

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.**

## PART III.

### REMOVING THE FILM.

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

I. When the last section of film has been exposed, turn the key about 5 half turns.

II. Provide an extra spool of film to fit this camera, and take a position by a table as far as possible from any window.

III. Remove the back from the Kodak as before described, page 5.

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

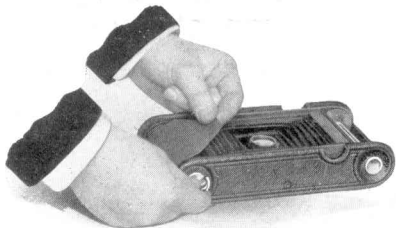


FIG. I.

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

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

VI. Pull out spool pin and winding key, and lift out roll of film as shown in Fig. II.

VII. Fold over half-inch at end of red paper (so as to make subsequent breaking of the seal easy), and then seal with sticker.

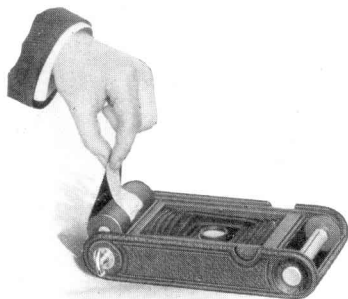


FIG. II.

*Removing the Cartridge of Exposed Film.*

VIII. Wrap up exposed film immediately to prevent the possibility of light being admitted.

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

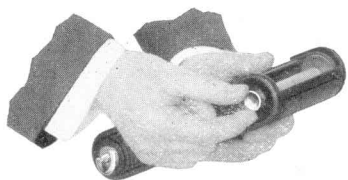


FIG. III.

*Pulling out Center Pins to remove Empty Spool.*

X. Slip this spool into place at the winding side of camera (this will form a new reel),



FIG. IV.

*Pulling out Key to admit New Reel.*

pulling out the key in so doing, as shown in Fig. IV, and fitting the web which is attached to key into the slot in the end of spool. Now

push the axis pin in the opposite end of spool until it is fixed in position by the embossed stop.

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

The roll of exposures can now be mailed to us for finishing (see price list), or you can do the developing and printing yourself.

**NOTE:** In mailing us film for development do not fail to mark the package plainly with your name and address, and write us a letter of advice, with remittance.

### CINCH MARKS.

If the film and paper loosen up a trifle when taken from the camera, many amateurs are likely to take the cartridge in the hand and wind it as closely as possible, cinching it tightly with a twisting motion. There's nothing more likely to injure the negative than this tight drawing of the film, as it abrades the surface, making fine parallel scratches running lengthwise of the film, which, in some cases, will ruin the negative. *Do not "cinch" the cartridge.* It simply needs to be wound tightly enough so that the red paper keeps inside the flanges.

### DIMMED FINDERS AND HOW TO MAKE THEM BRIGHT AGAIN.

For some cause which is not thoroughly understood, glass will sometimes "sweat" to

such an extent as to cover it with a sort of film, which, of course, makes it very dull, whether it be used as 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 No. 1A Autographic Kodak Junior, wind the end of a handkerchief around the end of a lead pencil and pass between lens and mirror.

### KEEP DUST OUT OF THE CAMERA.

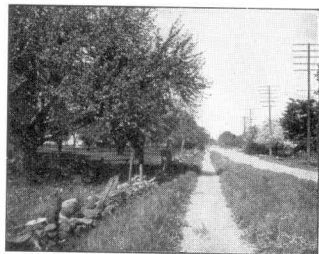
Defective negatives are often caused by particles of dust which have collected on the inside of the camera and settle upon the film in particles that produce small dark spots upon the prints.

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.

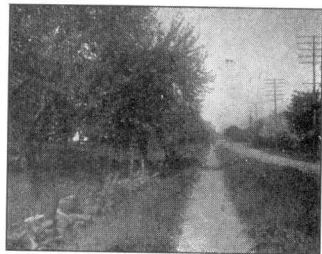
### CLEAN LENSES.

