INSTRUCTION BOOK

Panoram-Kodak No. 4

PRICE, 10 CENTS.

EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

KODAK
Trade Mark. 1888.

EASTMAN KODAK COMPANY,
Rochester, N. Y.

MANUFACTURERS OF

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

Sept., 1903.

THE

PANORAM-KODAK No. 4

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INSTRUCTION BOOK.

♦

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

BEFORE LOADING.

Before taking any pictures with the Panoram-Kodak read the following instructions carefully and make yourself perfectly familiar with the instrument, taking especial care to learn the action of the shutter. Work it several times before threading up the film.

The first and most important thing for the amateur to bear in mind is that the light which serves to impress the photographic image upon the sensitive film in a small fraction of a second when it comes through the lens, can destroy the film as quickly as it makes the picture. Until it has been developed and fixed, the film must never be exposed to white light for even a fraction of a second (this includes gaslight, lamplight, etc.), or it will be ruined. Throughout all the operations of loading and unloading, therefore, be extremely careful to keep the black paper wound tightly around the film to prevent the admission of light.

EASTMAN KODAK COMPANY,
Rochester, N. Y.

CONTENTS.

PART I.

LOADING THE CAMERA.

The Film.

The film for the Panoram-Kodak is furnished in light-proof rolls and the instrument can, therefore, be loaded in daylight. The operation should, however, be performed in a subdued light, not in the glare of bright sunlight.

NOTE: **The No. 4 Panoram-Kodak uses the regular No. 4 Bulls-Eye cartridges.**

TO LOAD.

I. Take a position at a table as far as possible from any window, place the Kodak on the table and pull up the pins at either end of top, as in Fig. I. This unlocks the Kodak so that it can be opened for loading.

Fig. I.

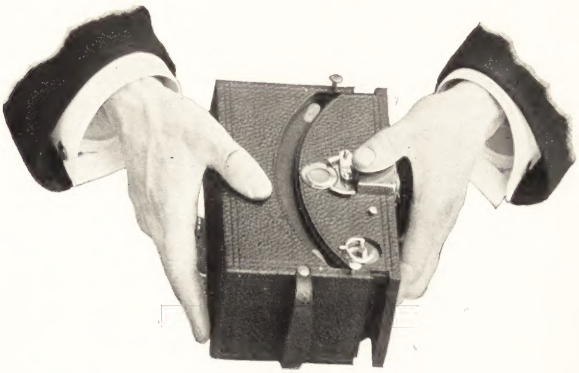


Fig. II.

II. Open the Kodak by pulling apart, as shown in Fig. II. If the lock pins are pulled out to the limit of motion the Kodak will open easily and will require no forcing.

III. At each end of the camera will be seen a recess for holding the film spools. As sent out from the factory there is an empty spool at the winding end of the camera, and the fresh cartridge is to be inserted at the opposite end. To accomplish this push catch with thumb and raise up on the flat tension plate, as shown in Fig. III.

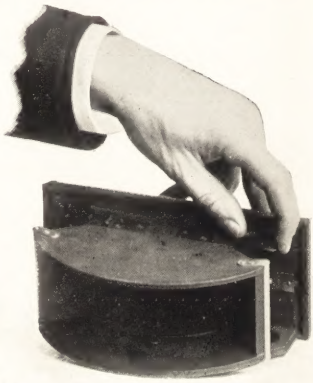


Fig. III.

IV. Now insert the cartridge as shown in Fig. IV., *being sure that the top of spool comes at top of camera*, (each spool is marked on the end) and snap tension plate down into place, centering the pins in axis at ends of spool in so doing.

Fig. IV.

V. Now break the gummed slip that holds down the end of black paper ; carry the end of paper across the first aluminum roller and following the curve of back of film holder (this is the focal plane) carry the paper over the second aluminum roller ; snap back the tension plate which is parallel to reel and thread film into slit in reel, (See Fig. V.) and give one or two slight

Fig. V.

turns to the left on key to bind the paper firmly onto reel. (Fig. VI.) Push tension plate into position again. It is important that the reel be turned far enough to make sure that the paper will not become detached *but no farther.* If the key is turned too far before the Kodak is closed, the black paper will be wound off and the film exposed.

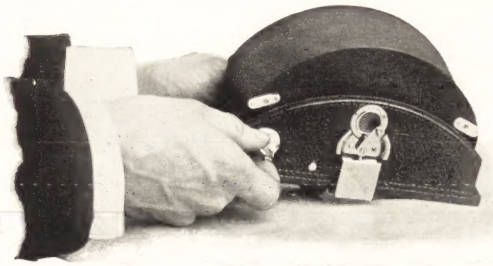


Fig. VI.

