

Dec. 13, 1960

B. L. PARKER
PHOTO PRINT MOUNTS

2,963,809

Filed March 3, 1958

3 Sheets-Sheet 1

fig. 1.

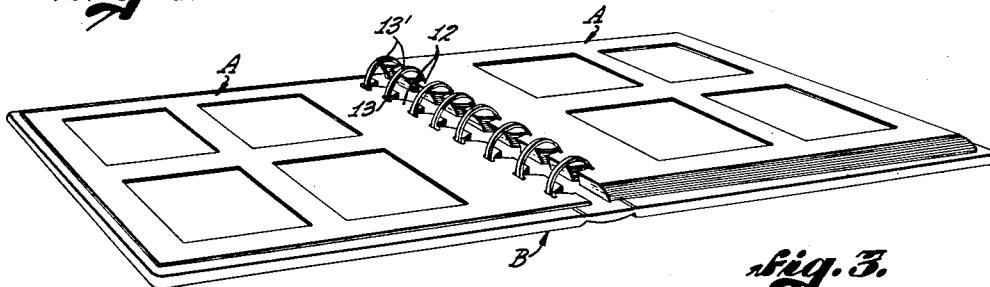


fig. 3.

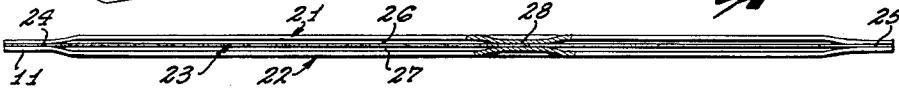


fig. 2.

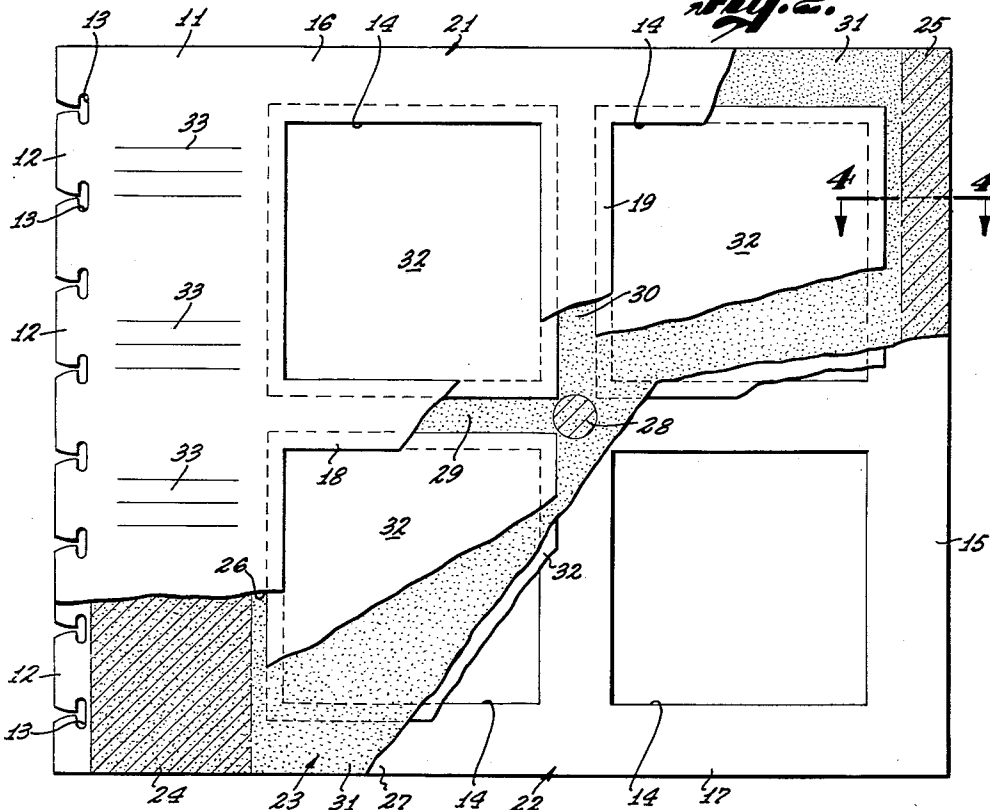
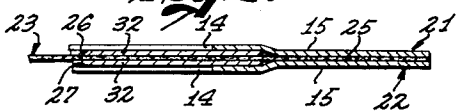


fig. 4.



