

[54] **METHOD OF REGISTERING FILM
NEGATIVES**

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[51] Int. Cl. **B41b 1/00**

[58] Field of Search **33/184.5**

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Primary Examiner—William D. Martin, Jr.

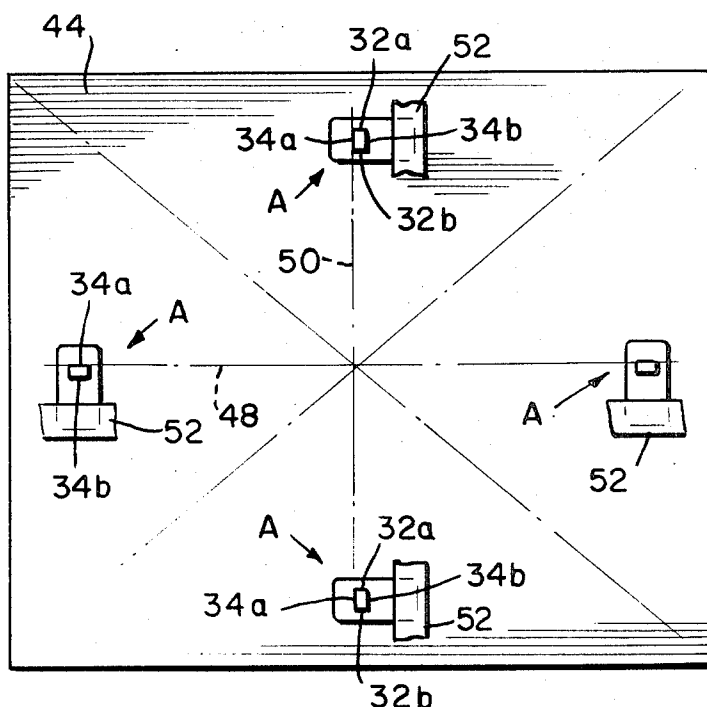
Attorney—Hood, Gust, Irish, Lundy & Coffey

[57] **ABSTRACT**

The method of establishing accurate registry of one or more superposed flexible sheets relative to first and

second support surfaces whereby the sheets can be removed from the first support surface and placed in proper registry on the second support surface. The method comprises the steps of defining in a first sheet a plurality of elongated, rectangular openings, placing the sheet on the first support surface and firmly anchoring on the first support surface a plurality of upstanding first pins of corresponding elongated rectangular cross section with each first pin conformingly penetrating one of the openings, removing the sheet from the first support surface and placing it on the second support surface and firmly anchoring on the second support surface a plurality of upstanding second pins with each second pin penetrating one of the openings. At least one of the second pins is square in cross section with a transverse side dimension equal to the length of the shorter side of the rectangular openings, whereby the sheet can expand or sweep in the direction of the longer sides of the opening penetrated by the square pin. Subsequently, any other sheet provided with openings for snugly receiving, respectively, the first pins on the first support surface can be transferred to the second support surface and registered with the first sheet.

