



(11) **EP 1 640 177 B1**

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention
of the grant of the patent:
27.01.2010 Bulletin 2010/04

(51) Int Cl.:
B41N 6/00 (2006.01) B65D 19/00 (2006.01)

(21) Application number: **05020801.6**

(22) Date of filing: **23.09.2005**

(54) **Mounting base for planographic printing plates**

Montagegrundkörper für Flachdruckplatten

Base de montage pour plaques d'impression planographique

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI
SK TR**

(30) Priority: **24.09.2004 JP 2004276677**

(43) Date of publication of application:
29.03.2006 Bulletin 2006/13

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Description

BACKGROUND OF THE INVENTION

Field of the Invention

[0001] The present invention relates to a loading structure, wherein said loading structure comprises a mounting base on which planographic printing plates are loaded.

Description of the Related Art

[0002] Flat printing plates (PS plates) of photosensitive and thermosensitive printing plates generally have laminated papers that protect the PS plate coating layers (i.e., image-forming surfaces) alternately stacked between them. Protective cardboard is arranged above and below these laminated papers, making a stacked bundle of between 100-1500 PS plates. This stacked bundle is loaded on a mounting base and bound to (i.e., strapped to) the mounting base with bands, whereby it is ready for shipping (see Japanese Patent Application Laid-Open No. 2003-11970).

[0003] The stacked bundle of PS plates, in a state where it is loaded on the mounting base, is set in the exposure section of an automatic developing device. Automatic developing processing is performed in which images are formed on the PS plates by exposing the image-forming surfaces of the PS plates with a laser and then develop processing them.

[0004] The mounting base on which the stacked bundle is loaded is heavy so a forklift is used to set the stacked bundle in the exposure section. At that time, a problem occurs in that the lifting component of the forklift presses strongly against the bands or rubs against the bands and cuts them, whereby the mounting base and the stacked bundle of PS plates shift.

[0005] United States Patent 5,297,680 discloses a sensitive photographic products packaging system comprising a photographic product handling device bound to a mounting base. The handling device comprises the sensitive photographic product bound together between first and second platform assemblies by binding members. When the handling device is bound to the mounting base, the binding members which bind said photographic product together between the first and second platform assemblies passes inside end support members on the mounting base. However, the binding members which bind the handling device to the mounting base are exposed to the same problems as posed by the lifting component of the forklift as described above.

SUMMARY OF THE INVENTION

[0006] The present invention was made upon considering the above-described circumstances, and its purpose is to provide a loading structure comprising a mount-

ing base that, when transported with a lifting apparatus such as a forklift with a stacked bundle of planographic printing plates bound with bands, prevents cutting of the bands by the lifting component (e.g., claws) of the forklift.

[0007] A first aspect of the present invention provides a loading structure comprising a mounting base on which a stacked bundle of a stacked plurality of planographic printing plates is loaded and bound with a binding member that is wound around the mounting base and can be lifted and transported from the lower portion with a lifting component, the mounting base comprising: a space into which the lifting component can be inserted; and a guard portion on an outer surface of the mounting base that prevents contact between the binding member and the lifting component.

[0008] Due to the above-described configuration, contact between the lifting component and the binding member binding the stacked bundle of stacked planographic printing plates to the mounting base can be avoided with the guard portion fanned on the outer surface of the mounting base.

[0009] Due to this, when, for example, the lifting component of a lifting apparatus such as a forklift is inserted into the lower portion of the mounting base, the lifting component does not contact the binding member. Accordingly, there is no possibility of the binding member being damaged and the stacked bundle of planographic printing plates and mounting base shifting.

[0010] Further, in the first aspect, the guard portion may be formed on either one of or both of a side surface and underneath surface of the mounting base, and can be a depression around which the binding member is wound around.

[0011] Due to this configuration, a depression is formed on either one of or both of a side surface and underneath surface of the mounting base, and the binding member is wound around the depression. In other words, even if the lifting component contacts the periphery of the depression formed on the side surface or underneath surface of the mounting base, it does not contact the binding member so there is no danger of the binding member being damaged.

[0012] Further, the guard portion may be formed on the side surface and underneath surface of the mounting base, or on the side surface only, and the guard portion formed on at least the side surface may be a protrusion formed so as to be positioned on both sides of the wound around binding member. Moreover, the guard portion formed on the underneath surface may be a depression around which the binding member is wound.

[0013] Due to the above-described configuration, protrusions are formed on the side surface of the mounting base on both sides of the wound around binding member, and the binding member wound around the mounting base is positioned between the protrusions. Further, a depression around which the binding member is wound is formed at the underneath surface of the mounting base. Accordingly, when the lifting component is inserted at the

lower portion of the mounting base, even if the lifting component contacts the side surface of the mounting base or the protrusions of the underneath surface, it does not contact the binding member.

[0014] Further, the guard portion of the mounting base may be formed on the side surface of the mounting base and include a gap where the wound around binding member is fit into.

[0015] Due to the above-described configuration, the binding member is fit into and wound around the gap formed in the side surface of the mounting base. Due to this, when the lifting component is inserted at the lower portion of the mounting base, even if the lifting component contacts the side surface of the mounting base, it does not contact the binding member.

[0016] Further, in the first aspect, the guard portion may be formed in the side surface of the mounting base and include a through-hole into which the wound around binding member is inserted.

[0017] Due to this configuration, a through-hole is formed in the side surface or underneath surface of the mounting base and the binding member is inserted through this through-hole, whereby the stacked bundle is bound to the mounting base. Due to this, when the lifting component is inserted at the lower portion of the mounting base, even if the lifting component contacts the side surface or underneath surface of the mounting base, it does not contact the binding member.

[0018] Further, the guard portion of the mounting base may be made to be removable from the side surface of the mounting base.

[0019] Due to the above-described configuration, in a case where the guard portion is damaged, by making the guard portion removable from the mounting base, the damaged guard portion can be removed and a new guard portion attached, making it unnecessary to replace the entire mounting base.

BRIEF DESCRIPTION OF THE DRAWINGS

[0020]

Fig. 1 is a perspective view showing a loading structure according to the first embodiment of the present invention on which planographic printing plates are loaded.

Fig. 2 is a perspective view showing a loading structure of the first embodiment of the present invention.

Fig. 3 is a perspective view showing the mounting base of the loading structure of the first embodiment of the present invention.

Fig. 4 is a perspective view showing the mounting base of the loading structure of the second embodiment of the present invention.

Fig. 5A is a perspective view showing an alternate example of the mounting base of the loading structure of the second embodiment of the present invention.

Fig. 5B is a perspective view showing an alternate example of the mounting base of the loading structure of the second embodiment of the present invention.

Fig. 6A is a perspective view showing the mounting base of the loading structure of the third embodiment of the present invention.

Fig. 6B is a perspective view showing the mounting base of the loading structure of the third embodiment of the present invention.

Fig. 7 is a perspective view showing the mounting base of the loading structure of the fourth embodiment of the present invention.

Fig. 8A is a perspective view showing the mounting base of the loading structure of the fifth embodiment of the present invention.

Fig. 8B is a perspective view showing the mounting base of the loading structure of the fifth embodiment of the present invention.

Fig. 9A is a perspective view showing an alternate example of the mounting base of the loading structure of the fifth embodiment of the present invention.

Fig. 9B is a perspective view showing an alternate example of the mounting base of the loading structure of the fifth embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0021] A loading structure 12 configured using a mounting base 10, on which a stacked bundle 16 of planographic printing plates 14 are loaded, of the first embodiment of the present invention is shown in Fig. 1.

[0022] First, a simple explanation will be given regarding the planographic printing plate 14 and the stacked bundle 16 of stacked planographic printing plates 14.

[0023] The planographic printing plate 14 is formed by coating a coating film on a thin aluminum substrate formed into a rectangular board (in the case of a photosensitive printing plate, a photosensitive layer, in the case of a thermosensitive printing plate, a thermosensitive layer and further, when necessary, including more layers such as an overcoat layer and a matte layer).

[0024] The stacked bundle 16 of the planographic printing plates 14 is formed by alternately layering, in the thickness direction, the planographic printing plates 14 and laminated papers 18, which protect the coating films

of the planographic printing plates 14. Protective cardboard 20 is further arranged at the surfaces of both ends in the layering direction or every set number of planographic printing plates 14.

[0025] Depending on the type of planographic printing plate 14, the stacked bundle 16 of planographic printing plates 14 can be configured such that either one or both of the laminated paper 18 and protective cardboard 20 can be omitted.

[0026] The stacked bundle 16 is made with an inner packing material 22. The inner packing material 22 comprises paper having light blocking and moisture preventing qualities. By wrapping the contents using this inner packing material 22 so that the stacked bundle 16 is completely secluded from the exterior, the stacked bundle 16 can be blocked from light and made moisture-proof with certainty.

[0027] Further, the inner packing material 22 is taped at a predetermined position with a fixing mechanism such as an adhesive tape 24, which fixes the inner packing material 22 so that it does not widen or drop out inadvertently. It should be noted that, as long as it can fix the inner packing material with certainty as described above, the fixing mechanism is not limited. For example, adhesives such as hot melting and regular glue can be used in place of (or together with) the adhesive tape 24.

[0028] Next, explanations will be given regarding the mounting base 10 on which the stacked bundle 16 of stacked planographic printing plates 14 is mounted.