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3 Sheets-Sheet 2

fig. 5.

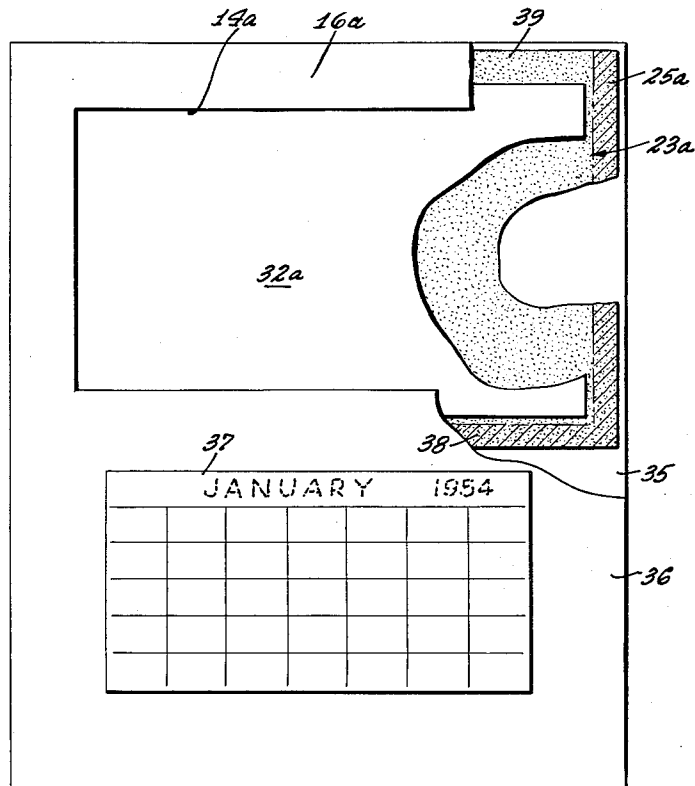
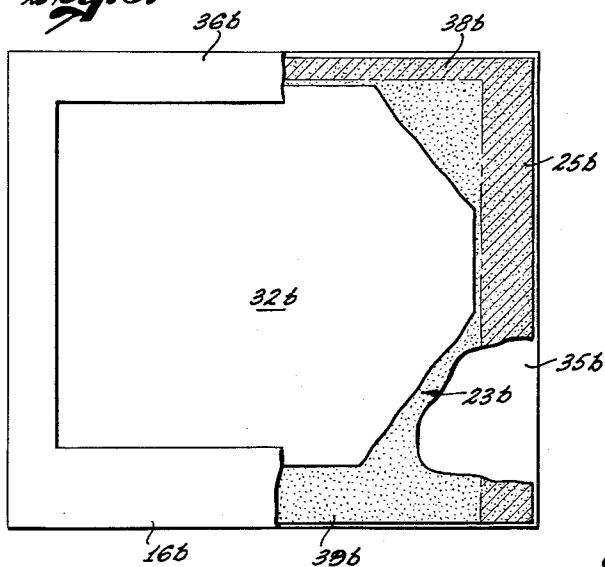


fig. 6.



