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(54) **Assembly for shelving device, comprising a back panel structure mounted on vertical columns thanks to a linking element**

(57) The invention provides an assembly for shelving device, comprising a back panel structure comprising at least one back panel module and at least one element configured to mount and lock said back panel module in position on vertical columns ; wherein said element is an intermediary linking element (50), located between said at least one back panel module and said vertical columns, which comprises at least one hanging member (53) configured to be mounted in at least one complementary hanging member provided on said at least one back panel module, which comprises at least one mounting member (57) configured to be mounted in at least one complementary mounting member provided on said vertical columns, and which comprises at least one locking member (62) having a locked configuration whereby said at least one locking member (62) is configured to cooperate with a complementary locking member provided on said vertical columns.

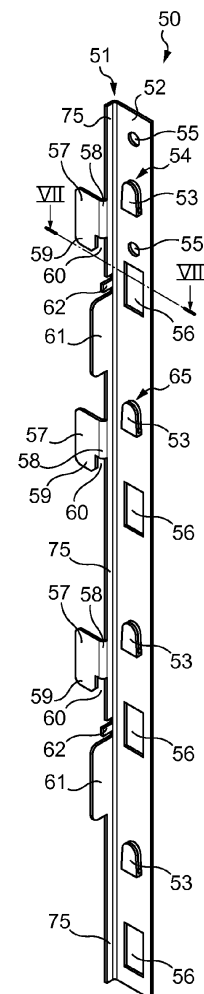


Fig. 5

Description

FIELD OF THE INVENTION

[0001] The invention relates to assemblies for shelving device, comprising back panels mounted on columns thanks to linking elements.

[0002] The invention further relates to a shelving device comprising such assemblies.

BACKGROUND ART

[0003] Shelving devices are well known from the French patent application FR 2 874 488 in which the shelving device, also named gondola, comprises a base, two vertical columns which extend from the base, a back panel directly mounted on and between the vertical columns, two spacers and a plurality of shelves, also named sales shelves, each mounted on the vertical columns.

[0004] The back panel comprises an upper edge and a lower edge opposite to the upper edge, which upper and lower edges come each into abutment against the respective spacers. The spacers are also disposed between the two vertical columns and are mounted, like the back panel, on respective interior lateral faces of the vertical columns.

[0005] The spacers comprise tongues configured to be folded when the spacers are mounted on the vertical columns so that the tongues come into abutment against the vertical columns when the spacers or back panel are raised up. The tongues have to be refolded to release the spacers and the back panel.

[0006] Shelving devices are also known from the French patent application FR 2 905 252 in which the device comprises a base, two vertical columns which extend from the base and a back structure mounted on and between the vertical columns, back structure which is configured to receive articles hung up thereto.

[0007] The back structure comprises two vertical structures mounted on respective interior lateral faces of the vertical columns, fixed rods and removable rods each mounted on the vertical structures. The articles are hung up to the rods (with or without intermediary hook).

[0008] The invention is directed to an assembly for shelving device, comprising a back panel structure mounted on vertical column thanks to a linking element, which assembly is simple, economic and easy to assemble and lock.

SUMMARY OF THE INVENTION

[0009] The invention accordingly provides an assembly for shelving device, comprising a back panel structure and vertical columns on which back panel structure is mounted and locked, said back panel structure comprising at least one back panel module and at least one element configured to lock said back panel module in position; wherein said element is an intermediary linking

element located between said at least one back panel module and said vertical columns, said linking element comprising at least one hanging member configured to be mounted in at least one complementary hanging member provided on said at least one back panel module, said linking element comprising at least one mounting member configured to be mounted in at least one complementary mounting member provided on said vertical columns, and said linking element comprising at least one locking member having a locked configuration whereby said at least one locking member is configured to cooperate with a complementary locking member provided on said vertical columns.

[0010] The assembly according to the invention is thus convenient in that the combination of the linking element and the back panel modules and further the vertical columns are simply assembled and locked.

[0011] For that matter, a linking element is first hung to a vertical column thanks to the hanging members and complementary hanging members. Next, a back panel module is mounted on the linking element thanks to the mounting members and complementary mounting members so that the back panel module is solidarily linked to the vertical column. Next, when the back module is in position, the linking element is locked to the vertical column thanks to the locking members and complementary locking members.

[0012] It will be noted that the locking of the linking element to the vertical column can be proceed before the mounting of the back panel module on the linking element.