Dirty or dusty lenses are frequently the cause for photographic failures. These pictures illustrate this point clearly. The sharp, full-timed picture at the top was taken with the lens clean and in good order. To produce the effect shown in the picture at the bottom, 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 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 under-timed.



CLEAN LENS.



LENS SLIGHTLY DIRTY.

## PART IV.

### DEVELOPING.

There is no necessity of working in a dark-room or waiting until night to develop film. It can be done in daylight at any time and place. And the daylight method of developing film gives better results than the dark-room way.

Film may be developed in daylight by the Kodak Film Tank method. Detailed directions for developing will be found in the manual which accompanies the goods. The operation is given briefly in the following pages.

We recommend the Kodak Film Tank method particularly for its simpleness, and the uniformly good negatives which it gives.

The preparation of an Autographic Film Cartridge for development and the method of developing it in the Kodak Film Tank is precisely the same as for the regular N. C. film cartridge.

#### DEVELOPING WITH THE KODAK FILM TANK.

For use with No. 1A Autographic Kodak Junior, provide a 2½ inch Kodak Film Tank.

The Kodak Film Tank consists of a wooden box, a light-proof apron, a "transferring reel,"

**NOTE:** Avoirdupois weight is the standard used in compounding photographic formulæ.

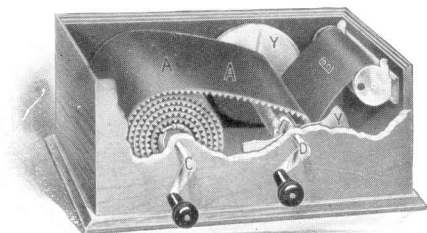


FIG. I.

a metal "solution cup" in which the film is developed, and a hooked rod for removing film from solution. There is also a dummy film cartridge with which one should experiment before using an exposed cartridge.

1. Take everything out of the box. Take apron and Transferring Reel out of solution cup.

2. Insert the axles marked C and D in the cut, in the holes in front of box. The front will be toward you when the spool carrier in end of box is at your right.

3. The axle "C" must be pushed through the hollow spindle which will be found loose in the box. The two lugs on this spindle are to engage the hooks at end of apron. The axle "D" must be pushed through the hollow rod of

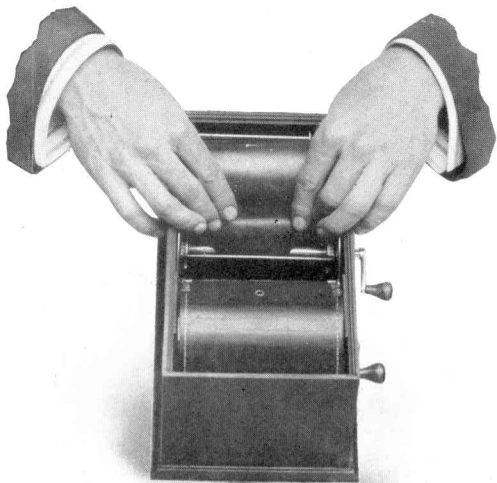


FIG. II.

the Transferring Reel to hold reel in position, as indicated in the illustration. The flanges at each end of the Transferring Reel are marked "Y" in the illustration.

4. Attach one end of the apron to spindle through which axle "C" passes by means of the metal hooks which are to be engaged with the lugs on the spindle. The corrugated side of

the rubber bands is to be beneath the apron when it is attached. Turn to left on axle "C" and wind entire apron on to spindle, maintaining a slight tension on apron in so doing by resting one hand on it.

### IMPORTANT

#### Preparing the Cartridge

Film to be used in the Kodak Film Tank must be fastened to the red paper at both ends. All films are fastened at one end in our factory. The operation can be accomplished in the following manner:

Just before you are ready to develop (holding spool with the unprinted side of the red paper up) unroll the red paper carefully until you uncover the piece of gummed paper which is fastened to end of film and is to be used as a means of fastening film to red paper. Moisten the gummed side of sticker evenly for about an inch across the end and stick it down to red paper, rubbing thoroughly to secure perfect adhesion. Wind end of red paper on spool again and the cartridge is ready to insert in machine.

