Feb. 23, 1960 W. R. VAN DEUSEN, JR 2,925,752

PHOTOGRAPHIC PRINTING EASEL

Filed April 24, 1957 5 Sheets-Sheet 1

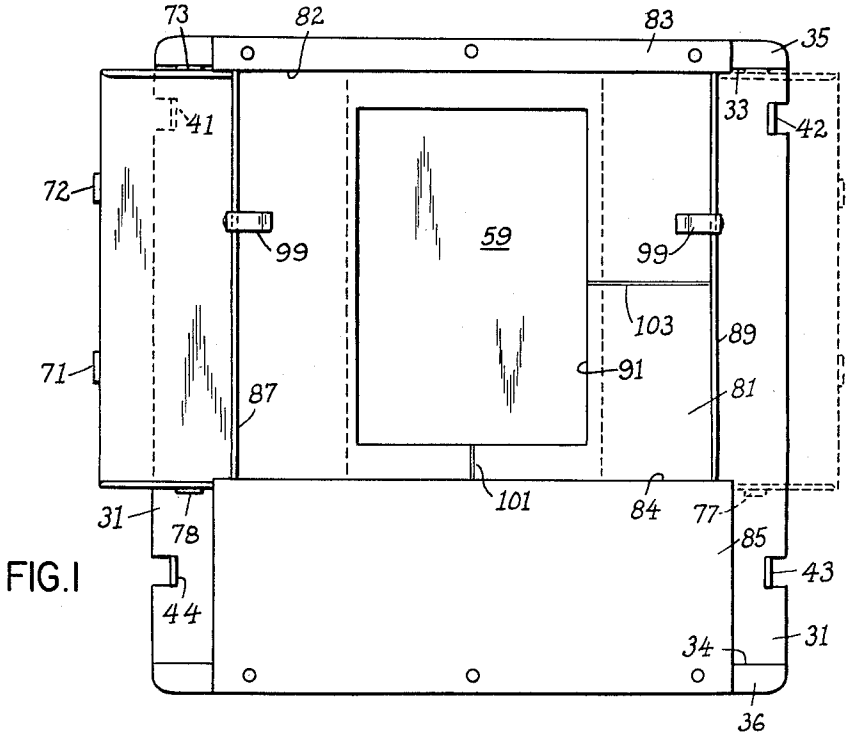


FIG.1

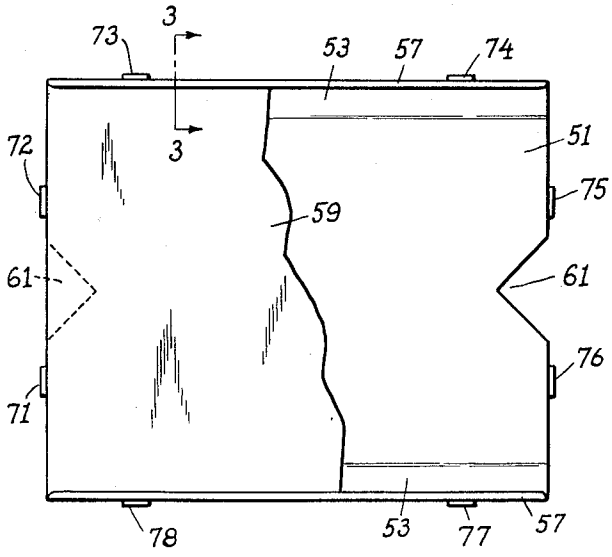


FIG.2

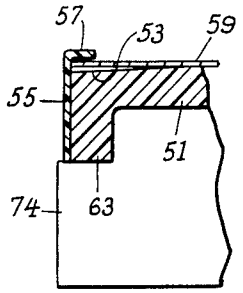


FIG.3

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PHOTOGRAPHIC PRINTING EASEL

Filed April 24, 1957 5 Sheets-Sheet 2

