

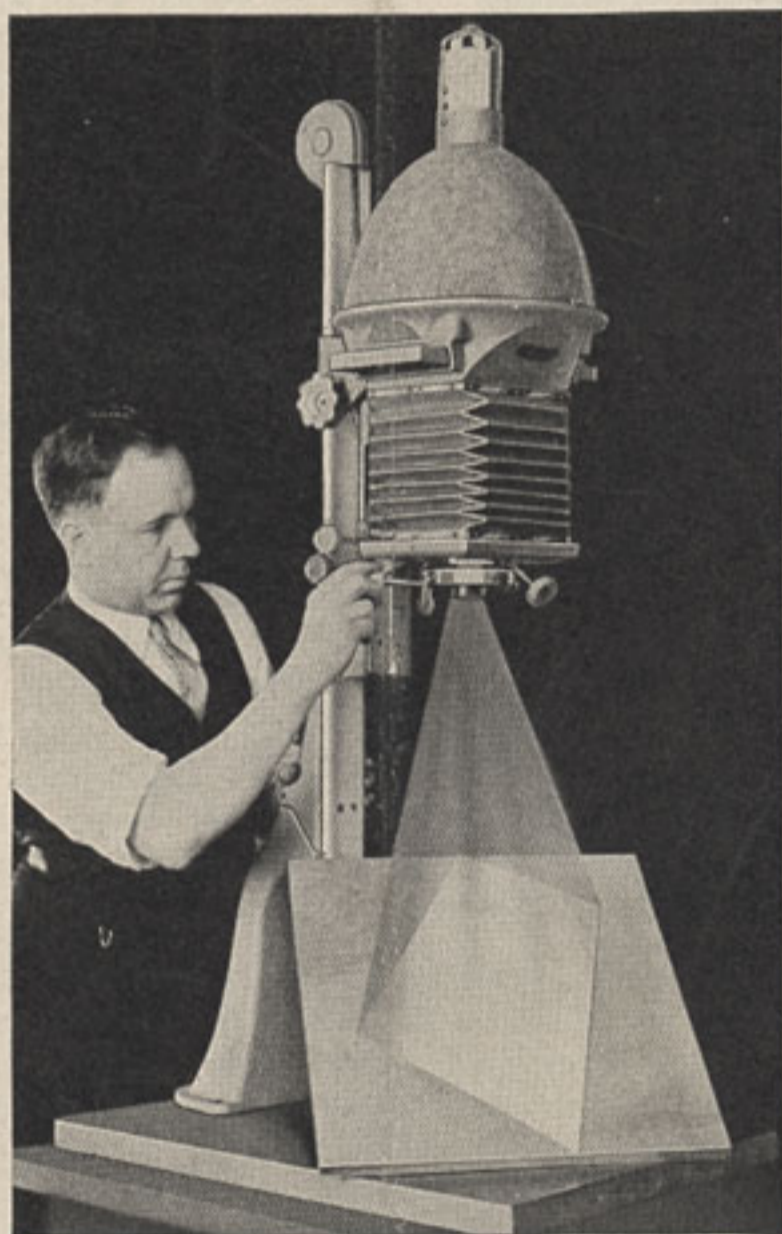
---

# *Instructions*

for

**5x7 STUDIO AND SPECIAL ENLARGERS**

**Models S-2 and SP-2**



*Manufactured by* **ELWOOD PATTERN WORKS, Inc.**  
**INDIANAPOLIS, INDIANA**

---

WILEY

# INSTRUCTIONS

## Read Carefully

This machine has been set up and checked for operation and mechanical defects. If it is mounted and operated properly, it will give you perfect enlargements and last for years with no attention except to occasionally oil the working parts and wipe the dust off of it.

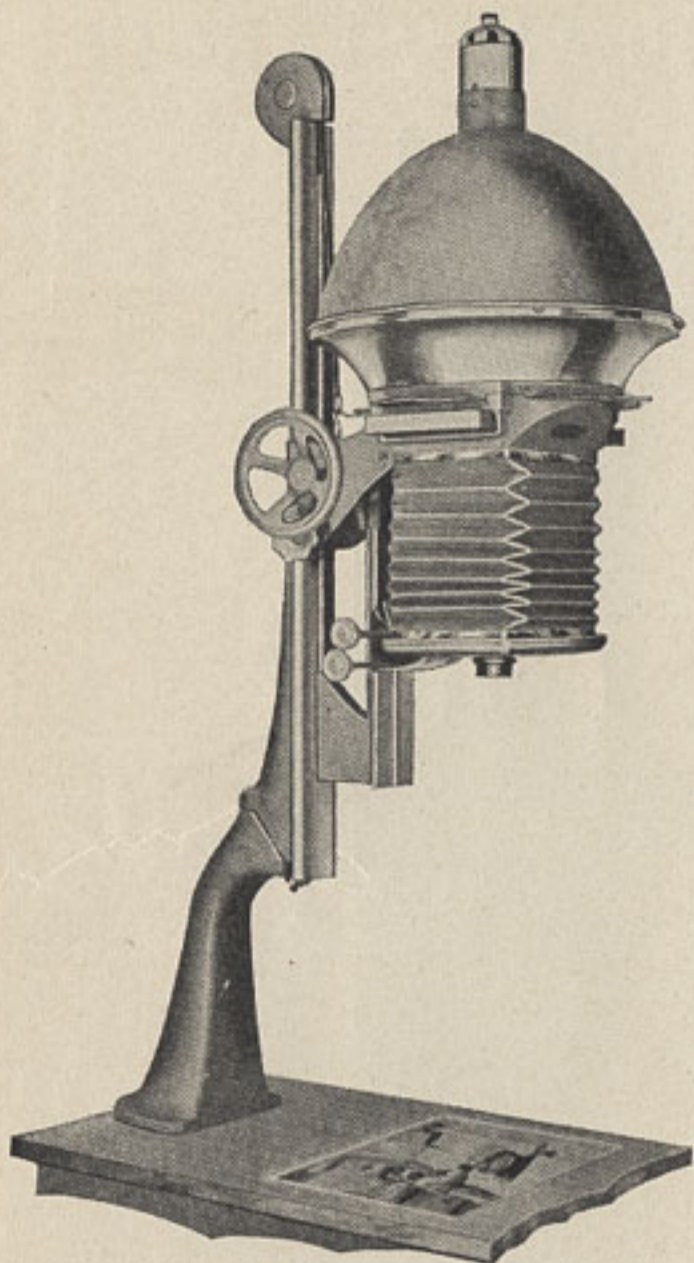
If any part or parts are broken or damaged at any time, they may be repaired or replaced at nominal cost. Should at any time within one year this machine prove defective through workmanship or material, the defective part will be repaired or replaced without charge.

If any part or parts are broken or damaged at any time, they may be repaired or replaced at nominal cost. Should at any time within one year this machine prove defective through workmanship or material, the defective part will be repaired or replaced without charge.

