This manual is for reference and historical purposes, all rights reserved.

This page is copyright© by M. Butkus, NJ.

This page may not be sold or distributed without the expressed permission of the producer

I have no connection with any camera company

On-line camera manual library

This is the full text and images from the manual. This may take 3 full minutes for the PDF file to download.

If you find this manual useful, how about a donation of \$3 to: M. Butkus, 29 Lake Ave., High Bridge, NJ 08829-1701 and send your e-mail address so I can thank you. Most other places would charge you \$7.50 for a electronic copy or \$18.00 for a hard to read Xerox copy.

This will allow me to continue to buy new manuals and pay their shipping costs.

It'll make you feel better, won't it?

If you use Pay Pal or wish to use your credit card,

click on the secure site on my main page.

INSTRUCTIONS

FOR OPERATING THE

FILM PREMO No. 1



EASTMAN KODAK CO.

SUCCESSOR TO

ROCHESTER OPTICAL CO.
ROCHESTER, N. Y.

The Universal Clamp

The Universal Clamp is a convenience which takes the place of a tripod, and may be attached to any camera that is fitted with tripod sockets. It can be carried readily in the



pocket, is very light, and may be attached to a chair, fence, the front board of an automobile, or other object which may be at hand. The clamp jaws are padded with felt.

Price 75c

EASTMAN KODAK CO.

Successor to ROCHESTER OPTICAL CO.

ROCHESTER, N. Y.

INSTRUCTIONS

FOR OPERATING THE

FILM PREMO

PRICE TEN CENTS

PUBLISHED BY THE

EASTMAN KODAK CO.

SUCCESSOR TO

ROCHESTER OPTICAL CO.
ROCHESTER, N. Y.

Before Loading

BEFORE taking any pictures with the Film Premo No. 1 read the following instructions carefully and 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 before loading the camera.

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 surface in a small fraction of a second when it comes through the lens, can destroy the film as quickly as it makes the picture. After the films have been developed and all developer thoroughly washed out, they may be quickly transferred in subdued white light to the fixing bath without injury.

EASTMAN KODAK COMPANY.

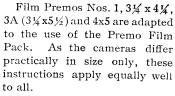
Successor to

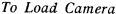
ROCHESTER OPTICAL Co., Rochester, N. Y.

April, 1913.

PART I

SECTION 1





Procure a Film Pack of the proper size, $3\frac{1}{4} \times 4\frac{1}{4}$, $3A (3\frac{1}{4} \times 4\frac{1}{4})$ 5½) or 4x5, depending upon

the size of the camera.

Press up on the two metal catches at the top of Camera and open hinged back.

Break or cut the small white slip on face

of the Film Pack (Fig. 1) being careful that no part of it is overhanging or it will show in the picture, and place Pack in Camera so that the black paper tabs protrude from the top and the large direction label on the Film Pack is toward the back of the instrument, (Fig. 2.)

Premo Film Pack



Fig. 1



F1G. 2

Close the back and the catches will engage automatically.

The Camera now being loaded, proceed as follows:



F1G. 3

Operation of the Premo Film Pack

For the first exposure gently pull out tab marked "Safety Cover," holding the remaining tabs under the finger and thumb of the other hand to prevent the possibility of pulling out more than one tab at a time. (Fig. 3.)

When the red cross line appears, tear off from left to right by bending tab backward over the metal straight edge.

The first film is now presented for exposure.

Having made the exposure, pull out in a similar manner the black paper tab marked "No. 1" and tear off. Film No. 2 is now presented for



exposure. Repeat the operation of pulling out and tearing off the black paper tabs one at a time, as often as additional exposures are to be made.

Upon pulling out and tearing off tab No. 12 the pack is rendered light-tight (Fig. 4) and may be removed from the camera, reversing the operation as shown in

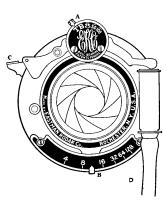
Fig. 2, and a fresh one substituted.

Note-It is well to make a rule of always pulling out the tab immediately after each exposure, so that there will be no uncertainty when making the next exposure as to whether you have or have not pulled out the tab.

PART II

Making the Exposures

Before making an exposure with the Film Premo No. 1, either time or instantaneous, be sure of four things.



FIRST — That the shutter is adjusted properly.

(For time, instantaneous or bulb exposures as desired.)

SECOND — That the diaphragm stop is set at the proper opening.

THIRD—That the camera is focused.

FOURTH — That an unexposed film is in position.

SECTION 1

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 attempting exposures.

Note—To attach the tube D simply moisten the end a trifle and it will be found to slip into place readily.

"Snap Shots"

For all Ordinary Instantaneous Exposures.

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

Note: In bright light, set the lever at 100, the highest speed. In more subdued lights set at 50 or 25, but do not attempt to make any instantaneous exposures in very dull light.

SECOND—Set lever B at No. 8. Lever B controls the iris diaphragm and No. 8 is the proper opening for ordinary instantaneous exposures.

Note—For instantaneous exposures when the sun light is unusually strong and there are no heavy shadows, such as in views on the seashore or on the water, or in tropical or semitopical climates, use diaphragm No. 16. With light clouds or slightly smoky atmosphere use No. 4 at 100 or No. 8 at 50 or 25. With heavy clouds do not attempt instantaneous exposures.

THIRD—Compress the rubber bulb on Tube D or press down the release C. This makes the exposure.

Note: Squeeze the bulb with a firm, quick movement, as the least jarring of the camera 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. 16, 32, 64 or 128. See instructions for use of stops, page 18.