5. Insert film cartridge in spool carrier and close up the movable arm against end of spool. Have the red paper ("B" in Fig. 1) lead from the top.

6. Thread the paper underneath the wire guard on transferring reel through which axle "D" passes (Fig. II), and turn axle slowly to right until the word "stop" appears on the red paper.

7. Now hook apron to lugs on axle "D" in precisely the same manner that you hooked the opposite end to axle "C," except that axle "D" turns to the right.

8. Turn handle half a revolution so that apron becomes firmly attached, and put on

cover of box. Turn axle "D" slowly and steadily until red paper, film and apron are rolled up together on transferring reel. As soon as this is completed the handle will turn very freely.

9. Prepare developing solution in solution cup according to directions in Kodak Film Tank Manual.

10. Remove cover from box and take hold of the red paper where it projects beyond the end of the apron. Then wind axle "D" until the red paper becomes taut.

NOTE: Where the film is so short that the red paper does not extend, the above instructions are not necessary.

11. Draw out axle "D," holding apron and red paper with the other hand to keep end of apron and paper from loosening. Remove entire Transferring Reel, containing apron, red paper and film (which is freed by pulling out axle "D") and slip a small rubber band around the apron tightly so that there will be no possibility of its unwinding.

NOTE: In removing reel do not squeeze the apron, as by doing so there will be a tendency for it to buckle.

12. Insert the Transferring Reel (containing apron, paper and film) in the previously prepared developer immediately.

The operation of removing reel from box can be done in the light of an ordinary room, but for safety it is well that the light should not be too bright.

### Using the Solution Cup.

13. Having filled solution cup, lower Transferring Reel into cup with end containing cross bar up. (Fig. III.) Let reel slide down slowly.

The total length of time for development is 20 minutes.

*Note—Immediately after lowering reel into solution cup, catch it with the wire hook and move gently up and down two or three times, but not allowing reel to come above surface of developing solution. This is to expel air bubbles.*

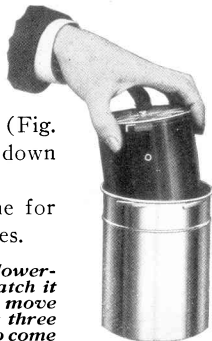


FIG. III.

Allow development to proceed for about two minutes with cover of solution cup off; then place the cover on the cup (Fig. IV.), putting lugs on cover into grooves and tighten cover down by turning it to right.

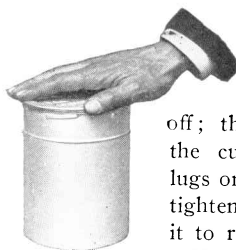


FIG. IV.

Now, turn the entire cup end for end and place in a tray or saucer to catch any slight leak from the cup. At the end of three minutes again reverse the cup, and thereafter reverse every

three minutes until the time of development (20 minutes) has elapsed. Turning the solution cup allows the developer to act evenly and adds brilliancy and snap to the negatives.

14. The wire hook is to be used for lifting the reel out of the cup. Hook to the cross bar on one end of reel. When the end of reel containing cross bar is at the bottom of cup, the hook is just long enough to catch the cross bar.

15. When developing is completed, pour out developer and fill cup with clear, cold water, and pour off. Repeat three times. Then remove Transferring Reel, separate film from the tissue and red paper, and place immediately in the Fixing Bath which should be in readiness, prepared in accordance with directions on page 67.

**NOTE:** When removing cover of solution cup, place cup in palm of hand so as to obtain a firm grip on bottom of can. Then grip cover with other hand and turn slowly to left, when cover will loosen readily.

The film may be separated from the tissue and red paper in the subdued light of an ordinary room, if the developer is thoroughly washed out.

The operation of separating film and red paper should be done over a bowl, bath tub, or sink.

Any pieces of the tissue or paper that may adhere to the film when it goes into the fixing

bath must be removed by gently rubbing with the wet finger before the film is washed and dried.

