outside work.

5. Place the Kodak on some steady support—a mantel, table, buffet, etc.
6. Place the Kodak in a corner of the room, if a general view of the room is wanted.



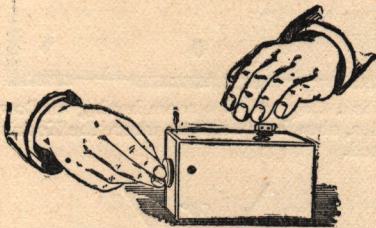
This is a diagram of a room having windows on two sides, showing positions where the Kodak may be placed.



This is the angle of view embraced by the Kodak I.E.—Any object between the lines is included in the picture.

7. Do not point it toward an uncurtained window. Where there are windows within range, draw the curtains or close the blinds so as to allow light to enter only at your back; don't let it come in in front of the Kodak.

8. There must be no sunshine within range of the Kodak. I.E. entering into the lens.



9. Detach the cap, holding the Kodak steady with the other hand; hold the cap an instant in front of the lens and remove the other hand; then when all is steady take away the cap.
- Don't rest the hand on the Kodak during the exposure.
10. Time the Exposure by a watch.

11. Replace the Cap.

At the same time the *one* hand replaces the cap the *other* hand should be placed on the Kodak, so that the cap may be inserted quickly and securely.

12. Turn the key.

13. Make memoranda of everything concerning the exposure.

surroundings,  
light,  
time,  
etc., etc.

If a strict observance be paid to these directions, and the operator makes note of the incidents concerning each exposure, he will learn with little trouble all that is requisite to make this important part of the finest photographs.

**The Kodak is now ready for the next Interior Exposure.**

14. Follow the directions given heretofore for each exposure.

15. When the last Interior Exposure is made, pull the cord *gently* two or three times and press the Button—that the shutter may cover the Lens and so be set for exposures out-of-doors.

**TIME NEEDED FOR INTERIOR EXPOSURES.**

**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 minnte 20 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 three hours  
after sunrise, to three hours before sunset.

If earlier or later, the time required will  
be longer.

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## FIFTH.

**W**HEN the 100 exposures have been  
made the key will refuse to turn.

The Kodak is then ready to return to  
the Eastman Company to be reloaded and  
have the negatives developed and the pho-  
tographs (positives) printed.

**NOTE.**—It is taken for granted here that the  
reader is a novice and does not desire to pursue the  
art except just so far as absolutely required to  
make the exposures. If, however, he desires, he  
can finish his own pictures by following the  
directions given in Parts 3 and 4 of this Manual.  
The difficulties being no greater than those of the  
ordinary dry plate process, and the labor much less.

The Kodak may be sent to us by parcels post.

#### PACKING THE KODAK.

Put in the plug and tie a string around the Kodak to keep it together (see cut page 5); then unscrew the key by turning it to the right; then, having provided an old strawboard box, cut a piece or pieces large enough to cover the Kodak, folding the ends down over the corners to prevent damage; finally, wrap in one thickness of stout manilla paper and tie with a stout cord. Don't seal the package with paste, glue or sealing wax. (*Keep the key and the carrying case.*)

Address as follows:

*The Eastman Dry Plate and Film Co.,*

*115, Oxford Street,*

*London, W.,*

*England.*

*From*  
(Put your own name and  
address here.)

*Prepay the charges*, and don't put any more or any less writing on the wrapper. Then write us a letter as follows :

To The Eastman Dry Plate and Film  
Co., 115, Oxford Street.

GENTLEMEN:—I send you to-day by  
..... my Kodak  
Camera to be reloaded and the pictures  
finished. Enclosed please find £2 2 0  
in money order.  
postal „  
bank check.  
bill (if bills, letter must be registered).

Yours truly,

..... Name.

..... Post Office.

..... County.

On receipt, we will reload the camera and return it *at once* ; the finished pictures will follow in about ten days.

If the Kodak refuses to work or gets out of order, return it to the EASTMAN COMPANY ; it will be repaired free of charge unless badly damaged by accident or carelessness.

NOTE—If either spring in the shutter should break any watch maker will repair it for a few pence. We keep new springs in stock.

If you have any difficulty with the Kodak, *write us*. Every Kodak is perfect when it leaves us, and it is to our interest to see that it reaches the user in the same condition, and that he is provided with every assistance to work it properly.

