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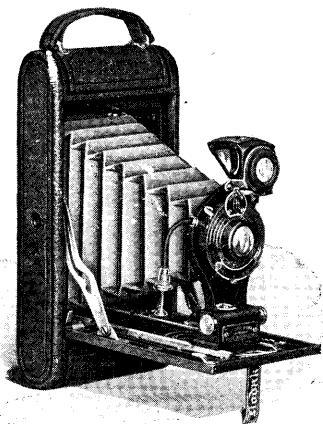
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PICTURE TAKING WITH THE

No. 1A

AUTOGRAPHIC
KODAK



Published by
EASTMAN KODAK COMPANY, ROCHESTER, N.Y.

KODAK

Trade Mark, 1888

**EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.**

MANUFACTURERS OF

Kodak Cameras
Brownie Cameras
Eastman Film
Kodak Film Tanks
Kodak Dry Mounting Tissue
Velox Paper
Solio Paper
Eastman Velvet Bromide Paper
Eastman Royal Bromide Paper
Eastman Standard Bromide Paper
Eastman Enameled Bromide Paper
Eastman Matte-Enamel Bromide Paper
Eastman Tested Chemicals
Tripods and
Other Specialties.

TRADE MARKS REG. U. S. PAT. OFF.

August, 1919.

PICTURE TAKING WITH THE

No. 1A
AUTOGRAPHIC
KODAK

(Rapid Rectilinear and F. 7.7 Anastigmat Lens)



Published by
EASTMAN KODAK COMPANY
Rochester, New York

ORDER FILM BY NUMBER

All Eastman Films may be distinguished by the numbers on the ends of the cartons:

A-116

is the number of film for this camera, (No. 1A Autographic Kodak).

The number appears on the carton, on the cartridge, and on the Autographic door which is located on back of Kodak.

Autographic film can be used in old style Kodaks, old style film can be used in Autographic Kodaks, but to get *autographic results* Autographic film must be used in an Autographic Kodak.

IMPORTANT.

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

BEFORE LOADING.

Before taking any pictures with the No. 1A Autographic Kodak read the following instructions carefully. Make yourself perfectly familiar with the instrument, taking especial care to learn how to operate the shutter. Work it for both time and instantaneous exposures several times before threading up the film.

The first and most important thing for the amateur to bear in mind is that the light which serves to impress the photographic image upon the sensitive film in a small fraction of a second when it comes through the lens, can destroy the film as quickly as it makes the picture. Throughout all the operations of loading and unloading, be extremely careful to keep the red paper wound tightly around the film to prevent the admission of light.

EASTMAN KODAK COMPANY,
Rochester, N. Y.

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PART I.

LOADING WITH FILM.

The film for the No. 1A Autographic Kodak is furnished in light proof cartridges and the instrument can therefore be loaded in daylight. The operation should, however, be performed in a subdued light, not in the glare of the bright sunlight. It should also be



The Film
A-116.

borne in mind that after the seal is broken care must be taken to keep the red paper taut on the spool, otherwise it may slip and loosen sufficiently to fog the film.

The Autographic Film Cartridge is made with a thin red instead of the familiar thick red and black (duplex) paper. The thin red paper is not light proof in itself. Between it and the film is inserted a strip of tissue. This tissue serves two purposes: To supplement the red paper in light proofing the cartridge, and to permit the recording, by light, of the writing upon the film.

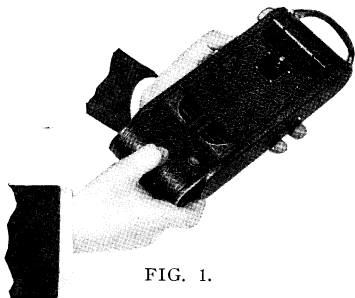


FIG. 1.

I. To load the Kodak, take a position where the daylight is somewhat subdued, and grasping the instrument with the left hand press in with the thumb of the right hand on the con-

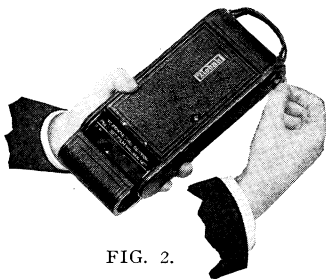


FIG. 2.

cealed button located on the back near the red window and then pull the lower section of back downwards, as indicated in Fig. 1.

Turn Kodak over. Pull out the winding key as shown in Fig. 2. Remove the front of



FIG. 3.

Kodak by first lifting up that end opposite the winding key, then draw out and remove entirely that part of the Kodak. Fig. 3.

II. The Kodak having been opened, an empty spool having a slit in it will be seen in the winding end of the camera. This forms the reel on which the film is wound after ex-

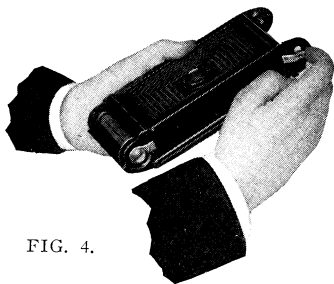


FIG. 4.

posure. The full spool is to be placed in the recess at the opposite end of the Kodak. To accomplish this pull out spool pins as shown in Fig. 4.

III. Place the film cartridge into this recess, as shown in Fig. 5.



FIG. 5.

Be careful to *get the top of the spool at the top of the camera*. The top is the winding side of the camera. Each cartridge is marked with the word "Top" on the red paper near the top of the spool.

NOTE: If the cartridge is inserted wrong end up, the red paper instead of the film will be brought next to the lens, resulting, of course, in the absolute loss of the pictures.



FIG. 6.

IV. Push spool pins into place making sure that the pins are in the holes at each end of the spool, so that the spool revolves upon them. Fig. 5.

V. Remove the gummed slip that holds the end of the red paper; pass the paper over the two aluminum rollers and thread into the longer slit in reel, as shown in Fig. 6. Be careful in so doing that the paper draws straight and true.