9 Claims, 10 Drawing Figures



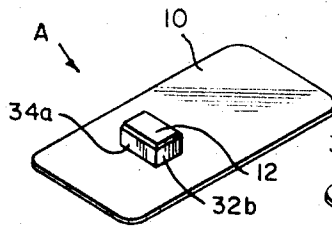


Fig. 1

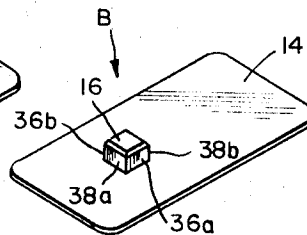


Fig. 2

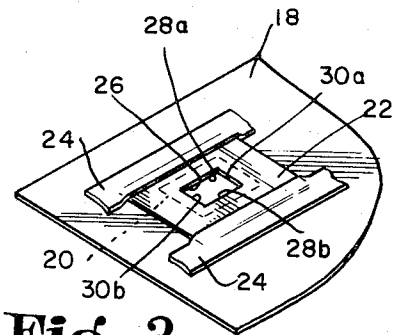


Fig. 3

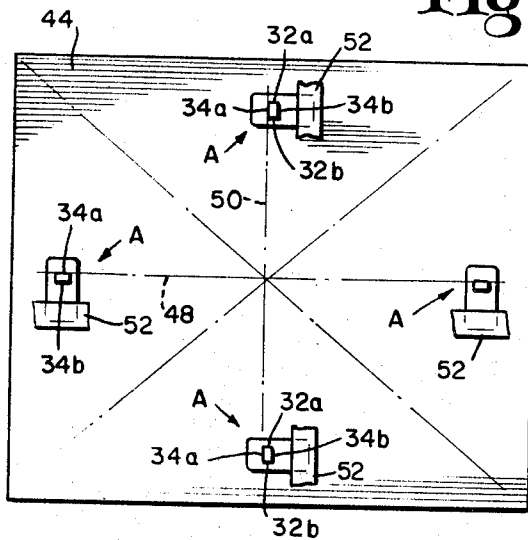


Fig. 4

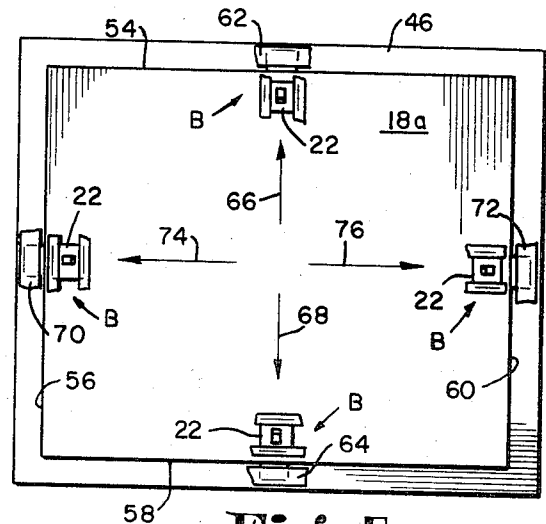


Fig. 5

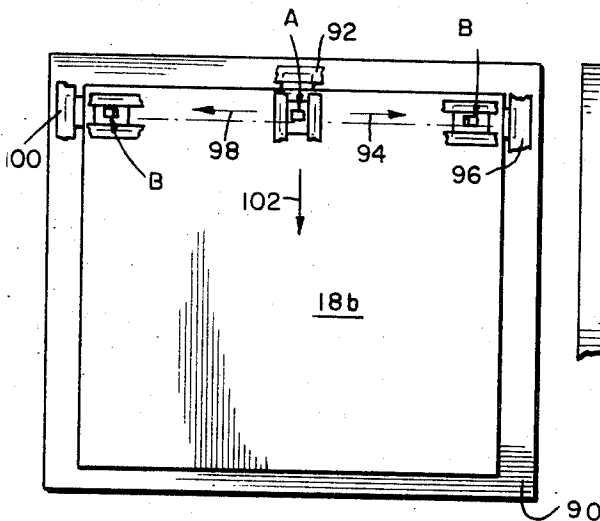


Fig. 6



Fig. 7

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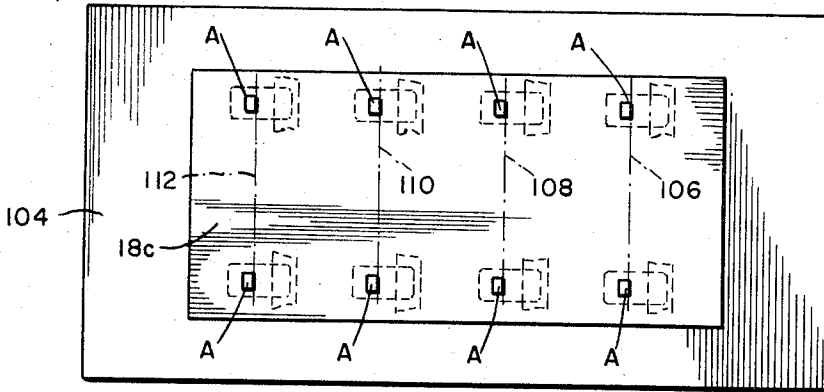