## MOUNTING

Unpack this machine carefully. Remove one piece at a time from the box and be sure that none of the small parts are lost in the packing of the accessory box. This accessory box contains the following:

- 1—Sandblasted glass.
- 3—Clear pieces of glass.
- 1—Ventilator top and cord.
- 1—Hinge pin.
- 1— $\frac{1}{4}$ "— $20 \times 1\frac{1}{4}$ " cap screw.
- 1—Light bulb.
- 1—Counter-balance.
- 3— $1\frac{1}{2}$ "—16 wood screws.



The stand should be mounted on a rigid table or heavy baseboard. Set the stand in place and mark the position of the 3 holes for the screws. Remove the stand and drill or punch three  $\frac{3}{16}$ " diameter holes so that the screws will hold tightly and not work loose. A little beeswax or paraffin placed on the point of the screws will make them much easier to screw into the hard table top or baseboard.

After screwing the lower part of the stand in position, the upper half of the stand should be fastened to the lower half by inserting the hinge pin.

Hold the upper part of the stand in the horizontal position and screw the long  $\frac{1}{4}$ " bolt into the threaded hole in the center of the upper end of the base. This bolt acts as a stop and leveling device. After adjusting this long bolt so that the tilted part of the stand rests in the proper horizontal position, the jam nut is screwed onto the protruding end and tightened against the cast iron stand.

**Do not change** the position of the two setscrews in the lower casting. This

machine has been set up on a surface plate and squared up perfectly. To change these screws will throw it out of the square setting. Set the stand in the vertical position and insert the  $\frac{1}{4}$ " x  $1\frac{1}{4}$ " cap screw in the  $45^\circ$  hole. This clamps the two parts together as one piece.

The body of the enlarger is now slipped onto the main slide and clamped with the handwheel so that it will stay in a set position. The counter-balance spring is screwed on the upper end of the main slide, and the tape is pulled out with a pair of pliers or a hook and hooked onto the screw eye in the body of the enlarger.

The 3 pieces of clear glass are placed in the recess inside the body of the enlarger and above the negative carrier, and the sandblasted glass is placed on top. The clips which hold this glass in place are then screwed down so that the enlarger can be used either vertically or horizontally without the glass falling out.

The object of this extra clear glass is to absorb the heat. After considerable experimenting with heat-absorbing glass, we have found that a heat-absorbing filter was most effective when built up of several pieces of glass.

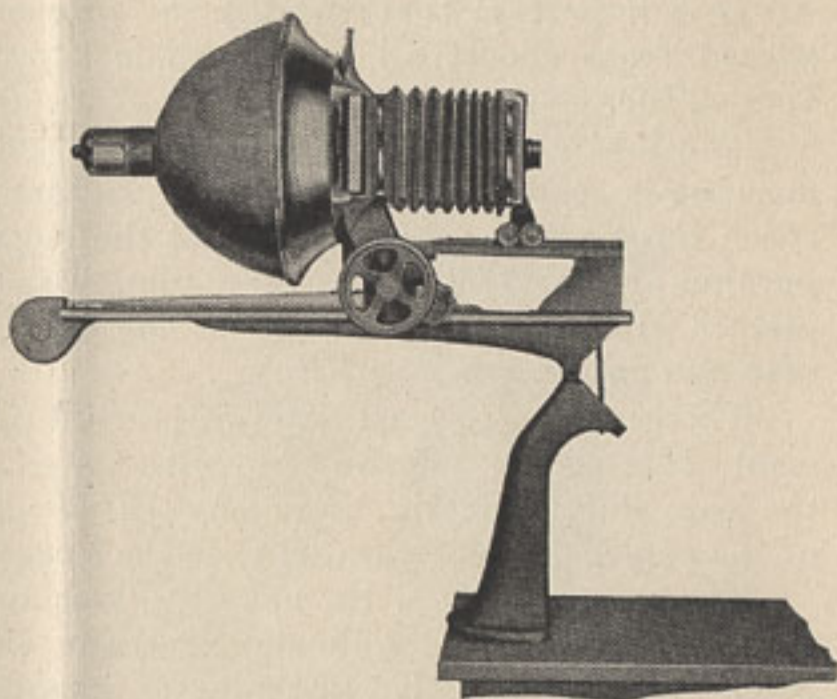
This Light Filter will hold back the heat for a long time. If the light is turned on for the exposure and then turned off as soon as possible, this machine can be used for hours at a time without any danger of curling or buckling the film. We have found that the Light Filter built up of a series of pieces of glass is most effective.

*Place the ventilator top in the reflector with the screws in the lower set of holes for the Studio S-2 Enlarger and in the middle set of holes for the SP-2 Special Enlarger.*

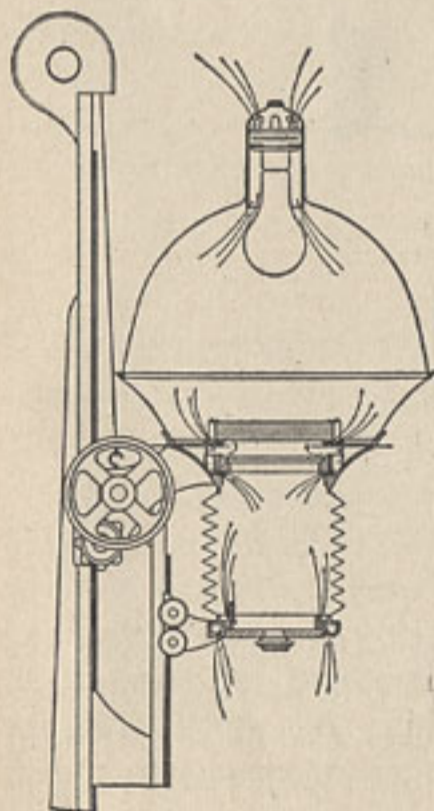
#### LIGHT BULBS

With the S-2 Studio Enlarger we recommend a 23 size Opal Enlarging Bulb. This size bulb is  $2\frac{7}{8}$ " in diameter. **Do not use a smaller bulb.** There would be a dark ring show on the projected field which would be caused by the dark space between the bulb and the silvered part of the reflector.

With the SP-2 Special Enlarger use a PS 30 size Opal Enlarging Bulb. This size bulb is  $3\frac{3}{4}$ " in diameter.