To secure a tight grip on the red paper, do not unfold the end, but thread it into the slit

in reel with the paper creased. By doing this the red paper will not be liable to slip.

VI. Give the reel one or two slight turns with the thumb and finger using the rough

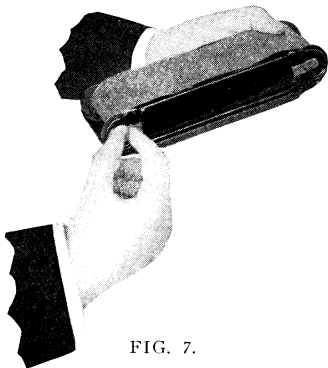


FIG. 7.

edge of the slotted disc into which the winding key fits—just enough to bind the paper on the reel—and no more. See Fig. 7.

The paper should now be in position indicated in Fig. 8.



FIG. 8.

Showing position of paper.

VII. Replace

the front part of Kodak into the back, being careful to insert the end opposite the full spool first, and into the end of back on which the carrying strap is fastened. Then push the lower section of the back upwards, fully into place, until the catch is heard to snap into position.

Throughout the foregoing operation, from the time the gummed slip is cut on the fresh roll of film until the front and back are once more in place, keep the red paper wound tightly on the roll. If it is allowed to loosen, light will be admitted and the film fogged.



FIG. 9.

VIII. The roll of film in the camera is covered with red paper and this must be partly reeled off before a picture can be taken. Turn the key slowly to the left and watch the little red celluloid window in the back of the camera. When 15 to 18 turns have been given, a hand pointing toward the first number will appear, then turn slowly until the figure 1 is exactly in the center of the red window. Fig. 9.

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

PART II.

MAKING THE EXPOSURES.

The general instructions in this No. 1A Autographic Kodak manual apply equally well to the camera, whether fitted with the Rapid Rectilinear or the f. 7.7 Anastigmat Lens.

Before making an exposure with the No. 1A Autographic Kodak, either time or instantaneous, be sure of four things:

FIRST—That the shutter is adjusted properly.

(For instantaneous, time or bulb exposure.)

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

THIRD—That the camera is focused.

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

NOTE: Exposures are made by pressing push-pin at end of cable release D or pushing down on release C.

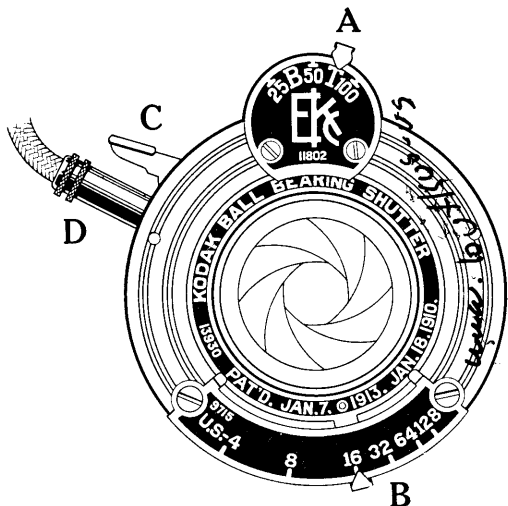
The shutter is self-setting.

Avoid making too sharp a bend in the cable release as by doing so it will be liable to kink.

SECTION I.

OPERATING THE SHUTTER.

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

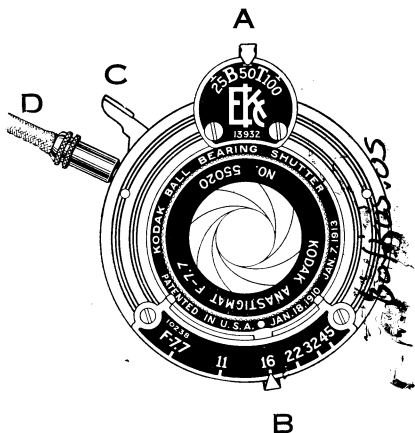


This illustration shows the shutter on the Kodak when it is equipped with the Rapid Rectilinear Lens.

INSTANTANEOUS EXPOSURES.

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

NOTE: The lever A should be used at 100 only when taking moving objects in bright sunshine, and lever B must always be placed at No. 4 or *f.* 7.7 when taking this kind of a picture.



This illustration shows the shutter on the Kodak when it is equipped with the *f.* 7.7 Anastigmat Lens

SECOND—Set the lever B at No. 8 or *f.* 11. Lever B controls the Iris diaphragm and No. 8 or *f.* 11 is the proper opening for ordinary instantaneous exposures in bright sunlight, using speed 25.

NOTE: For instantaneous exposures when the sunlight is unusually strong and there are no heavy shadows, such as in views on the seashore or on the water, use diaphragm No. 16 and speed 50. With *light* clouds or *slightly* smoky atmosphere use No. 4 or *F.7.7* and speed 25. With *heavy* clouds do not attempt instantaneous exposures.

THIRD—Press push-pin or push down on re-

lease C. *This makes the exposure.*

NOTE: Press push-pin with a firm, quick movement, at the same time be sure to hold the Kodak rigid, as a slight jarring will cause a blurred negative.

TIME EXPOSURES.

FIRST—Set the lever A at the point T (time).

This adjusts the shutter for time exposures.

SECOND—Set the lever B at No. 4, 8, 16, 32, 64 or 128. If the Kodak is equipped with the *f.* 7.7 Anastigmat lens, set the lever at *f.* 7.7, 11, 16, 22, 32 or 45. See instructions for the use of the stops for Interior Exposures as given in table on page 35, also the table for Time Exposures in the Open Air, page 37.

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

BULB EXPOSURES.

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

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

SECOND—Set the lever B controlling the stops at No. 4, 8, 16, 32, 64 or 128. If the Kodak is equipped with the *f.* 7.7 Anastigmat lens, set the lever at *f.* 7.7, 11, 16, 22, 32 or 45. See instructions for the use of the stops for Interior Exposures as given in table on page 35, also the table for Time Exposures in the Open Air, page 37.