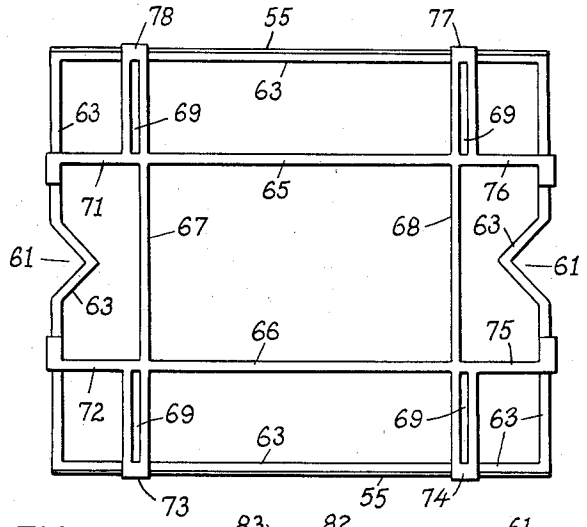


FIG.4

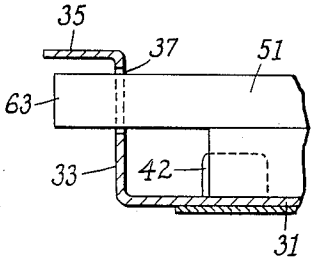


FIG.7

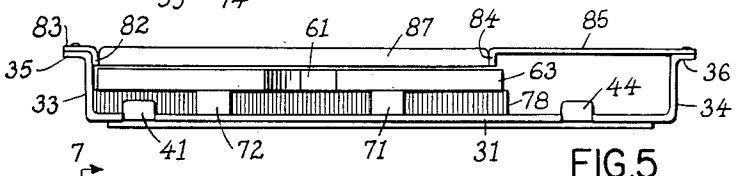


FIG.5

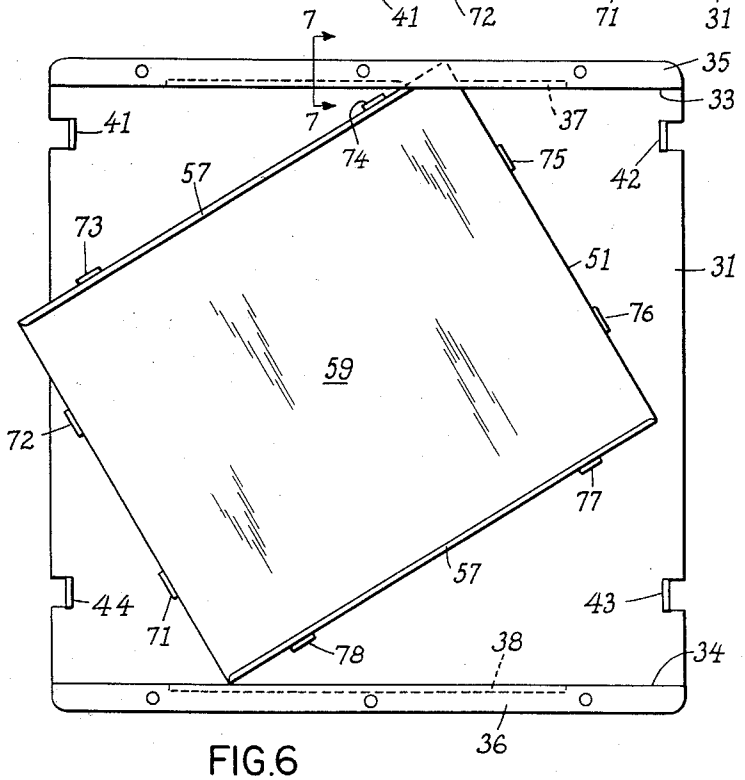
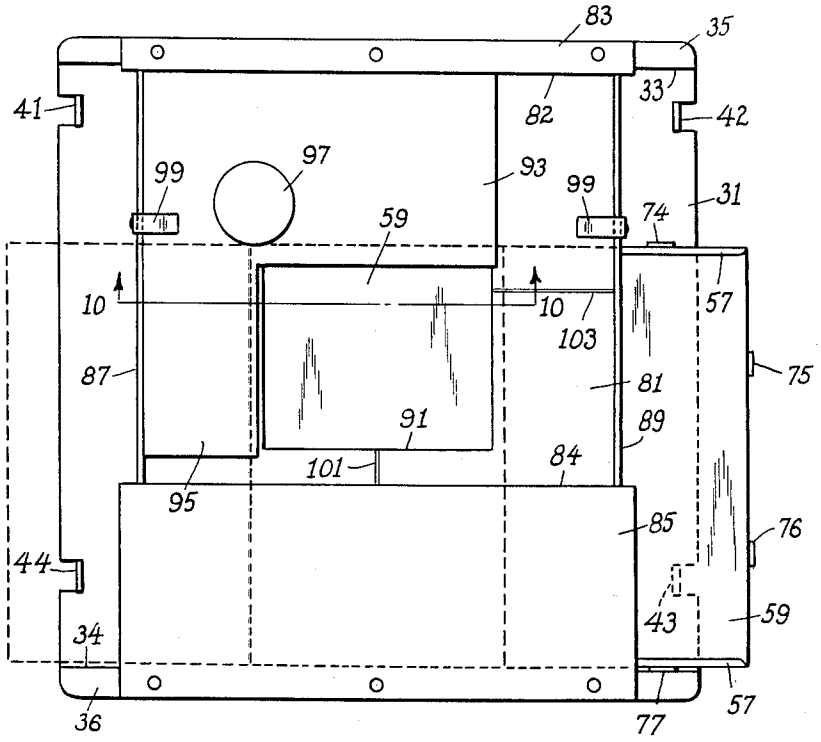


FIG.6

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PHOTOGRAPHIC PRINTING EASEL
Filed April 24, 1957 5 Sheets-Sheet 3