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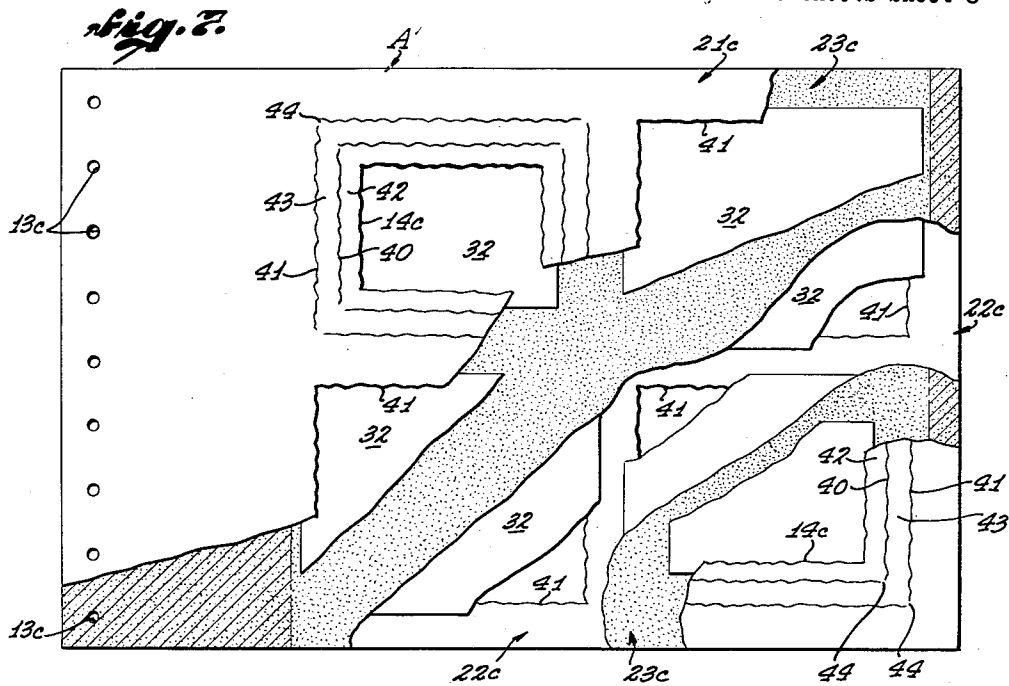
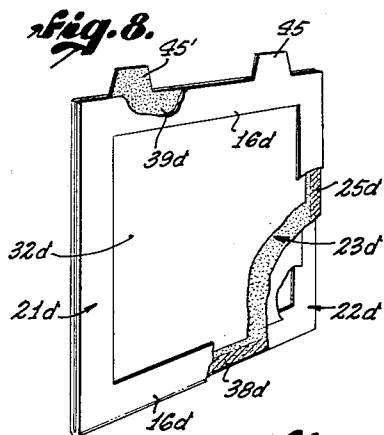
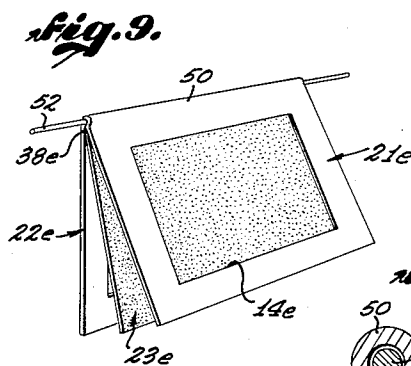
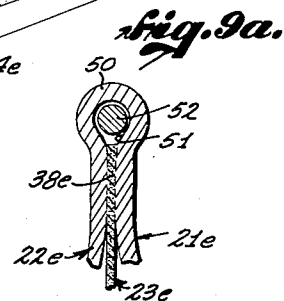
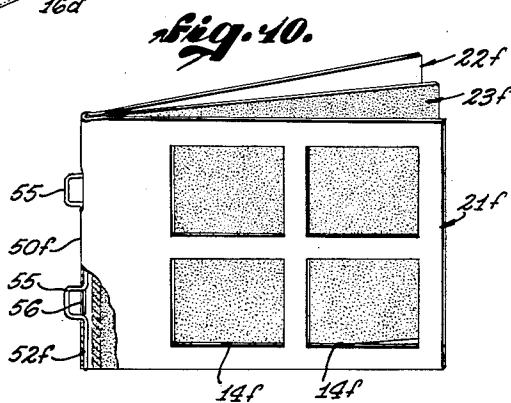
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3 Sheets-Sheet 3



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1

2,963,809

PHOTO PRINT MOUNTS

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4 Claims. (Cl. 40—158)

This invention relates to photo-print mounts, and has as its general object to provide an improved means and method of mounting photo-prints in a mounting frame embodied in an album leaf, a diary page, a photo-mounting folder, a calendar, a greeting card, or other article in which it may be desirable to incorporate a photograph.

A particular object of the invention is to provide an improved photo-album leaf (e.g. of the loose-leaf variety) in which photo-prints can be readily mounted without curling, with rapid registration of the prints in their frames without the use of special gages.

Another object is to provide an improved method of mounting photo-prints in framing articles of various types such as those outlined above.

A further object is to provide a photo-mount panel incorporating an improved mounting unit for mounting a large number of photo-prints in overlapping array on the panel.