THE EASTMAN DRY PLATE & FILM Co.,

115, Oxford Street,

London, W.

Part 2.  
REFILLING THE  
KODAK.

**A** GREAT FEATURE of the *Kodak System* is the division of labor whereby the user of the Kodak is relieved of all work connected with the taking of pictures, except merely making the exposure.

To carry out this plan to its fullest extent, the owner, especially if he be a novice, will naturally prefer to return the Kodak to us to have it refilled.

There are instances, however, where this will be impracticable, owing to distance, or a desire to expose more than one roll of film on a trip, without waiting to send to us and back. In such cases it will be desirable for the owner to know how to refill his own Kodak, then he can keep a supply of extra spools and send the rolls of exposures to us whenever convenient.

## TO REFILL THE KODAK.

Provide

- a. An extra spool of Kodak Film (page 63.)
- b. An extra Reel (page 63.)
- c. An Eastman Orange Candle Lamp (page 64.)
- d. A dark room having a shelf or table.

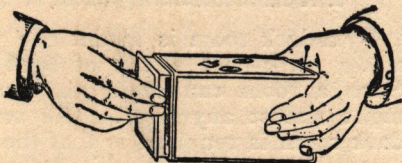
By a dark room is meant one that is *wholly* dark—not a ray of light in it. Such a room can easily be secured at night almost anywhere. The reason a dark room is required is that the film is extremely sensitive to white light, either daylight or lamplight, *and would be spoiled if exposed to it* even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

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.*

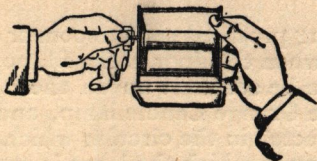
Set the lamp on the table at least eighteen inches from and with the *side* toward the operator.

1. Unscrew the key of the Kodak by turning it to the *right*, and pull out the back of the case thus:



The part removed is the roll holder.

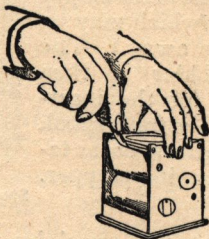
2. Screw the key back into its place thus:



The film will be found all wound on the *reel*, (the roller the *key* turns.)



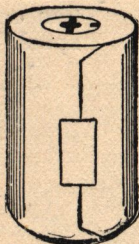
3. Take a sharp knife and sever the film on the side next the empty spool.



4. Turn the center, No. 1, until the figures meet, and lift it out. The reel, with the exposed film wound upon it, can then be lifted out of the roll holder. Replace the center.
5. Remove the fresh spool of film from its box, take off the black wrapper and wrap it around the reel of exposed film, and put the latter in the box and put on the cover.

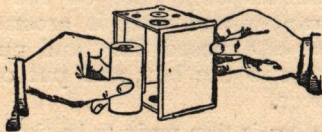
This box is then ready to be tied up in paper and posted to the Eastman Company. For shipping directions see page 32, part 1.

6. Take center, No. 2, out of the roll holder and remove the empty spool, (which may be thrown away.) The roll holder is then ready for the insertion of the fresh spool. This is the spool as taken from its wrapper.



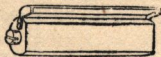
Spool of 100 Films

7. Insert the spool by fitting the slotted end upon the tension head, and put the center, No. 2, back in its place, giving it a half turn to fasten it. The spool should be set squarely into place as shown in the cut.

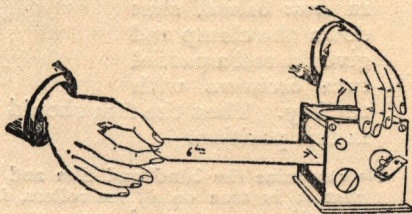


Placing Spool in Roll Holder.

8. Insert the new reel in its place, removing the center, No. 1, and replacing it in order to fasten the reel. This is the reel with the clamp raised.

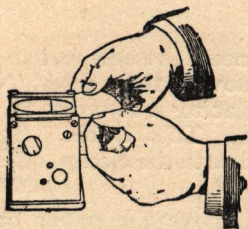


9. Remove the paper band which prevents the film from unwinding, and pull out the end six inches, thus :

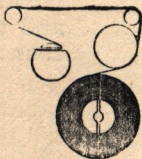


10. Thread the end of the film between the circular mat and the bed of the roll holder.

Thus:





11. Raise the clamp of the reel and thread the end of the film in *from behind*, shut down the clamp and give the reel a partial turn *backward* with the key. Then the film should be in this position.