FIG.8



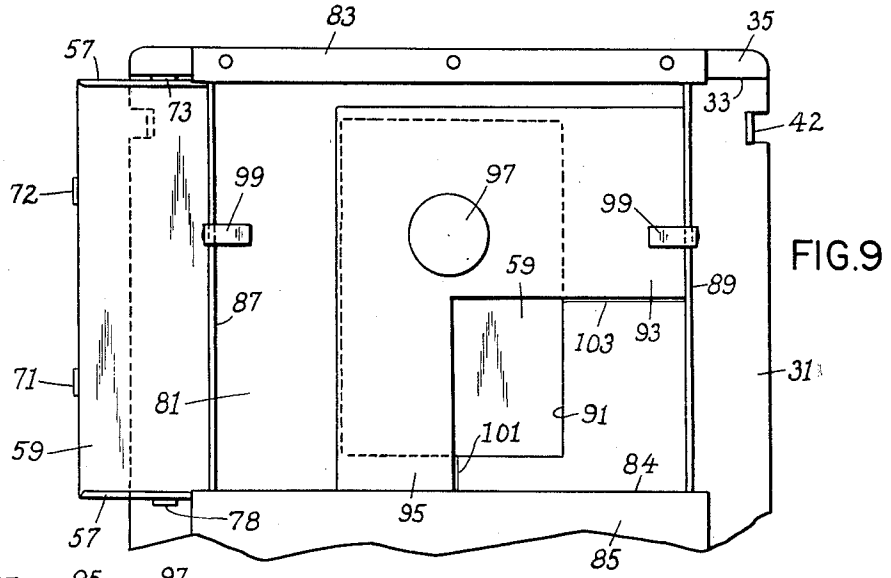


FIG.9

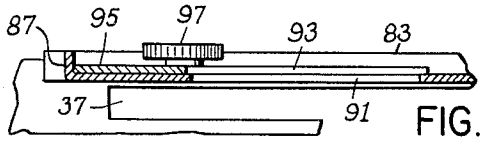


FIG.10

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PHOTOGRAPHIC PRINTING EASEL

Filed April 24, 1957 5 Sheets-Sheet 4

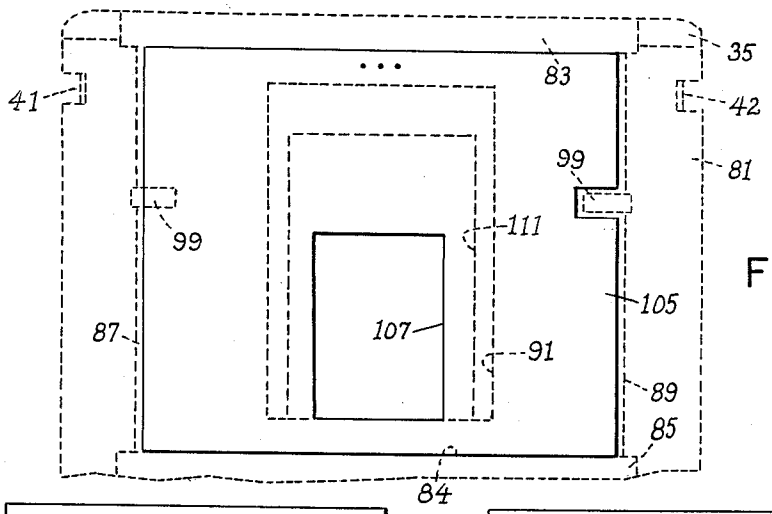


FIG. 11

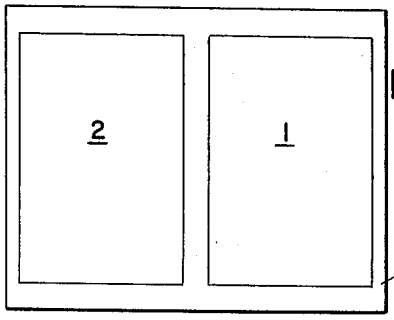


FIG. 12

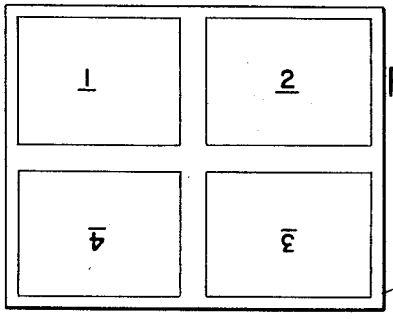


FIG. 13

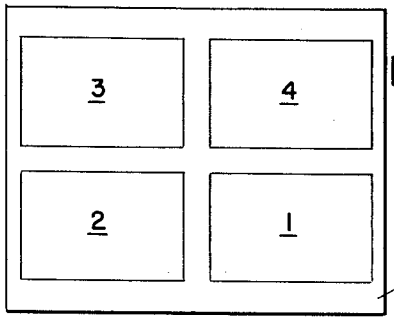


FIG. 14

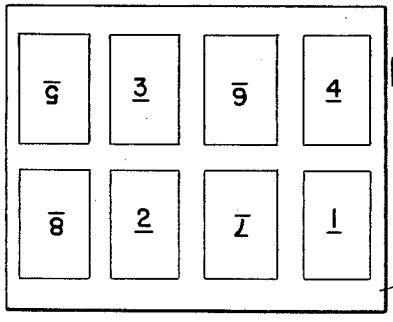


FIG. 15

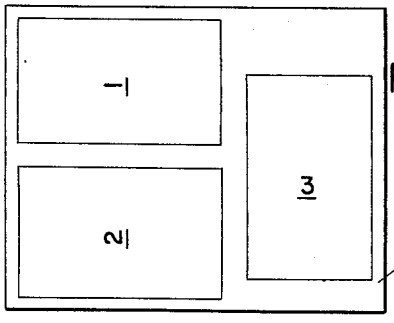


FIG. 16

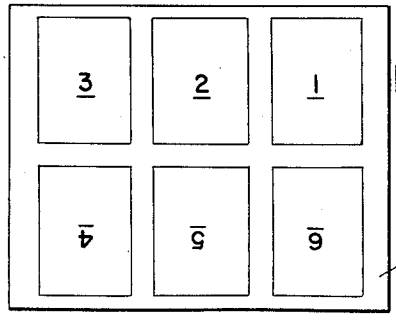


FIG. 17

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PHOTOGRAPHIC PRINTING EASEL

Filed April 24, 1957

5 Sheets-Sheet 5

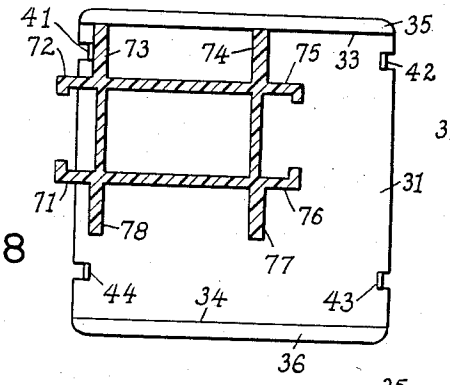


FIG. 18

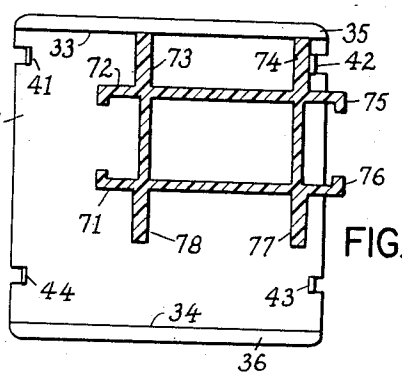


FIG. 19

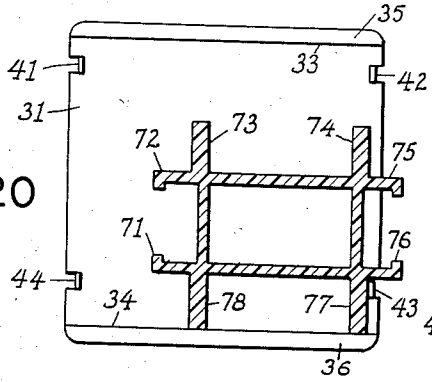


FIG. 20

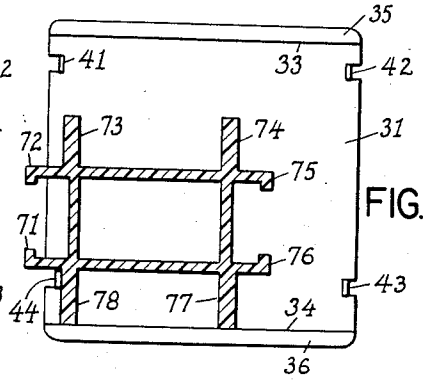


FIG. 21

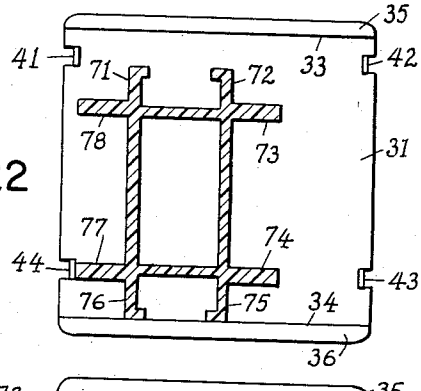


FIG. 22

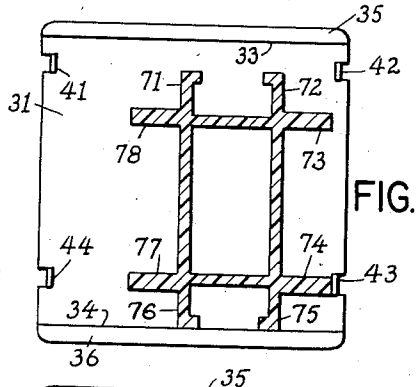


FIG. 23

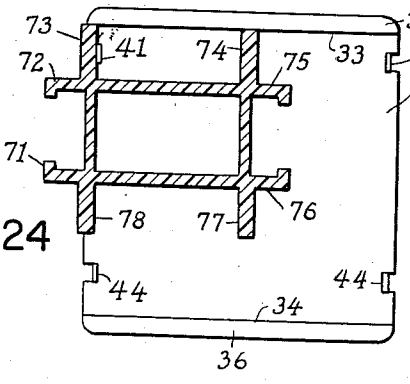


FIG. 24

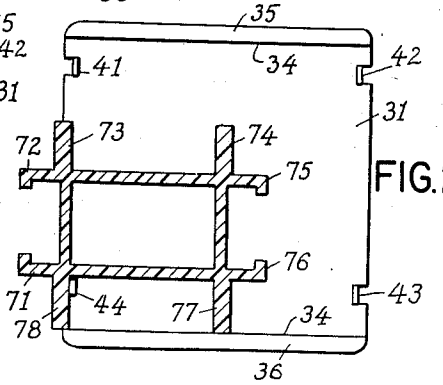


FIG. 25

United States Patent Office 2,925,752 Patented Feb. 23, 1960

2,925,752

PHOTOGRAPHIC PRINTING EASEL

William R. Van Deusen, Jr., Rochester, N.Y., assignor to James A. Hodock, Fairport, N.Y.

Application April 24, 1957, Serial No. 654,852

4 Claims. (Cl. 88—24)

This invention relates to a photographic easel, and more particularly to an easel for holding sensitized photographic paper while making exposures thereon preferably by projection, as by the use of a so-called enlarger.

An object of the invention is the provision of a generally improved and more satisfactory easel of this character.

Another object is the provision of a simple easel by which, with few and easy manipulations, the user may make a plurality of prints on various portions of a single sheet of photographic paper.

Still another object is the provision of such an easel having simple means for quickly varying the size and number of prints to be made on a single sheet of a standard size.

A further object is the provision of a sturdy and inexpensive structure adapted to receive a given standard size sheet of photographic paper, as for example a sheet 8 x 10 inches in size, the structure having provision for making on this sheet two prints of a somewhat smaller standard size, or more than two prints of various still smaller standard sizes, thus enabling a photographer to concentrate on stocking a single size of print paper (e.g., 8 x 10) for use in making prints in a considerable variety of sizes (e.g., 5 x 7, 4 x 6, 4 x 5, 3½ x 5, 3 x 4, and 2½ x 3½).

A still further object is the provision of a simplified multi-print-size easel in which all necessary stops or abutments for positioning the paper carrier in various locations relative to the base, for making prints of various sizes, are in the form of permanent stops requiring no adjustment, the various locations of the paper carrier relative to the base being determined by the manner in which the paper carrier is manipulated relative to the base, rather than upon any adjustment or pre-setting of any stops or abutments.

These and other desirable objects may be attained in the manner disclosed as an illustrative embodiment of the invention in the following description and in the accompanying drawings forming a part hereof, in which:

Fig. 1 is a top plan of an easel in accordance with a preferred embodiment of the present invention, with the masking means arranged to make prints of size 5 x 7 inches and with the paper carrier shown in full lines in a left hand position for making one print of that size on an 8 x 10 sheet and shown in dotted lines in a right hand position for making a second print on the same sheet;

Fig. 2 is a plan of the paper carrier removed from other parts, with a piece of print paper in place on the left hand portion of the carrier, the right hand portion of the paper being broken away to illustrate more clearly the construction of the carrier beneath the paper;

Fig. 3 is a fragmentary vertical section taken on the line 3—3 of Fig. 2, on a larger scale;

Fig. 4 is a bottom plan of the paper carrier;

Fig. 5 is a side elevation or edge view of the easel as seen from the left of Fig. 1;

Fig. 6 is a plan of the easel with the masking bridge removed, illustrating the paper carrier in process of being turned relative to the base;

Fig. 7 is a vertical section taken on the line 7—7 of Fig. 6, on a larger scale;

Fig. 8 is a plan of the easel with an auxiliary mask placed on the masking bridge in position for making prints of 4 x 5 size;

Fig. 9 is a view similar to Fig. 8 but with the auxiliary mask moved to position for making prints of 2½ x 3½ size;

Fig. 10 is a fragmentary vertical section taken on the line 10—10 of Fig. 8;

Fig. 11 is a plan of an auxiliary mask used for making prints of 3 x 4 size, with other portions of the easel structure shown in broken lines to enable a better understanding of the use of this auxiliary mask, and with a 4 x 6 mask opening also shown in broken lines for comparison with the 3 x 4 size;

Fig. 12 is a plan of an 8 x 10 sheet of photographic paper containing two 5 x 7 prints as made by using the easel of the present invention;

Fig. 13 is a similar view showing four 4 x 5 prints on the sheet, the inverted print numbers in this and some subsequent views indicating prints made after rotating the paper carrier through half a revolution in the plane of the paper;

Fig. 14 is a similar view illustrating four 3½ x 5 prints on the sheet;

Fig. 15 is a similar view illustrating eight 2½ x 3½ prints on the sheet;

Fig. 16 is a similar view illustrating three 4 x 6 prints on the sheet;

Fig. 17 is a similar view illustrating six 3 x 4 prints on the sheet; and

Figs. 18 through 25 are diagrams illustrating the position of the abutment flanges on the bottom of the paper carrier relative to the stops on the base, when making various individual prints of various sizes, as will be further explained as the description proceeds.

The same reference numerals throughout the several views indicate the same parts.

Photographic prints of various different sizes are often required. If it is attempted to keep in stock a separate supply of paper for each of the popular sizes, an almost insuperable problem is presented, because it is necessary to have several kinds and grades of paper in each size. The problem would be greatly reduced by keeping on hand a supply of only one fairly large size of paper (in the various necessary kinds and grades) and making the smaller size prints on paper of this large size, if the smaller prints could be made easily and quickly on the larger sheet, and without undue wastage of paper. The present invention aims to facilitate this, by providing an easel which may be operated with great ease and rapidity to make a plurality of small prints on one large sheet, without the need for manually setting or adjusting various stops or abutments as required in certain prior easels.