Another object is to provide a photo-mount folder having improved means for dry-mounting a photo-print therein.

A further object is to provide an improved framing mat for a photo mount folder, an album leaf, or the like.

Other objects will become apparent in the ensuing specifications and appended drawings in which:

Fig. 1 is a perspective view of a loose-leaf photo album embodying my invention;

Fig. 2 is a plan view of one of the photo mounting leaves of the album, with photos mounted therein, and with upper layers broken away to expose the structural features of the under layers;

Fig. 3 is a longitudinal edge view of such photo mounting leaf;

Fig. 4 is a detail sectional view taken on the line 4—4 of Fig. 2;

Fig. 5 is a plan view of a calendar embodying the invention with successive layer exposure;

Fig. 6 is a plan view of an embodiment of the invention which may be taken as representing an individual photo-mount frame or a greeting card, successive layer exposure being utilized in this figure also;

Fig. 7 is a plan view of a photo-mount album leaf with my improved framing mats having framing openings that are adjustable to several print sizes;

Fig. 8 is a perspective view of a modified form of the invention as embodied in a card filing photo-mount frame, progressive layer removal being utilized for disclosure of the internal structure;

Fig. 9 is a perspective view of a modified form of the invention utilized in a overlapping mount arrangement in a mounting rack or panel;

Fig. 9a is a sectional fragmentary detail thereof; and

Fig. 10 is a perspective view of an album leaf embodying another modified form of the invention, with parts broken away and shown in section.

2

The invention as disclosed in Figs. 1-3

Referring now to Sheet 1 of the drawings, I have shown in Figs. 1-3 thereof, as an example of one form in which the invention may be embodied, a photo-mount album comprising a series of leaves A, adapted for mounting in a ring binder B (the binder forming no part of the present invention). This is the preferred form of the invention.

Referring specifically now to Figs. 2 and 3, the photo-mount leaf A may include an end portion 11 which functions as a binding portion embodying any selected conventional construction for securing the leaf in a binder. For example, as shown, it may have a series of T-shaped projections 12 defining between them a series of open slots 13 to receive the rings 13' of binder B, or can be of standard book bindings or three-hole or multi-hole ring punch design, etc. The remainder of the sheet, which may be of approximately square dimension, provides a plurality of frames for framing the picture displaying openings 14, these frames collectively utilizing, at one side the tab section 11, and at the other side a frame strip 15 at the free end of the leaf, top and bottom frame strips 16 and 17, and horizontal and vertical web portions 18 and 19 respectively.

The invention is characterized by a laminated construction wherein each of the framing elements 11, 15, 16, 17, 18 and 19 is comprised of a pair of facing sheets (mats) 21 and 22 (Fig. 3) and an adhesive sheet 25 (of dry-mount tissue, rendered adhesive by the application of heat and pressure) which is sandwiched between the mats 21 and 22. The facing sheets 21 and 22 are pre-adhered to the intervening tissue sheet 23 in two vertical strip areas 24 and 25, each extending the full height of the page from top to bottom thereof, the strip 24 being substantially coextensive in area with binding end portion 11, having a width extending to a vertical line spaced from the adjacent margins of display openings 14, and the strip 25 having a width extending from the free end margin of the page to a vertical line spaced from the adjacent margins of display openings 14. The bonded areas 24 and 25 are indicated by the diagonal cross hatch shading in Fig. 2, and the stippled shading indicates unbonded, free faces of the adhesive sheet 23.

The free, unattached area of the tissue 23 projects beyond the margins of openings 14 to define pockets 26 and 27 between the mats 21 and 22 and tissue 23, extending vertically along the inner margins of bonded areas 24 and 25 and facing one another. The cross webs 18 and 19 are partially attached to tissue 23 (e.g., at a central area of attachment indicated at 28), and may be free of attachment in areas 29 and 30 between horizontal webs 18 and sheet 23 and between vertical webs 19 and sheet 23. Slots 31, extending the entire horizontal distance between the inner margins of bonded areas 24 and 25, are defined between the unattached horizontal marginal portions 16 and 17 of mats 21 and 22 and the free underlying areas of adhesive sheet 23 such slots functioning as entry mouths for insertion of photo-prints 32.