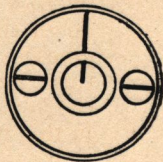


Now examine the band and film and see that it is true on all the rollers, *i. e.*, that there is an equal space at each side between the edge of the film and the side of the roll holder. Also, see that the coils of film have not been allowed to slide edgewise on the spool. If it is

not perfectly true, throw off with the point of a knife the pawl which keeps the reel from turning back. (twist the key while doing this to help loosen the pawl), and thus having loosened the film, slide it edgewise with the flat blade of the knife until it is perfectly true, then *throw on the pawl* and turn the key until the film is tight.

 Do not forget to throw on the pawl which keeps the clamping reel from turning backwards. 

12. Unscrew the key, insert the roll holder in the Kodak, (wipe the lens inside and outside before doing this), replace the key and turn it until the indicator stands thus :



13. Gently pull the cord several times and press the button to make sure the shutter is in position.

**The Kodak is then ready for work.**

Part 3.

DEVELOPING  
KODAK  
NEGATIVES.

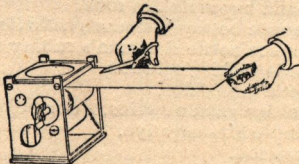
## DEVELOPING.

THE strip of flexible material upon which Kodak pictures are taken, is called the *sensitive film*. When the picture is taken, the film is perforated by an automatic device to mark the division between the pictures; each section is called an "*exposure*." When the exposed film is removed from the camera, as described in the preceding chapter, the image is invisible or latent, and has to be brought out by chemicals, which blacken that part of the film upon which the light has acted. This is called development. When the exposure has been developed, it is called the *negative*, because the lights and shades of the original are reversed. Shadows in the original appear transparent in the negative, and the lights have become opaque. The finished negative is used to print on sensitive paper, as will be described in Part 4, and thus the *positive* or final picture is made.

If, instead of sending the spool of exposed film to the Eastman Company to be developed and printed, the Kodaker wishes to develop and print from his own negatives, he can also learn to do so by following carefully the directions given.

**C**OMMENCING from that point in the preceding chapter, where the exposed film is being removed from the camera, we will proceed.

*Separating the Exposures.*—Instead of removing the reel with the exposures wound on it, bodily from the roll holder, as described in Part 2, throw back the pawl so as to allow the film to unwind, and pulling out the film, as here shown,



cut off the film at every second perforation  
Put the sections in a covered (light tight)  
box until taken out for development.



*The Developing Outfit.*—The following is a list of the articles necessary to develop and finish one hundred Kodak negatives.

*(Implements and materials for printing the positives are not included in this list.)*

*A list of those articles will be found in part IV. (in press.)*

## DEVELOPING OUTFIT.

See Price List.

- 1 Eastman Orange Candle Lamp.
- 6 sheets clear glass,  $6\frac{1}{2} \times 6\frac{1}{2}$  inches.
- 3 5x8 trays.
- 1 tray for stripping,  $6\frac{1}{2} \times 8\frac{1}{2}$ .
- 1 camel's hair brush.
- 1 four ounce graduated glass measure.
- 1 minim graduated measure.
- 1 6-inch velvet rubber squeegee,
- 1 package developer powders.
- 1 ounce bottle bromide potassium.
- 1 pound hyposulphite soda.
- 1 8-ounce bottle Eastman's collodion.
- 1 8-ounce bottle Eastman's rubber solution
- 1 bottle soaking solution.
- 1 bottle intensifier.
- 1 package gelatine skins, 2 doz.,  $6\frac{1}{2} \times 6\frac{1}{2}$ .
- 1 sample film negative.
- 1 glass rod.
- 1 mackintosh blanket.

Also, provide a pail of clear, cold water, a dipper, and a pail for waste.

*Soaking the Exposures.*—Take, say six or eight of the sections of exposed film and put them in one of the trays filled with water. Put them in one at a time, endwise, face up, as shown in this cut,



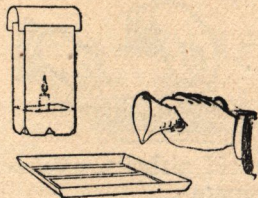
so as to avoid airbells. While they are soaking prepare

*The Developer.*—Take one of the packets of developer and empty the two powders into the 4oz. graduated glass. Fill the measure up to the mark 4 oz., with water, and dissolve by stirring with the glass rod.

