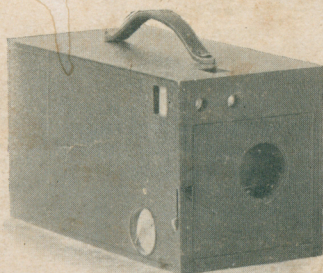


DIRECTIONS FOR USING

Eastman's
No. 4 Eureka Camera.



Price 10 Cents.

EASTMAN KODAK COMPANY,

ROCHESTER, N. Y.

KODAK.
Trade Mark, 1888.

EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

MANUFACTURERS OF

Kodaks,
Eureka Cameras,
Eastman's Dekko Paper,
Eastman's Solio Paper,
Eastman's Dry Plates,
Eastman's Royal Bromide Paper,
Eastman's Standard Bromide Paper,
Eastman's Platino Bromide Paper,
Eastman's Enameled Bromide Paper,
Eastman's Matte-Enamel Bromide Paper,
Eastman's Transparent Film,
Eastman's Transparency Plates, Tripods and
Other Specialties.

March 1899.

Directions
For Using Eastman's No. 4
Eureka Camera.

PRICE 10 CENTS.

EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

PREFACE.

The No. 4 Eureka is primarily a glass plate camera, and the instructions given herein for loading will therefore cover the use of plates only. If the amateur adds a Cartridge Roll Holder to his outfit he will receive with it, full directions, profusely illustrated, for loading and unloading with film. Of course, the operations of making exposures, etc., are the same whether plates or films be used and the same directions for this part of the work will therefore apply to both.

Before taking any pictures the operator should familiarize himself fully with the working of the Camera. Operate the shutter several times for both time exposures and snap-shots; focus with the scale and on the ground glass. When focusing on the ground glass note the results of using the different size stops. In short, do not begin the picture taking until you fully understand the action of the Camera.

PART I.

LOADING WITH PLATES.

I. In using glass plates the plate holders must be loaded in a dark room—that is, a room from which all white light has been excluded. See page 15.

II. Provide also,

- 1 dozen Eastman's Extra Rapid Dry Plates, 4 x 5.
- 1 Eastman Improved Orange Candle Lamp.
- A shelf or table on which to work.

III. Set up the lamp as described in the directions contained in the box in which it is packed.

IV. Remove the dark slides from the plate holders.

V. Open the box of plates by running a thin knife blade around the edge of the box.

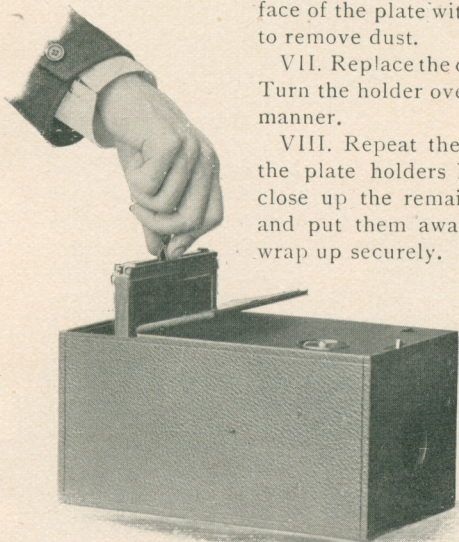
VI. Take out one of the plates and place it in the holder, face up. (The face is the dull side.) Brush gently over the face of the plate with a camel's hair brush to remove dust.

VII. Replace the dark slide in the holder. Turn the holder over and load in the same manner.

VIII. Repeat the operation until all of the plate holders have been filled, then close up the remaining plates in the box and put them away in a dark drawer, or wrap up securely.

The remaining operations may be performed in daylight.

IX. Press the concealed button at back of Camera, thus opening door in side and insert one of the plate holders in front of the wooden frame. See cut. Be care-



Inserting the Plate Holder.

ful that lip in plate holder fits down into place, otherwise the light will be admitted and plate fogged when the dark slide is withdrawn from plate holder.

X. Pull out the dark slide.

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

After making the exposure, reinsert the dark slide in the plate holder. Remove the plate holder from the camera by means of the leather lug, pressing back against the spring slightly to start it, and reinsert it with the opposite side to the front.