It will now be apparent that the series of photo-prints 32 can be inserted through top and bottom slots 31 until they are centered with respect to display openings 14, with their respective marginal portions received in pockets 26 and 27 and slots 29, 30 and 31, and covered by the framing portions 11, 15, 16, 17, 18, and 19 of the mats 21 and 22, the remaining area of each picture being exposed through a respective display opening 14.

Method of mounting

My improved method of mounting photographs comprises using the above described album leaf (or any of

3

the hereinafter described mounting frames) in the following manner:

The photographs 32 are inserted into the receiving pockets and spaces in the manner stated above, are positioned to the satisfaction of the operator; and the leaf is then carefully handled to avoid jarring the prints out of the selected positions while the leaf is being inserted into a heated press or laid upon a flat supporting surface preparatory to applying heat and pressure thereto.

In a heated press, with the album leaf supported on the bed of the press, the upper platen is brought downwardly against the upper face of the album to simultaneously apply heat and pressure to the leaf with its assembled prints. Alternatively, the leaf may be laid upon a flat supporting surface, and a common flatiron applied to its upper face to apply heat and pressure to the entire area thereof. Thereupon, each print becomes adhesively bonded throughout the entire area of its back face, to the tissue 23. In effect, the tissue, melted under the application of heat, becomes simply a film of adhesive between each print on one side of the album leaf and the corresponding registering print on the opposite side of the leaf, whereby the registering prints of each pair are bonded together back to back. In addition, the free portions of mats 21 and 22 over pockets 26 and 27 and the apertures 29, 30 and 31, are bonded to the areas of adhesive sheets 23 which are exposed outwardly of the margins of prints 32, whereby these portions of the mats become bonded together at their inner faces.

Thus the prints 32 become securely sealed in pockets which are closed entirely around their margins, and at the same time are bonded together back to back for each pair of registering prints, the only remaining unbonded areas of the mats 21 and 22 being the relatively narrow marginal portions around display openings 14, overhanging the marginal portions of the prints 32. By bonding a pair of registering prints together, back to back throughout their entire area, any warping forces set up in the prints in subjecting them to the adhering contact of adhesive tissue 23, are opposed to one another and balanced out so that the two registering prints will remain perfectly flat after the adhesion process has been completed.

The central bonded area 28 may function as a locating means, for contact by the inner corner of a print while its opposite side margin is positioned by a pocket 26 or 27, as the case may be. Such locating contact assists in the rapid positioning of the print in the receiving spaces, and assists in a temporary holding of the prints between the mat frames and the tissue while the leaf is being handled preparatory to the application of heat and pressure thereto.

It is contemplated that the above described method will commonly be practiced in a processing laboratory or studio where prints are made, as an accessory process following the processes of developing the film and their making prints therefrom. At the same time, it is to be understood that many an amateur photographer will prefer to mount his prints himself so as to retain the privilege of selecting the order of arrangement in an album.

Manufacture of album page

In the manufacture of the album leaf, the mats 21 and 22 are die cut from selected mat paper, and are imprinted with any selected indicia, such as for example, a series of guide lines 33 for data identifying the series of prints displayed on the leaf, to be written in by the photographer after receiving a mounted leaf from the processing laboratory or studio. The binding end portion 11 is made wide enough to accommodate such legends. The mats 21 are imprinted on one face, whereas the mats 22 are imprinted on the opposite face, whereby mats 21 and 22 become complementary pairs.

In assembling the parts of the album leaf, the sheet of heat sensitive adhesive tissue 23 is simply inserted

4

between a complementary pair of mats 21, 22, and pressure and heat are simultaneously applied to the areas of the mats to be adhered. This may be accomplished by utilizing a suitable pressure platen.

The adhesive tissue 23 provides the means for finally sealing the photo-prints into the album leaf but also the means for initially fabricating the assembled leaf by attaching the mats 21 and 22 to one another through restricted area bonds (e.g. 24, 25 and 28) of any selected shape, area or spacing.