[0029] As shown in Fig. 2, the mounting base 10 has a board-shaped trestle 26. The planographic printing plates 14 are loaded on this trestle 26 so as to be parallel with the trestle 26 (i.e., in a flat pile).

[0030] Legs 28 are provided so as to protrude downwardly and the space formed between the trestle 26 and the setting surface is an insertion area 30. Forks 38 of, for example, a forklift or hand-lift, can be inserted into the insertion area 30 and the mounting base 10 (loading structure 12) can be lifted. It should be noted that although legs 28 are provided at the corner portions of the trestle 26, a hole/holes can be formed in the side surface of the trestle 26 that act(s) as the insertion area 30 for the fork 38. The form of the insertion area 30 is not particularly limited, as long as it can support the trestle 26 with certainty.

[0031] A top panel 32 is mounted on the upper surface of the stacked bundle 16 loaded on the trestle 26. The top panel 32 is formed from a board that is almost the same size as (or slightly larger than) the top surface of the stacked bundle 16, that is, the planographic printing plates 14 (refer to Fig. 1). Due to this top panel 32, even if external force should act upon the stacked bundle 16 from above, the energy of that force is absorbed and deformation of the planographic printing plates 14 can be suppressed to the extent where it would cause no problems in actual use.

[0032] Further, fastening bands 34 formed of resin are wound around the trestle 26 and the stacked bundle 16

and top panel 32 so as to bind all of these together. Due to this, the mounting base 10 and the stacked bundle 16 and top panel 32 can be uniformly handled as freight and the accidental collapse of cargo does not occur.

[0033] In the present embodiment, four fastening bands 34 are used, and these are arranged such that, when viewed as a flat surface, they form a pound sign. It should be noted that the number and placement of the fastening bands 34 can be appropriately set in accordance with the shape and size of the stacked bundle 16.

[0034] As shown in Fig. 3, groove-shaped depressions 36 are formed from one side surface 26A of the trestle 26 to the underneath surface 26B, and across to the side surface 26A of the other side. These depressions 36 are formed in four places corresponding to the positions where the fastening bands 34 are wound around. The width of each depression 36 is made to be approximately 50 - 100 mm with a depth of 0.5 - 1.5 mm, and the fastening band 34 that is ordinarily used has a width of 10 - 20 mm and a thickness of 0.3 - 0.8 mm so the fastening bands 34 do not protrude from the depressions 36.

[0035] It should be noted that although in the present embodiment the width of the depression 36 is made to be between 50 - 100 mm and the depth between 0.5 - 1.5 mm in order to match it with the fastening band 34 width of 10 - 20 mm and thickness of 0.3 - 0.8 mm, the width and depth of the depression 36 are not particularly limited to these sizes only.

[0036] Next, explanation will be given regarding the operation of the first embodiment of the present invention.

[0037] As shown in Fig. 3, the stacked bundle 16 in which the planographic printing plates 14 (refer to Fig. 1) are stacked is mounted on the trestle 26 and the top panel 32 is mounted on the upper surface of the stacked bundle 16, and the trestle 26 and top panel 32 are bound with the fastening bands 34. At this time, the fastening bands 34 are wound around (i.e., through) the depressions 36 formed in the trestle 26. The forks 38 (refer to Fig. 2) of a forklift are inserted between the underneath surface 26B of the trestle 26 and the surface of the ground (i.e., into the insertion area 30) and made to contact the underneath surface 26B of the trestle 26, whereby the loading structure 12 is transported by the forklift.

[0038] It should be noted that the edges of the forks 38 of the forklift are rounded, as shown in Fig. 2, so that when inserted into the insertion area 30, the corner portions of the forks 38 do not scratch or damage the trestle 26.

[0039] At this time, the fastening bands 34 are wound inside the depressions 36 and they do not protrude from the side surface 26A and underneath surface 26B of the trestle 26, so even if a mistake is made in the operation of the forklift and the forks 38 bump into the trestle 26, the forks 38 do not contact the periphery of the depressions 36 formed in the side surface 26A nor the fastening bands 34. For this reason, there is no danger of the fastening bands 34 being damaged and the trestle 26 and

stacked bundle 16 shifting.

[0040] In the present embodiment, the depressions 36 are formed in the side surface 26A and underneath surface 26B of the trestle 26. Nonetheless, in a case where it is assumed that the forks 38 of the forklift contact the fastening bands 34, these contact the fastening bands 34 wound around the trestle 26 from the perpendicular direction so even just by forming the depressions 36 in the side surface 26A only, the frequency of damage to the fastening bands 34 by the forks 38 can be greatly reduced. Further, when the forks 38 are inserted into the insertion area 30 and the trestle 26 is lifted, even if the upper surfaces of the forks 38 collide with the fastening bands 34 twined in the underneath surface 26B, the fastening bands 34 are not damaged. Nonetheless, in cases where scratches or rust form on the forks 38, there is a danger of the fastening bands 34 being damaged upon collision therewith, so it is preferable to fix cushioning material on the upper surfaces of the forks 38.

[0041] Moreover, four depressions 36 corresponding to the fastening bands 34 were formed in the trestle 26, however, in cases where, for example, six fastening bands 34 are used, six depressions 36 are formed in the trestle 26, i.e., the number of depressions 36 is decided by the number of fastening bands 34 being used.

[0042] Moreover, the depth of the depressions 36 extending from the side surface 26A to the underneath surface 26B was made uniform (0.5 - 1.5 mm). However, since there are portions of the fastening bands 34 that overlap and form a cross in the underneath surface 26B, the depressions 36 formed in the underneath surface 26B can be made to be slightly deeper than the depressions 36 formed in the side surface 26A.

[0043] Next, the explanations will be given regarding the second embodiment of the present invention. Explanations regarding portions that are the same as those of the first embodiment have been omitted.

[0044] As shown in Fig. 4, on both sides of the position of the side surface 26A of the trestle 26 where the fastening bands 34 is wound, protrusions 40 are formed. That is, two protrusions 40 are formed at an interval whose width is greater than that of the fastening band 34 (here, 50 - 100 mm) such that the fastening band 34 is wound between the protrusions 40.

[0045] The protrusion 40 has an approximately rectangular shape and protrudes in the direction of the underneath surface 26B. Due to this, even at the time when the fastening bands 34 is wound around the underneath surface 26B of the trestle 26, the fastening bands 34 are wound between the protrusions 40. These types of protrusions 40 are provided at each side surface 26A corresponding to positions where the fastening bands 34 are wound around.

[0046] Next, the explanations will be given regarding the operation of the second embodiment of the present invention.

[0047] When each fastening band 34 is wound around the trestle 26, the fastening band 34 is wound between

a protrusion 40 and a protrusion 40. With this, the position of the fastening bands 34 wound around the trestle 26 is between the protrusions 40 so when the forks 38 are inserted in the insertion area 30, even if the forks 38 (refer to Fig. 2) contact the protrusions 40, they do not contact the fastening bands 34. Accordingly, there is no danger of damaging the fastening bands 34 and of the trestle 26 and stacked bundle 16 shifting.

[0048] It should be noted that in the present embodiment, the protrusions 40 were formed in the side surface 26A of the trestle 26, however, as shown in Fig. 5A, cutouts 42 can be formed in the side surface 26A and blocks 44 fit into the cutouts 42 so that protrusions are formed in the side surface 26A of the trestle 26. Due to this, even if a block 44 is damaged, it can be easily replaced.

[0049] Next, explanations will be given regarding the third embodiment of the present invention. Explanations regarding portions that are the same as those of the first embodiment have been omitted.

[0050] As shown in Fig. 6A, as in the first embodiment, a groove-shaped depression 46 is formed in the underneath surface 26B of the trestle 26, and the fastening band 34 is wound around this depression 46. It should be noted that it is not absolutely necessary for this depression 46 to be formed in the underneath surface 26B of the trestle 26.

[0051] An oblong depression 48 having a width wider than that of the depression 46 is formed at the position where the fastening band 34 is wound around the side surface 26A of the trestle 26. The fastening band 34 wound around the depression 46 of the underneath surface 26B is wound such that it winds around the bottom surface of the depression 48.

[0052] As shown in Fig. 6B, the depression 48 is made such that a block 50 is attached thereto. The block 50 is made so as to have an L-shape (when viewed from its side) and is attached to the depression 48 so that a gap 52 of 1 - 2 mm is formed between the depression 48 and the block 50. That is, the fastening band 34 wound around the depression 48 is configured so as to be positioned at the portion of this gap 52. In the present embodiment, when the block 50 is attached to the depression 48, the width of the gap 52 formed between the bottom surface of the depression 48 and the block 50 was made to be 1 - 2 mm, however, as long as the width of the gap 52 is large enough for the fastening band 34 to be inserted, the width is not particularly limited.

[0053] As shown in Fig. 6A, screw holes 54, 56 are formed in the block 50 and the depression 48, and a screw 58 is screwed into the screw holes 54, 56 and the block 50 is attached to the depression 48. The width measurement of the block 50 is smaller than the width measurement of the depression 48 and when the block 50 is attached to the depression 48, a passageway 60 is achieved between the block 50 and the depression 48 (refer to Fig. 6B). Due to this, the fastening band 34 is guided to the gap 52 from the passageway 60 and further, the fastening band 34 positioned at the gap 52 (i.e.,

wound around the depression 48) can be removed through the passageway 60.