[0013] A plurality of back panel modules can be mounted and locked in position independently.

[0014] It will further be noted that the disassembling of the assembly is carried out by demounting the back panel modules from the linking element, next by unlocking the linking element and next by removing the linking element from the vertical columns.

[0015] Thus, the assembly for shelving device according to the invention is advantageously modular and easy to assemble and disassemble.

[0016] According to features preferred as being very simple, convenient and economical for embodying the assembly according to the invention:

- said at least one locking member is formed by a foldable finger and said complementary locking member is formed by an aperture;
- said linking element comprises a main wall configured to face said at least one back panel module and said foldable finger has an unlocked configuration whereby said foldable finger extends radially from said main wall, while said foldable finger extends substantially longitudinally from said main wall in its locked configuration;
- said linking element comprises a main wall configured to face said at least one back panel module and a plate extending radially from said main wall and

providing with said foldable finger; which foldable finger has an unlocked configuration whereby said foldable finger extends in said plate, while said foldable finger protrudes from said plate and thus extends substantially longitudinally from said main wall in its locked configuration;

- said at least one hanging member is formed by a hook and said at least one complementary hanging member is formed by a window;
- said linking element comprises a main wall configured to face said at least one back panel module and said hook protrudes from said main wall and extends remote to said main wall;
- said hook comprises a first hole and said at least one back panel module comprises a protrusion located near said window and configured to be introduced in said first hole;
- said hook is provided by punching of said main wall and said main wall comprises a cut-out which faces said hook;
- said at least one mounting member is formed by a bended leg and said at least one complementary mounting member is formed by an opening;
- said linking element comprises a main wall configured to face said at least one back panel module and said bended leg extends substantially longitudinally from said main wall and remote to said main wall;
- said linking element comprises a main wall configured to face said at least one back panel module and at least one abutment plate extending radially from said main wall and said at least one back panel module is configured to come into abutment against said at least one abutment plate;
- said at least one abutment plate extends close to said at least one locking member;
- said at least one abutment plate and said at least one locking member are made from a single plate; and/or
- said at least one back panel module generally extends longitudinally and has a general corrugated shape.

[0017] The invention further provides a shelving device comprising at least one assembly as described above and at least one shelf which is mounted on said back panel structure.

[0018] Like the assembly according to the invention, the shelving device comprising such an assembly is particularly simple, convenient and economic.

BRIEF DESCRIPTION OF THE DRAWINGS

[0019] The description of the invention now continues with a detailed description of a preferred embodiment given hereinafter by way of non-limiting example and with reference to the appended drawings. In these drawings:

- Figure 1 is a perspective view of a shelving device

comprising an assembly according to the invention, the assembly being shown schematically;

- Figure 2 is an assembled perspective view of an assembly according to the invention;
- Figures 3 and 4 show details of Figure 2, the assembly being respectively in an unlocked configuration and in a locked configuration;
- Figure 5 is a perspective view of a linking element of the assembly of Figure 2;
- Figure 6 shows a detail of Figure 5;
- Figure 7 is a planar section view taken along VII-VII on Figure 5;
- Figures 8 and 9 are respectively a perspective view and a front view of a back panel of the assembly of Figure 2;
- Figure 10 shows a detail of Figure 9;
- Figure 11 is a similar view to Figure 9 according to a variant of the back panel;
- Figures 12 and 13 are perspective views, taken along different view angles, of a variant of the linking element; and
- Figure 14 is a planar section view taken along XIV-XIV on Figure 12.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

[0020] Figure 1 shows a shelving device 1, also named gondola, which is used to display articles (not represented).

[0021] The shelving device 1 is configured to be disposed for instance in a supermarket and to receive articles to display for instance for sale.

[0022] The shelving device 1 comprises a base 2, two vertical columns 3 extending from the base 2, a back panel structure 4 also extending from the base 2 and disposed between the two vertical columns 3 and a plurality of shelves 5.

[0023] The base 2 is made from metal and comprises horizontal stringers (not represented) which form a frame, four side walls whose only two side walls 7 and 8 are visible on Figure 1 and a panel 9 which covers the frame.

[0024] The panel 9 is flat and comprises a ledge 10 extending in front of the side wall 8.

[0025] The base 2 further comprises feet 6 whose only three are visible on Figure 1.