The invention as disclosed in Fig. 5

Fig. 5 illustrates how the invention may be applied to a calendar including a backing sheet 35, a front mat 36, a calendar pad 37 mounted thereon, a print framing opening 14a and a dry mount tissue 23a which is sandwiched between the upper portions of backing sheet 35 and mat 36 is bonded thereto along a horizontal bottom area 38 and vertical side areas 25a, the central and upper area of the tissue being left unattached to mat 36, whereby a horizontal slot 39, for the reception of a print 32a, is left between the tissue and the horizontal web portion 16a of the top of mat 36 over aperture 14a. In completing the calendar, the print 32a is slipped into the pocket thus provided between mat 36 and tissues 23a, and heat and pressure are then applied to bond the entire back face of print 32a through tissue 23a to the back sheet 35, and at the same time to bond web 16a to the upper marginal portion of tissue 23a to close slot 39. Thus the print becomes sealed within the pocket and adhesively secured to back sheet 35 throughout its area.

The invention as disclosed in Fig. 6

Fig. 6 discloses how the invention may be utilized in a greeting card or conventional photo-mount panel, comprising a backing sheet 35b, a dry-mount tissue sheet 23b and a front mat 36b of rectangular frame form, the mat 36b being bonded to the back sheet 35b through top and side marginal areas 38b and 25b respectively, and a slot 39b being provided between an unattached horizontal web portion 16b of mat 36b and the underlying area of tissue 23b. A print 32b is inserted through the slot 39b and the assembly is then subjected to heat and pressure to bond the back of the print to backing sheet 35b and to bond the web 16b to back 35b so as to close slot 39b and seal the print 32b into the mounting panel.

The invention as disclosed in Fig. 7

Fig. 7 discloses a modified album leaf A' having ring binder holes 13c and having a series of display openings 14c of minimum size, with slits 40 and 41 in the mat around opening 14c, outlining selectively larger openings which may be readily formed by the selective removal of the strips of mat material 42, 43 which are defined between the margin of an opening 14c and the slits 40 and 41. The strips 42 and 43 are attached to the body of the mats 21c, 22c by relatively narrow corner webs 44 which are severed in order to remove the strips 42 (for an intermediate size opening) or 43 (for a maximum size opening).

The mats 21c, 22c are die cut, as in the case of the mats 21, 22. The aperture margins may be deckle-edged as shown in Fig. 6, or may be plainly rectangular, or oval as shown in Fig. 2, as a matter of choice.

A particular advantage of the invention, in providing the selection of several display opening sizes for the user of the album, arises from the fact that after the application of heat and pressure to the loose assembly of album leaf and prints, the framing strips 42 and/or 43, which are unattached to tissue sheet 23c prior to the print mounting operation, become bonded together back to back as the result of the application of heat and pressure, and the slits 40 and 41 remain simply as decorative lines framing the display opening 14c, without substan-

5

tially weakening the mat surface. Thus the strips 42 and 43, which are loosely attached to the body of the mat prior to the bonding operation, become sealed permanently and securely in place in the bonding operation.

The invention as disclosed in Fig. 8

Fig. 8 discloses how the invention may be embodied in an individual print frame or folder of a type of which a large number of such print frames may be hingedly attached, in progressively overlapping relation, on a mounting panel, with a lower marginal portion 16d of each mounting frame exposed below the lower margin of the next higher mounting frame. Such overlapping arrangements are known, and the multiple assembly of frames in the overlapping mounting is not disclosed as such. In the individual frames shown in Fig. 8, a pair of tabs 45 are provided at the upper margin of the frame for attachment to the mounting panel. Such tabs may be formed as integral projections of front mat 21d, and are provided with adhesive rear surfaces constituted by correspondingly shaped extensions 45' of tissue 23d. The upper margin of the rear underneath frame member or mat 22d is straight, without any corresponding projections, whereby the adhesive tab faces 45' are exposed on the under or rear side of the frame.

Mat members 21d and 22d are pre-adhered to one another through a horizontal bottom strip bond 38d and two vertical side strip bonds 25d, but with a top area having slots 39d between tissue 23d and the unattached upper horizontal strips 16d of mats 21d and 22d respectively. Through these slots, photo-prints 32d may be inserted into the pockets outlined by the pre-adhered bonds 25d and 38d, and the frame may then be subjected to heat and pressure after being properly positioned upon the mounting panel. This bonding operation serves to bond the marginal areas of mats 21d and 22d to one another to close slots 39d, and at the same time will bond the tabs 45 through adhesive faces 45' thereof to the mounting panel.