XI. Pull out the dark slide and the Camera is ready for another exposure.

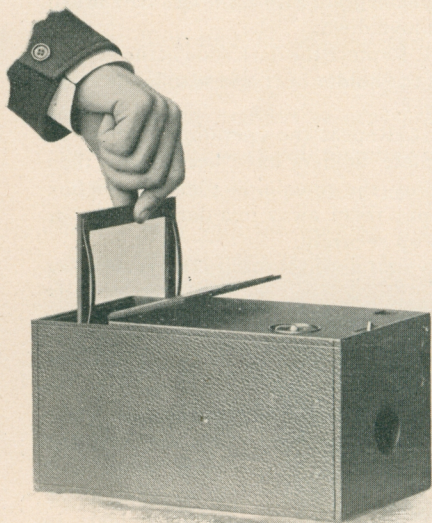


Fig. I.

WITH FILMS.

I. Provide an Eastman No. 4 Horizontal Cartridge Roll Holder (mention in order that it is to be used with the No. 4 Eureka Camera) and load it as directed in the instruction book which accompanies it. This operation requires no dark room.

II. Remove the spring frame from Camera as shown in Fig. I.

III. Insert the roll-holder as shown in Fig. II, being careful in so doing that it fits fully into place—the lip fitting into groove in camera.

IV. Turn the button on top of roll-holder so that it will bear against back of camera, thus preventing the roll-holder from being crowded out of place when winding key is turned. (Fig. III.)

V. Remove the dark-slide from roll-holder and expose as directed in the pages that follow.

Fig. II.

VI. Turn a new film into place, as directed in the Cartridge Roll-Holder Manual, opening

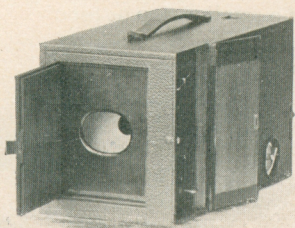


Fig. IV.

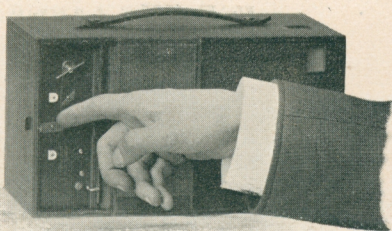


Fig. III.

the door in side of camera to get at key and the door in back to view the red celluloid window. (Fig. IV.)

PART II.

MAKING THE EXPOSURES.

Before making an exposure, either time or instantaneous, be sure of four things:

First—That the shutter is set properly.

(For time or instantaneous exposures as desired.)

Second—That the proper stop is in position before the lens.

Third—That the Camera is focused. This may be done by means of the dial, or on the ground glass.

Fourth—That an unexposed plate is in position, and that the dark slide has been removed from plate holder. (Or an unexposed section of film is turned into position.)

Section I.—Instantaneous Exposures.

USE THE LARGEST DIAPHRAGM.

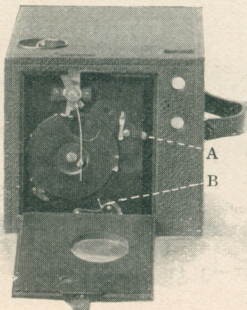


Fig. II.

Snap shots can only be made when the largest stop is in the lens. If a smaller stop be used the light will be so much reduced that it will not sufficiently impress the image on the film, and failure will result. In making snap shots the lever "A" controlling diaphragms and the catch "B" must be in the position shown in Fig. I.

The Catch "B" controls time and instantaneous exposures. For snap shots this catch must be down to limit of motion, as shown in Fig. I. If it is in position shown in Fig. II it will engage with shoulder on the metal disc (c) and stop the opening in front of lens (Fig. III) thus making a time instead of an instantaneous exposure.

Lever A controls the stops of which there are three. When it is clear down (Fig. I) the largest stop is in place. This is the one to use for all snap shots, except where the sunlight is *unusually* strong, and there are no heavy shadows, such as views on the water or in tropical or semi-tropical climates, when the middle stop may be used. The smallest stop must never be used for snap shots or absolute failure will result.

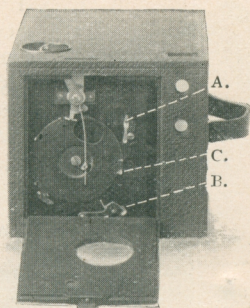


Fig. II.

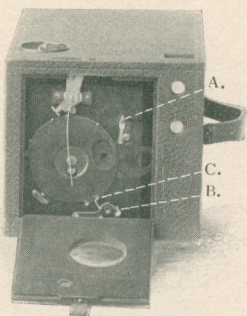


Fig. III.

II.—FOCUS ON THE SUBJECT.

Set the focus by turning the pointed end of indicator over the figures on the index dial nearest the estimated distance of the *principal object* to be photographed in feet.