If the tank is not to be used again immediately, the apron and tank should be washed and wiped dry. The apron must always be perfectly dry when film is rolled up in same. The apron will dry almost instantly if immersed for a moment in very hot water.

Keep apron wound on Transferring Reel when not in use. Never leave apron soaking in water.

#### IMPORTANT.

When cutting apart exposures made on Autographic Film, after development, always leave the writing next to the foreground of the adjoining negative in the case of vertical pictures, or at the left hand of the negative when looked at from the back, (the back is the shiny side), right side up, in the case of horizontal pictures.

The result is a negative bearing a facsimile of the memorandum written upon the back of the red paper, developed on its margin or face as the case may be. For it is obvious that by winding the film the width of a line the writing may be made to appear in the foreground of a vertical picture (of course the lower line



must be written first) or on the left hand side of a horizontal picture.

### Time and Temperature for Tank Development.

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 Kodak Tank and the Kodak Tank Developer Powders. In such cases the following table will be found of value:

TEMPERATURE	TIME	
	ONE POWDER	TWO POWDERS
70 Degrees	15 Minutes	8 Minutes
69 "	16 "	"
68 "	17 "	9 "
67 "	18 "	"
66 "	19 "	"
65 " <b>NORMAL</b>	20 " <b>NORMAL</b>	10 " <b>NORMAL</b>
64 "	21 "	"
63 "	22 "	"
62 "	23 "	11 "
61 "	24 "	"
60 "	25 "	"
59 "	26 "	12 "
58 "	27 "	"
57 "	28 "	"
56 "	29 "	13 "
55 "	30 "	"
54 "	31 "	"
53 "	32 "	14 "
52 "	33 "	"
51 "	34 "	"
50 "	35 "	15 "
49 "	36 "	"
48 "	37 "	"
47 "	38 "	16 "
46 "	39 "	"
45 "	40 "	17 "

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 degrees) 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 negatives.

### Developing Several Rolls of Film at Once.

Several rolls of film may be developed at the same time if the operator wishes. To do this it is necessary to have a "Duplicating Outfit" consisting of 1 Solution Cup, 1 Transferring Reel and 1 Apron for each additional roll of film to be developed. The extra rolls of film may then be wound onto Transferring Reels as previously described and immersed in the Solution Cups.

## DEVELOPING IN THE DARK ROOM.

For greatest economy provide an Eastman A B C Developing and Printing Outfit which is suitable for 4 x 5 or any smaller size films.



*A B C Developing Outfit.*

### The Outfit Contains:

1 Kodak Candle Lamp, . . . . .	\$ .25
4 Developing Trays, . . . . .	.40
1 4 oz. Graduate, . . . . .	.15
1 4 x 5 Printing Frame, . . . . .	.25
1 4 x 5 Glass for same, . . . . .	.05
1 Stirring Rod, . . . . .	.05
1 Box (5 tubes), Eastman Special Developing Powders, . . . . .	.25
½ Pound Kodak Acid Fixing Powder, . . . . .	.15
2 Doz. Sheets 4 x 5 Velox Paper, . . . . .	.40
1 2-oz. Bottle Nepera Solution for Velox, . . . . .	.10
1 Package Potassium Bromide, . . . . .	.10
1 Instruction Book, . . . . .	.10
	<hr/> \$2.25

Price complete, neatly packed, \$1.50.

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

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

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 with the film, or fog will be the result.



*The Lamp.*

1. Fill one of the trays nearly full of water (first tray).

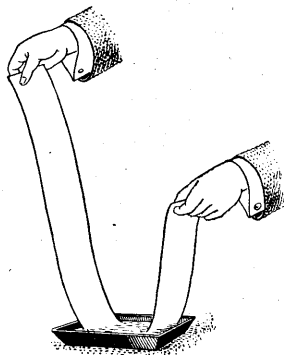
2. Open one of the developer powders, then put the contents (two chemicals) into graduate and fill it up to the 4-ounce mark with water. Stir until dissolved with the wooden stirring rod and pour into second tray.