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

IMPORTANT—*Do not oil any part of the shutter.*

In case of accident return shutter to your dealer or to us, for repairs. As a general rule, make exposures with the cable release instead of with the release C, as the cable release is less likely to jar the camera.

SECTION 2. INSTANTANEOUS EXPOSURES. “SNAPSHOTS”



FIG. 1.
Opening the front.

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

1—FOCUS ON THE SUBJECT.

Press the concealed button as shown in Fig. 1 and push down the bed of camera to the limit of motion. On the camera bed will be found an index

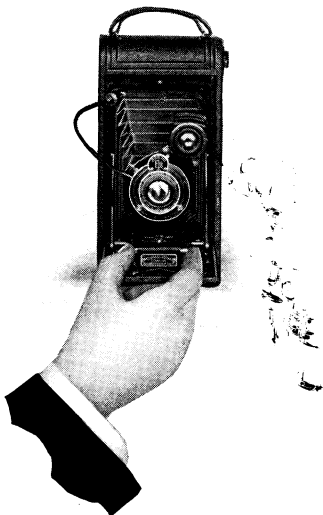


FIG. 2.
Extending the Bellows.

plate with slots marked for 6, 8, 10, 15, 25 and 100 feet. This is for focusing the camera.

NOTE: The index plate is scaled both for feet and for meters and care should be taken not to confound them.

Grasp the bottom of front board, pressing in the spring plungers on each side and pull out front to the point nearest the estimated distance of *principal object* to be photographed

in feet, where it locks automatically. Fig. 2.

Except when working at distances of 15 feet or less, it is not necessary to estimate the distance with any more than approximate accuracy; for instance, if the focus is set at 25 feet (the usual distance for ordinary street work), the sharpest part of the picture will be the objects at that distance from the camera, but everything from 15 to 35 feet will be in good focus. For general street work, the focus may be kept at 25 feet, but where the *principal object* is nearer or farther away, the focus should be changed accordingly. Everything beyond 100 feet is in the 100-foot focus. Nothing nearer than 6 feet can be focused without using a portrait attachment. See page 36.

2—How to use the No. 1-A Autographic Kodak as a fixed focus camera.

SET FOCUS AT 25 FEET.

USE SPEED 25.

SET DIAPHRAGM MIDWAY BETWEEN 8 AND 16,
OR *f.* 11 AND 16.

By following the above suggestions this camera can be used as a fixed focus instrument with the additional advantage of being instantly convertible to a focusing camera when conditions call for it. It must be remembered, however, that when using this Kodak as a fixed focus type, it is necessary that the sub-

ject be in brilliant sunlight, in order to obtain a fully timed exposure.

EXPLANATION.

A lens is often spoken of erroneously as having a fixed focus.

There is no such thing as a fixed focus lens, but in certain cameras, $3\frac{1}{4} \times 4\frac{1}{4}$ and smaller (equipped with short focus lenses) the lens is immovable, *i. e.*, set at a distance that is a compromise, as to its focus, between far and near points. A camera with a lens so focused used in combination with a relatively small stop, is designated a fixed focus instrument.

3—USE STOP No. 8 or F. 11.

For all ordinary outdoor work, when the sun is bright, use stop No. 8 or *f.* 11 and use speed 25. If a smaller stop is used for ordinary snapshots, the light will be so much reduced that it will not sufficiently impress the image on the film and failure will result.

In views on the water, when the sunlight is *unusually strong*, and there are no heavy shadows, diaphragm No. 16 and speed 50 may be used.

If a smaller stop opening than No. 16 is used for snapshots, *absolute failure will result*, except that No. 32 or *f.* 22 may be used for extremely distant views, marine or snow scenes or clouds, in bright sunshine, at speed 25.

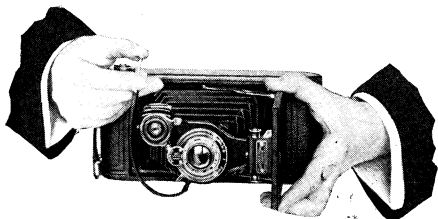


FIG. 3

4—LOCATE THE IMAGE.

Aim the camera at the object to be photographed and locate the image in the finder. For a horizontal picture hold the camera as shown in Fig. 3, reversing the finder as indicated. Always look into the finder from directly over it, *not at an angle.*



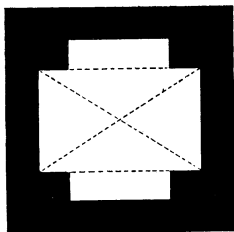
FIG. 4.

For a vertical exposure the camera must be held as shown in Fig. 4. The finder gives the scope of view and shows a facsimile of the picture as it will appear, but on a reduced scale.

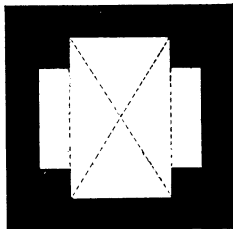
Any object that does not show in the finder will not show in the picture.

It will be noticed that the top of the finder is notched as shown in Fig. 5. This is done so that one finder will correctly show the view included when the Kodak is held in either horizontal or vertical position. As the picture taken with the 1A Autographic Kodak is oblong it will readily be seen that unless the finder was made in this manner it could not correctly show the exact view intended when held in either position.

Remember that only the view indicated by the dotted lines will show in the picture.



VIEW INCLUDED WHEN
MAKING A HORIZONTAL
PICTURE.



VIEW INCLUDED WHEN
MAKING A VERTICAL
PICTURE.

FIG. 5.



IMPORTANT.

MAKING INSTANTANEOUS EXPOSURES.

**Hold the instrument firmly against
the body as shown in illustrations,**



and when operating the cable release
or pressing the exposure lever, hold
the breath for the instant.