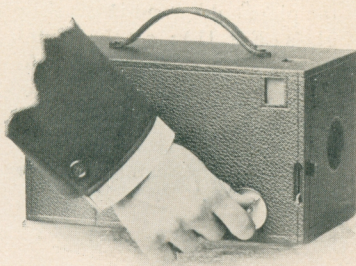


Fig. I.

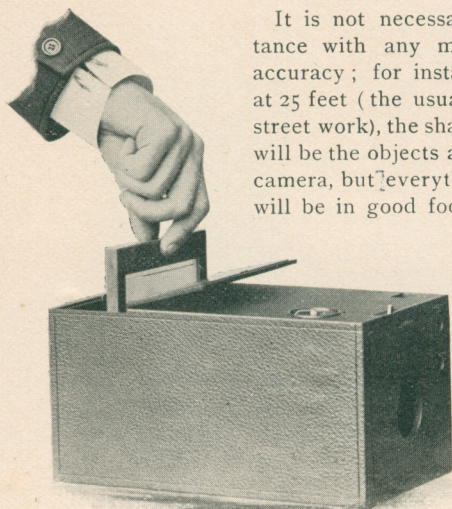


Fig. II.

Nothing nearer than 8 feet can be focused on the dial.

When desired the focusing may be done on the ground glass instead of by the figures on the dial. Remove the plate holder and insert the ground glass (Fig. II) ; set the shutter open (see page 11) and turn the focusing key (Fig. I) until the image shows sharp on the ground glass (Fig. III). Now close the shutter, insert plate holder once more and withdraw dark slide.

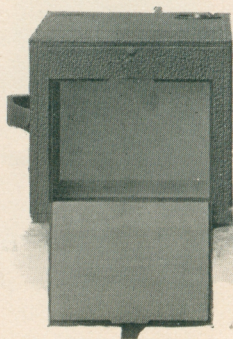


Fig. III.

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 50 feet, but where the *principal object* is nearer or farther away, the focus should be moved accordingly. The index plate is divided for 8, 10, 12, 15, 20, 25, 50 and 100 foot focus.

III.—LOCATE THE IMAGE.

To take instantaneous pictures the object should 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. Aim the Camera at the object to be photographed and locate the image in the finder. There are two finders,

one for horizontal and one for vertical exposures. For a horizontal picture, hold the Camera as shown in Fig. IV. (When a focusing glass is employed the image may be located on that instead of in the finder.)

For a vertical exposure the Camera must be

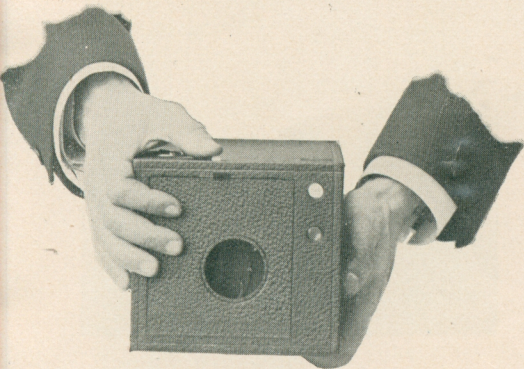


Fig. IV.

held as shown in Fig. V. The finders give the scope of view and show a fac-simile of the picture as it will appear, but on a reduced scale.

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

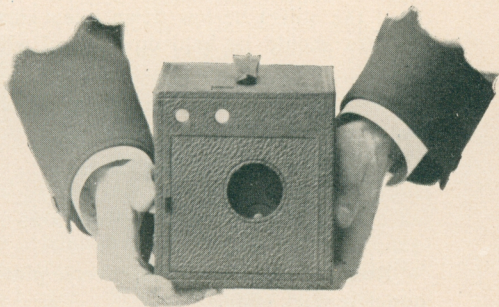


Fig. V.

IV.—HOLD IT LEVEL.

The Camera must be held level.

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

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



Fig. VI.

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

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

Hold the Camera Steady,
Hold it Level and
Push the Lever.

This makes the Exposure.

Re-insert the dark slide, reverse plate holder and pull out opposite dark slide.

The Camera is now ready for the next exposure.

Section II.—Time Exposures Indoors.

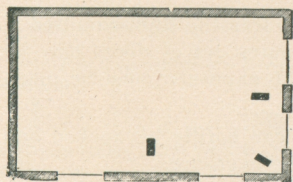


Diagram showing position of Kodak.

Use some firm support, like a tripod or table. Set in such a position that the finder will embrace the view desired.