3. To develop, unroll the film and detach the entire strip from the tissue and red paper.

4. Pass the film through the tray of clean, cold water as shown in the cut, holding one end in each hand. Pass through the water several times, that there may be no bubbles remaining on the film. When it is thoroughly wet, with no air bubbles, it is ready for development.

5. 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, and in about two minutes will be

able to distinguish objects in the picture. 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.

Keep the strip which is being developed constantly in motion, allowing the developer to act 5 to 10 minutes. The progress of development may be watched by holding the negatives up to the lamp from time to time.

**When developing the film, use a red lamp and take care not to hold the film close to the lamp for any length of time. This film is very rapid and is orthochromatic, therefore liable to fog unless handled very carefully.**

6. After completing development, transfer to the third tray, and rinse two or three times with clear, cold water, and transfer to fixing bath.

**NOTE:** If preferred the negatives may be cut apart and fixed separately. Instructions for cutting apart Autographic negatives will be found on page 61.

#### Fixing.

Provide a box of Kodak Acid Fixing powder and prepare the fixing bath as per directions on the package. Put this into a tray (fourth tray of an Eastman developing outfit) or washbowl. 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.

Pass the film face down (the face is the dull side) through the fixing solution, holding one end in each hand. Do this three or four times and then place one end of the film in the tray still face down and lower the strip into the solution in folds, (If the negatives have been cut apart, immerse them singly). Gently press the film where the folds occur, not tightly enough to crack it, down into the solution a few times during the course of fixing. This insures the fixing solution reaching every part of the film. Allow the film to remain in the solution two or three minutes after it has cleared or the milky appearance has disappeared. Then remove for washing.

Film must always be fixed in an acid bath. There is nothing superior to the Kodak Acid Fixing Bath, but the following formula may be used if desired:

#### Acid Hypo Fixing Bath.

Water,	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	64 ozs.
Hypo,	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	16 ozs.

When thoroughly dissolved, add 4 ozs. Velox Liquid Hardener, or the following hardening

solution, dissolving the chemicals separately, and in the order named:

Water,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5 ozs.
E. K. Co. Sulphite of Soda,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1 oz.
Acetic Acid (28%),	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3 ozs.
Powdered Alum,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1 oz.

If preferred, 1 oz. Citric Acid can be substituted for Acetic.

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

**NOTE:** If you are using an Eastman A B C developing outfit the fixing solution must only be used in tray No. 4, and the negatives, after fixing, must not be put in either No. 1 or No. 2 trays. 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 so as to be useless.

#### Washing.

There are several ways of washing film. It may be placed in tray or wash bowl of cold water and left to soak for five minutes each in five changes of cold water, moving about occasionally to insure the water acting evenly upon it, or it may be given, say two changes as above and then left for an hour in a bowl with a very gentle stream of water running in and out.

If negatives have been cut apart they should not be allowed to mat together, but should be separated a part of the time in order that they wash thoroughly.

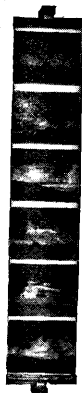
### Drying Film Negatives.

When thoroughly washed, snap an Eastman Film Developing Clip on each end of the strip and hang it up to dry, or pin it up. Be sure, however, that it swings clear of the wall, so that there will be no possibility of either side of the film coming in contact with the latter. In drying, after tank development, film should be cut into strips of *not more* than six exposures in length.

Instructions for cutting apart Autographic Film exposures are given on page 61.

*Drying with  
Clips.*

But in tray development, when the film has been cut up, pin by one corner to the edge of a shelf, or 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.