*Tilted for Horizontal Projection*



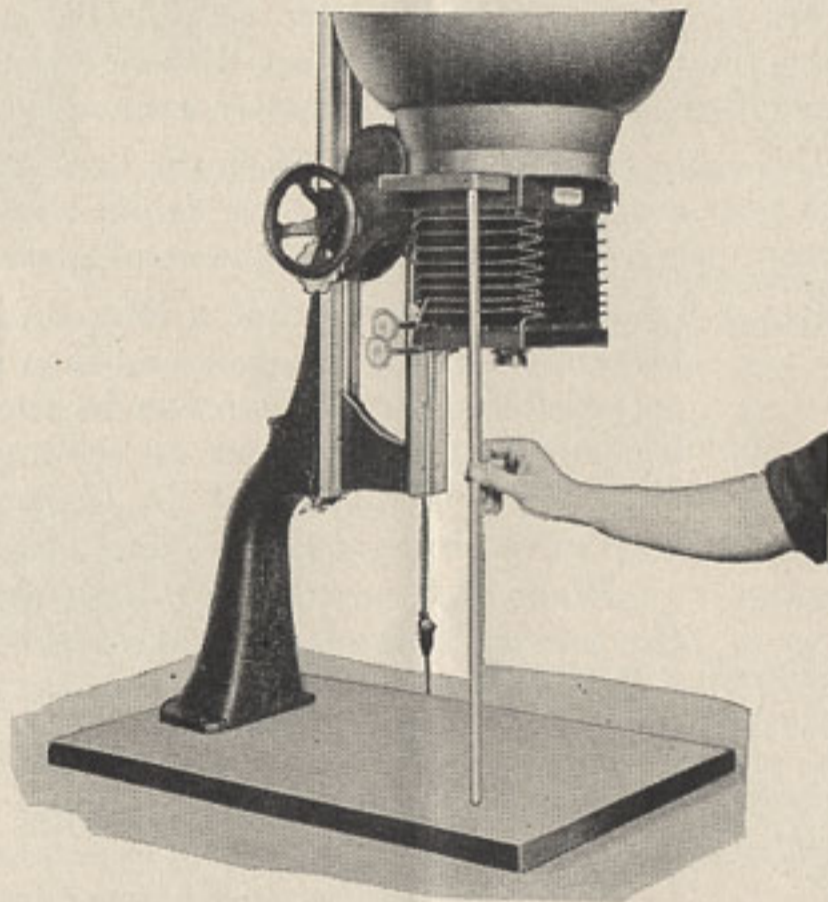
*Light System*

It is important that you use the proper diameter bulb. They can be purchased from almost all photographic supply stores or from Elwood Pattern Works, Inc.

The lens should be mounted in the center of the lens board and then the machine is ready to make pictures. Before starting to work it is important to check the machine and be sure that the negative, lens, and easel are in absolute parallel planes. If either of these planes is out of parallel with the other two, the picture will be out of focus on one side when it is in focus on the other. **Nothing else can cause this condition.**

The best way to level these three vital parts of your enlarger is by measurement. It is easy to make an error with a level or square. Although you may square the main slide perfectly, there may still be a chance that the negative or the front of the enlarger is not parallel with the sensitized paper.

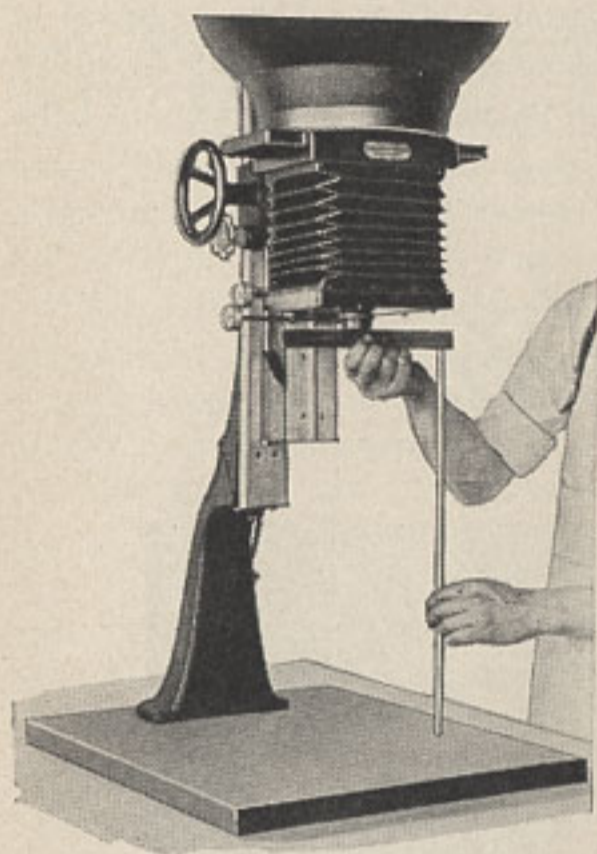
The three planes of the negative, lens, and easel can be checked quickly and with certainty by the following method: Cut a  $\frac{3}{8}$ " dowel rod long enough to reach from the negative to the easel, **round the ends**, spherical shaped, then raise or lower the enlarger until one corner of the negative carrier just touches the dowel rod. Now, check the other three corners. The base of the enlarger must be leveled until the distance from all four corners of the negative carrier to the table is exactly the same.



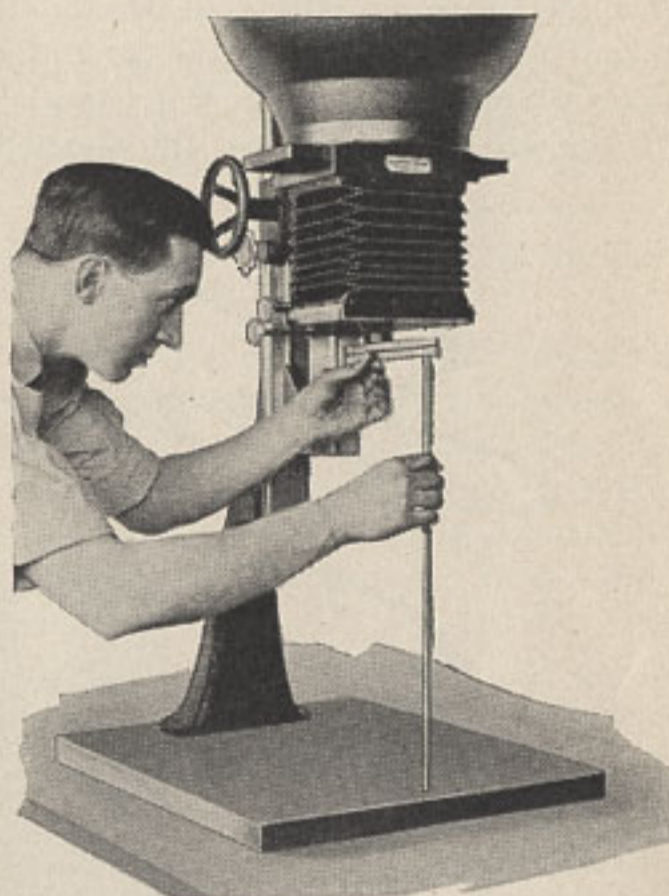
*Checking Negative Carrier for Parallel*

The lens should now be leveled in the same way. Raise the body of the enlarger, or cut the dowel rod until it just touches a steel scale or straight edge placed across the **end** of the **lens barrel**. Measure from each end of the straight edge and then turn it at right angles to the first position and check in this direction. If the lens flange is not parallel to the base, it must also be leveled up perfectly. In holding the straight edge across the lens be sure the lens is not forced out of its natural position.