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

Bulb Exposure

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. 16, 32, 64 or 128 as desired. See page 18.

THIRD—Compress the bulb to open the shutter, and release it to close the shutter. This makes the exposure. The shutter will remain open as long as the bulb is under pressure.

Note—This method will not answer for a long time exposure for the reason that when the compressed air has leaked out, the shutter will close of itself.

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 bulb instead of with the release C, as the pneumatic release is less likely to jar the camera.

Note: The indicator on the face of the shutter registers each exposure as made.



Fig. 1 Opening the Front

3. At the front of camera bed and on the side opposite finder, you will see a scale marked 6, 10, 15, 25, 50 and 100 feet. This is for focusing the camera. Before extending bellows determine the distance of the principal object to be photographed.

Extending the Front

Grasp the springs at lower part of front board and pull out front of Camera (Fig. 2) until the little pointer on lower section of front

board is directly over the figure on the scale corresponding nearest to the distance of the subject you wish to photograph.

Except when photographing at distances of 15 feet or less it is not necessary to estimate the distance with any more

n of front

Fig. 2-Extending the Bellows and Focusing

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. The focusing scale is divided for 6, 10, 15, 25, 50 and 100 feet. Everything beyond 100 feet is in the 100 feet focus. Nothing nearer than 6 feet can be focused without using the portrait attachment.

Use Stop No. 8

For all ordinary out-door work when the sun is very bright use stop No. 8. 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 views on the water when the sunlight is unusually strong and there are no heavy shadows, or in tropical or semi-tropical climates, diaphragm No. 16 may be used.

If a smaller stop opening than No. 16 be used for

snap shots absolute failure will result.

Locate the Image

Aim the camera at the object to be photographed and locate the image in the finder. (Fig. 3.) For a horizontal picture with the Film Premo No. 1 hold the camera as shown in Fig. 4, reversing the finder as indicated. Always look into the finder from directly over it, not at an angle. The finders



Fig. 3

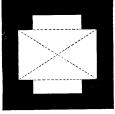
, give the scope of view and show a facsimile of the picture as it will appear, but on a reduced scale.

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

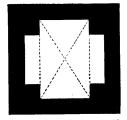


Fig. 4

It will be noticed that the top of the finder is notched as shown in Fig. 5. This is done so that the one finder will correctly show the view included when the camera is held in either horizontal or vertical position. As the pictures taken with the Film Premo No. 1 are oblong it will readily be seen that unless the finders were made in this



VIEW INCLUDED WHEN MAKING A HORIZONTAL PICTURE.



VIEW INCLUDED WHEN MAKING.

A VERTICAL PICTURE.

F1G. 5

manner they could not correctly show the exact view intended when held in either position.



Fig. 6

Fig. 6 shows how to hold the camera when making exposures without the use of the bulb. Grasp the bed of camera firmly with the left hand, steady it with the right and with the thumb of the right hand lightly press the exposure lever.

Hold it Level



Fig. 7

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. 7.

This was pointed too high. This building should have been tak-

en from the middle story window of the building opposite.

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

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

To Make Exposure

HOLD THE CAMERA STEADY,
HOLD IT LEVEL AND
COMPRESS THE BULB
This makes the Exposure.

SECTION 3

Time Exposures—Interiors

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

The diagram shows the proper positions for the instrument. It should not be pointed

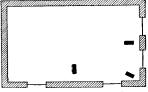


Diagram showing positions of Camera

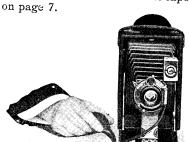
directly at a window, as the glare of light will blur the picture. If all the windows cannot be avoided, pull down the shades of such as come within the range of the lens.

To make a time exposure, place the camera on some firm support like a table or tripod, and focus as before described.

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

When it is desired to make a horizontal time exposure with Film Premo No. 1 reverse the camera camera so that the tabs of the Film Pack will draw from the side instead of from the top.

Adjust the shutter for a time exposure as described



All being in readiness, compress the bulb or lightly press the lever, once to open and again to close the shutter. Time

Fig. 1.

the exposure by a watch. (See Fig. 1.)

Time Needed for Interior Exposures

The following table gives the time of the exposure required under varying conditions of light with the stop No. 16 in the lens. If the stop No. 8 is used give only one-half the time, if the stop No. 128 is used give 8 times the time of the table. The smaller the stop the sharper the picture. The No. 16 stop 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 required will be longer.

To Make a Portrait

Place the sitter in a chair partly facing the light, and turn the face slightly toward the camera (which should be at the height of an ordinary table).

Center the image in the finder. For a three-quarter figure the Camera should be from 6 to 8 feet from the figure, and for a full figure, from 8 to 10 feet, the background forming a contrast with the sitter.

Premo Portrait Attachment

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

By means of the Portrait Attachment large head and shoulders portraits of various sizes may be obtained. With the Attachment in position and the focus set at 6 feet the subject should be placed exactly 2 feet, 8 inches, from the lens.

At 10 feet place subject 3 feet from lens.

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

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

At 100 feet focus, place subject 4½ feet from lens.

Time Exposures in the Open Air

When the stop No. 128 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-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 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.

For exceedingly "short time" exposures, as above described, use the "bulb exposure." See page 8.

Diaphragms.

The stops should be used as follows:

No. 4-For instantaneous exposures on slightly cloudy days. No. 8-For all ordinary instantaneous exposures when the sun

shines.

No. 16-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 semitropical climates; also for interior time exposures, the time for which is given in the table on page 15.