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

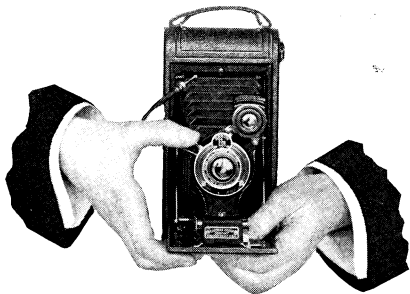


FIG. 6.

5—HOLD IT LEVEL.

The Kodak must be held level.

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

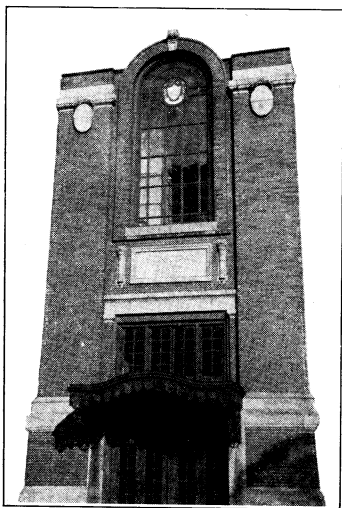


FIG. 7.
Effect produced by tilting the camera.

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

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

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

**6—PRESS PUSH-PIN AT END OF
CABLE RELEASE.**

HOLD THE KODAK STEADY,
HOLD IT LEVEL AND
PRESS PUSH-PIN.

This makes the exposure.

7—THE AUTOGRAPHIC FEATURE.

The Autographic Kodak has a spring door on the back, covering a narrow slot through which the writing is done upon the red paper. The slot is provided with an automatic safety

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

Band Concert, Maplewood Pk. 7/3/16

George Edward learns to walk, 7/10/16

Empire State Express, f.6.3. 1/200 sec

Moving Day, 111 Fulton Ave. 2/19/16

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

An Autographic Negative.

spring border which operates when the door is open to press the papers into contact with back of the film, thus securing the sharp printing of the image of the writing and preventing the diffusion of light around the edges of the slot. This slot is located so that normally the writing comes between the exposures.

The "Autographic Record Strip" printed above is merely to suggest a few of the thousand and one ways in which autographic records may be used to add value to your negatives.

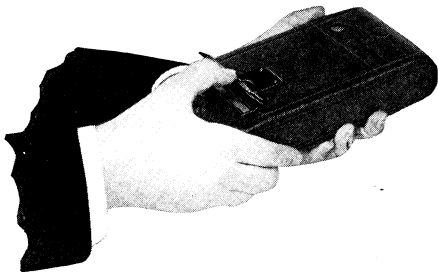


FIG. 8.

The Autographic Record, as a Guide—Many amateurs have distinctly improved the quality of their work by making notes, at the time of exposure, of the prevailing conditions. As: Bright light—1/50 second. Stop No. 8, which, by the way, can be easily abbreviated to—B. 1/50, 8. By keeping such records the amateur can quickly find the causes of failure, if any. By comparing negatives and records he will soon get a line on his errors and when he knows what his errors are he can easily rectify them. It is obvious that the best way to make these records is autographically, *on the film, at the time.*

THE OPERATION.

After the picture is taken lift up the spring door on back of Kodak with thumb (Fig. 8). Use the stylus, held in as upright a position as is convenient, and write on the strip of exposed red paper any memorandum desired,

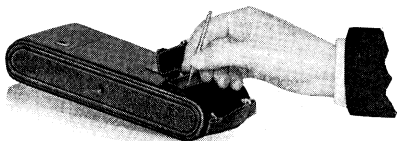


FIG. 9.

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

such as the title of the picture, the date, or details in regard to the exposure, light, stops, etc., (Fig. 9).

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

following table :

(Expose to the sky, but not to the sun.)

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

INCANDESCENT LIGHT, distance 2 inches, 30 to 60 seconds.

WELSBACH LIGHT, distance 6 inches, 30 to 60 seconds.

Close the door before winding a new film into place.

Caution. In order to locate the writing accurately in the space between the negatives it is important that the film should be turned so that the exposure number centers perfectly in the red window in the back of the Kodak.

TURN A NEW SECTION OF FILM INTO POSITION : Turn the key in top of camera slowly to the left, until the next number appears before the red window. Three or four turns will be sufficient to accomplish this. See Fig. 10. The warning hand appears only before No. 1.

Repeat the foregoing operations for each picture.



FIG. 10.

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

SECTION 3.

TIME EXPOSURES.

INTERIORS

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

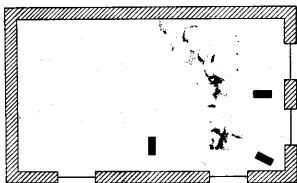


Diagram showing positions of Kodak.

The diagram shows the proper positions

for the Kodak. It should not be pointed directly at a window, as the glare of light will blur the picture. If all the windows cannot be avoided, pull down the shades of such as come within range of the Kodak.

To make a time exposure, place the Kodak on some firm support, like a chair or table, and focus as before described. Be sure, however, to place the Kodak not more than two or three inches from the edge of the chair or table, so as to avoid including part of same in the picture.

Fig. 1 shows the Kodak in position for a vertical exposure. The Kodak is also provided with tripod sockets and may be used on a tripod.

When it is desired to make a horizontal time

exposure without the use of a tripod, pull down lever on the bed of Kodak and which is located on the side opposite to the focusing scale and place Kodak in position as shown in Fig. 2.

Adjust the shutter for a time exposure as described on page 15.

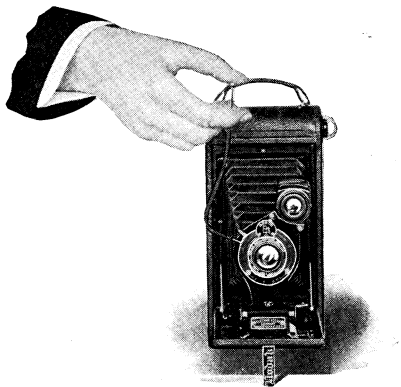


FIG. 1.