The paper should now be in position shown in Fig. VII.

Fig. VII.

VI. Replace the back on camera (reversing operation shown in Figs. I. and II.)

From the time the gummed slip is cut on cartridge until the paper has been threaded up ready for use care must be taken not to let the black paper loosen on the spool, otherwise light will be admitted and the film ruined.

VII. Having replaced the back on Kodak turn to the left on key until the letter "A" appears before the window in back of Kodak. Fig. VIII.

Fig. VIII.

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

PART II.

MAKING THE EXPOSURES.

The Panoram-Kodak being suitable for general views out of doors is equipped only for instantaneous work, the very nature of the instrument making timed exposures out of the question.

The sun should always be behind the back or over the shoulder of the operator. This is of even more importance than with the ordinary camera, because as the lens moves through such a large field it is next to impossible to shade it in taking pictures toward the light. Do not expect to take pictures of nearby objects in which there are straight lines, with the Panoram-Kodak.

I. Set the shutter by turning lever which lies between the finder and the level so that it points in the opposite direction to that in which the lens points. Unless the shutter has already been set this will simply mean that the lever is to be swung to the opposite side of semi-circle (Fig. I.) and the flap which covers lens may be left closed until shutter is set. It will be noted that in the plates at each end of the semi-circle through which the shutter lever swings are two catches. The first of these catches (*i. e.*, the ones nearest the

Fig. I.

spirit level) are for the slow speed of shutter and are to be used for all ordinary exposures. For views on the seashore or in tropical or semi-tropical countries when the light is extremely bright use the high speed by turning lever to the second catch and thus increasing the tension on shutter.

II. Lift up the nickel shield on finder and drop the flap in front of lens so that they will be in position shown in Fig. II. Be sure and drop flap far enough so that it will not cut off light from lens.

Fig. II.

III. The Kodak may be placed on some level support as in Fig. II. or held on the arm as shown in Fig. III. but in either event care must be taken to see that it is *held level* and steady. Try operating the shutter in this way a few times *without any film in the camera*, before making your first exposure.

The V shape lines diverging from the base of camera show the scope of view that will be included.

The finder shows the amount of foreground and sky line, but does not, of course, show the full length of the picture that is to

be, as no stationary lens could accomplish this. It will prove of material assistance, however, in giving a general idea of the picture to be taken.

The Kodak should be leveled as indicated by the circular spirit level, bringing the bubble to the center.

All being in readiness

HOLD THE KODAK STEADY,
HOLD IT LEVEL

and press the button at right of finder as shown in Fig. II. or as in Fig. III.

This makes the exposure.

IV. Wind a new film into position by turning to the left on key until the letter B appears before the window in back of Kodak. Repeat the foregoing operations for each exposure.

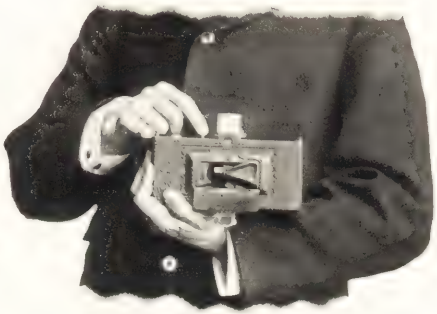


Fig. III.

VERTICAL PANORAM-PICTURES.

Not often, but nevertheless occasionally it is desirable to make a vertical picture with the Panoram-Kodak. A high waterfall, a narrow ravine or a mountain peak will now and then offer a subject for this unique treatment. The field for artistic work in this direction is a new one, and well worth cultivating. A little practice and experiment will lead to the most charming results.

FOR TAKING GROUPS.

The Panoram-Kodak has no equal for taking outdoor groups. The scope of view is so wide that a great number of people can be included with all in the "front row." The subjects should stand in a semi-circle with each the same distance from the camera (not less than twenty feet) and care should be taken not to have any horizontal straight lines in either the fore or background. There is nothing less artistic than a straight board fence or the clapboarded side of a house. Such backgrounds are undesirable with any camera but are to be especially avoided with the Panoram. An easy way to arrange the group is for the operator to hold the end of a string of proper length while an assistant describes the arc of a circle with the other end, placing the subjects on the imaginary curved line. This arrangement, it will be seen, brings each individual at the same distance from the Kodak and thus insures their being of the proper relative size in the photograph. Of course there is no objection to having the "sitters" banked one above the other where an exceedingly large group makes this necessary, but for the best results the semi-circular arrangement should always be followed.

PART III.

REMOVING THE FILM.

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

I. Having made the last exposure (No. "B" or "E," according to whether the cartridge is for two or for five exposures), give the key about 20 half turns.