No. 32 and 64-For interiors. Never for instantaneous expos-

ures. No. 128-For time exposures outdoors in cloudy weather. Never for instantaneous exposures. The time required for time exposures on cloudy days with smallest stop will range from 1-5 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.

"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 and timing exposures are arranged according to two systems, 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 and 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 refer-

ence to the other openings, so that estimating exposure is much more complicated by this system.

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

u.s.	4=f.8	U.S.	32=f. 22.6
	8=f. 11.3	U.S.	64=f. 32
	16-f 16	II S.	128=f. 45.2

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 an Eastman 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 7, of this manual (except that stop 8 must be used), and placed on some level support where it will take in the view desired.

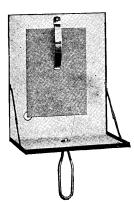
Pin a flash sheet by one corner to a piece of cardboard which has previously been fixed in a perpendicular position. If the cardboard is white it will act as a reflector and increase the strength of the flash.

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 camera, 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 camera. 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 Eastman Flash Sheet Holder,

all these contingencies are taken care of, and we strongly advise its use.

The Eastman Flash Sheet Holder

This holder may be safely held in the hand, always



between you and the flash sheet. Or, it may be used on any Premo tripod, being provided with a socket for this purpose. The sheet is held by a spring finger, in such position that its lower corner projects part way across the circular opening in the holder, as shown in illustration.

Then to set off the flash merely touch a match from behind to the corner of the sheet through this opening.

Taking the Picture

Having the camera and the flash sheets both in position and all being in readiness, open the camera shutter, stand at arm's length and touch a match from behind to the lower corner of the flash sheet.

Note—If you are not using the Eastman Flash Sheet 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 push the lever to close the shutter and pull up tab ready for another picture.

The Flash Sheet

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

When two or more sheets are to be used they should be pinned to the cardboard, one above the other, the corners only very slightly over-lapping.

TABLE

For 10	feet	distance	light dark	walls		hangings	ușe	1 No. 1 shee 1 No. 2 shee	ŧ
" 15	"	**	light	"		**	**	1 No. 2 shee	t
		•	dark	••	•••	**	"	1 No. 3 shee	t

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

To Make a Portrait.—Place the sitter in a chair partly facing the camera (which should be at the height of an ordinary table) and turn the face slightly towards the instrument. The proper distance from the instrument to the subject can be ascertained by looking at the image in the finder. For a three-quarter picture 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 camera 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 17.

To Make a Group.—Arrange the chairs in the form of an arc, facing the camera so that each chair will be exactly the same distance from the instrument. Half the persons composing the group should be seated and the rest should stand behind the chairs. If the group is large any number of chairs

may be used, but none of the subjects should be seated on the floor, as sometimes seen in large pictures, because the perspective would be too violent.

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

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

Eastman 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, safer, cheaper and capable of producing the best results. The cartridges are only superior when absolutely instantaneous work is essential.

Closing the Camera

When through using the camera fold the bellows by reversing the operation shown in Fig. 2, page 9, and press down on arm locks on each side of bed, as shown below. The bed will now close readily.



Closing the Camera

Before closing the bed of the camera, be careful to see that the front board has been pushed in to the limit of motion. If it is in proper position it will not interfere with the bed in closing.

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.

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 a 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 wiping it by means of a soft cotton cloth. To clean the mirror in the finder on the Film Premo No. 1, wind the end of a handkerchief around the end of a lead pencil and pass between lens and mirror.

Clean Lenses



CLEAN LENS

good order. To produce the picture on page 27,

Dirty or dusty lenses are frequently the cause for photographic failures. These pictures illustrate this point clearly. The sharp, fultimed picture on this page was taken with the lens clean and in the effect shown in the operator lightly

touched the face of the lens with his thumb, which was slightly damp with perspiration.

Lenses should be frequently examined by looking through them, and if found to be dirty, should be wiped, both front



LENS SLIGHTLY DIRTY

and back, with a clean, soft linen handkerchief. In summer weather this needs special attention. 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 undertimed.

PART III

SECTION 1

Developing Premo Film Pack Films in Premo Film Pack Tank

When using the 3¼ x 4¼, 3A (3¼ x 5½) or 4 x 5 Film Premo No. 1 provide a No. 2 Premo Film Pack Tank, a box of No. 2 Premo Tank Developing Powders, and a pound of Kodak Acid Fixing Powder.

To Prepare the Developer

Remove the cover of the tank by turning it to the left. The cage or holder for the separate films can then be removed from the tank.

Empty a pair of powders into eight ounces of lukewarm water, stir well, and when thoroughly dissolved, pour into tank; then fill tank with a sufficient amount of water to bring it even with the embossed ring at the top which shows the proper level for the developing fluid. If the tanks are not filled to this point, any portion of the film which projects will remain undeveloped.

The temperature of the developer when ready for use should be about 65 degrees Fahrenheit.

To Prepare the Fixing Solution

Dissolve the package of Kodak Acid Fixing Powder as per directions on page 39. (This solution may be bottled and used over and over until it loses strength).

At this point all white light should be excluded from the dark-room. See page 36. If no dark-room is available, this work can be done at night in any room in which there is a tap of running water, care being taken that there is no white light in the room during the few minutes when the films are being transferred from the pack to the cage.

How to Remove Films from Pack for Development

When all exposures in the film pack have been made it is light tight, and may be taken from the camera in daylight. Provided exposed films have previously been removed, as described below, the Film Pack should be resealed immediately after removing it in daylight from the Camera after the twelfth exposure has been made, by moistening the inside of the corner flaps, when they may be stuck firmly to the sides.