### 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 film in the developer too long; by using solutions 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 use of Eastman Reducer or the following method:

#### Reducer.

First soak negative 20 minutes in water, then immerse in

Water,	-	-	-	-	-	-	-	-	6 ounces
Hypo,	-	-	-	-	-	-	-	-	½ ounce
Potassium Ferricyanide,	-	-	-	-	-	-	-	-	(saturated solution), poison,
	-	-	-	-	-	-	-	-	20 drops

Rock tray gently back and forth until negative has been reduced to the desired density,

then wash 10 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 solutions 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-development 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 V.****PRINTING.****THE USE OF AUTOGRAPHIC  
NEGATIVES.**

*Catherine's birthday present 6/6/44*

*Autographic Negative.*

how the record will appear on the negative.

It is not a part of the Autographic plan that the record be made to appear upon the print, but such record may be reproduced in the print itself or omitted as desired. Of course if the record appears within the negative proper it will show on the print, if the print is full size. The illustration on this page will show

The "Autographic Record Strip" (Page 28) is printed merely to suggest a few of the thousand and one ways in which autographic records may be used to add value to your negatives.

**PRINTING ON VELOX PAPER.**

Provide :

- 2 dozen sheets  $2\frac{1}{2}$  x  $4\frac{1}{4}$  Velox Paper.
- 1  $3\frac{1}{4}$  x  $5\frac{1}{2}$  Printing Frame and Glass.
- 1 Bottle Nepera Solution.

Film negatives yield beautiful, soft black and white effects when printed on Velox developing-out 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 yellow light this affords, a considerably longer exposure will be necessary than when using a Welsbach light.

The comparative exposures with special Velox from an average negative using various sources of light are as follows:

Size of Negative	Distance from Light	60 Watt Mazda	40 Watt Mazda	25 Watt Mazda	Welsbach Burner (Gas)	Average Oil Lamp
3 1/4 x 5 1/2 4 x 5 and 3 Smaller	10 Inches	4 Sec.	6 Sec.	12 Sec.	16 Sec.	50 Sec.

NOTE: When using Regular Velox increase exposure one third.

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

1 oz. Nepera Solution 4 ozs. Water 1	Clear Water 2	X Towel	Kodak Acid Fixing Bath as directed on page 68 3
--	------------------	------------	--

NOTE: Do not allow the direct rays of light used for printing to strike tray No. 1, which is used for the developer. Place a piece of red or orange-colored paper between the light and tray No. 1, so as to obtain a subdued and safe light. By doing so you will avoid fogging the paper during development.

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 softens. 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, and lay the negative, back down, upon the glass (the back is the shiny side).<sup>\*</sup> Place upon the negative a sheet of 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.

<sup>\*</sup> The strips of gummed paper which are included with the Outfit, are to be used for fastening the negative in place on the glass of the printing frame, or to attach the negative to a mask, so as to prevent it from slipping, which would cause a dark streak to appear between the edge of the picture and the white margin.



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 76.

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 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 film.

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 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 over-timing or negatives flat. Remedy, give less time in first instance, and if trouble is with negatives, give negatives 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 formulae to come in contact with paper; use fresh fixing bath; keep prints in constant motion the entire 15 minutes they remain in fixing bath, and if due to forcing development, give more time in printing.

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

For further particulars, ask your dealer or write us for a copy of the "Velox Book."

**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 CO.,  
Rochester, N. Y.

## PART VI.

### MOUNTING.

The most satisfactory method for mounting prints is by the use of the 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 the tissue being water-proof protects the print from any impurities in the mount stock.

For multiple mounting and folders the tissue is ideal.

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 the print and tissue to the desired size. Place in proper position on mount and cover 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 paste, lay the wet print face down on a sheet of glass and squeegee off all the surplus water, then brush over the back with thin starch paste. Lay the print on the mount. Cover the print with a clean piece of blotting paper and press into contact with squeegee or rubber print roller.

EASTMAN KODAK COMPANY,  
Rochester, N. Y.

Load your Kodak with Kodak Film.

Look for this trade mark on the box :

**EASTMAN**  
*Autographic*  
N G

## The Kodak Correspondence College

A course which will increase  
your photographic pleasures 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”

## Application for Membership in the Kodak Correspondence College.

EASTMAN KODAK CO.,  
Rochester, N. Y.  
K. C. C. Dept.