The lens may be leveled in several ways, but the easiest way is to loosen the screws in the lens flange and shim under one side, or trim a little off one side or the other of the lens board where the flange fits. If shims are used, place them near the screws so that the flange is not drawn out of shape, which would make it difficult to screw the lens barrel into it.



*Checking Lens for Parallel with Negative Lengthwise*



*Checking Lens for Parallel with Negative Crosswise*

When the negative, lens flange, and easel are in perfectly parallel planes, your picture image will be sharp over the entire surface unless your lens shows a curvature of field, or unless the lens cells have, at some time, been taken out of the barrel and not properly seated when replaced. **DO NOT TRY TO MAKE PICTURES** with an enlarger that has not been *checked* and *leveled properly*.

### CRITICAL SHARP DEFINITION

MAPS, ARCHITECTURAL SUBJECTS, and LINE COPIES must show sharp detail to the extreme corners of the enlargement and be accurate to scale. A good anastigmat lens is essential.

The *light system* has very little to do with the sharpness of the image. The sharp, fine image depends mostly upon the lens. A light source that gives exaggerated contrast gives the appearance of a sharper image because of the contrast. If the same lens is used with the same negative, with different light systems, the detail will be just as sharp in every case, but if viewed at a distance, the contrasty pictures will appear to be sharper.

ELWOOD ENLARGERS have been carefully designed to give the correct amount of contrast to give bright, brilliant highlights and unequalled tone graduation and shadow detail. There is sufficient illumination and contrast to give perfect rendition up to the largest murals.

## BRILLIANCY

Brilliant pictures are pictures which show no trace of fog or flatness. A TRUE OPTICAL SYSTEM with a single light source will give the best results. Any method of illumination which loses the largest per cent of the light rays through improper diffusion illuminates the interior of the bellows and causes internal reflection both in the lens and from the front surface of the negative or glass plate which tend to fog the picture. The BELLOWS and EVERY PART of the enlarger between the negative and the lens must be a DEAD FLAT

“Smooth  
Sailing”

FOR  
YOUR  
DARK  
ROOM



BLACK. The cloth on an old bellows sometimes turns to a gray or greenish color. These colors reflect considerable light and are sure to affect the picture. It must also be remembered that a black highly polished surface reflects light almost as well as a silvered mirror. Glossy paint or lacquer of any color must not be used in the enlarger between the lens and the negative. The red glass screen, if tilted at the proper angle, will reflect light through the lens and onto the paper. The red screen should always be tilted back as far as it will go, and there will be no danger from this source.

*Contrasty brilliant prints depend upon correct exposure. It should require between 2 and 3 minutes development to bring out the enlargement to the desired density. If the picture develops out quicker than this, it has been over-exposed; and you will have a muddy, dark print. If your picture has been over-exposed, you will not have the proper print quality.*

A *dirty lens* will make *flat enlargements* lacking in detail. Every few months a lens should be carefully cleaned by blowing your breath on the lens and wiping with lens tissue or soft linen cloth. The cells should be unscrewed and the inner surfaces cleaned as well as the outer surfaces. Be **SURE** the cells are screwed back and seated properly. If they do not screw back freely, the threads are crossed; unscrew and start again. **DO NOT USE FORCE.**

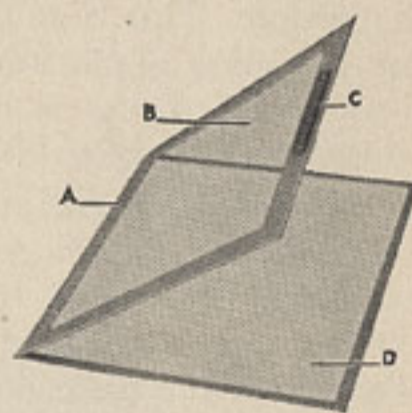
The SP-2 Special Enlarger has slots just above the negative carrier to mask off any part of the negative which is not desired. If a small negative is placed in a large negative carrier between glass plates, it should be masked off to screen out all the undesirable white light. The light system on Elwood Enlargers is scientifically correct, and a small part of the negative may be enlarged without screening off the unused part. There will be no tendency to fog the picture. If the light does not pass through the negative at the proper angles, then it is not only advisable but necessary to mask the negative for the best results. If white light passes around the small negative, a part of it will be reflected back against the surface of the glass or the negative and tend to fog the enlargement.

The S-2 Studio Enlarger does not have the masking slides; and when small-sized negatives are used, we would then advise that a mask be laid over the negative in the negative carrier. Or, it is much more satisfactory to purchase the proper size negative carriers for your different size films. The negative carrier itself will then mask the film.

## PAPER HOLDERS

A suitable method for holding the photographic paper is very essential. There are several kinds of such paper holders on the market for sale. A very suitable, inexpensive holder may be made from cardboard or sheet metal as shown in the cut below.

A piece of heavy cardboard such as sign board  $\frac{1}{8}$ " thick is cut exactly twice the size of the paper to be used. A knife cut is scored through the center, and the card is folded on this line at A. The opening B for the picture is then cut in one side of the card, leaving the mask which forms the white margin. A small strip of wood is glued or tacked to the outer edge C to add the necessary weight to make the holder come together. A piece of white paper D, is placed upon the lower part of the holder for focusing and placing the holder. The edges of the cardboard are used as a gauge to place the paper, as the outside dimensions are the same as the photographic paper. These masks are easily made and four or five sizes will fill most requirements.



*Inexpensive Cardboard  
Paper Holder*

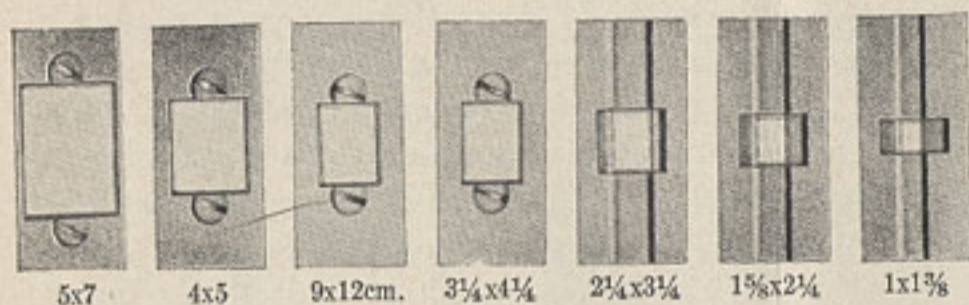
This holder made of sheet metal requires much more work but makes a permanent holder and is more desirable than the cardboard holder. The upper part of the holder which forms a mask should be fastened to the lower part by pins or

hinges soldered to both upper and lower pieces of metal. The front edge of the metal holder can be turned up to form a handle for raising, or a small knob can be attached to this front edge.

For extremely large pictures it is generally necessary to pin the paper in position or lay some weights on the edges to hold it in place during the exposure.