II. Remove the back as before described, page 5.

III. Holding the paper taut, so as to wind tightly, turn the key until the paper is all on the reel.

IV. Moisten the gummed slip which will be found at end of roll and fasten down the black paper.

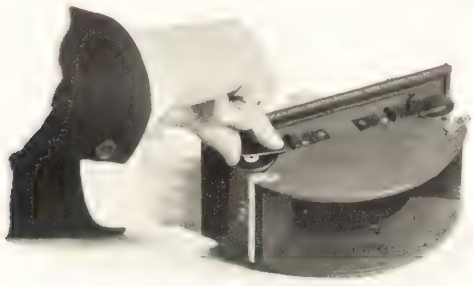


Fig. I.

V. Lift up tension plate as shown in Fig. I. and remove the cartridge of exposed film from it and wrap up immediately to prevent the possibility of light being admitted.

VI. Now throw back the tension plate from empty spool at opposite end of Kodak and remove spool to winding side, fitting the key web into slotted end of spool and then snapping tension plate down on opposite end of spool, centering pin in same in hole in axis of spool.

The Kodak may now be reloaded as before described.

DAYLIGHT DEVELOPMENT.

For best results in development we advise in every case the use of a Kodak Developing Machine, full directions for the use of which accompany each one. By the use of this machine no dark-room is required and the amateur can get far better average results than by the old method. However, the following method of development may be followed, if desired :

PART IV.

DEVELOPING.

For developing and printing No. 4 Panoram-Kodak pictures the ordinary outfit at the command of every amateur who does this branch of the work himself will answer every purpose by the addition of

3 No. 4 Panoram-Kodak Developing Trays, $4\frac{1}{2}$ x 14 inches,	$ 1.50
1 No. 4 Panoram-Kodak Printing Frame,	.75
1 No. 4 Glass for Panoram-Kodak Printing Frame,	.10
1 No. 4 Mat for Panoram-Kodak Printing Frame,	.15
1 Doz. Sheets $3\frac{1}{4}$ x 12 Solio Paper,	.35
	$ 2.85

To Avoid Curling, Always Develop Transparent Film Face Down.

In addition to the usual dark room equipment, provide a pair of shears and a wooden pail or a large earthen bowl in which to soak the film.

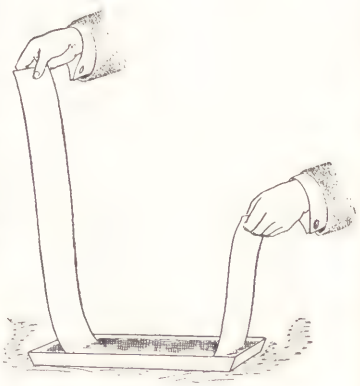
I. Place the bowl or pail of water on a chair (or box about 18 inches high). Detach the film from the black paper, being careful in so doing not to touch the face of the film with the fingers.

II. Grasp each end of the film, one in each hand, and pass the film, face down, through the water several times, as shown in cut. Continue this operation until the film is thoroughly wet, that there may be no air bubbles remaining on it. Now place the film in the bowl or pail of water, immersing it fully but not folding it tightly so as to crack.

III. Cover up the bowl or pail with a piece of brown paper to keep out the light from the lamp. (Even the colored light of a dark room lamp will fog the film if it is exposed too long to it.)

IV. Prepare 8 ounces of developer and pour into one of the trays.

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



We recommend starting the development of Transparent Film in the strip as per the foregoing instructions, but if desired, the film may be cut up before developing is commenced. In cutting up film for development, however, care must be taken that the end be not allowed to roll up over the paper. The exposures should be cut apart with the PAPER ON TOP.

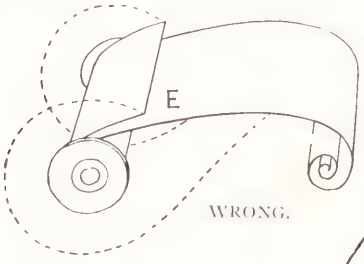


Fig. 1.

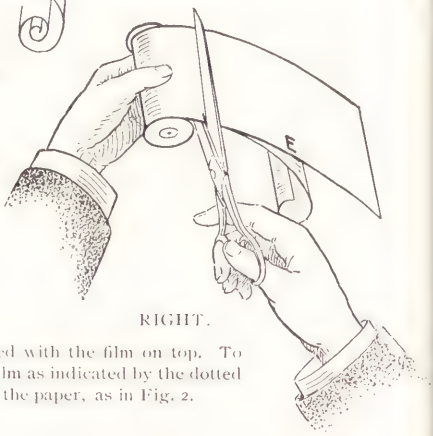


Fig. 2.