All being in readiness press the push-pin or touch the lever once to open and again to close the shutter. Time the exposure by a watch.

TURN THE KEY.

After making the autographic record, turn a new film into position as described before, (see page 30).

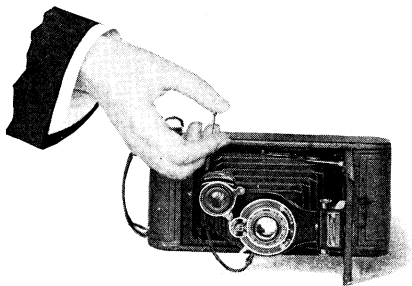


FIG. 2.

THE KODAK IS NOW READY FOR THE NEXT INTERIOR EXPOSURE.

Follow the directions given heretofore for each successive exposure.

When the last Interior Exposure is made, adjust the shutter for instantaneous exposures as before directed.

TIME NEEDED FOR INTERIOR EXPOSURES.

The following table gives the time of the exposure required under varying conditions of light for the Kodak equipped with either the *R. R.* or *f. 7.7 Anastigmat Lens*. The time given in the table is with the stop No. 16 in the lens. If the stop No. 8 or *f. 11* is used, give only one-half the time; if the stop No. 128 or *f. 45* is used, give 8 times the time of the table.

The smaller the stop the sharper the picture.
The No. 16 gives the best results for interiors.

White walls and more than one window :

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

White walls and only one window :

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

Medium colored walls and hangings and more
than one window :

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

Medium colored walls and hangings and only
one window :

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

Dark colored walls and hangings and more
than one window :

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

Dark colored walls and hangings and only one window:

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

The foregoing is calculated for rooms whose windows get the direct light from the sky, and for hours from three hours after sunrise until three hours before sunset.

If earlier or later, the time will be longer.

TO MAKE A PORTRAIT.

Place the sitter in a chair partly facing the Kodak (which should be located slightly higher than an ordinary table) and turn the face slightly toward the instrument having the eyes centered on an object at the same level with the lens. Center the image in the finder. For a three-quarter figure the Kodak should be from 6 to 8 feet from the subject; and for a full figure from 8 to 10 feet. The background should form a contrast with the sitter.

KODAK PORTRAIT ATTACHMENT.

The attachment is simply an extra lens slipped on over the regular lens and in no way affects its operation except to change the focus.

When Kodak is fitted with the R. R. Lens, use the Kodak Portrait Attachment No. 3.

When equipped with the *f.* 7.7 Anastigmat Lens, use No. 13.

By means of the Portrait Attachment, large head and shoulder portraits of various sizes may be obtained. With the Attachment in position and the Kodak set:

At 6 feet focus, place the subject exactly 2 feet 8 inches from the lens.

At 8 feet focus, place the subject 3 feet from the lens.

At 15 feet focus, place the subject $3\frac{1}{2}$ feet from the lens.

At 25 feet focus, place the subject 4 feet from the lens.

At 100 feet focus, place subject $4\frac{1}{2}$ feet from the lens.

TIME EXPOSURES IN THE OPEN AIR.

When the stop No. 128 or *f.* 45 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— $\frac{1}{5}$ second.

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 foregoing table is calculated for the same hours as mentioned for Interiors, page 36, but 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 exposures to give.

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

For exceedingly short time exposures as above described use the "bulb exposure." See page 15.

"F." AND "U. S." SYSTEMS.

A lens is said to work at a certain "speed," this means that the lens will cut sharp to the corners, with an opening a certain proportion of its focal length. It should be borne clearly in mind that this speed depends *not* upon the size of the opening, but upon the size of the opening in *proportion to the focal length of the lens* (distance from lens to plate when focused on infinity). The lens that will cut sharp with the largest opening is said to possess the greatest speed.

Such openings are termed stop or diaphragm openings, and for convenience in estimating exposures, are arranged according to two sys-

tems, the *f.* system and the Uniform System, or U. S. system, as commonly abbreviated.

In the *f.* system, the proportional size or "value" of the stop opening is designated by "*f*", and is the quotient obtained by dividing the focal length of the lens by the diameter of the stop.

Taking, for instance, a lens of 8 inch focus with a stop 1 inch in diameter, we find that $8 \div 1 = 8$; hence, 8 is the *f.* value of the stop and would be designated *f.* 8. Suppose the stop is $\frac{1}{4}$ inch in diameter, we would then have $8 \div \frac{1}{4} = f. 32$.

For convenience, the Uniform System of marking stop openings has been adopted by nearly all manufacturers of Iris diaphragms. Such convenience is at once apparent when we understand that each higher number stands for an opening having *half* the *area* of the preceding opening, each smaller stop (or higher number) requiring double the time of the one next larger.

With the *f.* system, each stop is a certain proportion of the focal length and not arranged with reference to the other openings.

Diaphragms.

As a number of exposure meters and similar devices for determining the proper exposure are based upon the "f" system, we give the following table showing the "f" value for each of the Uniform System openings:

U. S. 4= $f.8$
 U. S. 8= $f.11$
 U. S. 16= $f.16$

U. S. 32= $f.22$
 U. S. 64= $f.32$
 U. S. 128= $f.45$

NOTE: U. S. 4 equals $f.8$, but the speeds of $f.8$ and $f.7.7$ are so nearly identical that the same exposure would be given in either case.

U. S. 4= $f.8$, $f.7.7$ —For instantaneous exposures on *slightly* cloudy days, using speed 25.

U. S. 8= $f.11$ —For *all ordinary instantaneous exposures* when the sun shines and use speed 25.

U. S. 16= $f.16$ —For instantaneous exposures when the sunlight is unusually strong and there are no heavy shadows, such as in views on the seashore or on the water, using speed 50; also, for interior "Time" exposures, the time for which is given in the table on page 35.