## NEGATIVE CARRIERS

There are two ways of holding film in the negative carrier. Each has its *advantages* and *disadvantages*. The easiest and most practical way to hold large negatives is between glass plates. A piece of thin glass free of all scratches and defects should first be laid in the negative carrier opening, the film laid on top of this piece of glass, and then a  $\frac{1}{4}$ " thick piece of plate glass free of all defects



*Negative Carriers*

and scratches should be laid on top of the negative. This thick piece of glass will prevent the negative from heating and has sufficient weight to hold it flat without any extra springs or clamps. This method should be used for all accurate and

particular work where the film must be held perfectly flat. It is to be recommended in all cases for large negatives and for color separation negatives or enlargements from color separation negatives.

The glass plates have the disadvantage of having the extra surfaces which may catch dust or dirt or have small scratches. If the dark room and all the articles in it and also the entire inside of the enlarger are thoroughly clean and wiped free of dust, most of the trouble from this source can be eliminated. ***Cleanliness certainly pays in photography.***

Small particles of dust and abrasion marks on the upper and lower surfaces of the glass plates which are not in contact with the film will not show in the enlargement. This is an advantage which Elwood Enlargers have. It is possible to use the glass plates and still eliminate part of the difficulty from scratches and dust. Dust specks in contact with the emulsion and large scratches will make white spots on the enlargements and should be avoided if possible.

***Glassless negative carriers*** have the advantage that the extra surfaces of the glass are eliminated, and the dust specks or scratches which show in the enlargement must be on the film itself. With this type of carrier you cannot be sure that the negative is held in an absolutely flat plane and that it will not curl or move slightly during the exposure, which would blur the image. The glassless negative carriers work very satisfactorily for films up to  $2\frac{1}{4}$ " x  $3\frac{1}{4}$ " and for cut films up to as large as  $3\frac{1}{4}$ " x  $4\frac{1}{4}$ ". Roll film and film pack negatives are generally curled even before placing in the enlarger, and it is absolutely impossible to straighten these films out by holding them on the four sides. For average work if they are held almost flat, a slight curl would make no difference in the finished enlargement.

The patented Light Filter used in Elwood Enlargers, which eliminates heat, makes them especially practical for use with the glassless negative carriers, but



we cannot recommend that the glassless negative carriers for negatives larger than the above-mentioned sizes.

*When a large number of prints are to be made from each negative and when they are not protected by the heat-absorbing light filter, it is advisable to secure two sets of glass plates consisting of one piece of thin and one piece of  $\frac{1}{4}$ " thick plate glass. One set of the glass can be used until the glass begins to get warm, and then the other set can be used while the first one is cooling.*

Do not use a piece of glass on top of the sensitized paper to hold it flat. The paper can be held reasonably flat by an easel holding it on the edges. A slight curl in the enlarging paper will not affect the image to any appreciable extent.

## GRAIN

If extremely large pictures are to be made from small negatives, it is desirable to have a good medium contrasty, fine-grain negative, with a microscopically sharp image showing no trace of fog or flatness. For the extremely large pictures, it is desirable to use slower medium speed films. The film should be developed in a fine-grain developer recommended by the manufacturer of the film. It is very important to keep the film at a uniform temperature at all times during the development and washing. The developer, fixing bath, and wash water should all be of the same temperature.

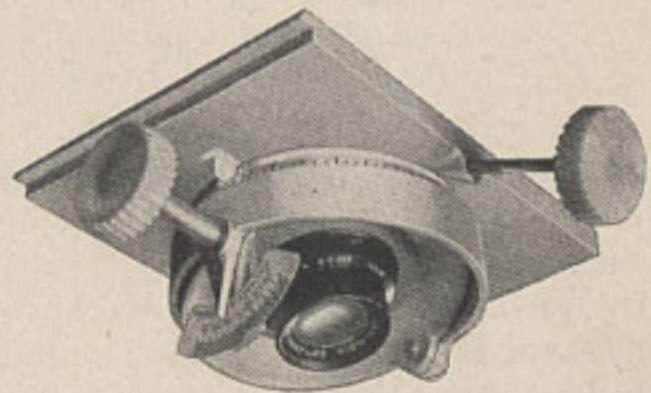
Actual tests have shown that there is much more to be gained by using the slower speed films, a medium fine-grain developer such as D 76, and careful observance of temperature during complete development of the film than by using one of the so-called ultra fine-grain developers and ultra fast film. Constant temperature, medium speed film and ultra fine-grain developer will give the best results.

Sometimes an enlargement will have a grainy effect which is caused by stopping the lens down too far, such as F 16 or 22, and bringing the grain of the sand-blasted glass surface of the filter into focus or by using a ground glass too close to the negative. This can be very easily remedied by placing the filter or ground glass back a little farther from the negative. It should never be necessary to stop the lens down to a smaller diaphragm opening than F 11.

## DISTORTION

The Distortion Lens Board and Swing Tilt Table make possible the correction to scale of pictures that have been taken at oblique angles, the exaggeration of perspective, the lengthening and shortening of the image, such as making a thin person fat or a fat person thin, or the lengthening of machinery for advertising purposes. Pictures may be taken with a hand camera and all the corrections made that are possible with the most elaborate commercial camera. Many other corrections may be made that are not even possible with any camera.

Any lens of 5" to 12" focus may be mounted on a No. 2 Lens Board provided the outside diameter of the lens or shutter



*Distortion Lens Board*

does not exceed 4". The hole in the lens mount should be bored out to the flange size on a lathe. The mount can be gripped on the inside by a three-jawed universal chuck without taking it apart. The flange should then be attached with small flat-head machine screws such as 2-56. These can be obtained from all the larger hardware stores. All this work is a very small job for any machinist.

The Tilting Table should be pivoted on the optical center of the enlarger. To find this optical center exactly, punch a small hole in a cardboard or piece of thin sheet metal and place it in the negative carrier so that the hole is as near the center of the negative carrier as possible. Project this hole onto a piece of paper on the table or board on which the enlarger is mounted and focus it sharply. Mark this spot with a lead pencil, then raise the enlarger for a much larger image and again focus the small spot of light. It will probably be to one side of the pencil mark.