In enabling the production of a plurality of small prints on one large sheet, in a truly practical way as distinguished from the theoretical but impractical way attempted by certain prior easels, the present invention not only allows the photographer to concentrate on stocking one large size of paper rather than several small sizes, but also enables a great saving of time in processing the prints (developing, fixing, and washing them) because of handling a small number of large pieces of paper rather than a large number of small pieces. Also there is a great time saving in sorting the prints as they come out of the washing bath. It is true that the various prints on each large sheet have to be cut apart and trimmed, but the time spent in doing this is much more than offset by the time saved in processing and sorting, so that there

is a net gain in the efficiency of the whole operation, quite aside from the great advantage of eliminating the stocking of various small sizes of paper.

The easel of the present invention comprises three main parts, a base which ordinarily remains stationary on the base board of the photographic enlarger during the making of all prints on the same sheet of paper, a paper carrier which holds the large sheet of paper and which moves to various positions on the base for making the various small prints on the large sheet, and a masking bridge which is permanently mounted in fixed position on the base and extends over the top of the paper carrier and the sheet of paper carried thereby. In addition, an auxiliary masking member may be placed on the masking bridge and moved to three different positions thereon for three of the popular sizes of small prints, while other auxiliary masking members may be used on the masking bridge for other sizes of small prints.

Referring now to the drawings, and especially to Figs. 1 and 5–7, the base comprises a stiff sheet metal member having a flat bottom **31** having an upstanding vertical flange **33** at its rear edge and a similar one **34** at its front edge, both of these flanges having at their tops outwardly extending horizontal flanges **35** and **36**, respectively. The flange **33** has a long horizontal slot **37** near its top, and the flange **34** has a similar long horizontal slot **38** near its top. Rising from the bottom portion **31** of the base structure, near the four corners thereof, are four abutments or stops in the form of upturned vertical ears **41**, **42**, **43**, and **44**, which are sometimes referred to in the following description as the first, second, third, and fourth stops, respectively.

It will be noted (Fig. 7) that the top edges of the stops **41**, etc., are at elevations below the bottom edges of the slots **37** and **38**.

The paper carrier (Figs. 1–7) is preferably made (except for the paper retaining flanges) of molded plastic material, such as polystyrene, although it may be of hard rubber, die cast aluminum, or other suitable material. It comprises a top plate **51** the top face of which is flat except for a slight downward inclination or bevel **53** along two opposite edges at the long sides of the rectangular plate **51**. Fixed to each of these long sides is a metal angle bar having a wide vertical flange **55** secured to the plate **51** and a narrow horizontal flange **57** to overlie and hold one edge of the sheet of sensitized photographic print paper **59** as seen in Fig. 3. Thus the paper is held by the flanges along its two longer sides, but is not held at its two shorter sides. At its ends (i.e., the two shorter sides) the plate **51** is notched out as at **61** (Figs. 2 and 4) so that the sheet of paper **59** may be readily grasped between the thumb and finger to withdraw it from the carrier.

The bottom face of the top plate **51** of the carrier is provided with various depending flanges or ribs, best seen in Fig. 4. There is a shallow peripheral rib **63** extending all the way around the perimeter of the carrier. Also there are two deeper flanges or ribs **65** and **66** extending parallel to but spaced inwardly from the longer sides of the carrier, these ribs running the full length of the paper receiving surface and projecting very slightly beyond it at both ends. Likewise two flanges or ribs **67** and **68**, of the same depth as the flanges **65** and **66**, extend parallel to but spaced inwardly from the shorter sides of the carrier, these ribs crossing the ribs **65** and **66** as shown and projecting at both ends very slightly beyond the edges of the paper receiving surface. For certain dimensional reasons, the parts of the ribs **67** and **68** which extend outwardly beyond the ribs **65** and **66** need to be of considerable thickness, and consequently these parts are shown as being cored out or hollow, as seen at **69**, purely for the sake of saving material, the hollow spaces **69** being of no other significance. The bottom edges of the ribs **65**, **66**, **67** and **68** all lie in a common plane and normally rest on the top surface of the flat plate **31**, being slidable thereon to various exposure positions determined by contacts of the ribs with the fixed stops **41**, **42**, **43** and **44** of the base. To facilitate subsequent description of the manipulation of the carrier, the portions of the respective ribs which extend outwardly beyond the crossing ribs are separately designated by the numerals **71**, **72**, **73**, **74**, **75**, **76**, **77**, and **78**, reading counterclockwise in the bottom view, Fig. 4, and clockwise in the top diagrammatic views, Figs. 18–25.

When the bottoms of the ribs **65**—**68** are resting on the plate **31**, the bottom edges of the marginal or peripheral rib **63** lie at an elevation above the tops of the stops **41**—**44** (see Figs. 5 and 7) and so do not make contact with these stops. The slots **37** and **38** in the flanges **33** and **34** of the base have sufficient width in a vertical direction to allow the marginal rib **63** to pass through when turning the paper carrier in its own plane (see Figs. 6 and 7). The extreme width (shorter side direction) of the paper carrier, including the slightly projecting ends of the cross ribs **67** and **68**, is less than the clear space between the stops **41** and **44**, and between the stops **42** and **43**, so that the entire carrier may be slid endwise out of the base.

The third main part of the easel structure, the masking bridge, is best understood from Figs. 1, 5, and 8–10. comprises a piece of stiff sheet metal cut and bent to provide a main flat horizontal portion **81** at the rear edge of which is a vertical offset **82** followed by a narrow horizontal flange **83** offset slightly upwardly from the plane of the portion **81** and resting on the rear flange **35** of the base, being permanently secured thereto by screws, rivets, or spot welding. Forwardly of the portion **81** there is another upward offset **84** followed by a front horizontal flange **85** which is offset upwardly from the plane of the portion **81** to the same extent as the flange **83**, but the flange **85** is considerably wider than the flange **83**. The front edge of this flange **85** rests on the front flange **36** of the base, and is permanently secured thereto as by screws, rivets, or spot welding. At each of the lateral edges of the depressed portion **81** of the masking bridge, portions are bent upwardly to form narrow vertical flanges **87** at the left and **89** at the right. The height of the vertical flanges **33** and **34** of the base is of such dimensions with relation to the height of the paper carrier and the depth of downward offset of the portion **81** of the masking bridge, so that the bottom of the masking bridge is held at an elevation slightly above the top of the paper carrier and thus allows free movement of the paper carrier horizontally in the space between the base and the masking bridge without causing the photographic paper to drag against or be damaged by the overlying masking bridge.