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

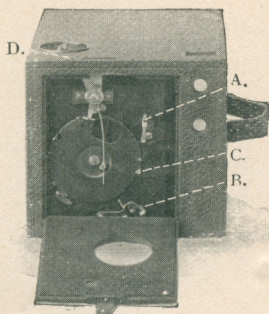


Fig. I.

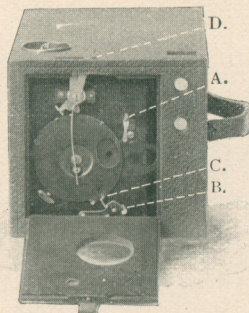


Fig. II.

To make a time exposure, place the Camera on some firm support like a table or tripod, and push up time catch (B), as shown in Figure I; focus 'as before described, and all being in readiness push the exposure lever (D) to open the shutter which will stop in position shown in Figure II, give the proper time (using a watch if more than two seconds) and press the lever in the opposite direction to close shutter.

The time required for interior exposures with the largest stop will vary from 3 seconds to 3 minutes, according to the light outside, number of windows and color of walls and hangings. Early in the morning or late in the afternoon the time required will be even longer. With the second stop the time required will be half more and with the smallest stop four times the time required with the largest. As a general rule use the second stop for interior exposures.

Section III.—Time Exposures in the Open Air.

When the smallest stop is in the lens the light admitted is so much reduced that time exposures out of doors may be made the same as interiors but the exposure must be much shorter.

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

WITH LIGHT CLOUDS—From $\frac{1}{2}$ to 1 second will be sufficient.

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

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

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

Section IV.—Flash Light Pictures at Night.

By the use of Eastman's Flash Cartridges or Flash Sheets, or Eastman's Flash Powder and Lamp, excellent pictures can readily be made at night. Full directions for making such pictures accompany each package, or our complete booklet "Picture Taking by Flash Light" will be sent upon receipt of 10 cents. See price list.

STOPS.

The stops should be used as follows :

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

2

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

1
10

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

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

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



PART IV.

DEVELOPING.

Provide an Eastman's A B C Developing and Printing Outfit.



THE OUTFIT CONTAINS

1 Eastman Candle Lamp, - - \$.25	2 Dozen Sheets 4 x 5 Solio	
4 Developing Trays, - - -	.40	Paper, - - - - -	\$.30
1 Glass Beaker, - - - -	.12	1 2-oz. Bottle Solio Toning	
1 4 x 5 Printing Frame, - -	.25	Solution, - - - -	.15
1 4 x 5 Glass for same, - -	.05	1 Package Bromide Potassium	.10
1 Stirring Rod, - - - -	.05	1 Ounce Glycerine, - - -	.05
1/2 Dozen Developer Powders,	.25	Instruction book, - - -	.10
1/2 Pound Hypo-sulphite Soda,	.07		

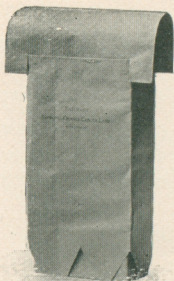
\$ 2.14

***Price, Complete, neatly packed, \$1.50.**

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

*This outfit cannot be shipped by mail.

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 plates are extremely sensitive to white light, either daylight or lamplight, *and would be spoiled if exposed to it even for a fraction of a second.*



The Lamp.

Having provided such a room or closet where, when the door is closed, no ray of light can be seen.

1. 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 plates unless it is held close to them. Set the lamp on the table at least eighteen inches from and with the *side* toward the operator.

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

3. Take one of the exposed plates and lay it, face up, in a tray and pour upon it the developer. Rock it back and forth to prevent streaks and air bubbles; in about 1 minute it will begin to darken in spots, representing the lights of the picture and in about 2 minutes the operator will be able to distinguish objects in the picture. The developer should be allowed to act 5 to 10 minutes. The progress of the development may be watched by holding the negative, from time to time, up to the lamp.

4. Transfer the negative to the second tray and rinse two or three times with water.

NOTE: A half-dozen negatives can be developed one after the other in one portion of the developer; then it should be thrown away and a fresh portion mixed.

As each negative is developed it should be put in the washing tray and the water changed twice to prevent the developer remaining from staining it.

5. Put two tablespoonfuls of Hypo-sulphite of Soda into the third tray, fill two-thirds full of water, and stir until dissolved. This is called the fixing bath.

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

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

8. 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 plates 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.

9. When the negatives are *thoroughly washed* stand them up on edge to dry. Do not try to dry them artificially.

When dry the negatives are ready for printing.