[0054] It should be noted that the present embodiment, as shown in Fig. 6A, is configured such that the head of the screw 58 protrudes from the face or surface at which the screw 58 of the block 50 is screwed, however, a counterbore can be formed in the surface of the block 50 so that the head of the screw 58 does not protrude from the surface of the block 50.

[0055] Next, the explanations will be given regarding the operation of the third embodiment of the present invention.

[0056] As shown in Fig. 6B, the stacked bundle 16 is mounted on the trestle 26. When binding these with the fastening bands 34, each fastening band 34 is guided from the passageway 60 formed with the block 50 and depression 48 to the gap 52 formed between the block 50 and depression 48, and wound around the depression 48.

[0057] Due to this configuration, the fastening band 34 enters in closer to the inside than the side surface 26A and underneath surface 26B of the trestle 26. When the forks 38 are inserted into the insertion area 30, even if the forks 38 make contact with the block 50, they do not contact the fastening bands 34. Accordingly, there is no danger of the fastening bands 34 being damaged and the trestle 26 and stacked bundle 16 shifting.

[0058] Next, explanations will be given regarding the fourth embodiment of the present invention. Explanations regarding portions that are the same as those of the first embodiment have been omitted.

[0059] As shown in Fig. 7, a groove-shaped depression 62 is formed in the underneath surface 26B of the trestle 26, as in the first embodiment, and the fastening bands 34 is wound around this depression 62. It should be noted that it is not absolutely necessary for this depression 62 to be formed in the underneath surface 26B of the trestle 26.

[0060] Rectangular through-holes 64 having a size such that the fastening bands 34 can be inserted (here, 50 - 100 mm in the longitudinal direction with a width of 1 - 2 mm) are formed at the edge portion of the trestle 26. This is made so that the fastening bands 34 wound around the underneath surface 26B are inserted through these through-holes 64.

[0061] It should be noted that in the present embodiment, the measurement of the through-holes 64 was made to be 50 - 100 mm in the longitudinal direction with a width of 1 - 2 mm, however, as long as they are a size through which the fastening bands 34 can be inserted, they are not particularly limited to this numerical value.

[0062] Next, the explanations will be given regarding the operation of the fourth embodiment of the present invention.

[0063] As shown in Fig. 7, the stacked bundle 16 is mounted on the trestle 26 and the top panel 32 is mounted on the stacked bundle 16, and the trestle 26 and top panel 32 are bound by fastening bands 34. At this time, the

fastening bands 34 are inserted through the through-holes 64 and wound around.

[0064] Due to this configuration, the fastening bands 34 enter into the inner side of the side surface 26A of the trestle 26, and when inserting the forks 38 into the insertion area 30, the forks 38 do not make contact with the fastening bands 34. Accordingly, there is no danger of damaging the fastening bands 34 and the trestle 26 and stacked bundle 16 shifting.

[0065] Next, the explanations will be given regarding the fifth embodiment of the present invention. Explanations regarding portions that are the same as those of the first embodiment have been omitted.

[0066] As shown in Fig. 8A, groove-shaped depressions 66 are formed in the underneath surface 26B of the trestle 26, these depressions 66 are made such that the fastening bands 34 are wound therein, as in the first embodiment. It should be noted that it is not absolutely necessary for these depressions 66 to be formed in the underneath surface 26B of the trestle 26.

[0067] Rectangular depressions 68 having widths wider than that of the depressions 66 are formed at the positions where the fastening bands 34 are wound around the side surface 26A of the trestle 26. The fastening bands 34 wound around the depressions 66 of the underneath surface 26B are wound so that they wind around the depressions 68.

[0068] As shown in Fig. 8B, blocks 70 the same size as the depressions 68 are fit into the depressions 68 at predetermined fit tolerance. When fit into the depressions 68, the blocks 70 have through-holes 72 formed therein in the direction parallel to the upper and lower direction of the trestle 26, where, in the drawings, the measurement of w is 50 - 100 mm and the measurement of t is 1 - 2 mm. Further, when fit into the depression 68, the surface corresponding to the underneath surface 26B of the trestle 26 has a depression 74 with a width of 50 - 100 mm and a depth of 1 - 2 mm.

[0069] It should be noted that in the present embodiment, the size of the through-hole 72 was made to be a w measurement of 50 - 100 mm and a t measurement of 1 - 2 mm, and the size of the depression 74 was made with a width of 50 - 100 mm and a depth of 1 - 2 mm, however, as long as these have sizes through which the fastening bands 34 can be inserted, they are not particularly limited to these numerical values.

[0070] Next, the explanation will be given regarding the operation of the fifth embodiment of the present invention.

[0071] As shown in Fig. 8B, the stacked bundle 16 is mounted on the trestle 26 and bound with the fastening bands 34. At this time, the fastening bands are inserted through the through holes 72 formed in the blocks 70 and then wound around.

[0072] Due to this configuration, the fastening bands 34 enter into the inner side of the side surface 26A of the trestle 26, and when inserting the forks 38 into the insertion area 30, the forks 38 do not make contact with the

fastening bands 34. Further, the invention is configured such that the blocks 70, in which the through-holes 72 are formed through which the fastening bands 34 are inserted through, fit into the depressions 68 formed in the trestle 26. Due to this, in a case where a through-hole 72 is damaged, there is no need to remake the trestle itself since the block 70 can be removed and a new block attached to the trestle 26.

[0073] It should be noted that the present embodiment was configured so that through-holes 72 were formed in the blocks 70 and these blocks 70 were fit into the depressions 68, and the fastening bands 34 were passed through the through-holes 72. Nonetheless, this can be configured such that, as shown in Fig. 9A, a depression 76 having a width size through which a fastening band 34 can be inserted is formed on the surface of the block 80 opposite the depression 68; and as shown in Fig. 9B, configured such that when fitted into the depression 68, the fastening band 34 is inserted through the block 80 at a gap 78 between the block 80 and the depression 68.

[0074] Further, in the present embodiment, the blocks 70, 80 are configured so as to be formed with predetermined fit tolerance and to fit snugly into the depressions 68. Nonetheless, a belt guide component formed with rough measurements relative to the depression 68 can be fit into the depression 68 and held in place with a screw clamp, whereby the block 70, 80 is attached to the depression 68.

[0075] The present invention is configured as described above, so when the loading structure comprising the stacked bundle of planographic printing plates and the mounting base bound with bands is transported with an apparatus such as a forklift, cutting of the bands with the lifting component of the forklift can be prevented.

Claims

1. Loading structure (12) liftable and transportable from a lower portion with a lifting component comprising:

a stacked bundle (16) of a stacked plurality of planographic printing plates (14) and a mounting base (10), on which the stacked bundle (16) of a stacked plurality of planographic printing plates (14) is loaded, wherein the mounting base (10) is provided with a space (30) into which the lifting component is insertable, and a binding member (34) that is wound around the mounting base (10), wherein the stacked bundle (16) of a stacked plurality of planographic printing plates (14) is bound onto the mounting base (10) with the binding member (34),

characterized in that

the mounting base (10) is provided with a guard portion on an outer surface of the mounting base (10) configured to prevent contact between the binding member (34) and the lifting component

when the lifting component is inserted into the space.

2. Loading structure according to claim 1, **characterized in that** the guard portion is formed on either one of or both of a side surface (26A) or underneath surface (26B) of the mounting base (10) and is a depression (36) around which the binding member (34) is wound around.
3. Loading structure according to claim 1, **characterized in that** the guard portion is formed on the side surface (26A) and underneath surface (26B) of the mounting base (10), or on the side surface (26A), and the guard portion formed on at least the side surface (26A) is a protrusion (40) formed so as to be positioned on both sides of the wound around binding member (34).
4. Loading structure according to claim 3, **characterized in that** the guard portion formed on the underneath surface (26B) is a depression (36) around which the binding member (34) is wound.
5. Loading structure according to claim 4, **characterized in that** the guard portion (44) is removable from the side surface (26A) of the mounting base (10).
6. Loading structure according to claim 1; **characterized in that** the guard portion (50) is formed on the side surface (26A) of the mounting base (10) and includes a gap (52) where the wound around binding member (34) is fit into.
7. Loading structure according to claim 6, **characterized in that** the guard portion (50) is removable from the side surface (26A) of the mounting base (10).
8. Loading structure according to claim 1, **characterized in that** the guard portion is formed in the side surface (26A) of the mounting base (10) and includes a through-hole (64) into which the wound around binding member (34) is inserted.
9. Loading structure according to claim 8, **characterized in that** the guard portion (70) is removable from the side surface (26A) of the mounting base (10).

Patentansprüche

1. Ladestruktur (12), die mit einer Hebekomponente von einem unteren Abschnitt anhebbar und transportierbar ist, umfassend: ein gestapeltes Bündel (16) einer gestapelten Vielzahl von Flachdruckplatten (14) und einen Montagegrundkörper (10), auf welchen das gestapelte Bündel (16) einer gestapelten Vielzahl von Flachdruckplatten (14) geladen ist,

wobei der Montagegrundkörper (10) mit einem Raum (30) versehen ist, in welchen die Hebekomponente einfügbar ist, und ein Bindeelement (34), das um den Montagegrundkörper (10) herumgewickelt ist, wobei das gestapelte Bündel (16) einer gestapelten Vielzahl von Flachdruckplatten (14) mit dem Bindeelement (34) auf den Montagegrundkörper (10) gebunden ist, **dadurch gekennzeichnet, dass** der Montagegrundkörper (10) mit einem Schutzabschnitt an einer äußeren Fläche des Montagegrundkörpers (10) versehen ist, der derart ausgebildet ist, um einen Kontakt zwischen dem Bindeelement (34) und der Hebekomponente zu verhindern, wenn die Hebekomponente in den Raum eingeführt wird.