When ready to develop break the red seal at the sides and pull down bottom flap. (See Fig. 1.)



Fig. 1.

This gives access to exposed film which may be removed as shown in Fig. 2.



Fig. 2.

To remove one or more films for development before the entire package is exposed:

Take the camera to the dark-room, remove the pack and break the red seal as above. After removing the exposed film, the pack can be replaced without sealing in the camera before leaving the dark-room and everything is ready for additional exposures.

Important—When removing any films for development before all are exposed, do not remove papers of safety cover but leave same to protect top film after all have been exposed and the pack removed in daylight.

To Load the Films into Cage

When all is ready load each film into its respective compartment of the cage without detaching the black paper. This is readily done by holding the film between the thumb and fingers with the black paper toward the hand, and doubling the edges together as shown in Fig. 3. Slide them carefully down to



Fig. 3

the bottom of each compartment, with torn edge up, and see that the center piece protrudes between the edges of the film, preventing them from coming together during the process of development. When all the films are loaded, place cage into developing tank (Fig. 4) and raise and lower it slightly below the surface of the developer, two or three times, to expel air bubbles. Replace the cover of the tank by dropping it on and turning it to the right as far as possible.

The white light may now be turned on and the time noted. The time may be marked on the dial

which appears on the face of the container that comes with the developing

powders.

During the process of development the tank should be turned end for end four or five times to procure uniform and even development. At the expiration of twenty minutes the top may be removed

light and the developer poured off. The tank should now be held under a tap of running water or immersed for a few seconds in a vessel of clear water.

Fig. 4

The films are then ready for fixing.

The fixing bath may be prepared in a tray or other vessel, the cage taken from tank—the metal hook being intended for this purpose, and the films removed from the cage, the duplex papers pulled off and films placed in the bath, leaving the tank and cage available for the next pack. The films should be moved about, two or three times, to insure evenness of fixing.

After the films have been fixed a sufficient length of time so that all the shadows are perfectly transparent and no yellowish spots appear, they should be placed in a tray under running water and washed for half an hour. Before washing be sure black papers are all detached. If running water is not available they should be left in the water about three-quarters of an hour and the water changed six or eight times to remove all trace of hypo.

After this process is completed, the films are taken from the tray and pinned up by the corner, preferably to the edge of a shelf or some projecting surface which will not permit either side of the film to come in contact with any object, as otherwise the film will stick and ruin the negative. Or you may hang the negatives on a stretched string by means of a bent pin, running the pin through the corner of film to the head, then hooking it over the string.

The above instructions, if carefully followed, will produce the most satisfactory results, provided anything like proper exposures have been given. We recommend the use of the regular Premo Developing Powders in these tanks, as they have been compounded from the purest chemicals for this purpose. For those who wish to mix their own solutions, we give the following formulæ:

Note-Avoirdupois weight is the standard used in compounding Photographic Formulae.

Stock Developing Solution

Pyro Formula

Pyrogallic Acid Solution

Pyrogallic Acid	1 Oz.
*Sulphuric Acid	20 Minims.
Water	
*If Eastman Permanent Crystal Pyro is used omitted.	the acid should be
Soda Solution	
Sulphite Soda (desiccated)*	3 Ozs.
Carbonate Soda (desiccated)*	3 Ozs.

*This solution is based on the strength of Eastman Sulphite and Carbonate, and if possible, these chemicals should be used.

For No. 2 Film Pack Tank-52 Ozs., take:

Pyro Solution	3 Ozs.
Soda Solution	3 Ozs.
Water	46 Ozs.

Develop 20 Minutes

Fixing Solution,

water	10 025.
Hyposulphite of Soda	4 Ozs.
Sulphite of Soda (Desiccated)*	¼ Oz.

When fully dissolved add the following hardener:

Powdered Alum	⅓ Oz.
Citric Acid	⅓ Oz.

^{*} If crystals are used, double the quantity.

This bath may be made up at any time in advance and be used so long as it retains its strength, or is not sufficiently discolored by developer carried into it as to stain the negatives.

Time and Temperature

It sometimes happens that the amateur is not able to obtain or maintain the standard or normal temperature of 65 degrees Fahr, when using the Premo Tank and Premo Tank Powders. In such cases the following table will be found of value.

Ten	nperature	Time-One	Powder	Time	-Two Powders
70	Degrees	15 Min	nites	8 Minutes	
69	9	16	1	ο.	muces
68	44	17 "	6	. 9	66
67	66	18 "		y	
66	44	19 "			
65	" NORMAL		NORMAL	10	*********
64	"	21 "	RUNINAL	10	" NORMAL
63	44	22 "	ı		
62	44	23 "		11	44
61	44	24 "		11	
60	66	25 "			
59	44	26 "		10	
58	44	27 "		12	**
57	"	28 "			
56	44	. 29 "		10	
55	44	ão "		13	•••
54	44	31 "			
53	66	32 "		14	44
52	"	33 "		14	
51	- 66	34. "			
50	44	35 "		15	44
49	**	36 "		19	
48	44	37 "			
59 58 57 56 55 54 53 52 51 50 49 48 47 46	66	38 "		10	
46	"	39 "		16	••
45	"	40 "		17	16
		. 10		1.5	

Temperature of Developer must not exceed 70 degrees Fahr., as above that point there is danger of the film frilling. 45 degrees Fahr. is the lowest temperature at which the developing powders can be dissolved and even at this temperature the powder must be finely crushed and added slowly to the water.