U. S. 32= $f.22$ —For instantaneous exposures of extremely distant views, marine or snow scenes, or clouds, in bright sunshine, at speed 25; also for time exposures.

U. S. 64 and 128= $f.32$ and 45—For interiors. *Never for instantaneous exposures.* For "Time" exposures outdoors in cloudy weather. 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.

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

SECTION 4.

FLASH-LIGHT PICTURES.

By the introduction of Eastman Flash Sheets, picture taking at night has been wonderfully simplified. A package of flash sheets, a piece of cardboard, a pin and a match complete the list of essential extras, although a Kodak Flash Sheet Holder is a great convenience.

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

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

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

PREPARATION FOR THE FLASH—The camera should be prepared for time exposures, as directed on page 15 of this manual (except that the No. 8 or *f.* 11 stop must be used), and placed on some level support where it will take in the view desired.

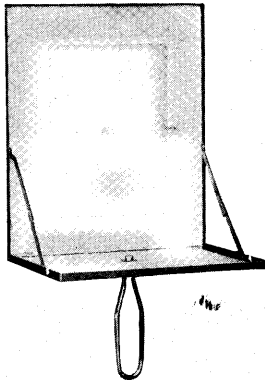
Pin a flash sheet by one corner to a piece of cardboard which has previously been fixed in a perpendicular position. If the cardboard is white it will act as a reflector and increase the strength of the flash.

The flash sheet should *always* be placed two feet behind and two or three feet to one side of the camera. If placed in front, or on a line with front of Kodak, the flash would strike the lens and blur the picture. It should be placed at one side as well as behind, so as to throw a shadow and give a little relief in the lighting. The flash should be at the same height or a little higher than the camera. The support upon which the flash is to be made should not project far enough in front of it to cast a shadow in front of the Kodak. An extra piece of cardboard a foot square placed under the flash sheet will prevent any sparks from the flash doing damage. However, by using the Kodak Flash Sheet Holder, all these contingencies are taken care of, and we strongly advise its use.

THE KODAK FLASH SHEET HOLDER.

This holder may be held in the hand, *always between you and the flash sheet.*

Or it may be used on any tripod, being provided with a socket for this purpose. The sheet is placed in position in the center of the larger pan over the round opening which has a raised saw tooth edge extending half way around it. Press with the thumb on the



sheet, so slight break is made and a portion of the sheet projects partially through the opening. Then to insure the sheet being more securely fastened, press around the notched edge, forcing this portion of flash sheet firmly into position on the pan.

Then to set off the flash, merely insert a lighted match, from behind, through the round opening.

TAKING THE PICTURE.

Having the Kodak and the flash sheet both in position, and all being in readiness, open the

camera shutter, stand at arm's length and touch a match from behind through the round opening in the center.

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

There will be a bright flash which will impress the picture on the sensitive film. Then close the shutter, make the autographic record by following the table as given on page 30, and turn a fresh film into place with the key, ready for another picture.

THE FLASH SHEET.

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

TABLE.

For 10 feet distance and light walls and hangings	use 1 No. 1 sheet.
.. 10 dark 1 No. 2 sheet.
.. 15 light 1 No. 2 sheet.
.. 15 dark 1 No. 3 sheet.

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

TO MAKE A PORTRAIT—Place the sitter in a chair partly facing the Kodak (which should be located slightly higher than an ordinary table) and turn the face slightly towards the instrument, having the eyes centered on an object at the same level with the lens. The proper distance from the camera to the sub-

ject can be ascertained by looking at the image in the finder. For a three-quarter figure this will be from 6 to 8 feet, and for a full figure from 8 to 10 feet.

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

For using Portrait Attachment, see page 36.

TO MAKE A GROUP—Arrange the chairs in the form of an arc, facing the Kodak, so that each chair will be exactly the same distance from the camera. Half the persons composing the group should be seated and the rest should stand behind the chairs. If the group is large any number of chairs may be used, but none of the subjects should be seated on the floor, as sometimes seen in large pictures, because the perspective will be too violent.

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

The *finder* on the camera will aid the opera-

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

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

EASTMAN FLASH CARTRIDGES.

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

CLOSING THE KODAK.

When through using the Kodak fold the bellows by reversing the operation shown in Fig. 2, page 17, and press down on arm locks on each side of bed, as shown below. The bed will now close readily.



CAUTION.

Before closing the bed of the camera, be careful to note that the finder is in the upright position, and that the front board has been pushed back to the limit of motion.

If they are in proper position they will not interfere with the bed in closing.

Avoid making too sharp a bend in the cable release, when closing the camera, as by doing so it will be liable to kink.

PART III.

REMOVING THE FILM.

No dark-room is required for changing the spools in the No. 1A Autographic Kodak. The operation should, however, be performed in a subdued light.

I. When the last section of film has been exposed, and the autographic record of your name has been made as described on page 31, turn the key until *all* of the red paper is on the reel.

II. Provide an extra spool of film to fit this camera, and take a position where the daylight is somewhat subdued.

III. Remove the front section from the back of the Kodak as before described, page 7.

IV. Hold ends of red paper and sticker together to prevent paper from loosening on reel.

NOTE: If sticker folds under roll, raise it up with the point of a lead pencil.

V. Pull out spool pin and the slotted disc into which the winding key fits, and lift out roll of film as shown in Fig. 1.

VI. Fold over half inch at end of red paper

(so as to make subsequent breaking of the seal easy), and then seal with sticker.

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

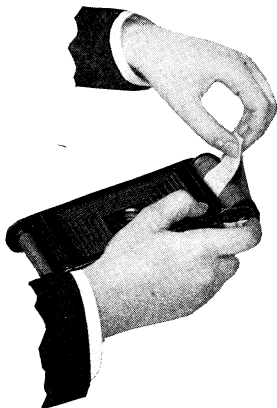


FIG. 1.