2. Ladestruktur in Einklang mit Anspruch 1, **dadurch gekennzeichnet, dass** der Schutzabschnitt an einer seitlichen Fläche (26A) und/oder einer unterseitigen Fläche (26B) des Montagegrundkörpers (10) ausgebildet ist und eine Vertiefung (36) ist, um welche das Bindeelement (34) herumgewickelt ist.

3. Ladestruktur in Einklang mit Anspruch 1, **dadurch gekennzeichnet, dass** der Schutzabschnitt an der seitlichen Fläche (26A) und an der unterseitigen Fläche (26B) des Montagegrundkörpers (10) ausgebildet ist, oder an der seitlichen Fläche (26A), wobei der Schutzabschnitt, der zumindest an der seitlichen Fläche (26A) ausgebildet ist, ein Vorsprung (40) ist, der derart ausgebildet ist, um an beiden Seiten des herumgewickelten Bindeelements (34) positioniert zu sein.

4. Ladestruktur in Einklang mit Anspruch 3, **dadurch gekennzeichnet, dass** der an der unterseitigen Fläche (26B) ausgebildete Schutzabschnitt eine Vertiefung (36) ist, um welche das Bindeelement (34) herumgewickelt ist.

5. Ladestruktur in Einklang mit Anspruch 4, **dadurch gekennzeichnet, dass** der Schutzabschnitt (44) von der seitlichen Fläche (26A) des Montagegrundkörpers (10) entfernt werden kann.

6. Ladestruktur in Einklang mit Anspruch 1, **dadurch gekennzeichnet, dass** der Schutzabschnitt (50) an der seitlichen Fläche (26A) des Montagegrundkörpers (10) ausgebildet ist und einen Spalt (52) aufweist, in welchen das herumgewickelte Bindeelement (34) eingepasst ist.

7. Ladestruktur in Einklang mit Anspruch 6, **dadurch gekennzeichnet, dass** der Schutzabschnitt (50) von der seitlichen Fläche (26A) des Montagegrundkörpers (10) entfernt werden kann.

8. Ladestruktur in Einklang mit Anspruch 1, **dadurch**

gekennzeichnet, dass der Schutzabschnitt in der seitlichen Fläche (26A) des Montagegrundkörpers (10) ausgebildet ist und eine Durchgangsöffnung (64) umfasst, in welche das herumgewickelte Bindeelement (34) eingefügt ist.

9. Ladestruktur in Einklang mit Anspruch 8, **dadurch gekennzeichnet, dass** der Schutzabschnitt (70) von der seitlichen Fläche (26A) des Montagegrundkörpers (10) entfernt werden kann.

Revendications

1. Structure de chargement (12) pouvant être soulevée et transportée depuis une partie inférieure avec un composant de levage comprenant :

Une liasse empilée (16) d'une pluralité empilée de plaques d'impression planographiques (14) et une base de montage (10), sur laquelle la liasse empilée (16) d'une pluralité empilée de plaques d'impression planographiques (14) est chargée, dans laquelle la base de montage (10) est pourvue d'un espace (30) dans lequel le composant de levage peut être inséré, et un élément d'attachement (34) qui est enroulé autour de la base de montage (10), dans laquelle la liasse empilée (16) d'une pluralité empilée de plaques d'impression planographiques (14) est attachée sur la base de montage (10) avec l'élément d'attachement (34),

caractérisée en ce que

la base de montage (10) est pourvue d'une partie de protection sur une surface extérieure de la base de montage (10) configurée pour empêcher le contact entre l'élément d'attachement (34) et le composant de levage quand le composant de levage est inséré dans l'espace.

2. Structure de chargement selon la revendication 1, **caractérisée en ce que** la partie de protection est formée sur l'une ou les deux d'une surface latérale (26A) ou d'une surface inférieure (26B) de la base de montage (10) et est une dépression (36) autour de laquelle l'élément d'attachement (34) est enroulé.

3. Structure de chargement selon la revendication 1, **caractérisée en ce que** la partie de protection est formée sur la surface latérale (26A) et la surface inférieure (26B) de la base de montage (10), ou sur la surface latérale (26A), et la partie de protection formée sur au moins la surface latérale (26A) est une saillie (40) formée de façon à être positionnée sur les deux côtés de l'élément d'attachement (34) enroulé.

4. Structure de chargement selon la revendication 3,

caractérisée en ce que la partie de protection formée sur la surface inférieure (26B) est une dépression (36) autour de laquelle l'élément d'attachement (34) est enroulé.

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5. Structure de chargement selon la revendication 4, **caractérisée en ce que** la partie de protection (44) peut être enlevée de la surface latérale (26A) de la base de montage (10).

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6. Structure de chargement selon la revendication 1, **caractérisée en ce que** la partie de protection (50) est formée sur la surface latérale (26A) de la base de montage (10) et inclut un espace (52) dans lequel est monté l'élément d'attachement (34) enroulé.

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7. Structure de chargement selon la revendication 6, **caractérisée en ce que** la partie de protection (50) peut être enlevée de la surface latérale (26A) de la base de montage (10).

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8. Structure de chargement selon la revendication 1, **caractérisée en ce que** la partie de protection est formée dans la surface latérale (26A) de la base de montage (10) et inclut un trou de passage (64) dans lequel l'élément d'attachement (34) enroulé est inséré.

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9. Structure de chargement selon la revendication 8, **caractérisée en ce que** la partie de protection (70) peut être enlevée de la surface latérale (26A) de la base de montage (10).

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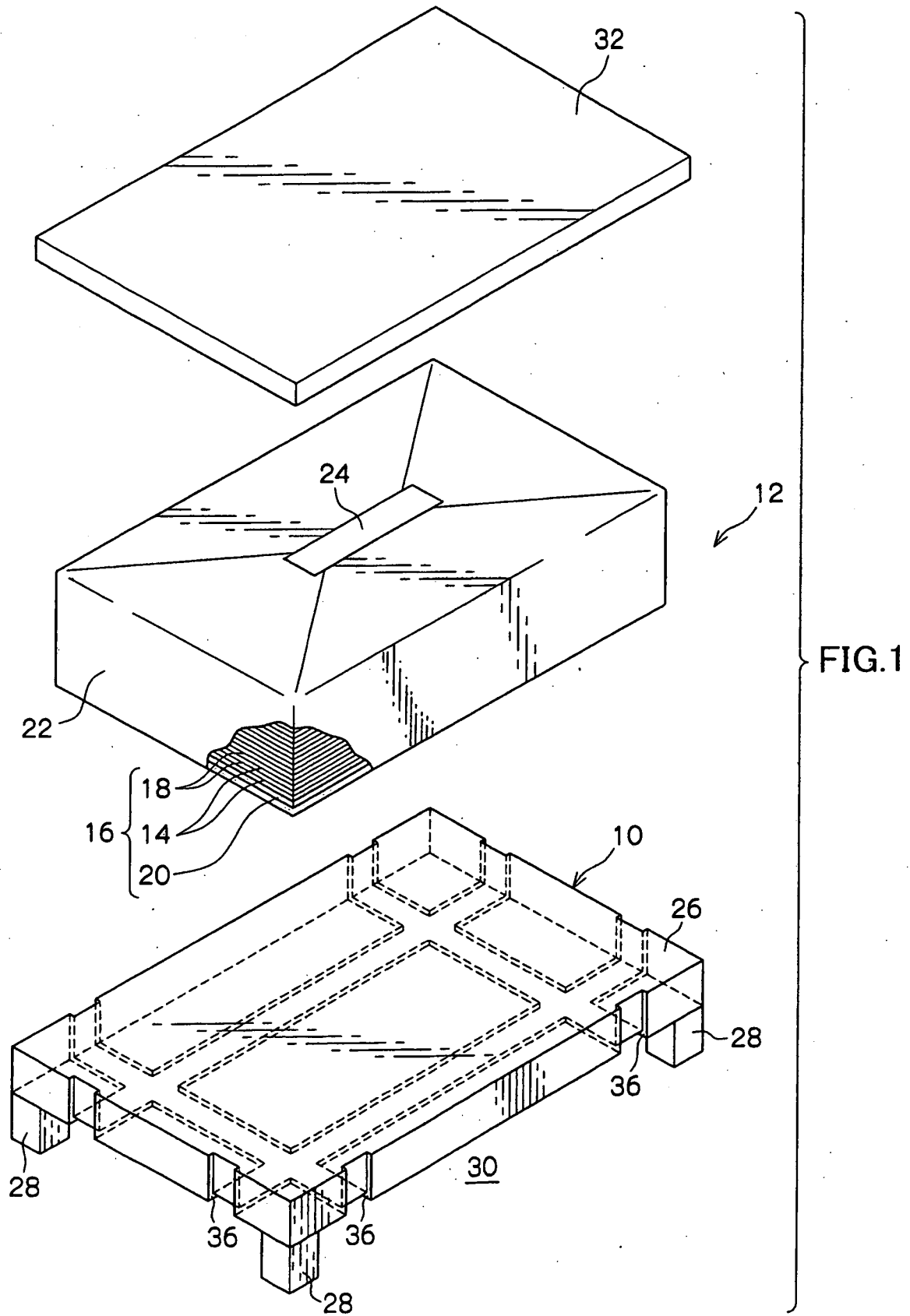