Fig. 8

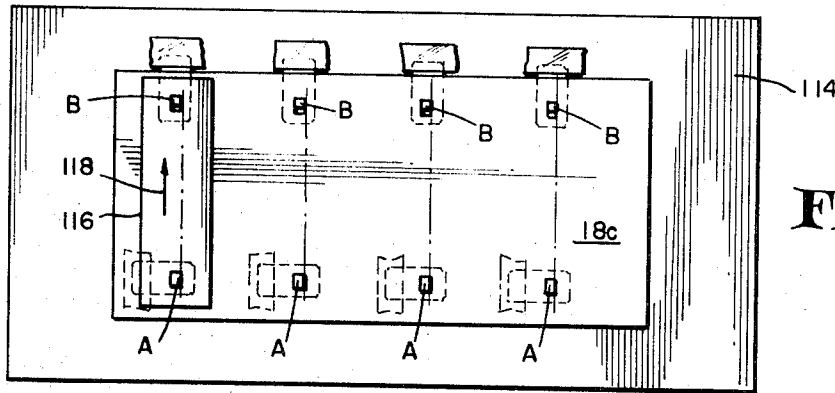


Fig. 9

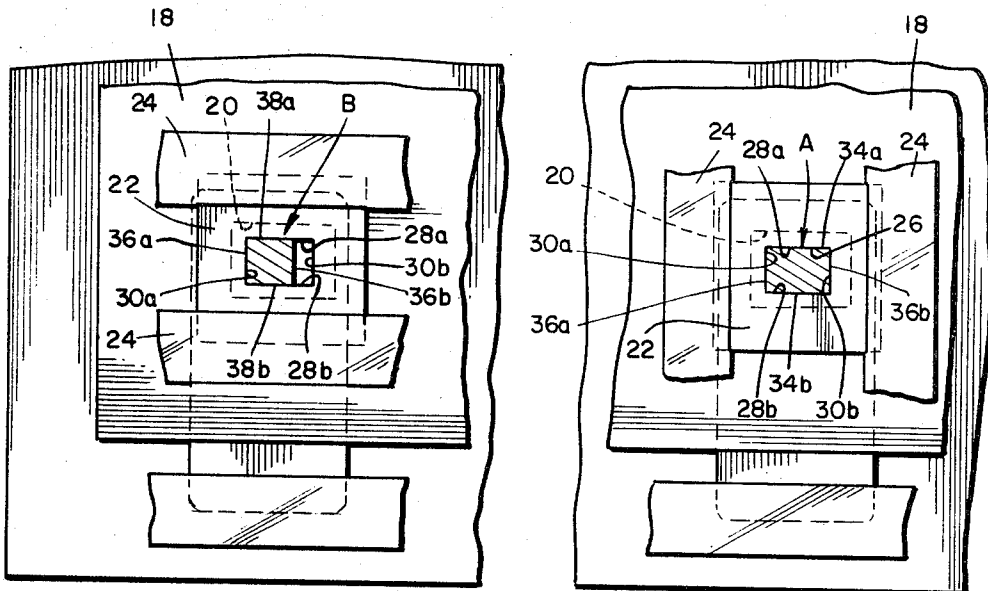


Fig. 10

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METHOD OF REGISTERING FILM NEGATIVES

It is a primary object of my invention to provide a method for registering one or more flats to each other or to a printing plate. A flat is a flexible sheet of preferably transparent plastic material having a thickness approximately equal to that of conventional film negatives. Such flats are used in the preparation of lithographic printing plates.

Generally, a flat is placed on an illuminated, glass-top table, commonly called a stripping table, and a form is ruled out on the flat to define the page or sheet size to be printed. After this is done, photographic negatives are taped to the flat in proper position. Line negatives are used for the type matter and half tone negatives are used for the photographs or drawings. If the printed matter is to appear in more than one color, one or more flats are required for each color to be printed. In some cases, when the printer is working on a four color brochure, it is conceivable that 25 or 30 flats will be required to orient the negatives for color printing. Thus, the very nature of a four color printing application requires very critical registration between the 25 or 30 flats required to make the four plates necessary to print the material. If the flats are not properly registered, the colors will not be registered.

One of the problems involved in properly registering flats is that, if the flats are made from ordinary paper, the paper may change size as a result of temperature and/or humidity changes. Even plastic will change size as a result of temperature and/or humidity changes. Further, flats are conventionally pulled downwardly onto a printing plate by means of a vacuum system. If there is a buckle in a flat because of the humidity or temperature stretch or because of improper placing of registration pins, the vacuum will uncontrollably pull the flat laterally relative to the printing plate. This lateral movement of the flat relative to the printing plate is referred to as the sweep or sweeping movement. With presently known methods for registering flats, there is no control over the sweep. Specifically, as will be more fully described hereinafter, the method of the present invention involves the use of rectangular registering pins and square registering pins to establish a condition whereby the sweep of a flat relative to the printing plate will always be controlled. Further, the square and rectangular pins used in my method eliminate the twisting or pivotal movement of the flat relative to the printing plate. Of course, the straight, flat edges of the square and rectangular pins facilitate, initially, the location of the pins and registration holes in the flats.