The location of the hole in the negative carrier must be moved a little at a time until the image of the hole remains in the same position on the easel, regardless of



*Enlargement from Negative of Opposite Picture Corrected with Distortion Lens Board*

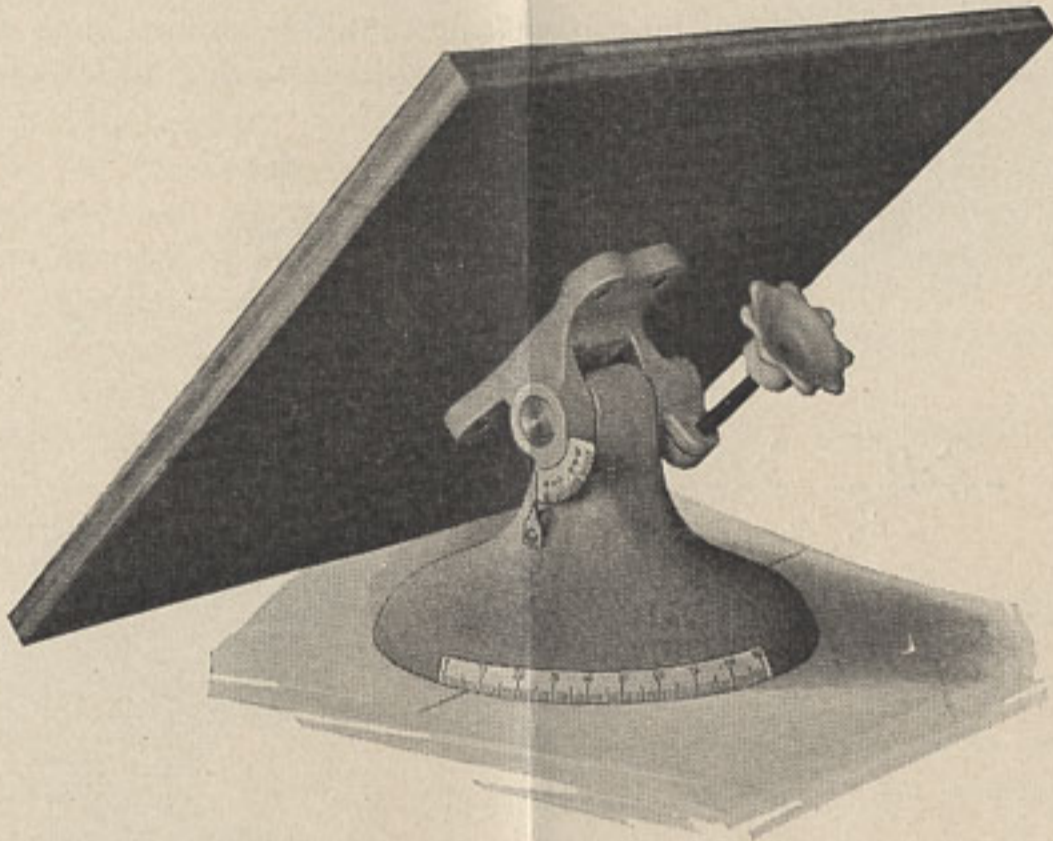


*Original Picture Taken from Tall Building, Looking Down*

the distance of the enlarger from the easel. Bear in mind that the hole in the negative carrier must be moved in the opposite direction to the way the image on the board moves.

When the optical center has been located on the easel, bore a 9/16" hole about 1/2" deep with an auger bit. The round head cap screw is screwed into the base of the Tilting Table and the table is placed in position with the head of the cap screw in the 9/16" hole.

Two lines which are at right angles to each other and which cross at the optical center should now be made on the easel. These lines should be parallel and correspond to two imaginary lines drawn through the zero and  $90^\circ$  markings and the optical center on the Distortion Lens Board. These two lines should extend about 1" beyond the edge of the Tilting Table base. They are for setting the table and



*Swing Tilt Table*

lens mount at the same angles so that if the table is moved to  $30^\circ$  and the lens mount revolved to  $30^\circ$ , the axes of the lens mount and the Tilting Table are parallel. This is important in obtaining a sharp image over the entire Tilted Table.

To locate these lines lower the enlarger body as far as possible and extend the bellows as far as possible. This brings the lens mount near the table top. A straight edge is placed against the front edge of the lens mount parallel to the table top, and a steel square set on the table with the edge just touching one edge of the straight edge. A mark is made on the table directly under the edge of the straight edge. A similar mark is made on the table under the other end of the straight edge. These two marks are joined with a straight line, and then a line parallel to it is drawn through the optical center. This is one of the lines sought. The other line may be marked by setting the Tilting Table in place with the zero marking on the protractor even with the line and then making the other line even with the  $90^\circ$  marking on the protractor.

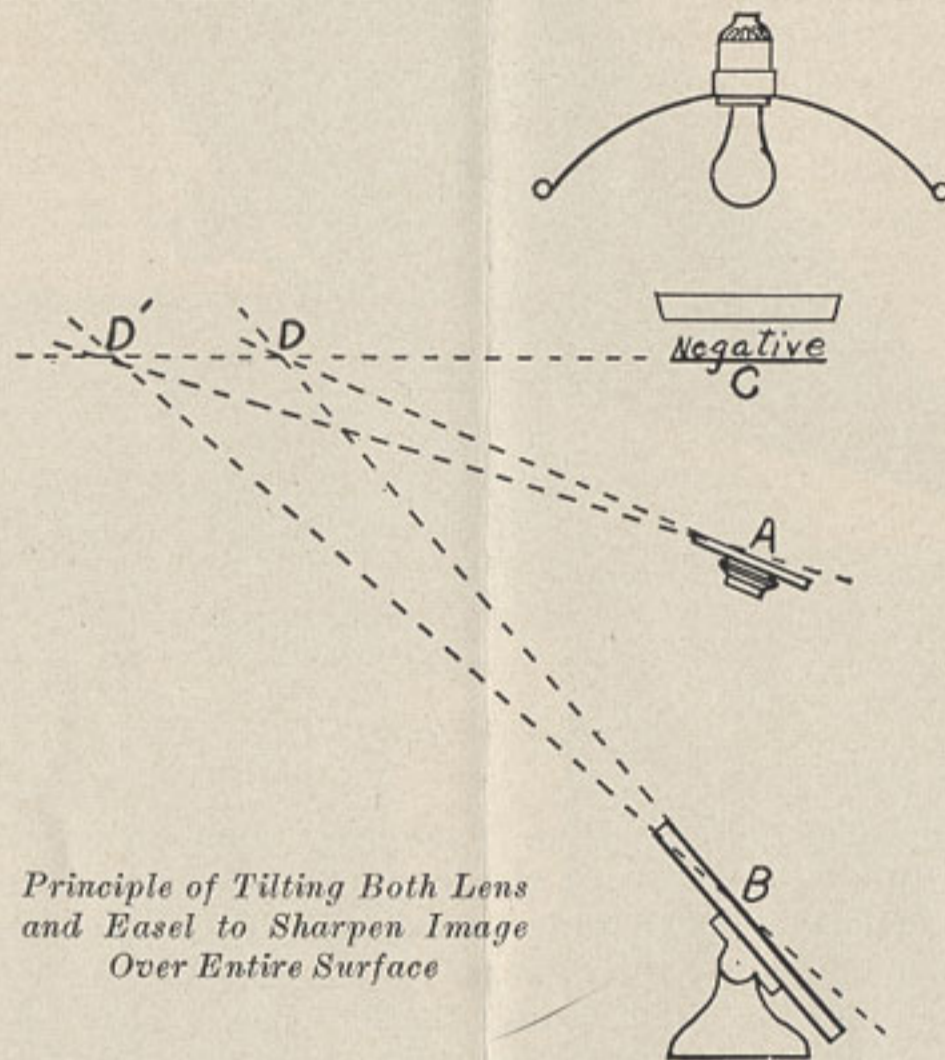
***If the enlarger is ordered complete with the Tilting Lens Board, table, and lens (or if you send your lens flange in to us), the machine will be shipped to you with all this work finished, and it will be ready to use. The only extra charge would be \$1.00 for mounting the lens flange.***

### CORRECTING THE IMAGE

The negative to be corrected is placed in the negative carrier and projected onto a paper holder placed on the Tilting Table. The table is tilted to the desired angle, and the lens tilted and focused until the image is sharp over the entire sur-

face. The image may be corrected to the desired degree by observation; or if exact scale is desired, a ruler or divider should be used to gauge two lines that should be parallel until the distance is exactly the same and to the desired size at opposite ends.