*To Develop.*—Take one of the soaked exposures and lay it in one of the empty trays, face up. (The face can be distinguished by the touch, the sensitive side being the smoothest when wet, and the concave side when dry.) Always handle

the exposures by the corners, if the finger touches the center where the image is, it will leave a mark.

Having one exposure in the tray, pour the developer from the graduate on to it.



Then take the camel's hair brush, and having first moistened it in clean water, carefully brush over the face of the film to take off any adhering airbells. Rock the tray gently to equalize the action of the developer. The image will appear faintly in about forty seconds, the sky will appear first, and will continue to grow blacker as the development proceeds. In a few seconds more the outlines of the entire image will show. The development should be continued (in case of instan-

taneous exposures) until all action ceases, then the negatives should be transferred to a tray of clean water to wait for some of its fellows before undergoing the final operations.

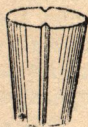
The time of development of an instantaneous exposure will be about ten minutes. More judgment is required in developing time exposures, (interiors,) because the exposure may have been too long or too short, if the operator has miscalculated the strength of the light. If the exposure is too short, only the lightest parts will appear in the negative, the detail in the shadows refusing to appear even under prolonged development. Nothing can be done to remedy such an error, because if the detail is not in the negative, it cannot be printed in the positive.

If the exposure has been too long, however, that can be more easily remedied. The first evidence of such a mistake will be the appearance of the image all over at once, the foreground almost as black as the sky. In such a case the remedy is in

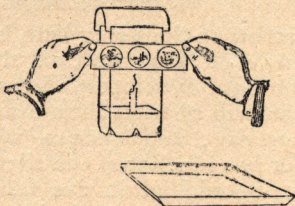
*The Restrainer.*—

Bromide Potassium, 1 oz. Water, 8 oz.

Dissolve the bromide in the water, and keep it in a bottle, consisting of an ordinary bottle having in the cork two notches cut lengthwise on opposite sides. A few drops of the above dropped into the tray of developer, and mixed by rocking it, will restrain the development, cause the image to blacken more slowly in the shadows, and act generally as a neutralizer of the light which has been allowed to act too long on the film. Ten to twenty drops of the restrainer, in four ounces of developer, will usually be sufficient. The development must be continued until the image has attained proper density. This can only be determined by the experience of the operator, who will have to be guided somewhat by the appearance of the sample negative supplied with the outfit. A few trials of different density will give a criterion to go by. For this reason we recommend the novice to develop not more than six or eight exposures to start with, and to carry them through the entire course of



operations to the final printing of the positives before undertaking the remaining exposures. The progress of the development can be examined by looking through the film, as shown in this sketch.



When finished, transfer to tray of clean water as before directed.

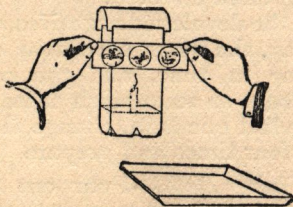
While the developed negatives are lying in the tray, the water should be changed from time to time, and the negatives moved about so as to wash them evenly. After the last one is in, change the water three or four times and prepare

*The Fixing Bath.*—Pour out the developer and wash the tray, put into it two table-spoonfuls of the hyposulphite of soda, and fill the tray half full with cold water; rock or stir until dissolved, and then transfer the negatives one by one from

the water to the fixing bath, sliding them in edge-wise, *face up*, as in sketch.



The function of the fixing bath is to dissolve away all that part of the silver where the light of the image has not penetrated, leaving the negative film clear in those portions, and opaque where the developer has blackened the silver. The negatives should lie in the fixing bath about ten minutes, or until when examined, as here shown,



no uneven, milky blotches, remain on the film.

All the sensitive silver having been dissolved out of the film, it is no longer

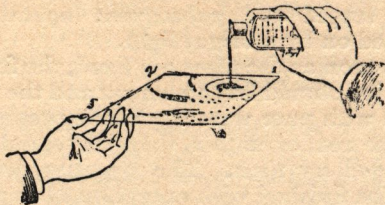
sensitive to white light, hence the orange shade may be removed from the candle at this stage, and subsequent operations carried on by a bright light.