[0026] The two vertical columns 3 are made from metal and have each a general shape of a rod having a rectangular section.

[0027] Each vertical column comprises an exterior lateral face 11, an interior lateral face 15 opposite to the exterior lateral face 11, a front face 12 and a back face 18.

[0028] A plurality of openings 13 are provided both in the front face 12 and in the back face.

[0029] Each opening 13 has a rectangular general shape whose corners are rounded.

[0030] The back panel structure 4 comprises a flat met-

al back panel module which is sandwiched between the two vertical columns 3.

[0031] The back panel structure 4 comprises a first lateral end and a second lateral end opposite to the first lateral end, which are each mounted on a respective interior lateral face 15 of a vertical column 3.

[0032] The back panel structure 4 further comprises an upper edge and a lower edge opposite to the upper edge, which upper edge forms a free end and which lower edge come each into abutment against the panel 9.

[0033] As shown in Figure 1, the shelving device 1 comprises a plurality of shelves 5. Here, one shelf 5 is mounted on a front face of the shelving device 1 and five shelves 5 are mounted on the back of the shelving device 1.

[0034] Each shelf 5 is configured to be mounted on the back panel structure 4 and in particular each shelf 5 is configured to be hung to the two vertical columns 3 thanks to hanging members like hooks (not represented), hooks which are configured to be mounted on respective openings 13 of the vertical columns 3.

[0035] Each shelf is thus mounted on the back panel structure 4 so that each shelf 5 overhangs the base 2, and in particular the panel 9.

[0036] Each shelf 5 comprises an upper face 20, two lateral faces 21 and 22 which are opposite to each other and a front face 23 linking both lateral faces 21 and 22.

[0037] The lateral faces 21 and 22 and the front face 23 are configured to form a roof-deck for the shelf 5.

[0038] The upper face 20, the lateral faces 21 and 22 and the front face 23 are made from a single metal sheet 30 which comprises two lateral edges 24 and 25 which are opposite to each other and a front edge 26, all these edges being folded to form the roof-deck.

[0039] The upper metal sheet 30 comprises two cut-outs provided respectively at a junction between the lateral edge 24 and the front edge 26 and at a junction between the lateral edge 25 and the front edge 26.

[0040] We will now describe in detail back panel structures 4 and further vertical columns 3, in reference to figures 2 to 10.

[0041] The back panel structure 4 comprises a plurality of back panel modules 35 each being located between faces of two vertical columns 3.

[0042] The back panel structure 4 further comprises a plurality of linking element 50 each located between a face of a vertical column 3 and a plurality of back panel modules 35.

[0043] Figure 2 shows three vertical columns 3, whose two of which are laterally positioned and one is centrally positioned, and two back panel structures 4, each being disposed between the centrally vertical column 3 and a laterally vertical column 3.

[0044] Each back panel structure 4 comprises a plurality of modules 35 and a beam 80 on which the modules 35 are superimposed and stacked.

[0045] It will be noted that, here, the back panel structures 4 does not comprise the same number of back panel

modules 35 and thus that one of the two laterally vertical columns 3 is greater than the other.

[0046] It will further be noted that one of the back panel structures 4 is disposed between the interior lateral face 15 of the centrally vertical column 3 and the lateral interior face 15 of the laterally vertical column 3 which is smaller; and that the other of the back panel structures 4 is disposed between the exterior lateral face 11 of the centrally vertical column 3 and the lateral interior face 15 of the laterally vertical column 3 which is greater.

[0047] The back panel modules 35 generally extend longitudinally and have a general corrugated shape.

[0048] Each vertical column 3 comprises a plurality of openings 31, each having a rectangular shape, formed on the interior and exterior lateral faces 11 and 15.

[0049] The openings 31 are configured to form a complementary mounting member or a complementary locking member (see below).

[0050] The back panel modules 35 are each mounted on a linking element 50 (best seen on Figures 3 to 7), which itself is hung on to the vertical columns 3 and locked to these.

[0051] The three vertical columns 3 of Figure 2 are configured to be mounted on a base (not represented) similar to the base 2 shown on Figure 1 so as to form a shelving device.

[0052] We will now describe in detail the linking element 50 in reference to figures 5 to 7.

[0053] The linking element 50 is an angled plate 51 made from metal, comprising a main wall 52 and an angle wall 75 which extends radially from the main wall 52.