In the flat portion **81** of the masking bridge there is a rectangular masking opening **91** of the proper size for the largest size of photographic print which is intended to be made when using this easel. In the specific embodiment here disclosed, the paper carrier of the easel is intended to accommodate photographic print paper of the commonly used size of 8 x 10 inches, and the largest size print intended to be made with this easel is a print of nominal size 5 x 7 inches, which is one of the standard print sizes, thus giving two such prints on each sheet of paper 8 x 10 inches. Various dimensions will be mentioned by way of example in the following description, and it will be understood that all of these dimensions are for an easel intended to take paper of the 8 x 10 size. If the easel is designed to take paper of a different size, then the dimensions of the easel would be different, of course, to accommodate the various standard sizes of small prints to the chosen size of large sheet. Also it must be realized that the nominal size of a print is not the actual size of the opening in the mask or of the picture printed on the paper, since there is an allowance for a white margin $\frac{3}{16}$ of an inch to $\frac{1}{4}$ of an inch all the way around all four sides of each

print. Therefore, the opening 91 intended for making prints of nominal size 5 x 7 inches is actually only of a size 4⅝ x 6⅝ inches, which is the picture size for a so-called 5 x 7 print.

In addition to the permanent or fixed masking bridge 81—91, there is also an auxiliary masking member in the form of an L-shaped piece of flat sheet metal having a relatively long and wide leg 93 (Figs. 8–10) and a relatively short and narrow leg 95 at right angles to each other, and having a manipulating knob 97 fixed to the top surface of this auxiliary masking member for ease in moving it from one location to another. Two spring clips 99, fixed to the flanges 87 and 89 of the bridge and overlying the portion 81 with ends which press resiliently downwardly, serve to hold the member 93—95 frictionally in place in one position or another, the space between these two clips 99 being amply sufficient to allow the member 93—95 to be removed entirely from the fixed bridge when it is not needed.

In addition to this L-shaped masking member 93—95 which is used for several of the popular sizes of small prints, one or more additional auxiliary masking members may also be used for certain sizes which are not so common. These will be further described below.

The use of the device in masking photoprints will now be described.

In all cases the base of the easel is placed flat on the base board of the enlarger, in such position that the beam of light projected downwardly by the enlarging lens will fall properly in the opening of the mask. The paper carrier is withdrawn at least partly from the base, by pulling it out rightwardly through the space between the stops 42 and 43, or by pulling it leftwardly between the stops 41 and 44, and is loaded with a sheet of paper of the proper kind, in the size for which the easel is intended, being the 8 x 10 size in the present embodiment. Then the paper carrier is moved back to a position mainly under the masking bridge.

Assuming now that it is desired to make two prints of 5 x 7 size on the one large sheet of 8 x 10 paper, this is done by using the regular mask opening 91 in the permanent masking bridge, no supplemental or auxiliary masking parts being needed. The first step is to slide the paper carrier rearwardly so that the ends of the ribs 73 and 74 abut against the rear flange 33 of the base, and then the carrier is slid leftwardly as far as it will go, bringing the left side of the rib 73 against the first stop 41, the position being shown diagrammatically in Fig. 18. In connection with all of the diagrams constituting Figs. 18–25, the masking bridge as well as the upper portion of the paper carrier have been removed, so as to show merely the relationship of the bottom ribs or flanges on the carrier to the base and the stops thereon, when making prints in various positions on the large sheet.

After adjusting the carrier to the position just described, exposure is then made, which will result in exposing a 5 x 7 area (that is, nominal 5 x 7 size, actually slightly smaller on account of the desired border or margin) near the right hand end of the paper sheet, which will at this time be underneath the mask aperture 91 in the masking bridge. This position of the carrier is shown in full lines in Fig. 1, as well as in the diagrammatic view, Fig. 18. For brevity of subsequent description, this position of the carrier may be called carrier position 1.

For the second print on the same sheet, the carrier is moved to the right as far as it will go, while still keeping the rear ends of the ribs 73 and 74 tight against the rear flange 33 of the base. This brings the carrier to the position shown in Fig. 19, where the right face of the rib 74 is against the second stop 42, and is the position shown in dotted line in Fig. 1. This may be called carrier position 2. The left hand portion of the sheet of paper will now lie underneath the exposure opening 91 in the masking bridge, and so an exposure may be made on the left end of the sheet, again of the nominal size 5 x 7, and in properly spaced relation to the first exposure of this size on the same sheet. The resulting two prints on this sheet are placed as shown in Fig. 12. The carrier is then moved forwardly enough so that the ribs 74 and 73 will clear the stops 41 and 42, and then is moved either rightwardly or leftwardly out from beneath the masking bridge far enough to take the exposed paper off of the carrier and insert a fresh sheet of unexposed paper on the carrier. The paper is then processed by being developed, fixed, washed, and dried in the usual manner, after which the two prints are cut apart and trimmed.

If it is desired to make four prints of nominal size 4 x 5 on the sheet, the L-shaped masking member 93—95 is placed on the masking bridge in the position shown in Fig. 8, with the rear edge of the long leg 93 of this masking member tight against the offset flange 82 of the masking bridge and with the left edge of the short leg 95 of the masking member tight against the flange 87 of the masking bridge, one of the spring clips 99 now overlying the auxiliary masking member to hold it frictionally in place. In this position, the short narrow leg 95 of the auxiliary masking member does not interfere with or overlap the exposure opening 91 of the masking bridge, but the long broad leg 93 of the masking member does extend across and covers the upper portion of the aperture 91, reducing the size thereof to nominal size 4 x 5 instead of 5 x 7.

To make the four prints of this size 4 x 5 on the sheet, the paper carrier is first moved to the position indicated in Fig. 20 (hereafter referred to as carrier position 3), in which the carrier is pulled forwardly until the flanges or ribs 77 and 78 rest against the front flange 34 of the base, and is moved rightwardly until the outer side of the rib 77 is against the inner face of the third stop 43. Then an exposure is made, producing a print (or rather, the latent image of a print) in the upper left quadrant of the sheet, in area 1 of Fig. 13. For the second print, the carrier is shifted leftwardly until the outer side of the rib 78 abuts against the inner face of the fourth stop 44, while still keeping the ends of the ribs 77 and 78 tight against the flange 34 of the base. This position is shown in Fig. 21, and is carrier position 4. An exposure made now will produce a print in the upper right quadrant of the sheet, in location 2 of Fig. 13.