Many times a picture is taken with not only the camera lens tilted at an angle but also with the camera back twisted at an angle. In this case it is only necessary to revolve the Tilting Table to the same angle that the camera back was twisted, set the lens mount at the same angle, and then tilt the table and lens to the necessary angles for the correction.



*Principle of Tilting Both Lens  
and Easel to Sharpen Image  
Over Entire Surface*

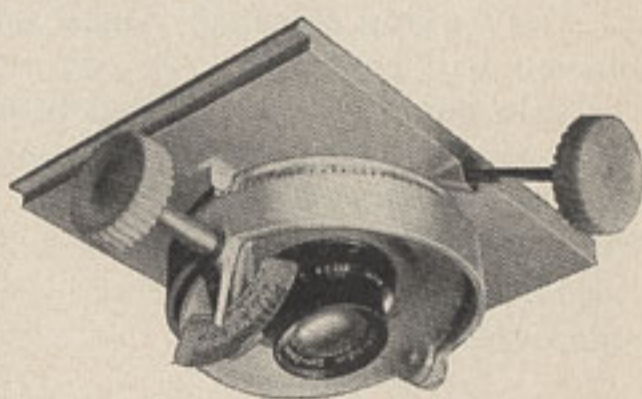
When properly focused, the plane of the lens flange "A" and the plane of the easel "B" cut the extended plane of the negative "C". In a line "D" this optical condition must be met in all cases and for all size enlargements. The location of the pivoting line D will change for every different size picture, but planes A and B will always meet at a common line D or D' in the plane C. By marking the degrees on both the revolving and tilting table this condition can be met with certainty. The two axes of tilt are always parallel, regardless of the degree of tilt of the lens and easel.

With a little practice you will find it just as easy to correct for distortion as it is to make straight enlargements, and you will be surprised to find yourself correcting distortion and changing perspective on pictures from which you had heretofore made only straight enlargements.

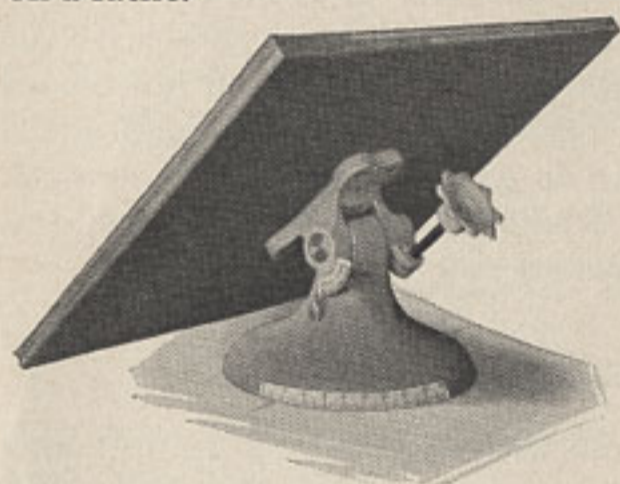
## ACCESSORIES

### DISTORTION LENS BOARD

The No. 2 Distortion Lens Board fits the 5" x 7" S-2 Studio and SP-2 Special Enlargers and can also be attached to most other make enlargers, but we do not fit the mounting for other make enlargers. Any lens of 5" to 12" focus can be used on it, provided the greatest outside diameter of the barrel or shutter does not exceed 4". Corrections of pictures taken from any angle and any direction up to 60° can be made, and sharp images can be obtained over the entire enlargement. The hole for the lens flange should be bored out on a lathe.



*Distortion Lens Board*



*Swing Tilt Table*

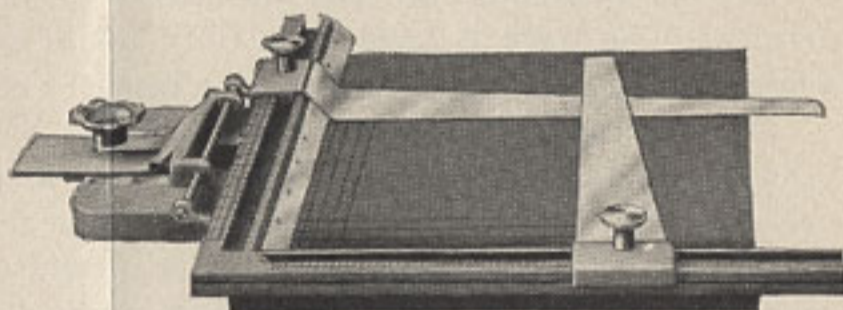
### SWING TILT TABLE

For accurate correction of distorted pictures, the Swing Tilt Table is recommended. It eliminates all guesswork and trials for setting the axes of tilt between the lens mount and table parallel.

### ADJUSTABLE PAPER HOLDER

This paper holder is for use with Elwood Special and Auto-Focus, the 8" x 10" Commercial, 8" x 10" Auto-Focus, and 8" x 10" Aerial and Mapping Machines. It cannot be used with our smaller models. It is adjustable to make any size picture up to 16" x 20".

The masking frame is adjustable so that any width borders can be made up to 3" wide. The thickness of the board is 1", which places the paper the proper height for all Auto-Focus Enlargers.



*Adjustable Paper Holder*

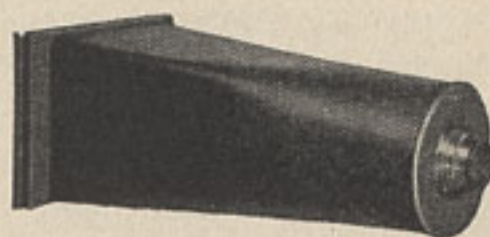
### WALL BRACKETS

Cast iron wall brackets can be used for mounting the ELWOOD STUDIO, SPECIAL or AM MINIATURE Enlargers against the wall. These brackets set the main slide out 5" from the wall and form a rigid support for either of these enlargers.