The result will be an overlapping assembly of mounted prints each comprising a pair of prints bonded to one another back to back and sealed in a frame which is hingedly attached through tabs 45, 45' to a mounting panel. The frame may be in folder form, i.e., with mats 21d and 22d integrally united by a fold along its lower longitudinal margin.

The invention as disclosed in Figs. 9 and 9a

Fig. 9 shows a modified form of mounting frame for overlapping hinged attachment to a mounting panel. In this form of the invention, a sheet of dry-mount tissue 23e is attached adjacent its upper longitudinal edge to the fold 50 of a mounting frame comprising front and back mats 21e, 22e each having therein a display opening 14e. The attachment of tissue 23e to the fold 50 is provided by a longitudinal narrow strip bond 38e. This line of attachment is spaced inwardly from fold 50, with the tissue being bonded to both of the mats 21e, 22e, so as to seal off a tubular space 51 within fold 50, thus constituting fold 50 as a sleeve which receives a hinge wire 52 extending therethrough and projecting at both ends. These projecting ends of the hinge wire may be attached to a mounting panel by any suitable means such as by stapling or by patches adhesively applied over the projecting ends of the wire and secured to the panel.

A pair of prints may be inserted between the open leaves of the frame assembly (i.e. between the tissue 23e and the respective mats 21e, 22e), properly registered with openings 14e, and the assembly then closed and subjected to heat and pressure to bond the mats 21e and 22e together, thus sealing the prints within the frame structure in a manner similar to that previously described. The completed frame may then be hingedly attached to a panel in overlapping relation to other frames, as previously indicated.

6

The invention as disclosed in Fig. 10

Fig. 10 discloses another modified form of album leaf, similar to the single frame shown in Fig. 9, but with mounting loops 55 formed as intermediate projections of a mounting wire 52f sealed in the fold 50f of the folder type frame of Fig. 9, and having a series of display openings 14f instead of the single opening 14e of Fig. 9. The loops 55 project through slots 56 cut in fold 50f, to form binder eyes. The one end margin of dry-mount tissue sheet 23f is bonded as indicated by the cross-hatching to the opposed inner faces of frame 21f, 22f to provide a tubular sleeve structure in which the wire 52f is sealed.

I claim:

1. A photomount album leaf of laminated structure for dry-mounting a plurality of photoprints in permanently-flat condition, comprising: a pair of complementary mats each having a series of photo-print display openings therein, arranged in at least two vertically spaced horizontal rows; and an imperforate sheet of dry mount tissue sandwiched between said mats, having portions thereof exposed in and bridging the full areas of said openings, and having other portions thereof attached to the inner faces of both mats to provide bonds between them along the vertical margins thereof from substantially top to bottom of said leaf and in an area thereof substantially midway between the upper and lower margins of the leaf, both of said mats being free of attachment to said tissue in upper and lower areas of the leaf extending horizontally the full length of the leaf between said vertical marginal bonds, said attachment-free areas extending vertically from said upper and lower horizontal margins toward the said central longitudinal area of the page to the extent of at least a substantial portion of the height of said display openings in both of said horizontal rows, whereby to define between adjoining faces of said mats and tissue, in the upper and lower horizontal marginal areas of the leaf, entry slots extending from the upper and lower horizontal margins of the leaf to the respective display openings, through which photoprints may be passed edgewise and disposed in back to back relation and in registering relation to the respective display openings, with marginal areas of the prints covered by the marginal areas of the mat outlining the display openings, and with outer areas of the mats and tissue projecting beyond the print margins, so that said outer areas may be bonded to one another and said prints may have their back faces bonded to one another through said dry mount tissue so as to seal the prints between the mats and to seal the marginal areas of the mats together to form a unitary bonded album leaf structure containing the prints.