It is best to use the normal temperature (65°) when possible as the use of a developer that is colder than normal has a slight tendency to increase the contrast in a negative, while the use of a developer warmer than normal slightly flattens the resulting negatives.

SECTION 2

Developing Premo Film Pack Film by the Dark-Room Method

If you are to develop the contents of a $3\frac{1}{4}$ x $4\frac{1}{4}$ or 4×5 Film Pack an Eastman A B C Developing and Printing Outfit will be found most economical.



A B C Developing Outfit The Outfit Contains:

The Outfit Contains:	
1 Kodak Candle Lamp\$.25	
4 Developing Trays	
1 4-07 (Products	
1 4 V & Printing Factor	
1 4 v 5 Close for game	
1 4 x 5 Glass for same	
1 Stirring Rod	
1 Box (5 tubes) Eastman Special De-	
veloping Powders	
2 Dozen Shoots 4 - 5 W. 1 Powder 15	
2 Dozen Sheets 4 x 5 Velox Paper50	
1 2-oz. Bottle Nepera Solution	
1 Package Bromide Potassium	
I Instruction Deal-	
.10 restruction book	
\$2.20	
\$2.30	

Price, complete, neatly packed, \$1.50. This outfit cannot be shipped by mail.

If to develop the contents of a 3A (3½ x 5½) Film Pack an Eastman 3A Developing and Printing Outfit will be found convenient.

The outfit is similar to the A. B. C. (described on page 35) except that the velox paper, printing frame and trays differ as to size.

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

By a dark-room is meant one that is wholly dark—not a ray of light in it. Such a room can easily be secured at night almost anywhere. The reason a dark-room is required is that the film is very rapid, and therefore, 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, set up on the table or shelf the Kodak Candle Lamp.

The lamp gives a subdued red light which will not injure the film unless it is held too close to it. Set the lamp on the table at least eighteen inches from the operator.

Never use a yellow light or fog will be the result.

- 1. Fill one of the trays nearly full of water (first tray.)
- 2. Open one of the developer powders, then put the contents (two chemicals) into graduate and fill it up to the 4 ounce mark with water. Stir until dissolved, with the wooden stirring rod, and pour into second tray.

For removing Film from Film Pack, see page 28.

After removing the exposed Films from the Pack, the black paper to which they will be found attached should be removed and each film placed, emulsion side down, in the tray of water. (The emulsion side, or face, is the dull side.) They should be allowed to stand two or three minutes and then each film should be placed separately in the developing tray, still face down. The tray should be rocked gently from time to time, the films never being allowed to mat together, and the progress of development ascertained by holding the film up to the light of the lamp.

Note.—When making an examination of the film do not hold it close to the lamp for any length of time, as it would be liable to fog.

Complete development giving sufficient length of time to bring out what detail you can in the thinnest negatives. Do not check the development too soon, or the detail will be lost and the negative will be void of contrast, weak and flat; neither continue it too long, as fog and flatness will result.

It usually requires a longer time to develop instantaneous exposures, as they are rarely fully timed, and a film or plate which has not had full exposure requires longer time for development.

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.

After completing development transfer to the third tray and rinse two or three times with clear, cold water, and transfer to fixing bath (see page 39).

Developing Formulae for Dark-Room Development

We recommend using Eastman Special Developer Powders, which are furnished in packages and are compounded by simply adding the amount of water marked on each package. The following formulae will also be found satisfactory:

Elon-Hydrochinon or Metol-Hydrochinon

SOLUTION A

Elon or Metol	30
Water SOLUTION B	20 Ozs.
Carbonate of Soda (Desiccated)*	½ Oz.

To Develop

Take Solution A 1 oz., Solution B 1 oz., Water 2 ozs. Add one or two drops of a 10 per cent. solution Potassium Bromide to each ounce of developer.

Pyro Formula

SOLUTION A

Pyrogallie Acid	20	Minims	
-----------------	----	--------	--

SOLUTION B

Sulphite of Soda (Desicated)*	3 (Ozs.
Carbonate of Soda (Desiccated)*	2	**
Water	28	"

To Develop

Take Solution A 1 oz., Solution B 1 oz., Water 8 ozs.

*If crystals are used, double the quantity.

Note.—Temperature of all developing solutions should be 65° Fahr.

Fixing

We recommend the use of Kodak Acid Fixing Powder, or the following formula:

Water	16	Ozs.
Hyposulphite of Soda	4	Ogs.
Sulphite of Soda (Desiccated)	1/4	44

When fully dissolved add the following hardener:
Powdered Alum..... 1/8 Oz. Citric Acid1/8 oz.

This bath may be made up for future use and may be used as long as it retains its strength.

Fixing

The Kodak Acid Fixing Bath should be prepared as per directions on the package. Put this into a fourth tray or wash bowl. When the powder has thoroughly dissolved add to the solution as much of the Acidifier, which you will find in a small box inside the large one as directions call for. As soon as this has dissolved the Fixing Bath is ready for use. Any quantity of the bath may be prepared in the above proportions.

After the negatives have been placed in the Fixing Solution, keep them separated a part of the time. This insures the solution reaching every part of the Film. Allow the negatives to remain in the solution two or three minutes after they have cleared or the milky appearance has disappeared, then remove for washing.