[0054] The main wall 52 is configured to face the back panel modules 35 which are mounted on this main wall 52, the latter extending longitudinally like the back panel modules 35.

[0055] The linking element 50 comprises four hooks 53 each forming a hanging member which is configured to be mounted with a complementary hanging member of the back panel modules 35 (see below).

[0056] The four hooks 53 are regularly spaced from each other along the main wall 52.

[0057] Each hook 53 protrudes from the main wall 52 and extends remote to the main wall 52.

[0058] A gap 65 is defined between each hook 53 and the main wall 52.

[0059] Each hook 53 is provided by punching the main wall 52 so that the latter comprises a cut-out 54 which faces the hook 53.

[0060] Each hook 53 defines an introduction direction for mounting a back panel module 35 on this hook 53.

[0061] The linking element 50 comprises four rectangular recesses 56 regularly spaced from each other along the main wall 52 and each recess 56 is located below a hook 53.

[0062] The linking element 50 comprises two holes 55 located either side of the hook 53 which is disposed on the upper of the main wall 52, so that one of the holes 55 is disposed between this hook 53 and a recess 56.

[0063] The linking element 50 further comprises three bended legs 57 each forming a mounting member configured to be mounted on complementary mounting member of a vertical column 3 (see below).

[0064] Each bended leg 57 protrudes from the angle wall 75 and generally extends substantially longitudinally like the main wall 52 and remote to the main wall 52.

[0065] Each bended leg 57 comprises a main portion (not represented), an angle portion 58 joining the main portion to the angle wall 75 and a hanging portion 59 located remote to the angle wall 75.

[0066] The hanging portion 59 thus defines a space 60 between the angle wall 75 and the latter.

[0067] The linking element 50 comprises two foldable fingers 62 each forming a locking member configured to cooperate with a complementary locking member of a vertical column 3 (see below).

[0068] Each foldable finger 62 is formed with the angle wall 75 and extends this latter.

[0069] Each foldable finger 62 is located close to and below a bended leg 57 (on the side of the hanging portion 59).

[0070] The linking element 50 comprises a cut-out 63 between a portion of the angle wall 75 and the foldable finger 62 so that the junction (formed by another portion of the angle wall 75) which joins the foldable finger 62 to the main wall 52 is thin enough to be folded, for instance thanks to a tool like a screw driver, and thick enough to not break.

[0071] Each foldable fingers 62 has an unlocked configuration whereby each foldable finger 62 extends radially from the main wall 52, and a locked configuration whereby this foldable finger 62 is folded and extends substantially longitudinally from the main wall 52 (see figures 3 and 4).

[0072] The linking element 50 comprises two abutment plates 61 configured to receive in abutment the back panel modules 35 (see below).

[0073] Each abutment plate 61 has a generally rectangular shape.

[0074] Each abutment plate 61 is formed with the angle wall 75 and extends this latter so that each abutment plate 61 extends radially from the main wall 52.

[0075] The abutment plates 61 each extend close to and below a foldable finger 62.

[0076] The linking element 50 comprises a cut-out 64 between each of the foldable finger 62 and abutment plate 61.

[0077] Each foldable finger 62 is thus located between an abutment plate 61 and a portion of the angle wall 75 and more generally between an abutment plate 61 and a bended leg 57.

[0078] It will be noted that the abutment plates 61 form stiffening member.

[0079] We will now describe in detail the back panel module 35 in reference to figures 8 to 10.

[0080] The back panel module 35 comprises a main plate 36 made from metal, which main plate 36 has a

generally rectangular and corrugated shape and generally extends longitudinally.

[0081] The back panel module 35 comprises an upper edge 37, a lower edge 38 opposite to the upper edge 37, a first lateral edge 44 and a second lateral edge 45 opposite to the first lateral edge 44.

[0082] The upper and lower edges 37, 38 are configured to be stackable one with each other so as to superimpose a plurality of back panel module 35.

[0083] The back panel module 35 comprises a notch 43 at each corner of the main plate 36.

[0084] The main plate 36 comprises bottom plates 39 and front plates 40 which are regularly and successively disposed.

[0085] Two successive bottom and front plates 39, 40 are spaced by an inclined plate 41 so that to form the corrugated shape.

[0086] Each bottom plate 39 and each front plate 40 comprises a rectangular window 47 formed near the first and second lateral edges 44, 45.

[0087] Each window 47 forms a complementary hanging member.