As soon as the films are fixed, the fixing solution should be thrown out and the tray filled with pure water. While preparing for the next operation, the water should be changed *six times*. The negative would now be finished with exception of drying, if it were not for the fact that the image being on paper more or less opaque, it would take too long to print the positive, because the paper obstructs the light. Hence it is desirable to get rid of the paper and substitute a perfectly transparent support. The method of doing this is peculiar to the Kodak film, and is the only *practical* method known of making *film negatives*. To perform the operation, proceed as follows :

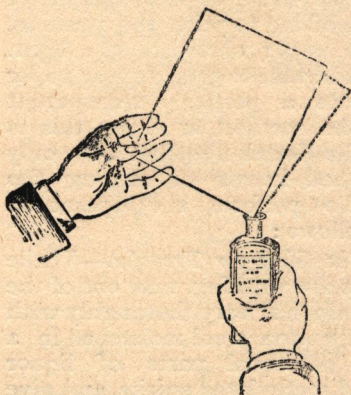
*Preparing the Glass for Transfer.*—While the negatives are washing, take one of the glass plates, clean it very thoroughly with a pledget of cotton wool moistened in a preparation of equal parts of liquor ammonia and methylated spirits, and give it a coat of rubber solution on one side. To perform this operation, grasp the plate by



one corner, and holding the plate level, pour a pool of the solution near the diagonally opposite corner,



tilt the plate to make the solution flow



clear to the edges, first to corner No. 1, then to No. 2, and then let the solution flow in a broad wave down the plate, as shown by the dotted lines, tilting it slightly to

corner No. 3, and finally drain from corner No. 4, as here shown.

at the same time rocking it edgewise, as shown by the dotted lines, to prevent the formation of streaks. As soon as the plate ceases to drip, stand it to dry in a rack formed by driving nails into a piece of board like this :



← *upside  
down*

When the plate is dry it will have assumed an even smoky appearance, and the coating will be tacky to the touch. It will not dry hard, and the slightest touch will injure the surface, hence the fingers must be allowed only to touch the edges.

The next step is to coat the plate with collodion on the top of the rubber. This operation is performed in exactly the same manner as the rubbering. The only difference is, that the collodion is thicker in consistency and sets quickly if not kept in motion, hence the plate must be flowed quickly and carefully rocked while draining.

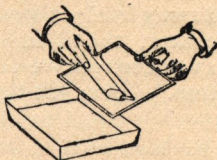
The collodion will set in about one minute (wait two minutes to make sure) and then the plate should be plunged into a tray of water and washed in several changes until, when lifted from the water, no greasy lines appear on the surface. *This will take four or five minutes.* The plate will then be ready for

*The Transfer.*—Lay the prepared plate on top of one of the empty trays and pour upon it as much water as it will hold. Then lift the negatives out of the wash water, one by one, and lay them *face down* on the glass.



Lay the negative down by one corner first and then let it gradually sink down so that the air will not be imprisoned under it. Each glass will hold two sections of two negatives each and hence one glass should be prepared for each four negatives developed. When the two strips are in place, lay on top of them the mackintosh blanket, and grasping the edges of the

plate and blanket, expel all the water from between by the scraping action of the squeegee.



Remove the blanket and take a piece of smooth folded newspaper for a pad and placing it on top of the negative, lay the plate on a level support and put a heavy book on it for *thirty minutes*.

*Stripping the paper.*—Provide a jug of hot water, and having removed the plate from under its weight, lay it in a tray and cover it with cold water, then add hot water until the water in the tray is about as warm as the hand will comfortably bear ( $120^{\circ}$  Fahr.) or until the paper commences to blister. Rock the tray slightly and if the paper does not loosen and float off from the plate, lift the corner with a pin and lift it off. If it comes hard, raise the temperature of the water by pouring warmer water into one end of the tray

until it comes away freely, then leaving the plate under water, rub it lightly with a tuft of cotton wool to remove the adhering soluble gelatine. Then lift the plate out of the water.

If a mistake has been made in developing and the negative does not appear strong enough (this can be judged only by experience), the negative can be improved by

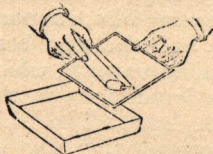
*Intensification.*—Lay the plate in one of the empty trays and pour over it the intensifier; allow it to act until the plate is all of one even color and then pour the intensifier back into the bottle and wash the plate in four or five changes of water for fifteen minutes.