FIG.2

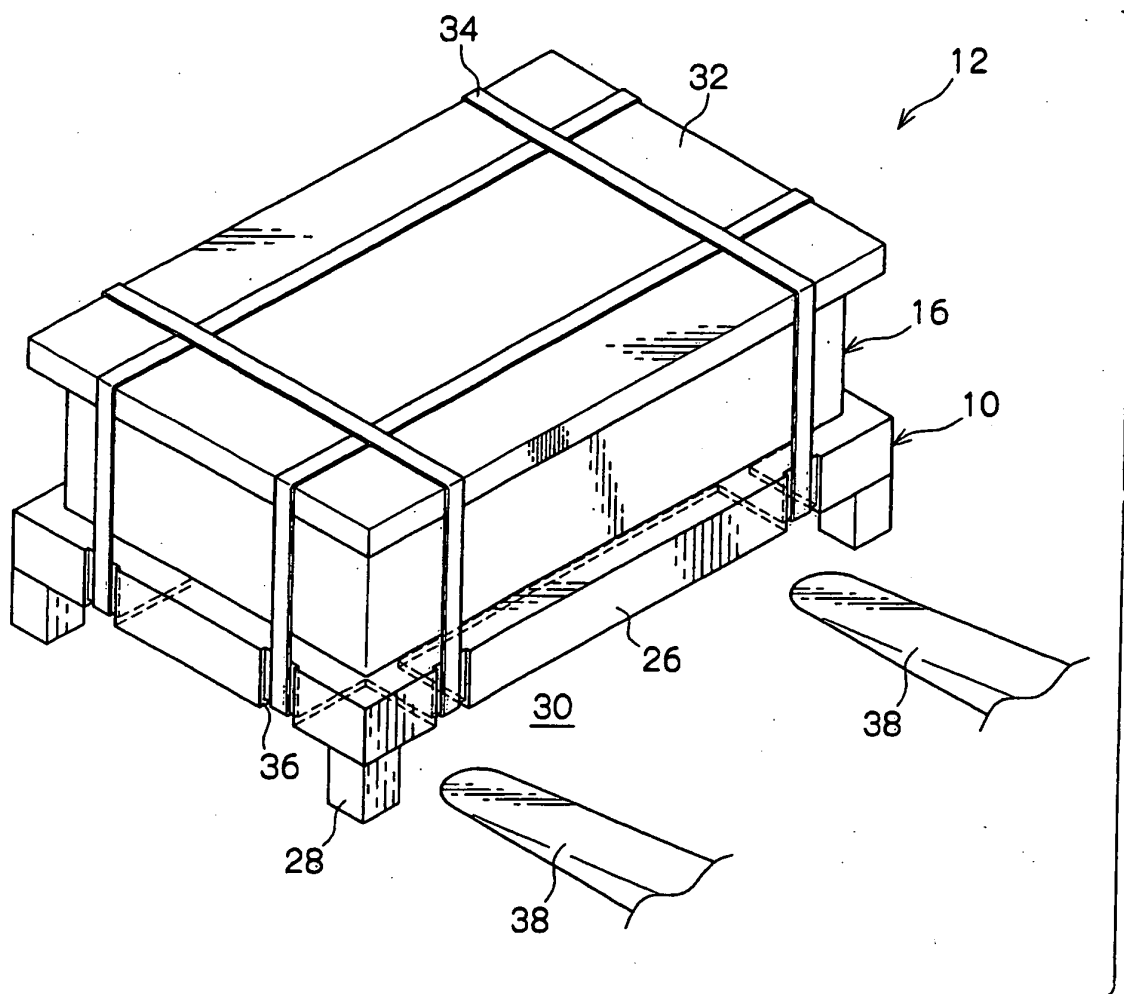


FIG.3

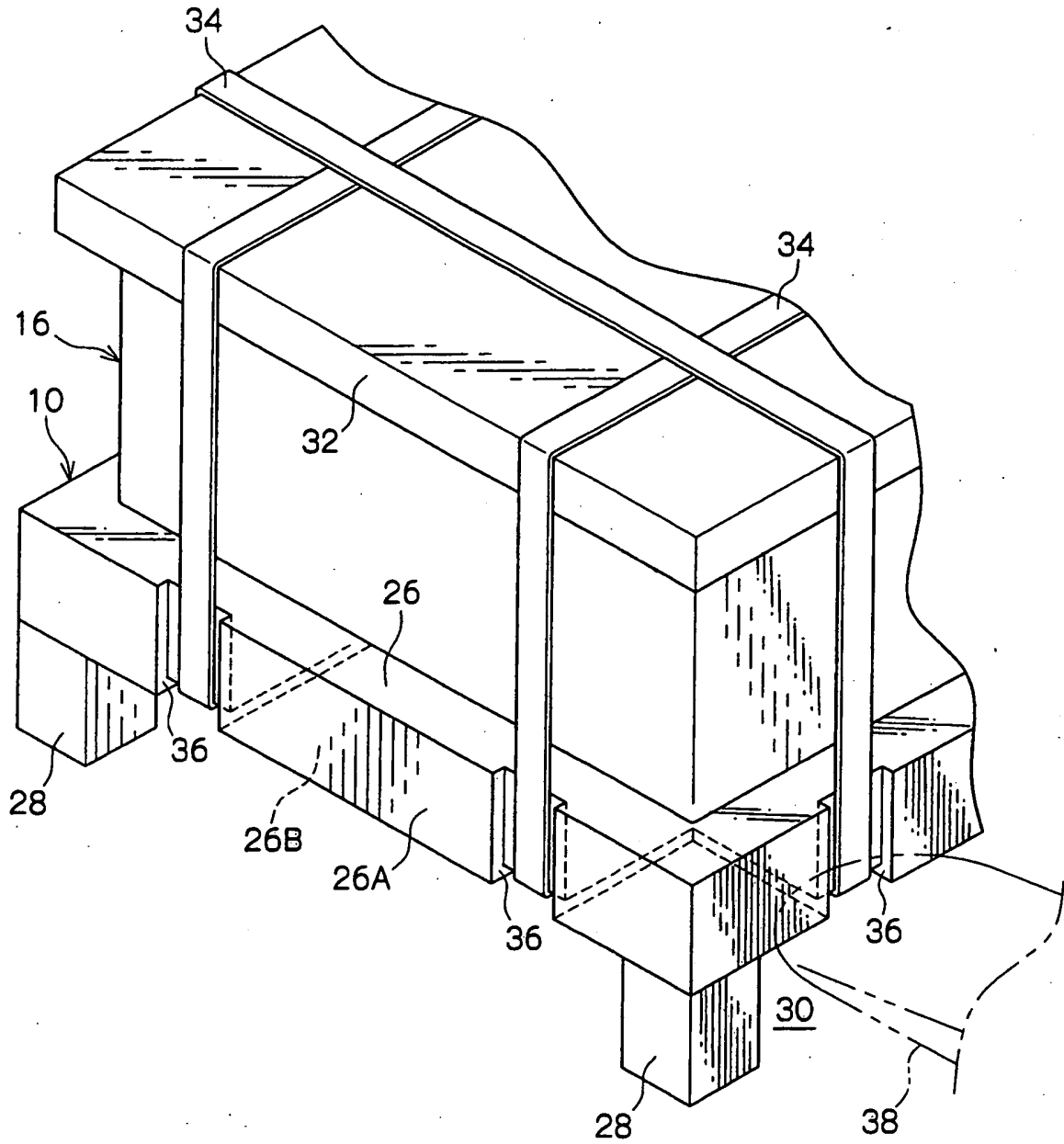


FIG.4

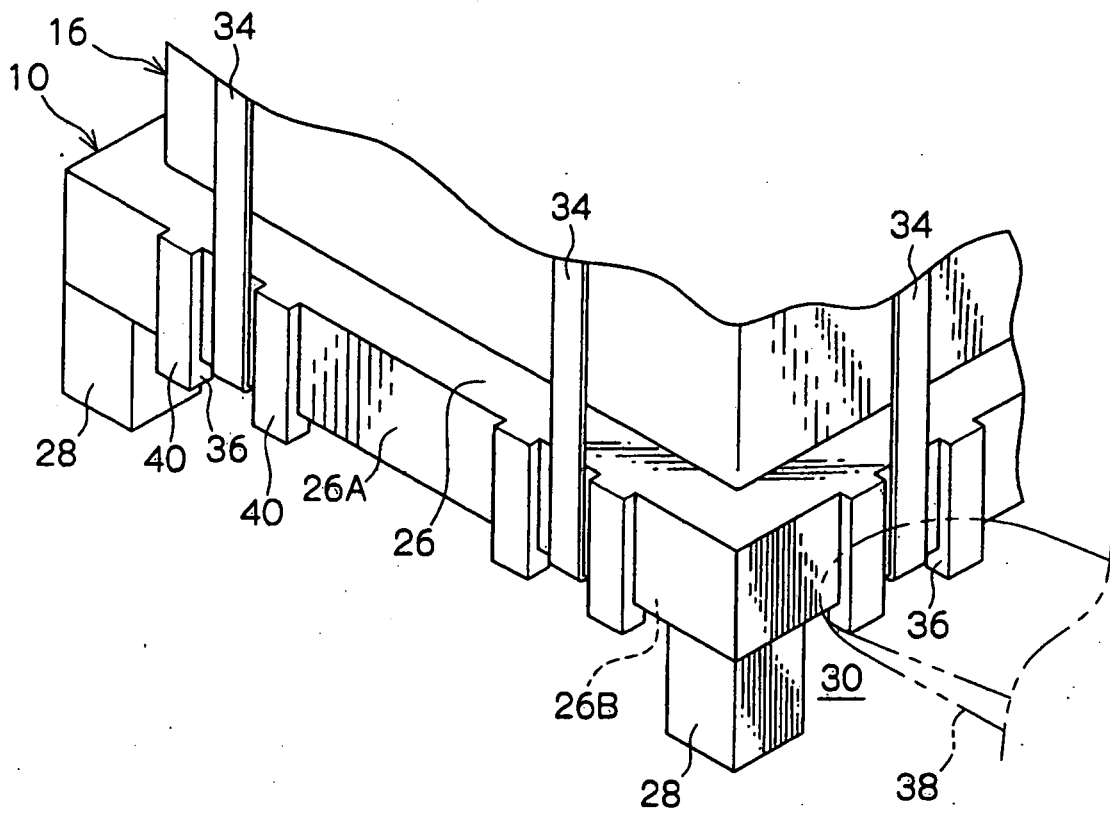


FIG.5A