[0088] Each bottom plate 39 and each front plate 40 further comprises a hole 42 close to and above the windows 47.

[0089] It will be noted that one of the bottom plate 39 further comprises another hole 46 (bigger than the hole 42) close to and below the windows 47.

[0090] We will now describe in detail the assembling of a back panel module 35 with a linking element 50 and together with the centrally vertical column 3 in reference to figures 3 and 4.

[0091] The bended leg 57 of the linking element 50 is hung on to an opening 31 of the centrally vertical column 3.

[0092] The angle portion 58 rests on the contour of the opening 31 while the hanging portion 59 is introduced into the interior of the centrally vertical column 3 so that the space 60 between the angle wall 75 and the hanging portion 59 is filled by the interior lateral face 15 of the centrally vertical column 3.

[0093] It will be noted that the bended leg 57 is fully visible on Figures 3 and 4 by transparency.

[0094] Of course, it is the same for the two others bended legs 57 and two others openings 31.

[0095] The abutment plate 61 rests against the interior lateral face 15 of the centrally vertical column 3 at the level of another opening 31 so as to make the linking element 50 almost not movable relative to the centrally vertical column 3.

[0096] Of course, it is the same for the other abutment plate 61.

[0097] It will be noted that the angle wall 75 rests against the interior lateral face 15 of the centrally vertical column 3.

[0098] The foldable finger 62 faces another opening 31 at the level of which the abutment plate 61 is located. The foldable finger 62 is here (figure 3) in the unlocked

configuration, in other words the foldable finger 62 is located in the vicinity of, but outside, the interior of the centrally vertical column 3.

[0099] Of course, it is the same for the other foldable finger 62 and another opening 31.

[0100] The hook 53 of the linking element 50 is introduced into the window 47 which is close to the second lateral edge 45 of a bottom plate 39 of the back panel module 35.

[0101] The back panel module 35 is thus bore thanks to the bottom plate 39 by the hook 53.

[0102] Of course, it is the same for the three others hooks 53 and three others windows 47 of the same back panel module 35 or of other(s) back panel module(s) 35.

[0103] The back panel module 35 comes into abutment by its second lateral edge 45 against the abutment plate 61.

[0104] In this position, the back panel module(s) 35 is (are) mounted on the linking element 50 and the latter is mounted on the interior lateral face 15 of the centrally vertical column 3 (and stable relative to this latter).

[0105] Next, the foldable finger 62 is folded by virtue of a force applied by a user having a tool, for instance a screw driver, to bring the foldable finger 62 in the locked configuration (figure 4) in which the foldable finger 62 is introduced into the opening 31 and thus into the interior of the centrally vertical column 3.

[0106] In this position, the linking element 50 is further locked on the interior lateral face 15 of the centrally vertical column 3.

[0107] The disassembling of the assembly is carried out by demounting the back panel modules 35 from the linking element 50, next by unlocking the linking element 50 (by refolded the foldable finger 62 in unlocked configuration) and next by removing the linking element 50 from the vertical column 3.

[0108] It will be noted that it is the same for the assembling of the same back panel modules 35 (on the side of the first lateral edge 44) with another linking element 50 and together with the smallest laterally vertical column 3.

[0109] It will be noted that it is the same for the assembling of others back panel modules 35 with another linking element 50 and together with the centrally vertical column 3 (on the side of the exterior lateral face 11) and further with the other laterally vertical column 3.

[0110] Figure 11 illustrate a variant embodiment of the back panel module and is a similar view to Figure 9.

[0111] In general, we have used the same reference numbers for similar parts, but increased by 100.

[0112] The back panel module shown on Figure 11 is almost identical to the back panel module shown on Figure 9.

[0113] Indeed, the back panel module 135 comprises a main plate 136 made from metal, which has a generally rectangular and corrugated shape and generally extends longitudinally.

[0114] The back panel module 135 is of different dimensions from the back panel module 35 and more pre-

cisely, the back panel module 135 is smaller.

[0115] The back panel module 135 comprises an upper edge 137, a lower edge 138 opposite to the upper edge 137, a first lateral edge 144 and a second lateral edge 145 opposite to the first lateral edge 144.

[0116] The upper and lower edges 137, 138 are slightly different from the upper and lower edges 37, 38 of the back panel module 35 but are always configured to be stackable one with each other so as to superimpose a plurality of back panel module 135.