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

Over-Exposure.

Caused by too much light.

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

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

Over-Development.

Caused by leaving the negatives too long in the developer.

In this case the 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 plate in the developer or fixing bath, are liable to cause spots, and streaks are caused by allowing the plates 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 the negative should be put back into the fixing bath and then re-washed.

Scratches.

Glass plates must be handled in the various solutions *one at a time*, otherwise the corners of the glass are liable to scratch and destroy the negatives.

PART V.

PRINTING ON EASTMAN'S SOLIO PAPER.

Having found that amateurs can easily handle our Solio Paper, we have now substituted it for the Ferro-Prussiate Paper, which we formerly furnished with the A B C outfits, as it makes far handsomer pictures than the blue prints.

Solio prints have a warm, brown tone and are usually mounted on cardboard and highly burnished.

METHOD OF PRINTING.—Open the printing frame of the A B C Outfit and lay the negative back down in the rabbet (the back is the shiny side). Place upon this a piece of Solio Paper face down. 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 negative 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-half of the hinged back, keeping the other half 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 :

2 oz. Eastman's Solio Toning Solution.

4 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.

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

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

Salt, 1 oz.

Water, 32 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.

KODAK, Limited,
43 Clerkenwell Road,
LONDON.

EASTMAN KODAK SOCIÉTÉ ANONYME FRANÇAISE,
Ave. de l'Opera 5,
PARIS.

EASTMAN KODAK GESELLSCHAFT, M. B. H.,
Markgrafen Strasse 91,
BERLIN.

PRICE LIST.

No. 4 Eureka Camera with one double plate holder, achromatic lens, - - - - -	\$ 6.00
Double Plate Holders, 4 x 5, each, - - - - -	1.00
Eastman's Extra Rapid Dry Plates, per dozen, 4 x 5,	.65
Eastman's No. 4 Horizontal Cartridge Roll Holder, to fit No. 4 Eureka, - - - - -	5.00
Light-proof Film Roll Holder Cartridge, 12 ex., 4 x 5, 4 in. spool, to fit above, - - - - -	.90
Eastman's A B C Developing and Printing Outfit, for developing and printing 24 pictures, 4 x 5, -	1.50
Eastman's Solio Paper, 4 x 5, pkg. of 2 doz., - -	.25
Solio Toning and Fixing Solution, per 8 oz. bottle, -	.50
Black Sole Leather Carrying Case, - - - - -	2.25
Staff Tripod, - - - - -	1.50
Bulls-Eye Tripod (folds in two sections), - - -	2.00
Eastman's Hydrochinon Developer Powders, per doz. (sufficient for 48 oz. developer), - - - - -	.50
Hypo-sulphite Soda, pulverized, per pound, - -	.10
Bromide Potassium, per ounce bottle, - - -	.15
Mounts, white or gray, embossed, per doz., Style B,	.20
Do., per hundred, Style B, - - - - -	1.30
Mounts, white, plain straight edge, Style C, per doz.,	.10
Do., per hundred, - - - - -	.45
Eastman's Improved Orange Candle Lamp, - -	.25
No. 2 Kodak Dark Room Lamp, $\frac{5}{8}$ in. wick, - -	1.00
Eastman's Mountant Paste, 3 oz. tube, - - -	.15
" " " 5 " " - - -	.25
Eastman's No. 2 Flash Cartridges, per pkg., $\frac{1}{2}$ doz.,	.40
" " 3 " " " " " "	.25
" Flash Sheets, per pkg., $\frac{1}{2}$ doz., - -	.40
" Flash Lamp, - - - - -	1.25
" " Powder, per oz., - - - - -	.60
Eastman's "Squeegee" Album to hold 50 pictures, 4 x 5 unmounted, Style A, cloth bound, - -	1.25
" Picture Taking and Picture Making," a practical work for the amateur, 120 pages, - - -	.50

EASTMAN KODAK CO.

Rochester, N. Y.

DEKKO

Platinum-like effects and easy manipulation—these qualities combine in Eastman's Dekko—the short day paper.

Dekko prints by sunlight or gaslight. Dekko can be developed and fixed in an ordinary room—by gaslight or subdued daylight. It works day or night. Dekko is the amateur's matte paper.

Expose ; rinse ; develop ; fix ; wash.
Just five operations and each of them easy.

FOUR GRADES:

Carbon Matte, Egg-Shell Matte,

Plain Matte, Rough Matte.

For sale by all dealers.

EASTMAN KODAK CO.

Rochester, N. Y.