## LENS EXTENSION

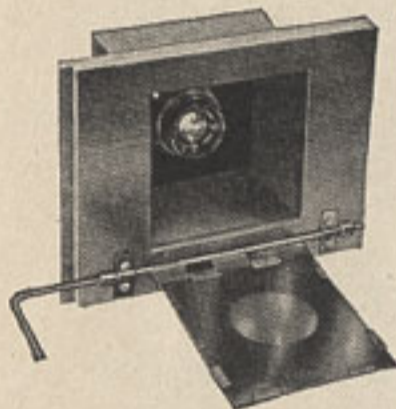
For Use in All 5 x 7 and 8 x 10 Models

For making extremely small reductions this Extension will be found very convenient. It fits into the enlarger the same as a lens board, and gives 12" extra extension, making a maximum distance from lens to negative of 27" on the 5" x 7" and 40" on the 8" x 10" enlargers. It is finished dead black inside, and gray baked wrinkle enamel on the outside to match the machine.



*Lens Extension*

## SET-BACK LENS BOARD



*Set-Back Lens Board*

This attachment recesses the lens  $2\frac{3}{4}$ " so that 3" lenses can be used on all Elwood 5" x 7" Enlargers, and 4" lenses on the 8" x 10" enlargers. It meets the requirement for enlarging small negatives to large sizes with the 5" x 7" and 8" x 10" enlargers. This recessed lens board is cast aluminum with a plywood board for mounting the lens flange. It is finished in gray baked wrinkle enamel. With a 3" lens on the Studio or Special Enlargers, enlargements up to 15 diameters can be made.

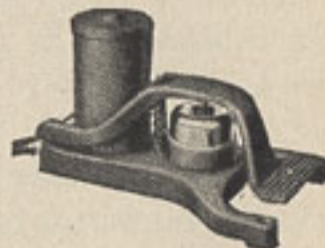
## CAST IRON BASE

The 5" x 7" S-2 and SP-2 Enlargers are sold without base and are intended for mounting on a rigid bench or table. A cast iron base with a 1" x 30" x 36" Maple plywood top can be furnished which makes the machine complete in itself. This base is extra heavy, with deep rim and reinforcing ribs. It eliminates all possibility of vibration and assures an enlarger that will not get out of alignment.

## FOOT SWITCH WITH RHEOSTAT

A Foot Switch is the most effective way of operating your enlarger or contact printer. The light is turned on only while exposure is being made and does not heat the negative between exposures.

A resistance element is wired with this Foot Switch so the light in the enlarger burns dimly and yellow until the pedal is pressed, which turns the light on full. The resistance element may be removed and then the light is turned on full and completely off as the pedal is pressed and released.



*Foot Switch*

## SPEED

Every photographer speaks of speed in enlarging, by which is meant the length of exposure required for making a fully timed print. This time varies considerably under different conditions. A Pyro stained negative, a fogged or overexposed negative requires much more exposure than an unstained and correctly exposed negative. The size of the enlargement, the size of the light bulb, the color of the light, the amount of diffusion, or scattering of the light rays before it passes

through the negative, and the diaphragm opening of the lens are all vital factors that determine the length of exposure required.

The following scale will give some idea of the different exposures for different size pictures if the same negative is used and all other conditions are the same.

SIZE OF PROJECTION	
1 to 1 times . . . . .	2 seconds
2 times . . . . .	4 seconds
3 times . . . . .	7 seconds
4 times . . . . .	10 seconds
5 times . . . . .	14 seconds
6 times . . . . .	18 seconds
8 times . . . . .	30 seconds
10 times . . . . .	40 seconds
15 times . . . . .	80 seconds
20 times . . . . .	120 seconds

The above figures are based on actual tests and will vary some with different enlargers and under different conditions.

#### LIGHT BULBS

This machine is designed to use a 23 size *Opal* enlarging bulb. The 23 size means  $23/8''$  in diameter ( $37/8''$ ). These bulbs are made with different intensities, but, in all cases, should be Opal glass and the proper diameter. They may be purchased from all photo supply houses or from Elwood Pattern Works, Inc., Indianapolis, Indiana.

## PRICES

No. 2 Distortion Lens Board.....	\$9.50
Fitting your lens flange (send flange).....	1.00
Tilting and Revolving Table.....	12.50
60" main steel slide, rustproof, with rack attached for SP-2 Special Enlarger.....	11.00
60" main steel slide, rustproof, for S-2 Studio Enlarger.....	5.50
Negative Carriers for Elwood 5" x 7" Enlargers are made with the following film openings (1" x 1 <sup>3</sup> / <sub>8</sub> ", 1 <sup>5</sup> / <sub>8</sub> " x 2 <sup>1</sup> / <sub>4</sub> ", 2 <sup>1</sup> / <sub>4</sub> " x 2 <sup>1</sup> / <sub>4</sub> ", 2 <sup>1</sup> / <sub>4</sub> " x 3 <sup>1</sup> / <sub>4</sub> ", 3 <sup>1</sup> / <sub>4</sub> " x 4 <sup>1</sup> / <sub>4</sub> ", 2 <sup>1</sup> / <sub>2</sub> " x 4 <sup>1</sup> / <sub>4</sub> ", 9 x 12cm., 4 x 5, 3 <sup>1</sup> / <sub>4</sub> " x 5 <sup>1</sup> / <sub>2</sub> " and 5" x 7") each without glass plates.....	1.25
<i>These carriers are made with grooves for using strip film or are made with recess for films cut to size. State which carrier you prefer.</i>	
Glass Pressure plates for negative carrier—any size—per set.....	1.00
Sandblasted glass, each.....	.50
Plain glass for Light Filter.....	.30
Plain Lens Board.....	.75
Wall Bracket, per set (2).....	4.00
Lens Extension.....	4.00
Set-Back Lens Board.....	4.00
Foot Switch.....	10.50
Cast Iron Base with 18" x 30" base board.....	25.00
100 Watt A23 Opal Enlarging Bulb for S-2 Studio.....	.50
200 Watt PS 30 Opal Enlarging Bulb for SP-2 Special.....	.75
300 Watt PS 30 Opal Enlarging Bulb for SP-2 Special.....	.75
400 Watt PS 30 Opal Enlarging Bulb for SP-2 Special.....	.75
500 Watt PS 30 Opal Enlarging Bulb for SP-2 Special.....	.75

*(Use 200 watt bulb except for special work)*

## RESILVERING

*This reflector should last for years with no attention whatever except to occasionally wipe it out lightly with a soft, dry rag. DO NOT TRY TO POLISH THE SILVERED SURFACE. It is coated with a special lacquer to prevent tarnish. Polishing will only dull this lacquer. Should this reflector become discolored or damaged (dented), it can be respun and resilvered.*

Price, 12" reflector for Studio S-2.....	\$4.75
Price, 16" reflector for Special SP-2.....	5.75

*Our interest in this machine does not end when you have purchased it. We are vitally interested in having this machine give you a lifetime of service. We are always glad to help you with any difficulties which may arise.*

*All Elwood Enlargers are manufactured entirely in our own factory.*

1/17/47