2. A photo-mount album leaf of laminated structure for dry-mounting a plurality of pairs of photoprints back to back in permanently flat condition, comprising: a pair of complementary symmetrical mats arranged in back to back relation to conjointly constitute said leaf, said mats having registering photoprint display openings therein, arranged in two vertically spaced horizontal rows each comprising a plurality of laterally spaced openings, said mats having respective webs separating said horizontal rows along a central horizontal strip area of said leaf; and a sheet of dry-mount tissue sandwiched between said mats and having portions thereof exposed within said openings, said tissue being bonded to the inner faces of both mats along vertical areas adjacent the vertical end margins of said leaf substantially from top to bottom thereof and in said central horizontal strip area, both of said mats being free of attachment to said tissue in the horizontal marginal areas of the leaf throughout the horizontal extent thereof between said vertical marginal areas of bonded attachment, said upper and lower attachment free areas being extended inwardly from the upper and lower margins of said leaf toward said central horizontal strip area past the outward horizontal margins of said

rows of openings, whereby to define between adjoining faces of said mats and tissue, in the upper and lower horizontal marginal areas of the leaf, entry slots extending from the upper and lower horizontal margins of the leaf to the respective display openings, through which photo-prints may be passed edgewise and disposed in back to back relation and in registering relation to the respective display openings, with marginal areas of the prints covered by the marginal areas of the mat outlining the display openings, and with outer areas of the mats and tissue projecting beyond the print margins, so that said outer areas may be bonded to one another and said prints may have their back faces bonded to one another through said dry mount tissue so as to seal the prints between the mats and to seal the marginal areas of the mats together to form a unitary bonded album leaf structure containing the prints.

3. A photo-mount album leaf of laminated structure for dry-mounting a plurality of pairs of photo prints back to back in permanently flat condition, comprising: a sheet of dry mount tissue; and a pair of complementary symmetrical mats arranged back to back against the respective faces of said tissue sheet in sandwich assembly and in marginal registration therewith to conjointly constitute said leaf, said mats having registering photo print display openings therein, arranged in two vertically spaced horizontal rows each having a plurality of horizontally spaced openings, said mats including registering vertical end marginal webs disposed between the end openings of said rows and the vertical end margins of the leaf, including registering upper and lower horizontal marginal webs disposed between the upper and lower extremities of said openings and the upper and lower horizontal margins of the leaf respectively, including registering central intermediate horizontal webs extending between said rows from one of said vertical marginal webs to the other and including registering intermediate vertical webs between adjacent openings of said rows; said tissue sheet having portions thereof exposed within said openings and being bonded to the opposed inner faces of the vertical marginal webs of both of said mats substantially throughout the vertical extent thereof, and to the opposed inner faces of said central horizontal webs of both mats; said horizontal marginal webs of both mats being free of attachment to said tissue and to one another throughout the horizontal extent of said horizontal marginal webs between the inner margins of said vertical marginal web; and said intermediate vertical webs of both mats, in their areas adjoining said horizontal marginal webs and extending at least a majority of the distance therefrom to said central horizontal web, being likewise free of attachment to said tissue and to one another, whereby to define between adjoining faces of said mats and tissue, in the upper and lower horizontal marginal areas of the leaf,

entry slots extending from the upper and lower horizontal margins of the leaf to the respective display openings, through which photo prints may be passed edgewise and disposed in back to back relation and in registering relation to the respective display openings, with marginal areas of the prints covered by the marginal areas of the mat outlining the display openings, and with outer areas of the mats and tissue projecting beyond the print margins, so that said outer areas may be bonded to one another and said prints may have their back faces bonded to one another throughout their areas by said dry mount tissue so as to seal the prints between the mats and to seal the marginal areas of the mats together to form a unitary bonded album leaf structure containing the prints.

4. A photo-mount leaf of laminated structure for dry mounting a pair of photoprints back to back in permanently flat condition, comprising: a pair of complementary symmetrical mats having registering margins and respective registering photo print display openings; an impermeate sheet of dry mount tissue sandwiched between said mats, having portions of its respective faces exposed in and bridging the full areas of said openings, having other portions thereof bonded to the opposed inner faces of both mats along at least two opposed margins thereof, and having still other portions thereof extending between but free of attachment to the opposed inner faces of other marginal portions of said mats, whereby to define between said last mentioned opposed inner faces and the opposed faces of said tissue, entry slots through which a pair of photoprints may be passed edgewise and disposed in back to back registering relation to one another and in registering relation to the respective display openings, with marginal areas of the prints covered by the marginal areas of the mat outlining the display openings, and with outer areas of the mats and tissue projecting beyond the print margins, so that said outer areas may be bonded to one another and said prints may have their back faces bonded to one another by said tissue throughout the areas of said back faces so as to laminate the prints between the mats and to one another in a manner such that curling stresses in said prints are balanced against one another and cancelled, leaving the prints permanently flat.

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