In accordance with my invention, a stripper will use elongated rectangular pins firmly anchored to the stripping table and conformingly penetrating, respectively, registration openings formed in a flat. Once the proper negatives are taped to the flat, the flat is placed on a printing plate, i.e., an aluminum plate conventionally coated with photo-sensitive material. Pins are firmly anchored to the printing plate to penetrate, respectively, the openings in the flat. While all of the pins anchored to the stripping table are elongated and rectangular in cross section, at least one of the pins anchored to the printing plate is square in cross section or, at least, not elongated conformingly to penetrate the registration openings in the flat. In all cases, however, the square or shorter registration pins engage the longer side edges of the registration openings to guide the flat

for sweeping movement in the direction of the longer side edges.

Other objects and features of my invention will become apparent as this description progresses.

To the accomplishment of the above and related objects, the method of my invention may be practiced in accordance with the illustrations in the accompanying drawings and discussion herein, attention being called to the fact, however, that the drawings and discussion are merely illustrative and that change may be made in the specific methods described, so long as the scope of the appended claims is not violated.

In the drawings:

FIG. 1 is a perspective view of the elongated, rectangular registration pin of my invention;

FIG. 2 is a perspective view of the square registration pin of my invention;

FIG. 3 is a fragmentary, perspective view of a portion of a flat and showing means for defining a firm-edged opening in the flat, which means is taped firmly to the flat;

FIG. 4 is a plan view of a stripping table with four registration pins firmly anchored thereon;

FIG. 5 is a plan view of a photographic plate with a flat registered thereon, the registration openings in the flat being located by the registration pins of FIG. 4;

FIG. 6 is a fragmentary plan view showing three registration pins firmly anchored on a stripping table;

FIG. 7 is a plan view of a photographic plate with a flat registered thereon, the registration openings in the flat being determined by the registration pins in FIG. 6;

FIG. 8 is another plan view of a stripping table showing a different arrangement of registration pins anchored thereon;

FIG. 9 is a plan view of a photographic plate showing a flat registered thereon, the registration openings in the flat being determined by the registration pins of FIG. 8; and

FIG. 10 is an enlarged, fragmentary plan view showing the preferred method for using the registration pins.

For convenience, I have designated my elongated, rectangular registration pin with an A and my square registration pin with a B. It will be apparent, as this description progresses, that, in accordance with my invention, a stripper making a flat on a stripping table will use exclusively registration pins A and that the plate maker, i.e., the person making the photographic plate, will use combinations of registration pins A and B. In some cases, as will be discussed in conjunction with FIGS. 4 and 5, the plate maker will use only registration pins B.

The registration pin A, in the illustrative embodiment, includes a relatively thin, flat plate 10 on which a rectangular block 12 is mounted and the pin B includes a relatively thin, flat plate 14 on which a square block 16 is mounted. I prefer that the plates 10, 14 and blocks 12, 16 be fabricated from stainless steel and that the blocks be welded, brazed or otherwise securely fastened to the plates. The upper edges of the blocks 12, 16 are preferably beveled as illustrated in FIGS. 1 and 2.

I also prefer that the plates 10, 14 be approximately one and three-fourths inches long and seven-eighths inch wide and approximately 0.020 inch thick. I also prefer that the blocks 12, 16 be squarely arranged on their respective plates 10, 14. That is, for instance,

each upstanding face of the block 12 is parallel to the adjacent side edge of the plate 10.

While the height of the blocks 12, 16 may vary with the application, a height between 0.110 and 0.130 inch is convenient and will permit the registration of several flats, i.e., stacking of flats in registration.

Referring to FIG. 3, it will be seen that I have shown a fragment of a flat 18 which may be a transparent plastic sheet, the thickness of which is approximately equal to the thickness of a conventional film negative. The size of a flat is, of course, determined directly by the size of the plate to be used for printing. It will be appreciated, however, that, for the larger flats, registration problems are more significant. Preferably, an opening, such as indicated by the reference numeral 20, will be cut in the flat 18 at each point where it is desired that a registration opening be defined. Then, a small piece 22 of firm or relatively stiff material is securely attached to the flat 18 by means such as the illustrated pieces of tape 24, this piece 22 having punched therein a rectangular, firm-edged opening 26 which registers with the opening 20 formed in the flat 18. This piece of material 22 may be a piece of scrap film. The opening 26 formed in the piece is punched precisely to have parallel major side edges 28a, 28b and parallel minor side edges 30a, 30b. The opening 26 is formed snugly and conformingly to receive the block 12 of the registration pin A. For convenience in discussion, I will say simply that the registration pin A conformingly penetrates the opening 26.