[0117] The back panel module 135 comprises a notch 143 at each corner of the main plate 136. The main plate 136 comprises bottom plates 139 and front plates 140 which are regularly and successively disposed.

[0118] Two successive bottom and front plates 139, 140 are spaced by an inclined plate 141 so that to form the corrugated shape.

[0119] Each bottom plate 139 and each front plate 140 comprises a rectangular window 147 formed near the first and second lateral edges 144, 145.

[0120] Each window 147 forms a complementary hanging member.

[0121] Each bottom plate 139 and each front plate 140 further comprises a protrusion 148 close to and above the windows 147 (instead of a hole 42).

[0122] It will be noted that one of the bottom plate 139 further comprises another hole 146 close to and below the windows 147.

[0123] Figures 12 to 14 illustrate a variant embodiment of the linking element and are similar views to Figures 5 and 7.

[0124] In general, we have used the same reference numbers for similar parts, but increased by 100.

[0125] The linking element 150 shown on Figures 12 to 14 is almost identical to the linking element 50 shown on Figures 5 to 7.

[0126] Indeed, the linking element 150 is an angled plate 151 made from metal, comprising a main wall 152 and an angle wall 175 which extends radially from the main wall 152.

[0127] The linking element 150 is smaller than the linking element 50.

[0128] The linking element 150 comprises three hooks 153 which are regularly spaced from each other along the main wall 152.

[0129] Each hook 153 protrudes from the main wall 152 and extends remote to the main wall 152.

[0130] A gap 165 is defined between each hook 153 and the main wall 152.

[0131] Each hook 153 is provided by punching the main wall 152 so that the latter comprises a cut-out 154 which faces the hook 153.

[0132] Each hook 153 further comprises a hole 166 (also named first hole) which is configured to receive a protrusion 148 of the back panel module 135 (figure 11), in order to lock this back panel module 135 in position on the linking element 150.

[0133] The linking element 150 comprises three rec-

tangular recesses 156 regularly spaced from each other along the main wall 152 and each recess 156 is located below a hook 153.

[0134] The linking element 150 further comprises two bended legs 157 protruding from the angle wall 175 and generally extends substantially longitudinally like the main wall 152 and remote to the main wall 152.

[0135] The linking element 50 comprises two single plates 170 each forming both an abutment plate and a foldable finger 172.

[0136] Each single plate 170 extends radially from the main wall 152.

[0137] Each single plate 170 comprises a cut-out 173 defining the foldable finger 172 and a recess 171 in the abutment plate.

[0138] The junction which joins the foldable finger 172 to the single plate 170 is thin enough to be folded, for instance thanks to a tool like a screw driver, and thick enough to not break.

[0139] Each foldable finger 172 has an unlocked configuration whereby the foldable finger 172 extends in the single plate 170 and a locked configuration whereby the foldable finger 172 is folded protrudes from the single plate 170.

[0140] In variants that are not illustrated:

- the linking element has more or less of hooks and/or bended legs and/or abutment plates;
- the linking element is not made from an angle plate but rather from a straight plate;
- the linking element is not made from metal but rather from plastic material;
- the back panel module has not a corrugated shape but rather a straight shape; and/or
- the shelving device comprises decorative elements fixed on the back panel modules.

[0141] It should be noted more generally that the invention is not limited to the examples described and represented.

Claims

1. Assembly for shelving device (1), comprising a back panel structure (4) and vertical columns (3) on which back panel structure (4) is mounted and locked, said back panel structure (4) comprising at least one back panel module and at least one element configured to lock said back panel module in position; wherein said element is an intermediary linking element (50; 150) located between said at least one back panel module (35; 135) and said vertical columns (3), said linking element (50; 150) comprising at least one hanging member (53; 153) configured to be mounted in at least one complementary hanging member (47; 147) provided on said at least one back panel module (35; 135), said linking element (50; 150) comprising

at least one mounting member (57; 157) configured to be mounted in at least one complementary mounting member (31) provided on said vertical columns (3), and said linking element (50; 150) comprising at least one locking member (62; 172) having a locked configuration whereby said at least one locking member (62; 172) is configured to cooperate with a complementary locking member (31) provided on said vertical columns (3).

2. Assembly according to claim 1, wherein said at least one locking member is formed by a foldable finger (62; 172) and said complementary locking member is formed by an aperture (31).