NOTE: This operation will not usually be required as the novice will soon learn to get the proper intensity in the development.

The plate will then be ready for

*Applying the Gelatine Skin.*—Take one of the gelatine skins from the package and immerse it edgewise in a tray containing the soaking solution.

Be sure and immerse it evenly and have the *smooth side down*; when fully covered wait thirty seconds, then slip the plate bearing the negatives under the skin, and grasping both together remove from the solution, lay on the cloth blanket and use the squeegee to expel the water.



Remove the blanket and set in the rack to dry. When dry the plate is ready for

*Collodionising.*— A final coat of collodion on top of the skin completes the operations. This coat of collodion is applied precisely the same as the first coat, but is allowed to dry without washing. The drying is usually completely accomplished in one hour, and when *perfectly dry*, run the point of a penknife around the edge of the skin, and picking up one corner first, pull the

negative off from the glass. If the negative is perfectly dry it will come off easily with some of the coating of rubber adhering to the face. Remove this with a tuft of cotton, moistened in benzine, and the negative is finished.

*The Finished Negative* consists of a very thin image-bearing film, supported on the gelatine skin, and enclosed between two films of collodion varnish, which renders the negatives impervious to the changes of the atmosphere. The sample film negative accompanying the developing outfit will serve as a guide for the novice, and enable him to judge as to the success of his own efforts.

When finished as above, the negative is ready for printing the positive. Each negative will serve for printing an indefinite number of duplicate positives. The methods for making which are fully described in Part 4 of this manual.

NOTE.—Coating the back of the negative with collodion may be dispensed with if the operator prefers.

## KODAK PRICE LIST.

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Kodak Camera, covered with black morocco, loaded with film for 100 negatives, with sole leather carrying case and shoulder strap complete, -	5 5 0
Reloading Camera, developing and finishing negatives, and furnishing one silver print from each negative, mounted and burnished (100 finished photographs) 2	2 0
Developing and Reloading only, - -	1 10 0
NOTE.—Where there are any failures we finish enough duplicates from the good negatives to make up the full number.	
Certificate, good for reloading and printing 2	2 0
Duplicate Prints, mounted like Print in Kodak Primer, 6d. each - per doz. 0	4 6
Duplicate Prints, unmounted for Scrap Book or Album - - - per doz. 0	2 6
Spools of Kodak Film, for 100 negatives, 0	8 0
Price of spools includes postage to any part of Great Britain.	
Developing only, - - - - -	1 1 0
Extra Reels, each - - - - -	0 2 0
Developing Outfit for 100 prints, - -	1 10 0
Printing Outfits for 100 prints, - -	1 5 0
Combined Printing and Developing Outfits 2	2 0



## SUNDRIES.

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Gelatine Skins, per package of 25, 6 x 6, (for 100 Kodak negatives),	2/-
Plain Collodion, per 8 oz. bottle,	2/-
Rubber solution, " " " "	1/6
Soaking " " " "	1/6
Intensifier, " " " "	1/-
Eastman's Orange Candle Lamp	1/-
Bromide Potassium, Crystals, per oz.,	5d.
Hyposulphite Soda, Crystals, per lb.,	5d.
Developer Powders, per package,	3/-
Proto Sulphate of Iron, per lb.,	5d.
Oxalate of Potash, per lb.,	1/6
Citric Acid, 4 oz. bottle,	1/6
Sensitized Albumen Paper, 2 doz. Kodak sheets (3 x 4 inches with rounded corners)	1/-
Sensitized Albumen Paper Disks (circular, 2½ inches diameter), per 2 doz.	9d.
Masks, for printing, per doz.	6d.
Mounts, per doz. 6d. - - per 100	3/-
Printing Frames, 6½ x 8½, - - - -	2/6
10-inch Enlargements from Kodak Negatives mounted on 18 x 22 card,	6/-
Lantern Slides, from Kodak Negatives (each 2/-) - - - per doz.	£1 os. od.
Glass, for Lantern Slides, per doz.,	1/6
Transferotype Paper, for Lantern Slides, per packet of 1 doz.	10d.
Masks and Gummed Paper Strips, for same, per doz.,	1/-
Extra Plugs, for time exposure, - - -	1/-
Shutter Springs, per pair, - - - -	1/-

We are preparing a variety of Albums for Kodak Prints, also Card Mounts and Accessories generally.

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