Fig. 1 shows a cartridge unrolled with the film on top. To correct this simply turn back the film as indicated by the dotted lines, thus bringing the film under the paper, as in Fig. 2.

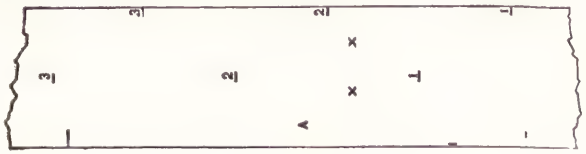


Fig. 3.

Cut the black paper through the lines (lower row in Fig. 3) which are midway between the letters A, B, C, etc., and place the sections *face down* in a dish of cold water. The sections may now be transferred one at a time to the developing tray and immersed face down.

VI. The developer should be allowed to act five to ten minutes. The progress of the development may be watched by holding the negatives from time to time up to the lamp.

VII. Cut the negatives apart and transfer to the second tray and rinse two or three times with water, leaving them to soak while the next film is being developed.

If cut apart only one negative should be developed at a time until the operator becomes expert, then he can manage three or four in the tray at one time, and the developer will answer for three rolls of film before being exhausted.

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

VIII. Put five tablespoonfuls of Hypo-sulphite of Soda into the third tray, fill two-thirds full of water, and stir until dissolved.

IX. Immerse the negatives one by one in this fixing bath and leave until they are entirely clear of white spots and are transparent instead of milky by transmitted light. This will require about ten minutes.

X. The yellow shade can, of course, be removed from the lamp as soon as all the exposures have been fixed.

XI. Pour off the fixing solution into the slop bucket, and fill the tray with clear, cold water; repeat this at intervals of five minutes, five or six times, keeping the negatives in motion, or transferring them back and forth to tray No. 2, one by one, to ensure the water acting evenly upon them.

The fixing solution must only be used in tray No. 3, and the negatives, after fixing, must not be put in No. 1 tray. Neither must any of the fixing solution be allowed to touch the films, through the agency of the fingers, or otherwise, until they are ready to go into the fixing bath, otherwise they will be spotted or blackened, so as to be useless.

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

The glycerine solution may be used repeatedly.

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

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

DEFECTIVE NEGATIVES.

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

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

Under-Exposure.

Caused by making exposures when the light is weak.

Under-exposure is evidenced by slowness in the appearance of the image in development, and the absence of detail in the shadows. In under-exposures the sky appears black in development, and the rest of the negative remains white with no detail.

Over-Exposure.

Caused by too much light.

Negative develops evenly, shadows almost as fast as high lights. No contrast and no deep shadows. If a negative is known to be over-exposed

before development is begun, the over-exposure can be partly overcome by the addition of bromide of potassium to the developer before development begins.

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

Fog.

Caused by white light in the dark room, or holding the film too long in the lamplight. (Even the yellow light from the lamp will fog the film after a time.)

Fog causes the film to blacken all over soon after the developer is applied, and if the fog is considerable it obliterates the image entirely.

Over-Development.

Caused by leaving the negative too long in the developer.

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

Under-Development.

Caused by removal from the developer too soon.

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

Spots, Streaks, Etc.

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

White, milky spots are evidence that the negative has not been properly fixed, and it should be put back into the fixing bath, and then rewashed.

Always Develop Film Face Down.

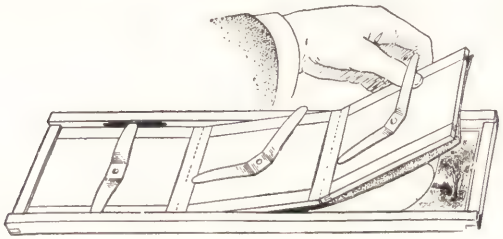
PART V.

PRINTING ON EASTMAN'S SOLIO PAPER.

Solio prints give either a warm brown or a rich purple tone as desired and are usually mounted and highly burnished.

METHOD OF PRINTING.—Open the printing frame and lay the negative back down upon the glass (the back is the shiny side). Place upon this a piece of Solio Paper, face down and upon the paper place the blanket. Replace the back of the frame and secure the springs. The back is hinged to permit of uncovering part of the print at a time to inspect it without destroying its register with the negative. The operation of putting in the sensitive paper must be performed in a subdued light, that is to say, in an ordinary room as far as possible from any window. The paper not used must be kept covered in its envelope.