3. Assembly according to claim 2, wherein said linking element (50) comprises a main wall (52) configured to face said at least one back panel module (35) and said foldable finger (62) has an unlocked configuration whereby said foldable finger (62) extends radially from said main wall (52), while said foldable finger (62) extends substantially longitudinally from said main wall (52) in its locked configuration.

4. Assembly according to claim 2, wherein said linking element (150) comprises a main wall (152) configured to face said at least one back panel module (135) and a plate (170) extending radially from said main wall (152) and providing with said foldable finger (172); which foldable finger (172) has an unlocked configuration whereby said foldable finger (172) extends in said plate (170), while said foldable finger (172) protrudes from said plate (170) and thus extends substantially longitudinally from said main wall (152) in its locked configuration.

5. Assembly according to any one of claims 1 to 4, wherein said at least one hanging member is formed by a hook (53; 153) and said at least one complementary hanging member is formed by a window (47; 147).

6. Assembly according to claim 5, wherein said linking element (50; 150) comprises a main wall (52; 152) configured to face said at least one back panel module (35; 135) and said hook (53; 153) protrudes from said main wall (52; 152) and extends remote to said main wall (52; 152).

7. Assembly according to claim 6, wherein said hook (153) comprises a first hole (166) and said at least one back panel module (135) comprises a protrusion (148) located near said window (147) and configured to be introduced in said first hole (166).

8. Assembly according to one of claims 6 and 7, wherein said hook (53; 153) is provided by punching of said main wall (52; 152) and said main wall (52; 152)

comprises a cut-out (54; 154) which faces said hook (53; 153).

9. Assembly according to any one of claims 1 to 8,
wherein said at least one mounting member is
formed by a bended leg (57; 157) and said at least
one complementary mounting member is formed by
an opening (31). 5

10. Assembly according to claim 9, wherein said linking
element (50; 150) comprises a main wall (52; 152)
configured to face said at least one back panel mod-
ule (35; 135) and said bended leg (57; 157) extends
substantially longitudinally from said main wall (52;
152) and remote to said main wall (52; 152). 10
15

11. Assembly according to any one of claims 1 to 10,
wherein said linking element (50; 150) comprises a
main wall (52; 152) configured to face said at least
one back panel module (35; 135) and at least one
abutment plate (61; 170) extending radially from said
main wall (52; 152) and said at least one back panel
module (35; 135) is configured to come into abut-
ment against said at least one abutment plate (61;
170). 20
25

12. Assembly according to claim 11, wherein said at
least one abutment plate (61; 170) extends close to
said at least one locking member (62; 172). 30

13. Assembly according to claim 12, wherein said at
least one abutment plate (170) and said at least one
locking member (172) are made from a single plate.