Removing the Cartridge of Exposed Film.

VIII. Now take out the empty spool by drawing out the center pins which hold it in place. Fig. 2.

IX. Slip the spool into place at the winding end of camera (this will form the new reel), fitting the web which is attached to the slotted

disc into which the winding key fits into the slot in the end of spool, as shown in Fig. 3. Now push the axis pin into the hole in the opposite end of spool.

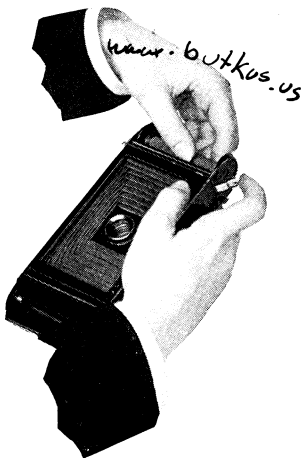


FIG. 2.

Pulling out Center Pins to remove Empty Spool.

X. Load as described in Part I, page 5.

IMPORTANT.

Autographic Film should be developed as promptly as possible after exposure.

The quality of the image on all sensitized products is retained by immediate development after exposure.

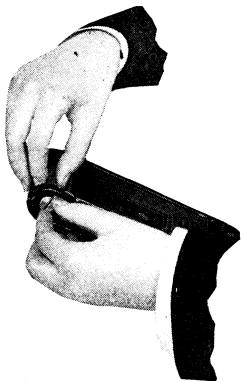


FIG. 3.
Fitting slotted disc into winding reel.

“CINCH MARKS.”

If the film and paper loosen up a trifle when taken from the camera, many amateurs are likely to take the cartridge in the hand and

wind it as closely as possible "cinching" it tightly with a winding motion. There's nothing more likely to injure the negative than this tight drawing of the film as it abrades the surface, making fine parallel scratches running lengthwise of the film, which in some cases, will ruin the negative. *Do not "cinch" the cartridge.* It simply needs to be wound tightly enough so that the red paper keeps inside the flanges.

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.

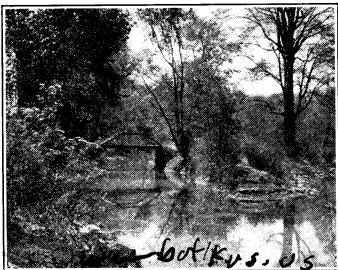
Whatever the cause, the result is the occasional dimming of finders and lenses. With finders the trouble is sometimes in the mirror, which necessitates opening the finder and wiping the mirror by means of a soft cotton cloth.

To clean the mirror and lens in the finder on the No. 1A Autographic Kodak, wind the corner of a clean handkerchief around the end of a lead pencil and pass between lens and mirror or if found necessary, the finder may be opened and cleaned in the following manner: First collapse the finder, then push down on the upper edge and draw it back, when the

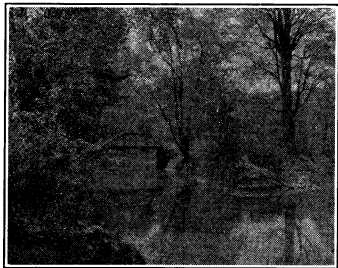
finder will spring open, and can easily be cleaned with a handkerchief.

CLEAN LENSES.

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



Clean Lens.



Slightly Dirty Lens.

Lenses should be frequently

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

KEEP DUST OUT OF THE CAMERA.

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

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

Load your Kodak
with Eastman Film

Look for this Trade Mark on the Box

EASTMAN
Autographic
N-G

FINISHING THE PICTURES.

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

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

For use with the No. 1A Autographic Kodak Film (No. A-116), provide, preferably, a 2½ inch Kodak Film Tank. (This film may be developed in the larger tanks but not so economically).

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

In keeping with our plan and purpose to provide the users of our cameras with every help in the production of good pictures, we will be glad to furnish such developing and

printing instructions, at any time, whether a tank or outfit is purchased or not.

With the Kodak Film Tank and Velox paper many amateurs find as great pleasure in the finishing of the pictures as in the taking of them, and are able to produce, by the simple methods we have perfected, work of the highest order.

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

EASTMAN KODAK CO.,

Rochester, N. Y.

PRICE LIST.

No. 1A Autographic Kodak, fitted with Rapid Rectilinear Lens and Kodak Ball Bearing Shutter, for pictures $2\frac{1}{2} \times 4\frac{1}{4}$ (not loaded), - - - -	\$19.73
No. 1A Autographic Kodak, fitted with <i>f.</i> 7.7 Kodak Anastigmat Lens and Kodak Ball Bearing Shutter, for pictures $2\frac{1}{2} \times 4\frac{1}{4}$ (not loaded), - - -	26.13
Black Sole Leather Carrying Case, with strap, - - - - -	3.00
Soft Leather Carrying Bag with strap, - - -	2.50
Imitation Leather Carrying Case, - - -	2.25
Kodak Portrait Attachment No. 3, for use with No. 1A Autographic Kodak with Rapid Rectilinear Lens, - - -	.50
Do., No. 13, for use with No. 1A Autographic Kodak with <i>f.</i> 7.7 Anastigmat Lens, - - - - -	.50
Kodak Color Filter and the Kodak Sky Filter No. 3, for use with No. 1A Autographic Kodak with Rapid Rectilinear Lens, - - - - -	.75
Do., No. 13, for use with No. 1A Autographic Kodak with <i>f.</i> 7.7 Anastigmat Lens, - - - - -	.75
Autographic Film Cartridge, A-116, 12 exposures, $2\frac{1}{2} \times 4\frac{1}{4}$, - - - - -	.52
Do., 6 exposures, - - - - -	.26
Do., 2 exposures, - - - - -	.13
Kodak Film Tank, $2\frac{1}{2}$ inch, - - - - -	4.00
Duplicating Outfit for same, - - - - -	2.00

Prices subject to change without notice.