Then the carrier is turned in its own plane through half a revolution or 180 degrees, which can be done without pulling the carrier out from under the bridge, because the corners of the carrier, during the turn, can extend through the slots 37 and 38 in the flanges 33 and 34 of the base, as illustrated for example in Fig. 6, which shows the carrier at an intermediate point of the turning operation. Of course the operator's fingers extend into the space between the base and the overlying masking bridge, and engage the carrier by the corners during this turning operation.

When the half revolution turn is completed, the previously exposed areas which were at the upper quadrants of the sheet have now been moved to the lower quadrants, and fresh unexposed portions of the sheet are now at the upper quadrants. The carrier is then moved to carrier position 3, to make an exposure in area 3 of Fig. 13, and then moved to carrier position 4 to make an exposure in location 4 of Fig. 13.

To make prints of nominal size 3½ x 5, the knob 97 of the auxiliary masking member 93—95 is grasped and pulled forwardly to slide the auxiliary masking member forward from the position shown in Fig. 8 to a position in which the free end of the leg 95 is in contact with the offset flange 84, while keeping the right edge of this leg in contact with the flange 87. The total dimension of the auxiliary member, in the direction of the flange 87, is one half inch less than the clear space between the offset flanges 82 and 84 of the masking bridge. Therefore, when the auxiliary masking member is in its

rear position shown in Fig. 8, there is a half inch gap between the leg 95 and the offset flange 84, and when the auxiliary masking member is pulled forwardly, this gap will close and there will be a half inch gap between the rear edge of the auxiliary member and the offset flange 82. The forward motion of the auxiliary masking member through half an inch will reduce the size of the exposure aperture from the nominal size of 4 x 5 to the nominal size of 3½ x 5. Four prints of this size are then made on the paper, placing the carrier successively in carrier positions 1, 2, 3, and 4, and making one exposure in each of these carrier positions, which will result in prints in the four locations 1, 2, 3, and 4 of Fig. 14 without requiring any turning of the carrier.

When the auxiliary member 93—95 is moved to the position for prints of size 3½ x 5, one edge thereof lines up with the mark 103, and when moved to position for prints 2½ x 3½, another edge also lines up with the mark 101, both marks being conspicuously marked on the portion 81 of the masking bridge, as an extra precaution to insure proper placement.

If it is desired to make prints of nominal size 2½ x 3½ inches, the L-shaped auxiliary masking member 93—95 is slid forwardly and rightwardly to the position shown in Fig. 9, where the end of the leg 93 of the auxiliary masking member abuts firmly against the lateral flange 89 at the right edge of the masking bridge, and the leg 95 of the auxiliary masking member abuts firmly against the offset flange 84 of the masking bridge. In this position, enough of the area of the large aperture 91 is covered (as seen in Fig. 9) to reduce the effective size of this aperture to nominal size 2½ x 3½ inches.

When the masking means has been adjusted in this manner, the carrier is moved successively to the carrier positions 1, 2, 3, and 4, making one exposure in each position, and producing prints successively in locations 1, 2, 3, and 4 of Fig. 15. Then the carrier is turned through half a revolution or 180 degrees, and is again moved successively to positions 1, 2, 3, and 4, making one exposure at each of these carrier positions, resulting in prints in the respective locations 5, 6, 7, and 8 of Fig. 15. These last four exposures, of course, will be upside down with respect to the exposures in locations 1, 2, 3, and 4, but this is wholly immaterial since the eight individual exposures are later to be cut apart and trimmed as individual prints, after the entire sheet has been developed, fixed, washed, and dried.

To make three prints of nominal size 4 x 6 on the sheet, the L-shaped auxiliary mask 93—95 is removed from the masking bridge, and is replaced by a supplemental or auxiliary masking member 105 (Fig. 11) which fits snugly on the depressed part of the bridge and which has a masking opening of nominal size 4 x 6 as shown in dotted lines at 111 in Fig. 11, which opening has its forward edge alined with the forward edge of the permanent masking opening 91, and its side edges symmetrical with respect to the side edges of the masking opening 91. The mask member 105 may have a notch in one of its lateral edges in the position occupied by one of the spring clips 99, so that the opposite lateral edge may be inserted under the other spring clip and then the first mentioned edge may be dropped down flat onto the bridge.

The carrier is turned 90 degrees from the normal position, and is placed in the position indicated in Fig. 22, with the ends of the ribs 75 and 76 in contact with the vertical flange 34 at the front of the base, and with the end of the rib 77 against the fourth stop 44 on the base. If an exposure is now made, it will result in a print in location 1 of Fig. 16. The carrier is then moved rightwardly, while keeping the ribs 75 and 76 in contact with the flange 34, until the right end of the rib 74 comes in contact with the third stop 43, this position being shown in Fig. 23. An exposure made now will result in a print in location 2 of Fig. 16. The carrier is then swung through a quarter of a turn or 90 degrees indicated in Fig. 24, with the ends of the ribs 73 and 74 in a counterclockwise direction and placed in the position engaging the rear flange 33 of the base, and with the outer face of the first stop 41 engaged with the inner side of the rib 73. This position in Fig. 24 is very close to the first carrier position shown in Fig. 18, the difference being only that the rib 73 is on the outside of the stop 41 instead of the inside. An exposure made with the carrier in this position illustrated in Fig. 24, will result in a print in location 3 of Fig. 16. Thus it has been possible to produce three prints of size 4 x 6 on the large sheet of size 8 x 10 paper.

For making prints of nominal size 3 x 4, the L-shaped auxiliary masking member 93—95 is removed from the masking bridge just as in the case of making prints of size 4 x 6. The special 3 x 4 mask is placed on the masking bridge, as shown at 105 in Fig. 11, this mask having an exposure aperture 107 of nominal size 3 x 4, the front edge of which will be alined with the front edge of the main aperture 91 and the side edges of which will be symmetrical with respect to the center line of the masking bridge when the mask member 105 is properly placed. This special mask for prints of size 3 x 4 is the same as the special mask for prints of size 4 x 6, except for the size of the masking aperture.