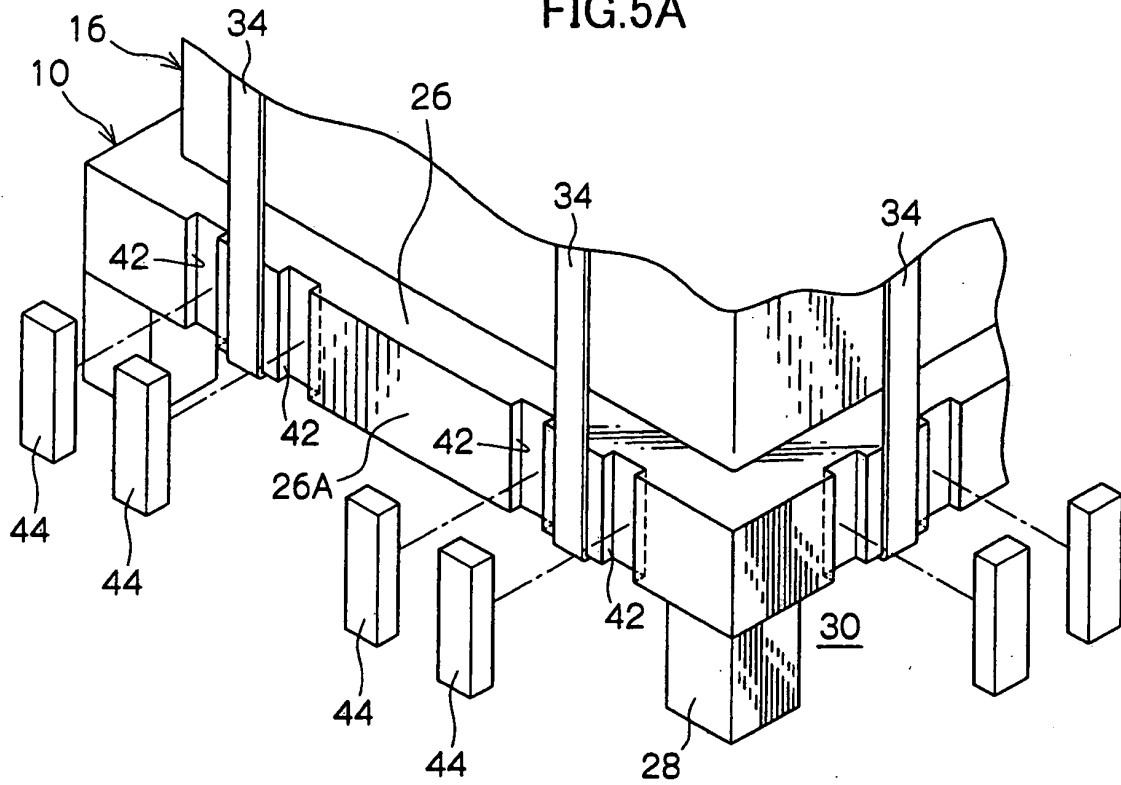


FIG.5B

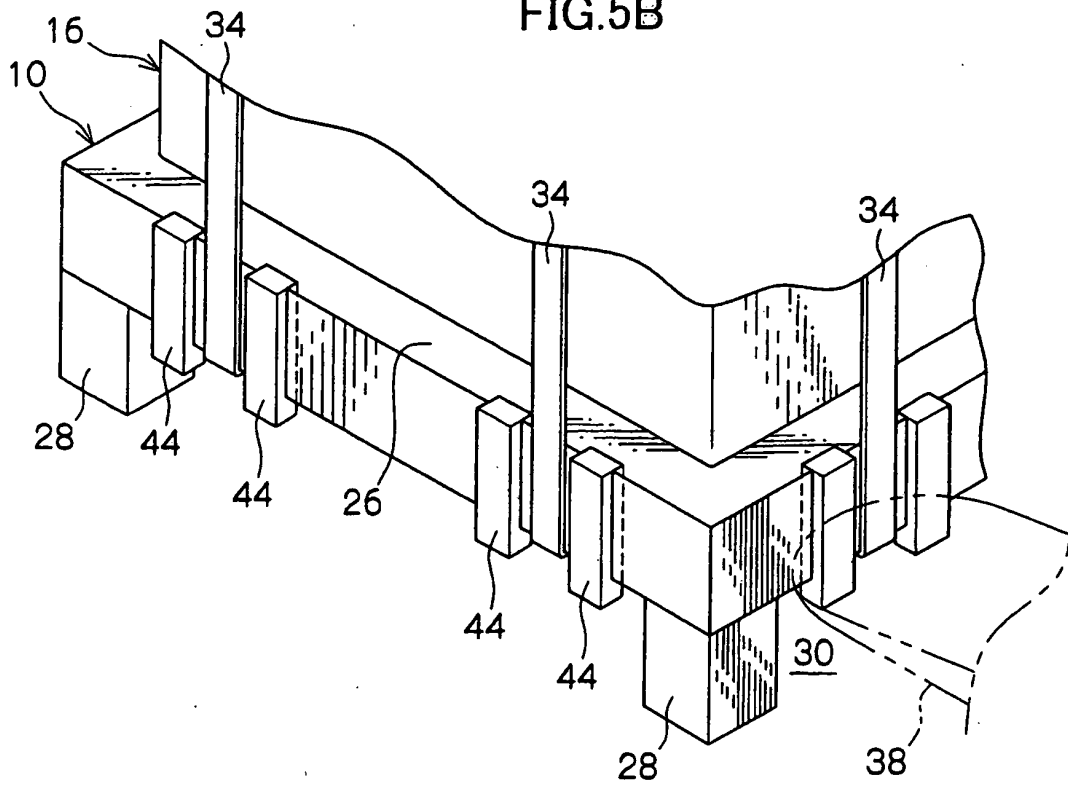


FIG.6A

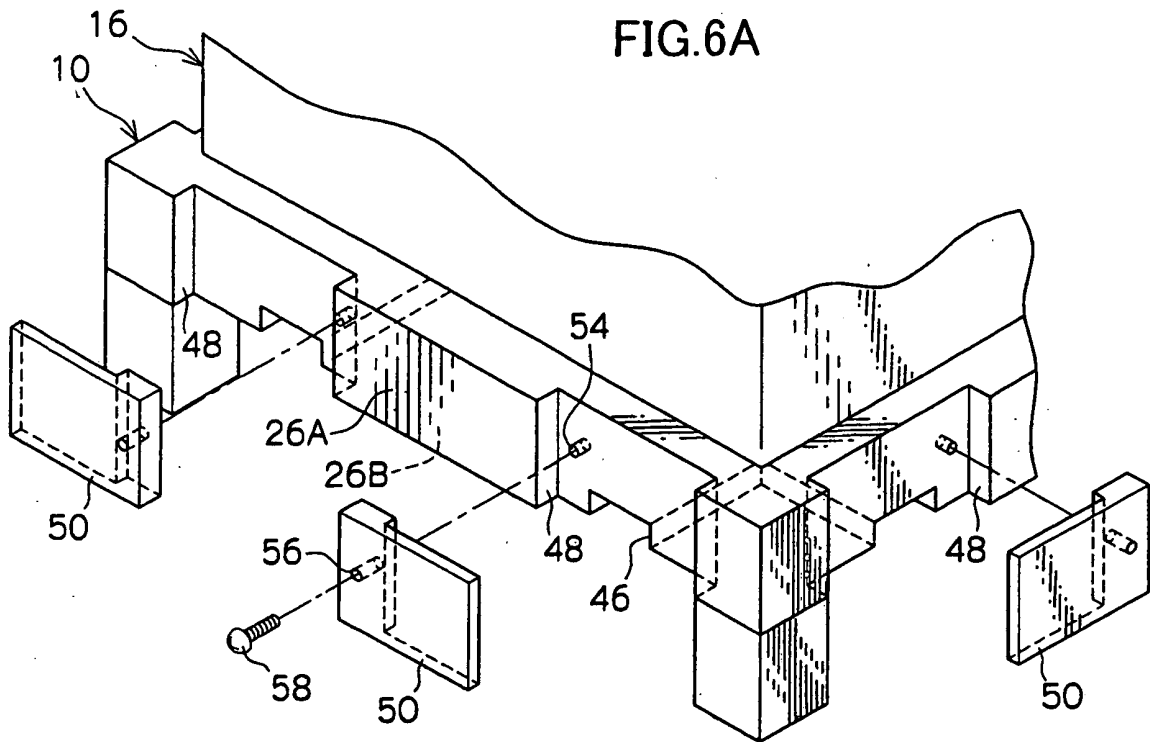


FIG.6B

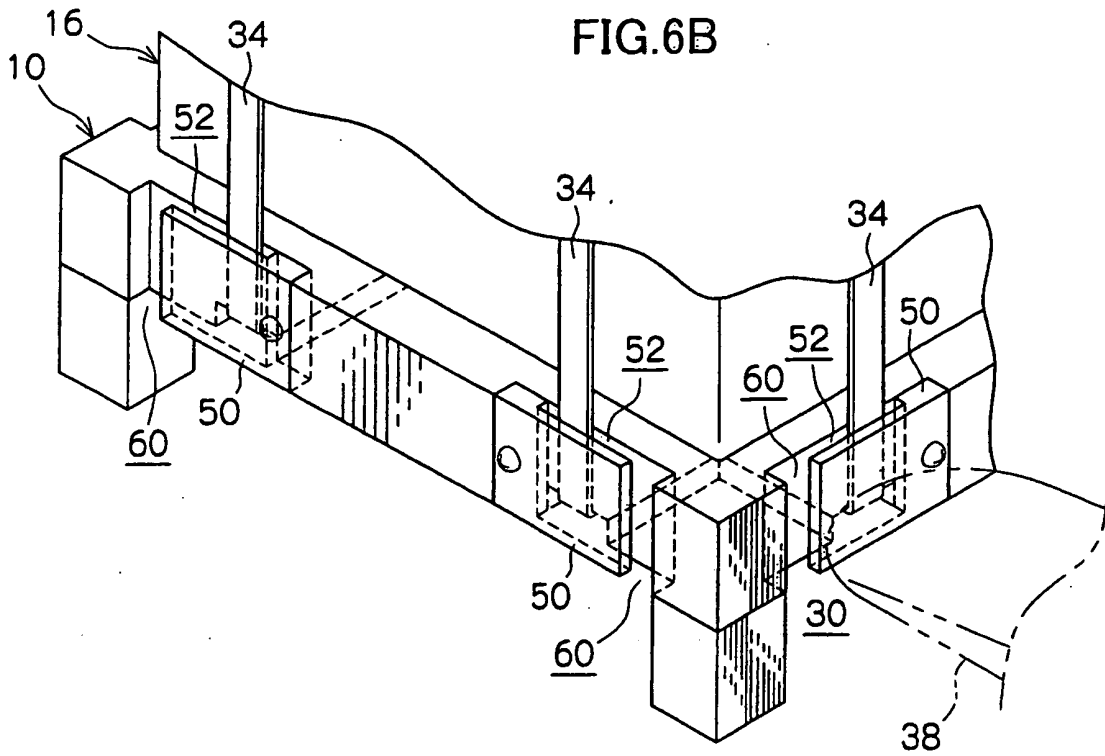