Kodak Tank Developer Powders for 2½ inch Tank, per pkg. ½ doz., - - -	\$.20
Eastman A. B. C. Developing and Print- ing Outfit, for dark-room development (for 4 x 5 negatives or smaller) com- plete, - - - - -	1.65
Kodak Acid Fixing Powder, per lb., -	.25
Do., per ½ lb., - - - - -	.15
Do., per ¼ lb., - - - - -	.10
Eastman Hydrochinon Developer Pow- ders (do not stain the fingers), per doz. pairs, - - - - -	.70
Do., per ½ doz. pairs, - - - - -	.35
Eastman Pyro Developer Powders (for dark room development), per doz. pairs, - - - - -	.50
Do., per ½ doz. pairs, - - - - -	.25
Eastman Hydrochinon Developer Pow- ders in sealed glass tubes, per box of 5 tubes, - - - - -	.35
Eastman Pyro and Special Developer Powders in sealed glass tubes, per box of 5 tubes, - - - - -	.25
Glass Stirring Rod Thermometer, - -	1.00
Eastman Printing Masks, No. 4, for use with No. 1A Kodak Negatives, each	.06
Velox Paper, per dozen sheets, 2½ x 4¼,	.12
Nepera Solution (for developing Velox), 4 oz. bottle, - - - - -	.28

Prices subject to change without notice.

Velox Transparent Water Color Stamps, complete booklet of 12 colors, - - -	\$.25
Velox Transparent Water Color Stamp Outfit, consisting of Artist's Mixing Palette; three special Camel's Hair Brushes and one book of Velox Transparent Water Color Stamps, (12 colors), - - - - -	.75
Solio Paper, 2 doz. sheets, 2½ x 4¼, -	.20
Combined Toning and Fixing Solution for Solio, per 8 oz. bottle, - - - -	.50
Do., 4 oz. bottle (in mailing case, in- cluding postage, 50 cents), - - - -	.30
Eastman Reducer, per box 5 tubes, - -	.50
Royal Re-developer, per pkg. 6 tubes,	.75
Eastman Flash Sheets, No. 1, per pkg. ½ doz., - - - - -	.35
Do., No. 2, - - - - -	.56
Do., No. 3, - - - - -	.84
Kodak Flash Sheet Holder, - - - -	1.00
Kodak Dry Mounting Tissue, 3 doz. sheets, 2½ x 4¼, - - - - -	.10
Eastman Film Developing Clips (nick- eled), 3½ inch, per pair, - - - - -	.25
Kodak Junior Film Clips, No. 1, each,	.12
Kodak Print Roller, Double, 6-inch, -	.90
Flexo Print Roller, Single, 4-inch, - , -	.25
Kodak Metal Tripod, No. 0, - - - - -	2.75
Do., No. 1, - - - - -	4.00

Prices subject to change without notice.

Kodak Metal Tripod, No. 2, - - - -	\$4.50
Leatherette Carrying Case for Nos. 0 or 1	1.00
Leather Carrying Case for Nos. 0, 1 or 2 Kodak Metal Tripod, - - - -	2.50
Bull's Eye Tripod, - - - -	2.00
Kodak Dark Room Lamp, No. 2, $\frac{5}{8}$ -inch wick, - - - -	1.00
Eastman Film Negative Album, to hold 100 $2\frac{1}{2}$ x $4\frac{1}{4}$ negatives, - - - -	.75
Eastman Photo Blotter Book, for blot- ting and drying prints, - - - -	.40
Kodak Trimming Board No. 2, capacity 7 x 7 inches, - - - -	.70
Baltic Mounts, $2\frac{1}{2}$ x $4\frac{1}{4}$, per 100, - -	2.20
Do., per 50, - - - -	1.10
Agrippa Album, flexible leather cover, loose leaf, 50 black linen finish leaves, size 7 x 11, - - - -	2.50
Do., cloth cover, - - - -	1.40
Developing Film only, $2\frac{1}{2}$ x $4\frac{1}{4}$, per roll of 12 exposures, - - - -	.35
Do., per roll of 6 exposures, - - - -	.20
Printing and mounting only, on Velox, $2\frac{1}{2}$ x $4\frac{1}{4}$, each, - - - -	.09
Printing on Velox, unmounted, $2\frac{1}{2}$ x $4\frac{1}{4}$, each, - - - -	.07

All prints furnished unmounted unless other-
wise specified.

NOTE: If 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 remit-
tance.

Prices subject to change without notice.

8 x 10 Bromide Enlargements, mounted	
on cards, each, - - - - -	\$.75
Do., 10 x 12, - - - - -	1.00
Do., 11 x 14, - - - - -	1.25
Do., 14 x 17, - - - - -	1.50

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

Prices subject to change without notice.

EASTMAN KODAK COMPANY,

ROCHESTER, N. Y.

IMPORTANT.

When ordering a carrying case or any other accessory listed for use with this Kodak, please be sure to specify the correct name of Kodak, "**No. 1A Autographic Kodak**". By doing this you will help to avoid making any mistakes, when filling your order.

Be Sure to Use Pure Chemicals.

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

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

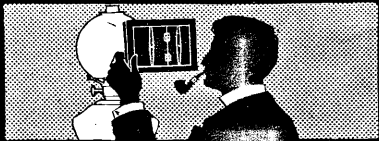
But we go even further than this. For those who prefer to mix their own solutions by formula, we have prepared a line of carefully tested standard photographic chemicals.

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

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



EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.



Prints by Gaslight

The best print you can get on

VELOX

is the best print you can get.

You will find many a valuable photographic pointer in the Velox Book. It's free and your dealer would be glad to give you one—or we will send it to you if you like.

NEPERA DEPARTMENT,
EASTMAN KODAK COMPANY,
Rochester, N. Y.

At your dealers'.

*“If it isn’t an Eastman,
It isn’t a Kodak.”*