First the paper carrier is moved to the position shown in Fig. 25, where the ends of the ribs 77 and 78 are engaged with the front flange 34 of the base, and where the rib 78 lies just outside of the fourth stop 44 of the base, the latter contacting the inner side surface of the rib 78, as shown. This position is almost the same as carrier position 4, shown in Fig. 21, except that here the stop 44 lies against the inside face of the rib 78, instead of the outside face thereof as in Fig. 21. When the parts are positioned in this manner, an exposure will result in a print at the upper right corner of the paper sheet, in location 1 of Fig. 17.

Next the carrier is moved rearwardly a slight distance in order to free the rib 78 from the stop 44, and then is moved rightwardly and forwardly again to bring the ribs 77 and 78 into contact with the flange 34 of the base, to center the carrier midway of the cross dimension or right-to-left dimension of the base. This one position is determined by feel, there being no special stop or abutment for this position, but the operator's fingers may easily engage the two side edges of the bridge and feel the ends of the carrier, to center the carrier without difficulty. If an exposure is now made, a print will be produced in the location 2 of Fig. 17. Then the carrier is moved to the right, and rearwardly enough to let the leg 77 pass around to the outside of the stop 43 and forwardly again outside this stop, to a position corresponding to that shown in Fig. 25 except that the carrier is now at the forward right corner of the base instead of the forward left corner as shown in Fig. 25. In this position at the forward right corner of the base, an exposure will result in a print in location 3 of Fig. 17. The paper carrier is then turned through half a revolution or 180 degrees, and the same operations are repeated, resulting in prints successively in the three locations indicated at 4, 5, and 6 in Fig. 17. Thus six prints of nominal size 3 x 4 have been made on the large sheet.

It is noted that the print sizes 3 x 4 and 4 x 6 are less commonly used than the other sizes previously mentioned. It is only these two sizes that require the special supplementary masks 105, which masks can be omitted from the equipment if one is content to concentrate on the more commonly used sizes 5 x 7, 4 x 5, 3½ x 5, and 2½ x 3½. For all of these sizes just mentioned, the only masking equipment required is the permanent masking bridge plus the single L-shaped auxiliary masking member 93—95.

Dimensions, of course, can be varied somewhat, depending upon the size of border wanted around each

nominal size of print. The following dimensions mentioned as typical examples will result in borders of not less than 3/16 inch around all sides of each print.

The base may have a left-to-right dimension of 12⅝ inches overall, the four stops being set inwardly a distance of ¼ inch from each end so that the clear distance between the stops **41** and **42** is 12⅛ inches, with the same clear distance between the stops **43** and **44**. From front to back, the clear distance between the vertical flanges **33** and **34** of the base is 11⅝ inches. The rear edges of the rear stops **41** and **42** are ¾ inch forwardly from the rear flange **33**. The front edges of the front stops **43** and **44** are 1½ inches rearward from the front flange **34**. Each of these stops **41—44** is 7/16 inch wide.

The paper receiving surface of the paper carrier may be 10 inches long by 8 1/16 inches wide. The long ribs **65** and **66** project at each end 1/16 inch beyond the paper surface, and the shorter cross ribs **67** and **68** project at each end 1/32 inch beyond the edges of the paper surface. The clear space between the ribs **67** and **68** is 6¼ inches. The outer lateral faces of the portions **73**, **74**, **77**, and **78** of the ribs **67** and **68** are spaced inwardly 1 7/16 inches from the ends of the paper carrier. The ribs are ⅛ inch thick, except the thickened ends **73**, **74**, **77**, and **78**, which are 7/16 inch thick.

The masking bridge has a clear space of 7⅞ inches between the offset flanges **82** and **84**, and a clear space of 9⅞ inches between the two lateral flanges **87** and **89**. The main masking opening **91** for the nominal print size of 5 x 7, is actually 4⅝ x 6⅝ inches and is arranged symmetrically from side to side between the lateral flanges **87** and **89**, and symmetrically from front to rear between the offset flanges **82** and **84**.

These dimensions are given merely as typical examples, not intended in a limiting sense.

The cutouts or notches **61** in the paper carrier serve not only the purpose of enabling easy grasping of the paper for removal from the carrier when exposure is completed, but also the purpose of enabling the user to center the paper accurately in a lengthwise direction on the carrier, by the sense of feel, as he can feel the ends of the paper carrier and also feel the paper itself where it bridges over the notches **61**.

It is seen from the foregoing disclosure that the above mentioned objects of the invention are well fulfilled. It is to be understood that the foregoing disclosure is given by way of illustrative example only, rather than by way of limitation, and that without departing from the invention, the details may be varied within the scope of the appended claims.

What is claimed is:

1. A photographic easel comprising a flat base section of approximately rectangular plan and having two walls rising from said base section from two opposite edges, two stop members rising from said base section in spaced relation to each other near each of the other two opposite edges of said base section, each of said stop members being closer to one of said walls than it is to the other stop member at the same edge of said base section so that the spacing between any two stop members is greater than the spacing between any stop member and the closer one of said walls, the central area of said base section between said rising walls and between said stop members being flat and unobstructed, a masking bridge secured to the tops of said rising walls and extending horizontally above said base section in spaced relation thereto, a rectangular paper carrier removably received between said base section and said masking bridge and having a length less than that of said base section and a width less than the distance between the stop members at each of the two opposite edges of said base section, said carrier having a plurality of spaced depending ribs thereon in sliding contact with said base section and being freely slidable in any direction over the unobstructed central area of said base section to various exposure positions thereon, said carrier being arranged to receive a relatively large sheet of photographic print paper and to be pulled sidewardly between either two stop members to insert and remove the photographic paper, said exposure positions being determined by engagement of said carrier with a selected one of said walls and simultaneous engagement of a selected one of said ribs on said carrier with a selected one of said stop members.

2. A construction as defined in claim 1, in which said masking bridge has a maximum size exposure aperture therein and a plurality of abutment portions spaced around said aperture, and a generally L-shaped auxiliary masking member slidably carried by said masking bridge in overlying relation to part of said exposure aperture to reduce the effective size thereof, the edges of said auxiliary masking member engaging selectively with certain of said abutment portions on said bridge to establish certain predetermined positions of said auxiliary masking member relative to said aperture.

3. A construction as defined in claim 1, in which said carrier has a diagonal dimension greater than the space between said walls of said base section, said walls having slots to receive corners of said carrier during a turning operation so that said carrier may be turned horizontally end for end while remaining on said base section.

4. A construction as defined in claim 1, in which said base section and said bridge are of sheet metal, and said carrier is mainly of molded material.

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