FIG. 7

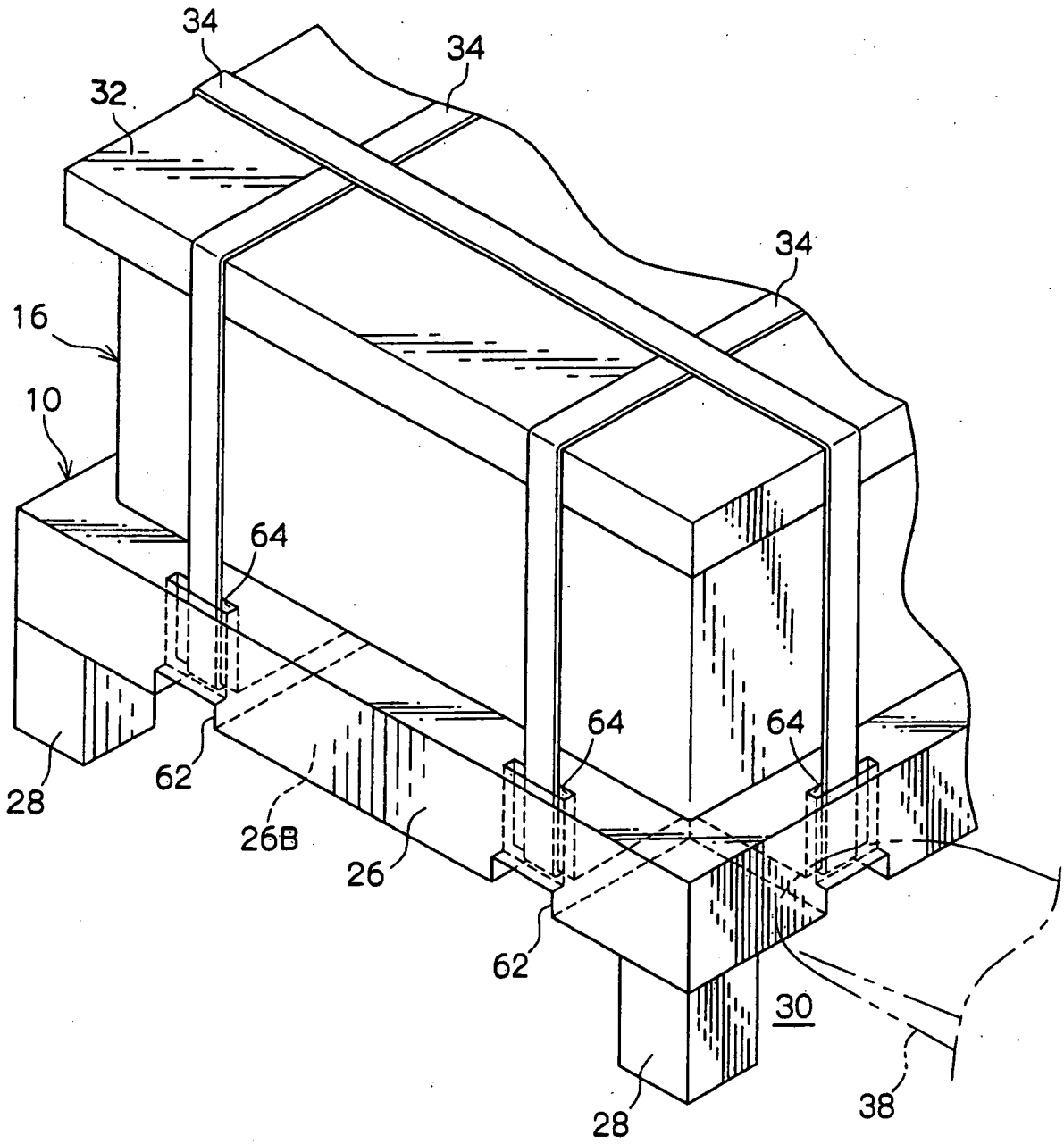


FIG.8A

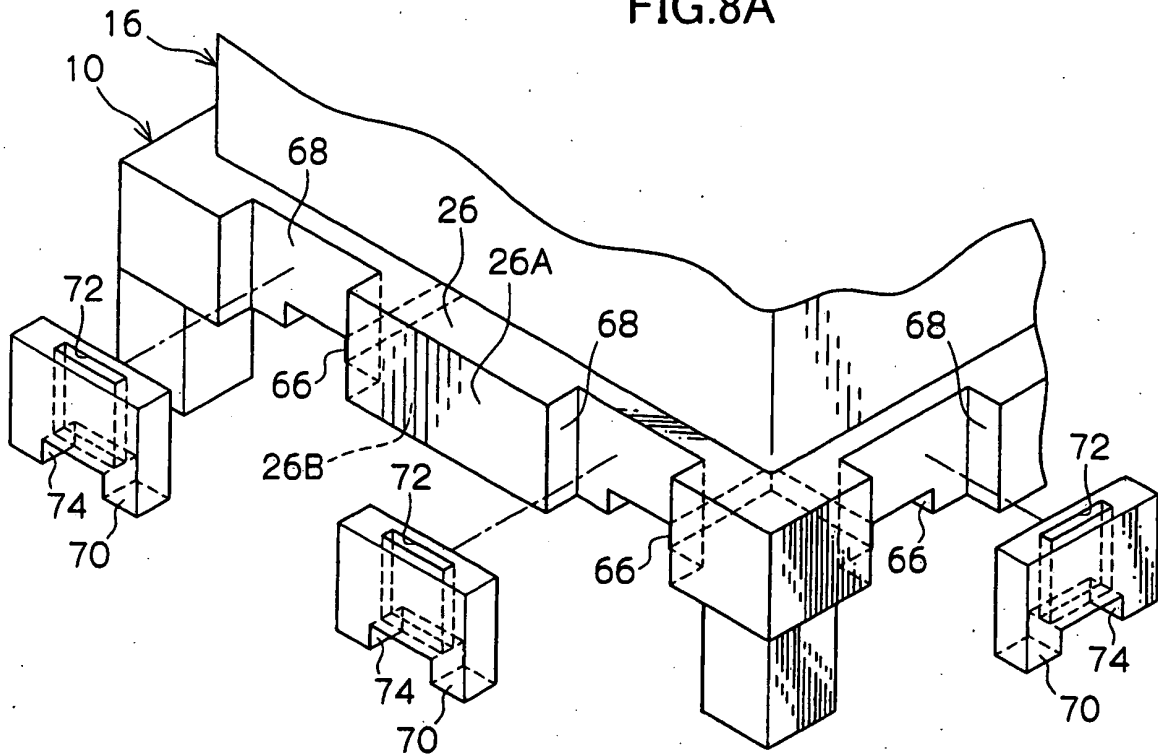


FIG.8B

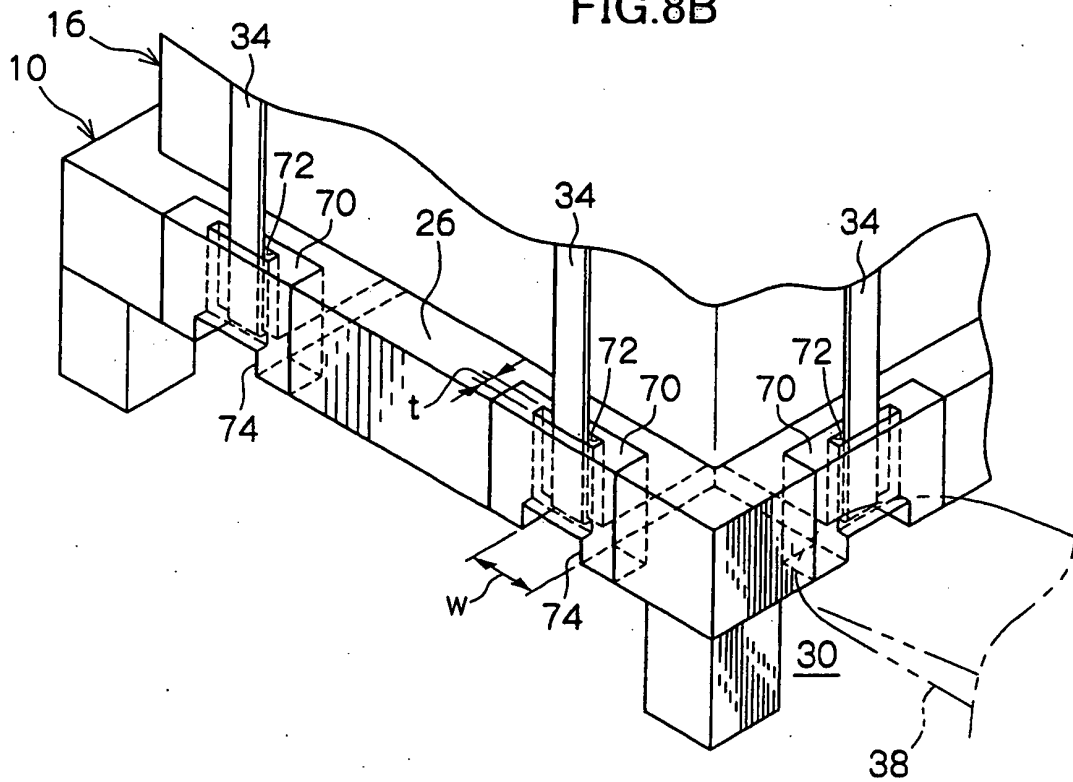


FIG.9A