Gentlemen: I am the owner of a (name camera and size)

and wish to be enrolled as a member of "The Kodak Correspondence College."

I there/ore enclose herewith:  $\left\{ \begin{array}{l} \text{Draft} \\ \text{P. O. Money Order} \\ \text{Express Money Order} \end{array} \right\}$  for two dollars for  
which please send me a volume of "How to Make Good Pictures," library edition, and a certificate of membership entitling me to a full course in "The Kodak Correspondence College."

(Name) .....

(Street and No.) .....

(City) .....

(State) .....

TEAR OFF HERE.

## PRICE LIST.

No. 1A Autographic Kodak Junior, Meniscus Achromatic Lens, fitted with Kodak Ball Bearing Shutter, for pictures $2\frac{1}{2} \times 4\frac{1}{4}$ , - - - -	\$11.00
No. 1A Autographic Kodak Junior, R. R. Lens, fitted with Kodak Ball Bearing Shutter, for pictures $2\frac{1}{2} \times 4\frac{1}{4}$ , - - - -	13.00
Black Sole Leather Carrying Case, with strap, - - - - -	1.50
Autographic Back to fit the No. 1A Kodak Junior, - - - - -	3.00
Kodak Portrait Attachment No. 3, - - - -	.50
Kodak Color Filter No. 3, for use with No. 1A Autographic Kodak Junior, - - - -	.75
Kodak Autotime Scale, for use with No. 1A Autographic Kodak Junior, equipped with Meniscus Achromatic or R. R. Lens and Ball Bearing Shutter, - - - - -	1.00
Autographic Film Cartridge, A-116, 12 exposures, $2\frac{1}{2} \times 4\frac{1}{4}$ , - - - -	.50
Do., 6 exposures, - - - - -	.25
Do., 2 exposures, - - - - -	.12
Kodak Film Tank, $2\frac{1}{2}$ inch, - - - - -	3.50
Duplicating Outfit for same, - - - - -	1.75
*Kodak Tank Developer Powders for $2\frac{1}{2}$ or $3\frac{1}{2}$ inch Tank, per pkg. $\frac{1}{2}$ doz., - - - -	.20
*Kodak Acid Fixing Powder, per 1 lb. package, - - - - -	.25

Do., ½ pound package, - - - - \$	.15
Do., ¼ pound package, - - - -	.10
*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 tubes, per box of 5 tubes, -	.25
*Eastman Reducer, per pkg. of 5 tubes, -	.25
*Royal Re-Developer, per pkg. of 6 tubes, - - - -	.75
Glass Stirring Rod Thermometer, -	.60
Eastman Printing Mask No. 4, for use with 2½ x 4¼ negatives, each, - -	.06
Velox Paper, per doz. 2½ x 4¼, - -	.12
Velox Transparent Water Color Stamps, complete booklet of 12 colors, - -	.25
Velox Transparent Water Color Stamp Outfit, consisting of Artist's Mixing Palette, three special Camel's Hair Brushes, and one book of Velox Transparent Water Color Stamps, (12 colors), - - - -	.75
*Nepera Solution (for developing Velox), 4 oz. bottle, - - - -	.20
Solio Paper, per pkg. 2 doz. 2½ x 4¼, -	.20
*Combined Toning and Fixing Solution for Solio, per 8 ounce bottle, - .	.50