Washing and Drying

All negatives must be thoroughly washed so as to remove every trace of hypo and other foreign substance. Where running water is accessible the films

may be placed in a tray or washing box and left under a tap from which runs a gentle stream, for about an hour. Films should be moved about from time to time, so that a complete and thorough washing may be had. Do not crowd too many films in too small a tray during this process. When running water is not accessible, the negatives may be placed in a tray or bowl of cold water, and left to soak for five minutes, when the water should be changed and the process repeated five or six times. carefully washing the films can be pinned up by one corner to an overhanging ledge or frame, as it is imperative that the surfaces touch nothing until perfectly dry; otherwise they would stick and the negatives would be ruined. After negatives are thoroughly dry they 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:

Over-Development

Over-development may be caused by a mistake in leaving films or plates in the developer too long, by using solution too warm or by those who mix their own developer in getting the developing agent too strong.

In this case the negative is very strong and intense by transmitted light and requires a very long time to print. The remedy is to reduce by the use of Eastman Reducer or the following method:

Reducer

First, soak negatives 20 minutes in water, then immerse in:

Water	6 Ozs.
Hyposulphite of Soda	1/2 "
Porri Cronido Potossium (saturated solution)	20 Drope

Rock tray gently back and forth until negative has been reduced to the desired density, then wash ten minutes in running water or in four changes of water.

Negatives may be reduced locally by applying the above solution to the dense parts with a camel's hair brush, rinsing off the reducer with clear water occasionally to prevent its running onto the parts of the negative that do not require reducing.

Under-Development

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.

This defect would be caused by a mistake in removing film from the developer too soon, by using solution too cold or by an error in compounding chemicals. It is obvious that neither of these defects will occur in Tank Development if instructions are properly followed.

Intensification by Re-Development

There are a number of different processes for intensifying under-developed negatives, the most

common being by means of Bichloride of Mercury, and Sodium Sulphite or Ammonia.

This method, though simple to use, has its disadvantages, as it builds up the highlights out of proportion to the weaker portions of the negative, and also, unless carefully handled is apt to produce iridescent stains, or granular markings that are impossible to remove.

While the method of intensification by re-development is only comparatively new, the now common use of Velox and Royal Re-developer for Sepia tones on Velox and Bromide prints will make this the most effective means of intensification.

Velox or Royal Re-Developer may be used in exactly the same manner as for producing Sepia tones on developing paper.

Negatives intensified by re-developing are built up evenly, without undue contrast and without the chance of staining.

The advantage of being able to use the chemicals for two different purposes (Sepia toning prints or intensifying negatives) is obvious, the result in either case being all that could be desired.

PART IV Printing on Velox Paper Manipulation

Velox prints may be successfully made, using daylight for exposure. Select a north window, if possible, as the light from this direction will be more uniform. Owing to its sensitiveness the paper should be handled in subdued light, otherwise it will be liable. to fog. Proper precautions should be taken to pull down the window shades and darken the room sufficiently during manipulation. If the light is too strong for printing it should be subdued or diffused by the use of several thicknesses of white tissue paper. Owing to the varying intensity of daylight uniform results are not as certain as when using artificial light. In the following instructions for manipulating Velox, it must be understood that artificial light, preferably gas with a Welsbach burner, will be the light used. A kerosene lamp, fitted with a round burner (known as Rochester burner), may be used, but owing to the decidedly vellow light this affords, a considerably longer exposure will be necessary than when using a Welsbach light.

The comparative exposures with Velox using various sources of light is as follows:

Size of Nega- tive	Dis- tance from Light	Wels- bach Burner	32 C. P. Elec. or 6 ft. gas Burner	16 C. P. Elec. or 4 it. gas Burner	Average Oil Lamp
4 x 5 or Smaller	7 inches	10 Sec.	20 Sec.	30 Sec.	40 Sec.

Having provided a suitable light and a convenient place to work, arrange three trays before you on your work table in this order:

Clean Water	X Towel	Kodak Acid Fixing Bath as directed on page
2		39 3
	Clean Water	X

Proper temperature is important and for best results the developer should be 70 degrees Fahr. and the fixing bath and wash water 50 degrees Fahr. If the developer exceeds 70 degrees the prints are liable to fog and the emulsion soften. If too cold, chemical action is retarded, resulting in flat, weak prints.

Printing

Velox may be safely manipulated ten feet from the ordinary gas flame.

Having everything in readiness, open the printing frame of your outfit and lay the negative back down upon the glass—(the back is the shiny side). Place upon the negative a sheet of the Velox paper face down.

The paper curls slightly, the face or sensitive side being concave; an absolute test is to bite the corner of the sheet; the sensitive side will adhere to the teeth.

The paper not used must be kept covered in its envelope.

Place the printing frame the correct distance from the artificial light used, holding the frame away from the burner a distance equal to the diagonal of the negative. See exposure table, page 43.

We suggest before making the first exposure the cutting of a piece of Velox paper into strips about an inch wide and placing one of them over an important part of the negative, make the exposure, using your best judgment as to the distance from the light and the time of printing. Develop it, and if not satisfactory try another strip, varying the time as indicated by the first result. When the desired effect is secured, you can make any number of prints from the same negative, and if the time of exposure, distance from light as well as the time of developing are identical, all the prints should be equally good. By comparing your other negatives with the one you have tested, you will be able to make a fairly accurate estimate of exposure required by any negative.

After taking the exposed piece of paper from the printing frame, in a safe place previously selected, it is ready for development. The dry print should be immersed face up in the developer (Tray No. 1) and quickly and evenly covered with the solution. Regular Velox should be developed not to exceed twenty seconds, Special Velox about twice as long; no exact time can be given, as the strength of developer used would make a difference in the time.