Thus, each of the registration pins A must provide a first pair of upstanding faces 32a, 32b substantially equal in transverse dimension to the length of the minor side edges 30a, 30b and a second pair of upstanding faces 34a, 34b substantially equal in transverse dimension to the length of the major side edges 28a, 28b. For example, the length of the major side edges 28a, 28b may be 9/32 inch and the length of the minor side edges 30a, 30b may be 7/32 inch. Further, each of the registration pins B must provide a first pair of upstanding faces 36a, 36b equal in transverse dimension to the length of the minor side edges 30a, 30b and a second pair of upstanding faces 38a, 38b of not greater transverse dimension than the length of the major side edges 28a, 28b. In the illustrative embodiment, the transverse dimension of the upstanding faces 38a, 38b is exactly equal to the length of the minor side edges 30a, 30b. Thus, when the registration pin B penetrates the opening 26, at least one pair of its upstanding faces will be in retaining contact with the major side edges 28a, 28b of the opening. As will be discussed more fully hereinafter, when the pin B so penetrates an opening 26 in a piece 22 on a flat 18, the flat can then expand or sweep, as it is called, in the direction of the major side edges 28a, 28b.

While I find it convenient to use the piece 22 of material having the opening 26 formed therein and to secure this piece to the flat 18 with tape 24, it will be appreciated that, in accordance with my invention, registration openings may be formed or punched directly in the flat. It will be noted that, in FIG. 3 and in FIG. 10, the openings 20 formed in the flat 18 are significantly larger than the registration openings 26 formed in the pieces 22. Thus, each piece 22 can be maneuvered or moved properly to locate its opening 26 relative to reference lines drawn on the flat 18. Alternatively, as will be more fully discussed hereinafter, the flat 18 may be

placed on a stripping table having registration pins A firmly anchored thereon and then each piece 22 can be placed over a registration pin A before the piece 22 is firmly attached or taped to the flat 18.

The tape 24 may be nothing more than conventional transparent or opaque tape normally used for art work.

Referring to FIG. 4, it will be seen that I have illustrated a first support surface 44 which may be the top, illuminated glass surface of a conventional stripping table and referring to FIG. 5, it will be seen that I have illustrated a second support surface 46 which may be the active surface, i.e., photo-sensitive surface, of a conventional photographic plate. It will further be seen that there are four registration pins A securely anchored to the surface 44 and four registration pins B securely anchored to the surface 46. In FIG. 4, I show a horizontal reference line 48 and a vertical reference line 50, which lines may be drawn onto the surface 44 as well as onto the upper surface of a flat, such as the flat 18a illustrated in FIG. 5. Two of the pins A are placed along the vertically extending line 50 and two of the pins A are placed along the horizontally extending line 48. Specifically, the pins A placed along the vertically extending line 50 have the left-hand edges of their blocks 12 coinciding with the line and the pins A placed along the horizontally extending line 48 have the upper edges of their blocks 12 coinciding with the line. Thus, generally, a line drawn between the centers of the blocks 12 of the registration pins A placed along the reference line 48 will perpendicularly bisect a similar line drawn between the centers of the blocks 12 of the pins A placed along the vertically extending reference line 50. Thus, the longer side faces 34a, 34b, of the blocks along the line 48 are generally in alignment and the longer side faces 34a, 34b of the blocks along the vertical line 50 are in alignment.

In the preferred method of my invention, a flat, such as the flat 18a in FIG. 5, is placed on the surface 44, the flat being formed with an opening 20 for receiving each of the registration pins A. When the flat 18a is properly registered with the reference lines 48, 50, a piece 22 may be placed over each registration pin A and then securely taped to the flat. Since the registration pins A are secured to the surface 44 by means such as the illustrated tape 52, the flat 18 with the pieces 22 taped thereto can be removed from the surface 44 without disturbing the pins A. Any number of flats can thus be similarly registered to the surface 44.

It will be seen that, when a flat, such as the illustrated rectangular flat 18a, is placed on the surface 44 and registered with the pins A, the long side faces 34a, 34b of each pin will be perpendicular to the adjacentmost side edge of the flat. For convenience, therefore, I have designated the side edges of the flat 18a by the reference numerals 54, 56, 58, 60 (FIG. 5).

Further, in accordance with my preferred method, the flat 18a is removed from the support surface 44 and placed on the support surface 46 upon which four registration pins B are resting. Initially, these registration pins B are not secured to the surface 46. One registration pin B is inserted into each of the four registration openings 26 defined in the flat 18a as illustrated in FIG. 5. Then, the upper pin B is pulled toward the upper side edge 54 relative to the flat 18a and secured to the surface 46 by the tape 62. Then, the lower registration pin B is pulled downwardly, i.e., in the direction of the side edge 58 relative to the flat 18a, and then taped in posi-

tion by the tape 64. The purpose in pulling the upper and lower registration pins B in opposite directions relative to the flat 18a is to place the upper pin in retaining contact with the minor side edge 30a or 30b which is proximate to the side edge 54 and the lower registration pin B in retaining contact with the minor side edge 30a or 30b which is proximate to the side edge 58. Thus, since the registration pins B are square and the registration openings 26 penetrated, respectively, by the pins are rectangular, i.e., elongated in the vertical direction, the flat 18a can expand as indicated by the arrows 66, 68.