Do., 4 oz. bottle (in mailing case, including postage, \$ .50), - - - - \$	.30
*Eastman Flash Sheets, No. 1, per pkg. ½ doz., - - - -	.31
Do., No. 2, per pkg. ½ doz., - - - -	.50
Do., No. 3, per pkg. ½ doz., - - - -	.75
Kodak Flash Sheet Holder, - - - -	1.00
Kodak Dry Mounting Tissue, 2½ x 4¼, 3 doz. sheets, - - - -	.08
Eastman Film Developing Clips nickel- eled), 3½ in., per pair, - - - -	.25
Kodak Film Clips, (wooden), 5 inch per pair, - - - -	.15
Kodak Metal Tripod, No. 0, - - - -	1.60
Do., No. 1, - - - -	2.50
Do., No. 2, - - - -	3.25
Leather Carrying Case for Kodak Metal Tripod Nos. 0, 1 or 2, - - - -	1.50
Leatherette Carrying Case for the No. 0 Kodak Metal Tripod, - - - -	.75
Eastman Standard Tripod, automatic locking, - - - -	1.75
Kodak Dark Room Lamp, No. 2, ⅝ in. wick, - - - -	1.00
Eastman Film Negative Album, to hold 100 2½ x 4¼ negatives, - - - -	.75
Eastman Photo Blotter Book, for blot- ting and drying prints, - - - -	.25
Kodak Trimming Board No. 2, capa- city 7 x 7 inches, - - - -	.60

Bevplane Mounts, 2½ x 4¼, per 100, - \$	.80
Do., per 50, - - - - -	.40
Arena Album, 50 Black or Sepia Leaves, size 7 x 10, - - - - -	1.50
Forum Album, 25 Black and Sepia Leaves, size 7 x 10, - - - - -	.50
Kodak Print Roller, Double, 6 in., -	.50
Flexo Print Roller, Single, 4 in., - -	.15
Developing, printing, and mounting, on Velox 2½ x 4¼, per roll of 12 ex- posures, - - - - -	1.50
Do., unmounted, - - - - -	1.38
Developing only, per roll of 12, - -	.70
Developing, printing and mounting, on Velox, per roll of 6 exposures, - -	.75
Do., unmounted, - - - - -	.69
Developing only, per roll of 6, - -	.35
Printing and mounting only, on Velox, each, - - - - -	.08
Do., prints unmounted, each, - -	.07
8 x 10 Bromide Enlargements, mounted on cards, - - - - -	.75
Do., 10 x 12, - - - - -	1.00
Do., 11 x 14, - - - - -	1.25

### No Orders Executed for Less Than 25c.

On enlargement orders if in our opinion, the print will be improved by double mounting, we will do so at an additional charge of 10 cents, or triple mounted at 15 cents.

\*Prices subject to change without notice.

EASTMAN KODAK COMPANY,  
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 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 is on the package before purchasing.



EASTMAN KODAK CO.,

Rochester, N. Y.

## PRINTS DO NOT CURL

WHEN MOUNTED WITH

# Kodak Dry Mounting Tissue



### Just the Tissue and a Flatiron

Dry Mounting Tissue is incomparable for album work. The leaves lie flat with perfect adhesion.

**EASTMAN KODAK CO.,  
Rochester, N. Y.**

*All Dealers'.*

## Pin to a Card and Touch with a Match.

That's all there is to using  
**EASTMAN FLASH SHEETS**

They burn more slowly than ordinary flash powders, giving a softer light and consequently a more natural expression to the eyes.

Clean, convenient, a minimum of smoke.

Price per package of 1-2 dozen sheets

\*No. 1, - - - - \$ .31

\*No. 2, - - - - .50

\*No. 3, - - - - .75

Kodak Flash Sheet Holder, 1.00

\*Prices subject to change without notice.

**EASTMAN KODAK CO.,  
Rochester, N. Y.**

*For sale by all Dealers.*



*Color Your Prints and  
Enlargements with*

**VELOX**  
**Transparent**  
**Water Color**  
**Stamps**

*Anybody can use them.*

Book of 12 Colors, including full  
directions for use—only 25 cents.

**EASTMAN KODAK CO.**

*All Dealers'.*

**ROCHESTER, N. Y.**



**Prints by Gaslight**

**ROYAL**  
**VELOX**

A paper with all the Velox  
simplicity but coated on a mellow  
toned stock that adds breadth and  
softness to the picture.

When sepia toned, with Velox  
Re-Developer, Royal Velox has the  
delicacy and charm of an old  
etching.

*At all Kodak Dealers.*

**NEPERA DIVISION,  
EASTMAN KODAK CO.,  
Rochester, N. Y.**