As soon as the image has reached the desired depth remove from the developer to the second tray and rinse for a moment, turning the print several times, then place it in the acid fixing bath (Tray No. 3) keeping the print moving for a few seconds, the same as was done when rinsing, so as to give even and thorough fixing, preventing stains and

other troubles. Leave the print in this solution until thoroughly fixed; this will take about fifteen minutes. When fixed remove from the fixing bath and wash thoroughly for about an hour in running water, then dry. After drying, prints may be trimmed and mounted.

Do not use a fixing bath that has been used for fixing negatives.

You should be systematic in working, remembering that cleanliness is essential in photography. Care must be taken to prevent the Hypo fixing bath in any way getting into the tray containing the developer. Have a clean towel when beginning the work and wipe your hands each time after you have handled prints in fixing bath.

Details

CLEAN DISHES: CLEAN HANDS: The faintest trace of Hypo-Sulphite of Soda will spoil the prints if it gets into contact with them before the proper time. Great care should therefore be used to have both hands and trays clean.

DEVELOPER once used should not be carried over and used the next day or subsequently.

Don't

Don't use a tray for developing which has previously been used for hypo solution, pyro developer or final washing.

Don't use an old fixing solution, it is liable to cause trouble.

Difficulties, their cause and Remedy

VEILED WHITES: Caused by forcing development, fogged paper.

REMEDY: Give more time, screen light. Also, caused when image flashes up in developer by too much exposure, in which case give less time.

MUDDY SHADOWS: Caused by developer being used for too many prints. Remedy, use fresh developer.

CONTRASTY PRINTS. Caused by insufficient time or negative too harsh. Remedy, give more time; make softer negatives.

FLAT PRINTS: Caused by overtiming or negatives flat. Remedy, give less time in first instance, and if trouble is with negatives, give negative less time, develop further.

STAINS. Caused by forcing development, or chemically dirty dishes or hands, insufficient fixing, foreign chemicals. Remedy, do not allow chemicals other than those given in formulas to come in contact with paper; use fresh fixing bath; keep prints in constant motion the entire fifteen minutes they remain in fixing, and if due to forcing development give more time in printing.

ROUND, WHITE SPOTS: Caused by air bells which form on face of print when developer is first flowed on. Remedy, use more developer, break air bells with finger.

Ask your dealer, or us, for a copy of the Velox Book

PARTV

Mounting

The most satisfactory method for mounting prints is by the use of Kodak Dry Mounting Tissue, as by the use of this tissue the print lies perfectly flat in absolute contact even on the thinnest mount and absolutely without curl.

The tissue comes in flat sheets, dry, not sticky, and easy to handle and being water proof protects the print from any impurities in the mount stock. The process of mounting is as follows: Lay the print on its face and tack to the back a piece of the tissue of the same size as the print by applying the point of a hot flatiron to small spots at opposite ends. Turn the print face up and trim to size desired, place in position on mount and cover the print with a piece of smooth paper and press the whole surface with a hot flatiron. Press, don't rub. The iron should be just hot enough to siss when touched with the wet finger. If the iron is too hot the tissue will stick to the mount and not to the print, if too cold the tissue will stick to the print and not to the mount.

Remedy: Lower or raise the temperature of the iron and apply again.

When mounting with the ordinary paste, prints should be mounted wet. After the prints have been trimmed to correct size, immerse in clean water for

a few moments, then place in a pile face down on a sheet of clean glass and squeegee off all surplus moisture, apply the paste with a bristle brush, working in the paste thoroughly, then lift the print by the opposite corners, turn it over and place it in proper position on the mount.

Cover with a sheet of clean blotting paper and press into contact with squeegee or rubber print roller.

Coloring Velox Prints

The various surfaces of Velox are particularly well-adapted for coloring, and prints may be made extremely interesting through the many beautiful effects obtained by the use of Velox Transparent Water Color Stamps. No experience is necessary when using these colors and any amateur can secure excellent results as full directions accompany each set of stamps.

Put up in book form, they will be found most convenient. Each book contains twelve colors, arranged in perforated leaflets, making twenty-four stamps of each color.

The stamps will also be found most desirable for the coloring of Bromide enlargements, lantern slides, etc., and in fact for all work where perfect blending and transparency of color is required.

See price list.

EASTMAN KODAK COMPANY, Successor to ROCHESTER OPTICAL COMPANY, Rochester, N. Y.

PRICE LIST

Film Premo No 1, $3\frac{1}{4} \times 4\frac{1}{4} \dots$	310 00
Do., $3A (3\frac{1}{4} \times 5\frac{1}{2})$	12 50
Do., 4 x 5	12.50
Sole Leather Carrying Case for Film Premo	
No. 1, 3¼ x 4¼	1 50
Do., for 3A $(3\frac{1}{4} \times 5\frac{1}{2})$ and 4×5	2 00
Premo Film Pack (12 Exposures) 3½ x 4½	70
Do., $3A (3\frac{1}{4} \times 5\frac{1}{2})$	80
Do., 4 x 5	90
Premo Film Pack Tank No. 2 for developing	
$12, 2\frac{1}{2} \times 4\frac{1}{4}, 3\frac{1}{4} \times 4\frac{1}{4}, 3A (3\frac{1}{4} \times 5\frac{1}{2}), \text{ or }$	
4 x 5 films	3 50
Premo Tank Developing Powders, No. 2, per	
package ½ doz. pairs	25
Kodak Acid Fixing Powder, pound package.	25
Do., ½ pound package	15
Do., ¼ pound package	10
Eastman Eikonogen Developer Powders (for	
dark room development), per doz. pairs	50
Do., per ½ doz. pairs	25
Eastman Hydrochinon Developer Powders	
(do not stain the fingers), per doz. pairs.	50
Do., per ½ doz. pairs	25
Eastman Pyro Developer Powders (for dark	
room development), per doz. pairs	50
Do., per ½ doz. pairs	25
Eastman Hydrochinon, Eikonogen, Pyro and	
Special Developer Powders, in sealed	
glass tubes, per box of 5 tubes	25