The left-hand registration pin B and right-hand registration pin B are similarly pulled in opposite directions toward the side edges, respectively, 56, 60 and secured in position by pieces of tape 70, 72. Thus, the flat 18a can expand horizontally (FIG. 5) as indicated by the arrows 74, 76.

Of course, the force with which a registration pin B can be pulled against the flat 18a is determined by the strength and nature of the flat. At least initially, when the flat 18a is placed on the surface 46 and the registration pins B are secured to the surface by the pieces of tape 62, 64, 70, 72, the flat is pulled tautly, but not stretched, along a horizontal line corresponding to the reference line 48 and a vertical line corresponding to the reference line 50.

Once the registration pins B are firmly secured to the surface 46 by the pieces of tape 62, 64, 70, 72, any flat having registration openings defined by the position of the registration pins A secured to the surface 44 can be registered on the surface 46. In this manner, a stripper may use the setup on the surface 44 to make several flats 18a which can be placed in registry on the surface 46. It will be appreciated by those skilled in the photographic arts that these several flats 18a can be used to expose photo-sensitive material coated on the surface 46.

Conventionally, photographic plates are used with conventional plate holders having vacuum holding capability. Specifically, the plates are placed on such holders and a top frame is closed or placed down over the holder to make an air-tight compartment which is evacuated. This evacuation process is used firmly to pull the flat down onto the plate to eliminate any air bubbles, wrinkles, etc. in the flat. It is this drawing operation which produces what is referred to as sweep or sweeping movement of the flat.

Referring to FIG. 5, it will be seen that the flat 18a can expand vertically, as indicated by the arrows 66, 68 away from a horizontally extending line defined by the left-hand and right-hand registration pins B. That is, the side faces 36a, 36b of the left-hand and right-hand registration pins B engage the major side edges 28a, 28b of the registration openings 26 through which the pins, respectively, extend to establish the horizontally extending line from which the upper portion of the flat 18a expands or sweeps vertically upwardly (arrow 66) and from which the lower portion of the flat expands or sweeps vertically downwardly (arrow 68). Similarly, the upper and lower registration pins B (FIG. 5) engage the major side edges 28a, 28b of the registration openings through which the pins, respectively, extend to establish a vertical line from which the left-hand portion of the flat 18a expands or sweeps in the direction of the arrow 74 and from which the right-hand portion of the flat expands or sweeps in the direction of the arrow 76.

Thus, there is a point substantially in the center of the flat 18a which is held against movement relative to the plate 46. The arrangement of the registration pins B on the plate 46 permits sweeping of the flat away from this center point.

Once a flat 18a is made in the manner just described, the flat can always be used again to reestablish the position of the registration pins A on the surface 44 so that the flat can be modified, reworked, etc. In other words, in accordance with the method of my invention, the registration pins A can be positioned on the surface 44 to correspond to previously located registration openings 26 in a particular flat.

In the arrangement of FIGS. 4 and 5, therefore, the stripper making the flats uses only the registration pins A while the plate maker uses only the registration pins B. This arrangement is believed to be suitable for relatively large flats, such as flats for colored pictures the size of a conventional newspaper sheet.

Referring now to FIG. 6, it will be seen that I have illustrated a fragmentary portion of the top surface 84 of a conventional stripping table and a reference line 86 which may or may not be permanently drawn on the table. Three registration pins A are placed along the reference line 86 and secured to the surface 84 by means of pieces of tape 88. Specifically, the upstanding side face 34a of each registration pin A coincides with the reference line 86, whereby the longer side faces of the pins are in alignment. Further, in the illustrative embodiment, the center pin A is equidistantly spaced from the left-hand and right-hand pins A. In accordance with the method of my invention, a stripper will place a flat, such as the illustrated flat 18b in FIG. 7, on the surface 84 and, as discussed previously in conjunction with FIG. 4, secure pieces 22 of material to the flat to provide a registration opening receiving each of the pins A. Of course, if the registration openings 26 are already defined in a flat 18b, the registration pins A can be inserted, respectively, into the openings and then taped in position on the surface 84.