The printing frame when filled as directed, is to be laid glass side up in the strongest light possible (sunlight preferred) until the light, passing through the negative into the sensitive



paper has impressed the image sufficiently upon it. The progress of the printing can be examined from time to time by removing the frame from the strong light, and opening one or two sections of the hinged back, keeping one section

fastened to hold the paper from shifting. The printing should be continued until the print is a little darker tint than the finished photograph should be. Place prints without previous washing in the following combined toning and fixing bath:

3 oz. Eastman's Solio Toning Solution.
6 oz. *Cold* Water.

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

Nine ounces of the diluted toning solution will tone 15 prints; after that a new solution should be made same as before.

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

Salt, 1 oz. Water, 32 oz.

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

The prints are then ready for mounting or they can be laid out and dried between blotting papers.

EASTMAN KODAK COMPANY,

Rochester, N. Y.

PRICE LIST.

No. 4 Panoram-Kodak for pictures 3½ x 12	$20 00
Transparent Film Cartridge, 5 exposures	90
Do., 2 exposures,	45
Black Sole Leather Carrying Case,	2 00
Kodak Developing Machine, style, E,	7 50
Style E Developing Machine Outfit,	1 60
Kodak Developer Powders for Style E Machine per package of ½ dozen,	30
Kodak Fixing Powders for Style E Machine, each	07
Eastman's Solio Paper, per doz., 3½ x 12	35
Solio Toning Solution, per 8 oz. bottle,	50
Eastman's W. D. Platinum Paper, 3½ x 12 inches, per doz.,	70
Eastman's Dekko Paper, 3½ x 12, per doz.,	45
Eastman's Sepia Paper, 3½ x 12 inches, per doz.,	20
Eastman's Hydrochinon Eikonogen, Pyro and Dekko Developer Powders, per doz.,	50
Do., per ½ doz.,	25
Do. in Hermetically sealed glass tubes, (per box of five tubes),	25
No. 4 Panoram-Kodak Bulls-Eye Composition Trays,	50
No. 4 Panoram-Kodak Printing Frames, each,	75
Developing, Printing and Mounting only, each,	35
Developing only, each,	18
Printing and Mounting only, each,	20
On orders for less than 5 prints or negatives 25 cents extra will be charged.	
"Picture Taking and Picture Making," a book of simple instruction for the amateur, 120 pages beautifully illustrated. Cardboard cover,	50
Do., Cloth bound,	1 00

TERMS.

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

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

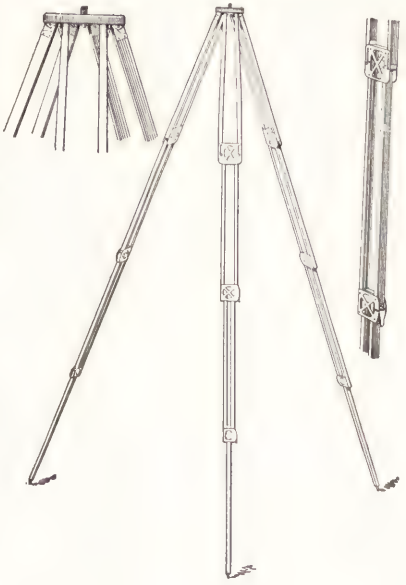
EASTMAN KODAK CO.,
Rochester, N. Y.

EASTMAN'S FEATHER TRIPOD.

Length, folded, 14½ inches.
Length, extended, 52½ inches.
Suitable to use with the Panoram-Kodak.

Wonderfully light, compact and strong, this tripod is especially designed for the tourist or automobiling Kodaker. Only 14½ inches in length when closed, it can be easily stowed in a very small space, whether carried in a case or not. An aluminum top plate with milled edges, holds the socket screw securely in place and seats it in place in the camera when turned—thus doing away with the nuisance of the ordinary screw, turned by means of a key handle inconveniently located under the plate between the tripod legs, and always likely to be missing when most wanted. The feather tripod folds in four sections, has brass fittings, except the top plate, which is of aluminum, and weighs, in spruce, but 17½ ounces, in cherry or in mahogany finish, 20½ ounces.

HAND CARRYING CASE.



PRICE.

Eastman's Feather Tripod, Cherry,	$ 3 25
Eastman's Feather Tripod, Spruce,	3 00
Eastman's Feather Tripod, Mahogany finish, - -	3 50
Black Sole Leather Hand Carrying Case, - - - -	1 50

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Dark-Room Abolished

by the

Kodak Developing Machine

The Kodak idea—Simplicity—has reached its logical triumph in the Kodak Developing Machine. Kodak films can now be developed and fixed in broad daylight.

Ask your dealer to show you how it works.

EASTMAN KODAK CO.
Rochester, N. Y.

Illustrated booklet free at the dealer's, or by mail.

If it isn't an Eastman

it isn't a Kodak.