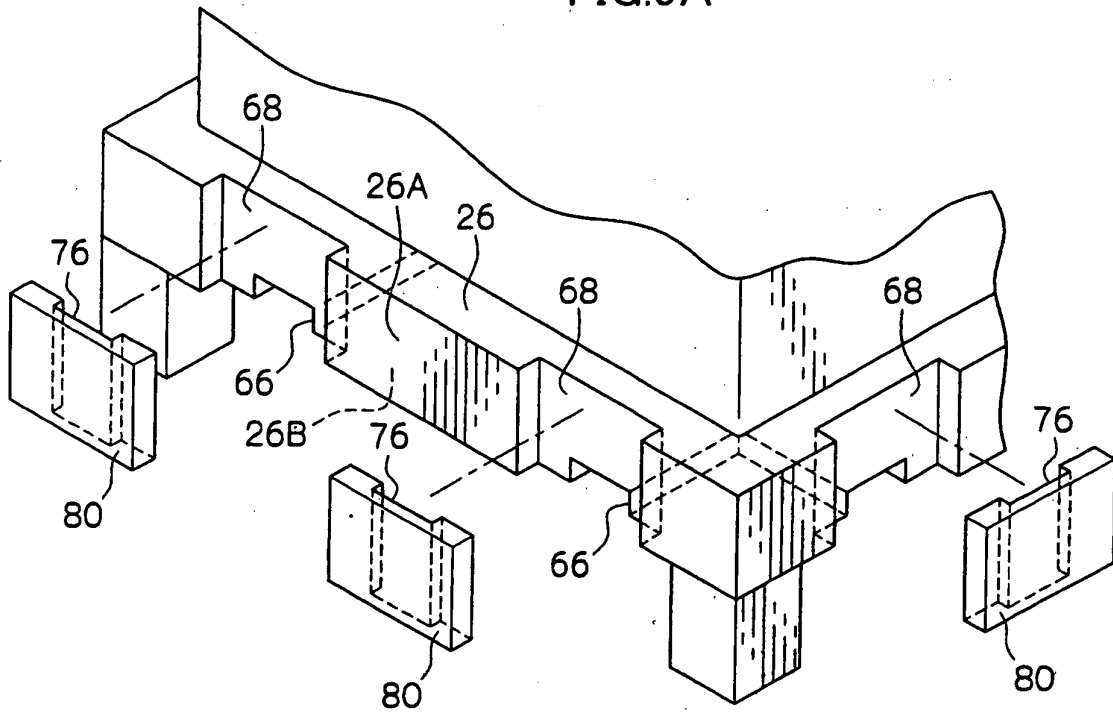
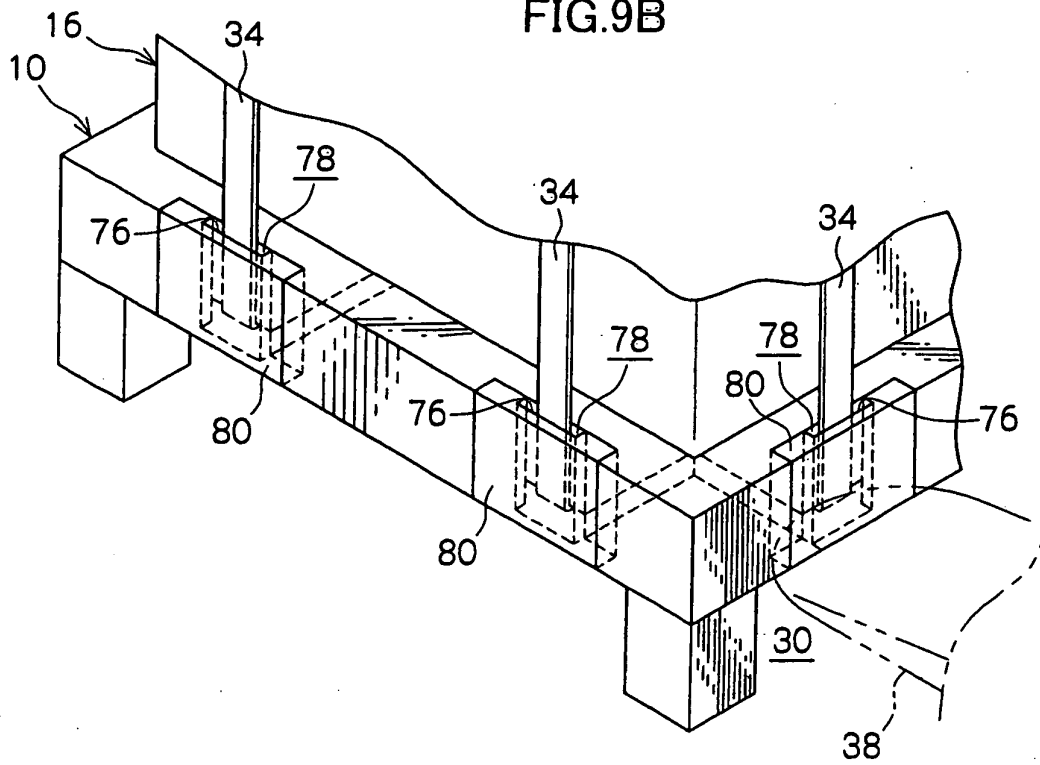


FIG.9B



REFERENCES CITED IN THE DESCRIPTION

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