After a flat 18b is provided with registration openings 26 corresponding to the registration pins A firmly secured to the surface 84, the flat is placed on the active surface of a photographic plate 90. Then, in accordance with the method of my invention, a registration pin A is placed in the center registration opening 26 in the flat 18b and secured to the plate by means such as the piece of tape 92. Then, a registration pin B is inserted into the right-hand registration opening 26 (FIG. 7) and pulled in the direction of the arrow 94 to engage the minor side edge 30a or 30b of the opening which is remote from the center opening. Then, the right-hand registration pin B is secured to the plate 90 by means such as the illustrated piece of tape 96. Similarly, a registration pin B is inserted into the left-hand registration opening 26 and pulled in the direction of the arrow 98 to engage the minor side edge 30a or 30b of the opening which is remote from the center opening and this left-hand registration pin is then secured to the plate by means such as the illustrated piece of tape 100.

It will be appreciated that, when the plate 90 with the flat 18b thereon is placed in the vacuum pull down apparatus, the flat will be able to sweep horizontally away from the center registration pin A as indicated by the arrows 94, 98 and vertically away from the center registration pin as indicated by the arrow 102. Since the left-hand and right-hand registration pins B are square and

since the registration opening 26 are rectangular and elongated in the direction of the arrows 94, 98 the flat 18b can grow horizontally in both directions from the center registration pin A by a distance equal to the difference between the length of the major side edges 28a, 28b and the minor side edges 30a, 30b. It will be noted, however, that the flat 18b will not be able to twist or pivot about the center pin A because the left-hand and right-hand registration pins B engage and remain in retaining contact with the major side edges 28a, 28b through which the pins, respectively, extend. The anti-twist feature of my rectangular and square registration pins A, B and the method by which they are used is an important feature of my invention.

The arrangement discussed in conjunction with FIGS. 6 and 7 is believed to be suitable for use with relatively small flats, i.e., flats smaller than those used with the arrangement of FIGS. 4 and 5.

Referring now to FIG. 8, it will be seen that I have illustrated the upper surface 104 of a stripping table with a plurality of registration pins A mounted thereon. Specifically, I have illustrated four vertically extending, preferably equally spaced apart, reference lines 106, 108, 110, 112 and a pair of registration pins A arranged along each of said lines. The longer side faces 34a, 34b of each pair of pins A are in alignment.

In accordance with the method of my invention, a flat, such as the illustrated flat 18c, is placed on the surface 104 and provided with registration openings for snugly receiving the registration pins a.

Then, the flat 18c can be transferred to and placed on a photographic plate 114 (FIG. 9) where each vertically aligned pair of registration openings is used to locate a registration pin A and a registration pin B. As discussed previously, it is desirable that the registration pin B of each pair, at least initially, be in engagement with the minor side edge 30a, 30b remote from its associated registration pin A.

Once the vertically aligned pairs (FIG. 9) of registration pins A and B are secured to the plate 114 in positions corresponding to the registration openings in the flat 18c, a narrow strip flat, such as indicated at 116 in FIG. 9, can be made using any vertically aligned pair of registration pins A on the stripping table 104 and then used with each of the vertically aligned pairs of registration pins A, B on the plate 114. In such a case, each such narrow strip flat 116 can sweep or expand away from the registration pin A extending therethrough as indicated by the arrow 118 in FIG. 9.

The arrangement of FIGS. 8 and 9 is used to make multiple exposures on the same plate of the material carried by a narrow strip flat. In other words, a narrow strip flat 116 can be placed over a vertically aligned pair of registration pins A, B on the plate to expose an area between the pins, then the strip can be moved to another set of pins to expose another area on the plate.

I claim:

1. The method of establishing accurate registry of one or more superposed flexible sheets relative to first and second support surfaces whereby said sheets can be removed from said first support surface and placed in proper registry on said second support surface, which method comprises the steps of defining in one of said sheets a plurality of firm-edged, rectangular openings, each of said openings having a major pair of side edges and a minor pair of side edges, placing said one sheet on said first support surface and firmly anchoring

on said first support surface a plurality of upstanding first pins of rectangular cross-section with each first pin conformingly penetrating one of said openings, each of said first pins providing a first pair of upstanding faces substantially equal in transverse dimension to the length of said minor side edges of said openings and a second pair of upstanding faces substantially equal in transverse dimension to the length of said major side edges of said openings, removing said one sheet from said first support surface and placing it on said second support surface and firmly anchoring on said second support surface a plurality of upstanding second pins of rectangular cross-section with each second pin penetrating one of said openings, each of said second pins providing a first pair of upstanding faces equal in transverse dimension to the length of said minor side edges of said openings and a second pair of upstanding faces of not greater transverse dimension than the length of said major side edges of said openings with at least one of said second pins having a second pair of upstanding faces of significantly shorter transverse dimension than the length of said major side edges, the second pair of faces of each second pin being in retaining contact with the major side edges of the opening through which the pin extends.