Glass Stirring Rod Thermometer	\$0	60
Velox Paper, per doz. $3\frac{1}{4} \times 4\frac{1}{4}$ or $3\frac{1}{4} \times 5\frac{1}{2}$	Ψ.	15
Do., 4 x 5		25
Velox Transparent Water Color Stamps, com-		
plete Booklet of 12 colors		25
Nepera Solution for develop'g Velox, 4 oz. bot.		20
Solio Paper, per pkg. 2 doz. 3½ x 4½		20
Do., $3\frac{1}{4} \times 5\frac{1}{2}$ or 4×5		25
Eastman Printing Masks No. 6, for use with		
3¼ x 4¼ Film Pack Negatives, each		06
Do., No. 11, for $3\frac{1}{4} \times 5\frac{1}{2}$ Negatives, each		10
Do., No. 12, for 4 x 5 Negatives, each		10
Combined Toning and Fixing Solution for		
Solio, per 8 oz. bottle		50
Do., per 4 oz. bottle (in mailing case including		
postage, 50c)		30
Eastman Reducer, per box, 5 tubes		25
Royal Re-developer, per package, 6 tubes		75
Eastman Flash Sheets, No. 1 per package of		
½ doz		25
Do., No. 2, per package of ½ doz		40
Do., No. 3, per package of ½ doz		60
Eastman Flash Sheet Holder	1	00
Kodak Dry Mounting Tissue, per package of		
3 doz. sheets, $3\frac{1}{4} \times 4\frac{1}{4} \dots$		10
Do., $3\frac{1}{4} \times 5\frac{1}{2}$ or 4×5 , 2 dozen sheets		10
Eastman Photo Blotter Book, for blotting and		
drying prints		25
R. O. C. Tripod, for cameras 5 x 7 or smaller	1	70
Kodak Metal Tripod No. 1	2	50
Do., No. 2	3	25
Kodak Autotime Scale, for Ball Bearing Shutter	1	00

R. O. C. Tripod Truck No. 1	\$1 00
Eastman Kodak Dark Room Lamp No. 2,	•
5% inch wick	1 00
Eastman Indexed Negative Album, to hold	
$1003\frac{1}{4} \times 4\frac{1}{4}$, $3\frac{1}{4} \times 5\frac{1}{2}$ or 4×5 film negatives	1 00
Kodak Trimming Board No. 2, capacity 7 x 7	
inches	60
Bevplane Mounts, for pictures 31/4 x 51/2, per	
100	90
Do., per 50	45
Do., $3\frac{1}{4} \times 4\frac{1}{4}$, per 100	8 5
Do., per 50	45
The Arena Album, 50 Black or Sepia Leaves,	
size 7 x 10	1 50
Premo Portrait Attachment	50
Premo Ray Screen, No. 1, for use with Film	
Premo No. 1, 3A $(3\frac{1}{4} \times 5\frac{1}{2})$ and 4×5	40
Universal Clamp for attaching camera to	
chair, fence, etc	75
Eastman Printing Frame, 4 x 5	25
Do., 3¼ x 5½	25
Do., 5 x 7	35
Developing Trays, Bull's Eye Composition, 4x5	15
Do., 5 x 7	25
Premo Optical Outfit, contains 6 supplemen-	
tary lenses	6 00
Developing, printing and mounting (on Velox,)	
12 exposures, 3½ x 4½ Premo Film Pack	1 50
Do., prints unmounted	1 38
Developing, only	70
Printing only, unmounted, each	07
Do., mounted, each	.08

Developing, printing and mounting (on Velox,)
12 exposures, 3¼ x 5½ or 4 x 5 Premo
Film Pack \$1 80
Do., prints unmounted 1 68
Developing, only 1 00
Printing only, unmounted, each
Do., mounted, each 10
No orders executed for less than 25 cents.
For Prices on all Premo Cameras and other acces-

sories, write for complete Premo Catalogue.

EASTMAN KODAK CO.,

Successor to Rochester Optical Co.,
Rochester, N. Y.

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 film, plates 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,

Successor to

ROCHESTER OPTICAL Co., Rochester, N. Y.

The Kodak Correspondence College

A Course Which is Open to All Users of Premo Cameras and Which Will Increase Your Photographic Pleasure by Helping You to make Better Pictures.

Tuition two dollars which includes a handsome cloth bound copy, Library Edition, of the School Text Book

"HOW TO MAKE GOOD PICTURES"

Add To The Range of Your

Camera With

The Premo Optical Outfit

The attachments slip over your regular lens like a cap, and include

AN ENLARGING AND COPYING LENS, A WIDE ANGLE LENS, TEL-EPHOTO LENS, PORTRAIT LENS, RAY FILTER AND A DUPLICATOR.



Price in Leather Case as Illustrated, \$6.00

EASTMAN KODAK CO.

Successor to Rochester Optical Co.
ROCHESTER, N. Y.