2. The method of claim 1 in which said one sheet is formed with a pair of said openings, the major side edges of said pair of openings being generally aligned, and in which the other of said second pins is identical in size to said first pins conformingly to penetrate one opening of said pair, the second pair of faces of the one shorter second pin being in retaining contact with the major side edges of the other opening of the pair to guide the sweeping movement of said one sheet away from the other second pin.

3. The method of claim 2 in which one of the first faces of the one shorter second pin which is remote from said other second pin is, at least initially, in contact with the minor side edge of the other opening, which minor side edge is remote from said other second pin.

4. The method of claim 1 in which said one sheet is formed with a center opening and an opening on each side thereof, the major side edges of these three openings being generally aligned, in which the second pin penetrating the center opening is identical in size to said first pins conformingly to penetrate said center opening, and in which the second pins penetrating, respectively, the openings on each side of the center opening have second faces of significantly shorter transverse dimension than the length of said major side edges.

5. The method of claim 4 in which one of the first pair of faces of each shorter second pin which is remote from the center opening is, at least initially, in contact with the minor side edge of the opening penetrated by the pin, which minor side edge is remote from the center opening, whereby said one sheet can sweep away from said center opening.

6. The method of claim 1 in which said one sheet is formed with two pairs of such openings, the major side edges of the openings of each pair being generally aligned with the major side edges of the openings of one pair being generally perpendicular to the major side edges of the openings of the other pair, and said openings being disposed so that a line drawn between the centers of the openings of one pair generally per-

pendicularly bisects a line drawn between the centers of the openings of the other pair, and in which the second pair of faces of the second pin penetrating each of said openings is of significantly shorter transverse dimension than the length of said major side edges.

7. The method of establishing accurate registry of one or more superposed flexible sheets relative to first and second support surfaces whereby said sheets can be removed from said first support surface and placed in proper registry on said second support surface, which method comprises the steps of firmly anchoring on said first support surface a plurality of upstanding first pins of rectangular cross-section, placing a first of said sheets on said first support surface and defining in said sheet a plurality of firm-edged, rectangular openings, each of said openings having a major pair of side edges and a minor pair of side edges, each of said first pins conformingly penetrating one of said openings and having a first pair of upstanding faces substantially equal in transverse dimension to the length of said minor side edges of said openings and a second pair of upstanding faces substantially equal in transverse dimension to the length of said major side edges of said openings, removing said sheet from said first support surface and placing it on said second support surface and firmly anchoring on said second support surface a plurality of upstanding second pins of rectangular cross-section with each second pin penetrating one of said openings, each of said second pins providing a first pair of upstanding faces equal in transverse dimension to the length of said minor side edges of said openings and a second pair of upstanding faces of not greater transverse dimension than the length of said major side edges of said openings with at least one of said second pins having a second pair of upstanding faces of significantly shorter transverse dimension than the length of said major side edges, the second pair of faces of each second pin being in retaining contact with the major

side edges of the opening through which the pin extends, whereby, thereafter, any sheet provided with such openings for receiving the first pins on said first support surface can be held in registry on said second support surface by said second pins.

8. The method of claim 1 in which there are three such openings and one major side edge of each opening coincides with a common line near and parallel with one edge of said sheet, one of said openings being located substantially midway of the length of said sheet edge and the other two of said openings being located respectively substantially equidistant from the opposite ends of said sheet, the second pair of upstanding faces of the pin which penetrates said one opening having transverse dimensions substantially equal to the length of the major side edges of that opening, and the second pair of upstanding faces of the two pins penetrating the other two of said openings having transverse dimensions significantly less than the lengths of the major side edges of said other two openings.

9. The method of claim 1 in which said openings are arranged in two rows respectively adjacent to the side edges of said sheet with the major dimension of each opening substantially perpendicular to the adjacent sheet edge, each opening in one row having one major side edge arranged in a common line with the corresponding major side edge of an opening in the other row, the second pair of upstanding faces of each pin which penetrates an opening of one row having transverse dimensions substantially equal to the length of the major side edges of that opening and one of said faces including said common line, and the second pair of upstanding faces of each pin which penetrates an opening of the other row having transverse dimensions significantly less than the length of the major side edges of that opening.

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