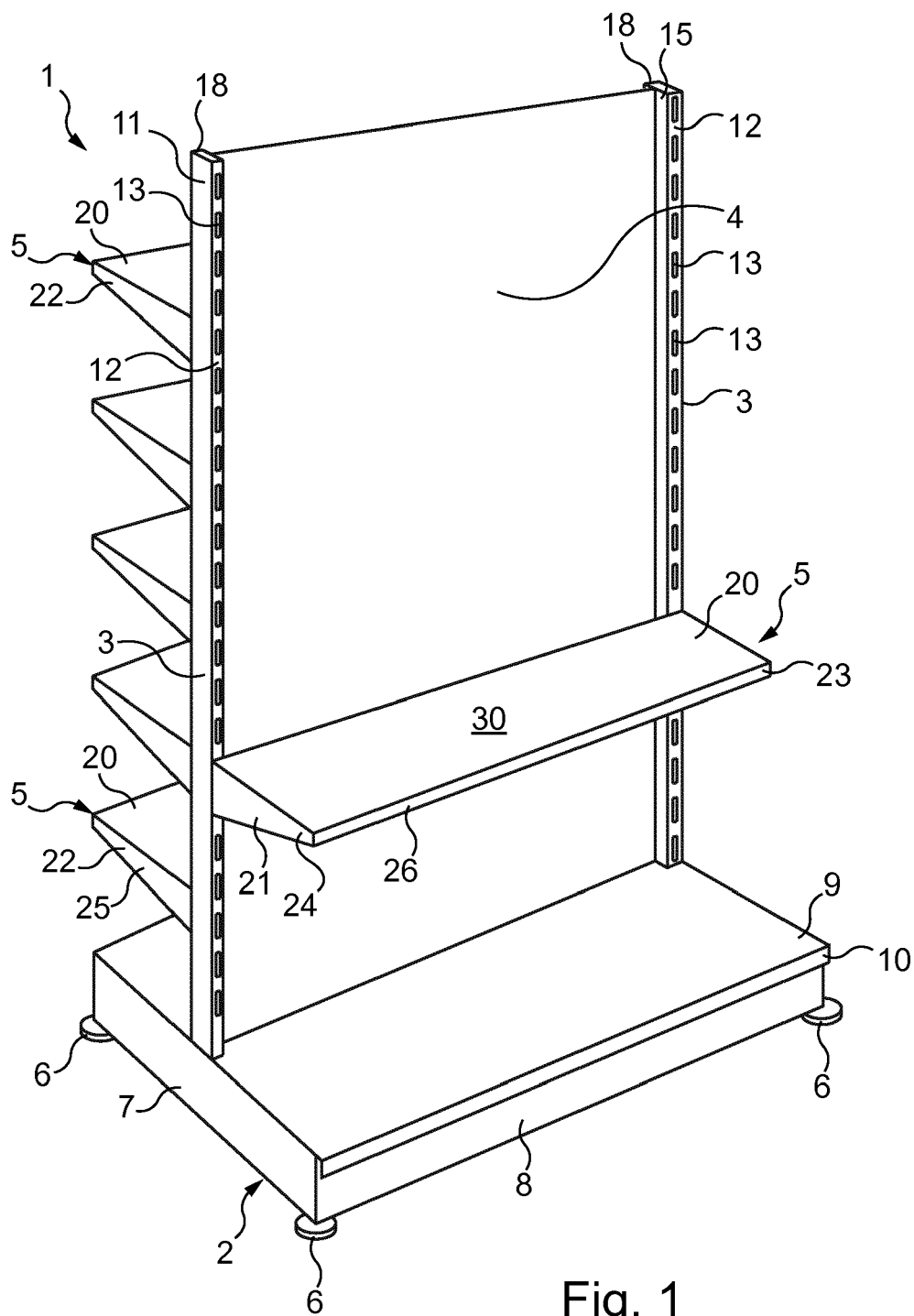
14. Assembly according to any one of claims 1 to 13,
wherein said at least one back panel module (35;
135) generally extends longitudinally and has a gen-
eral corrugated shape. 35

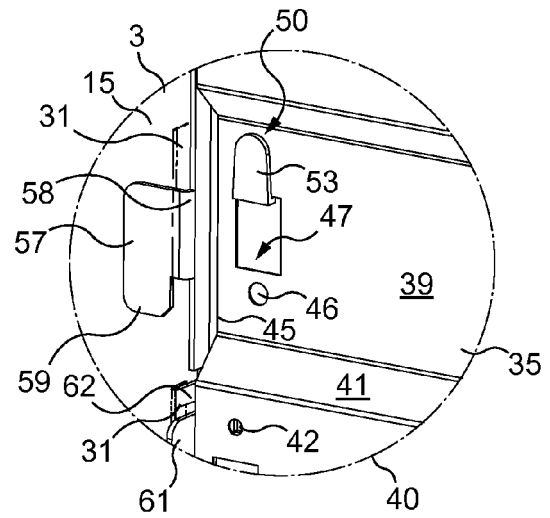
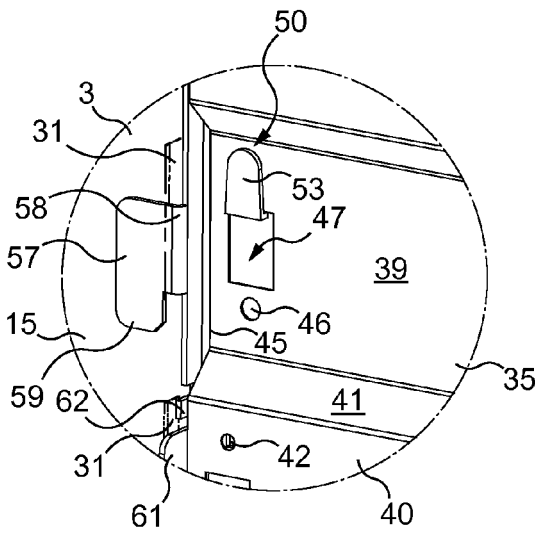
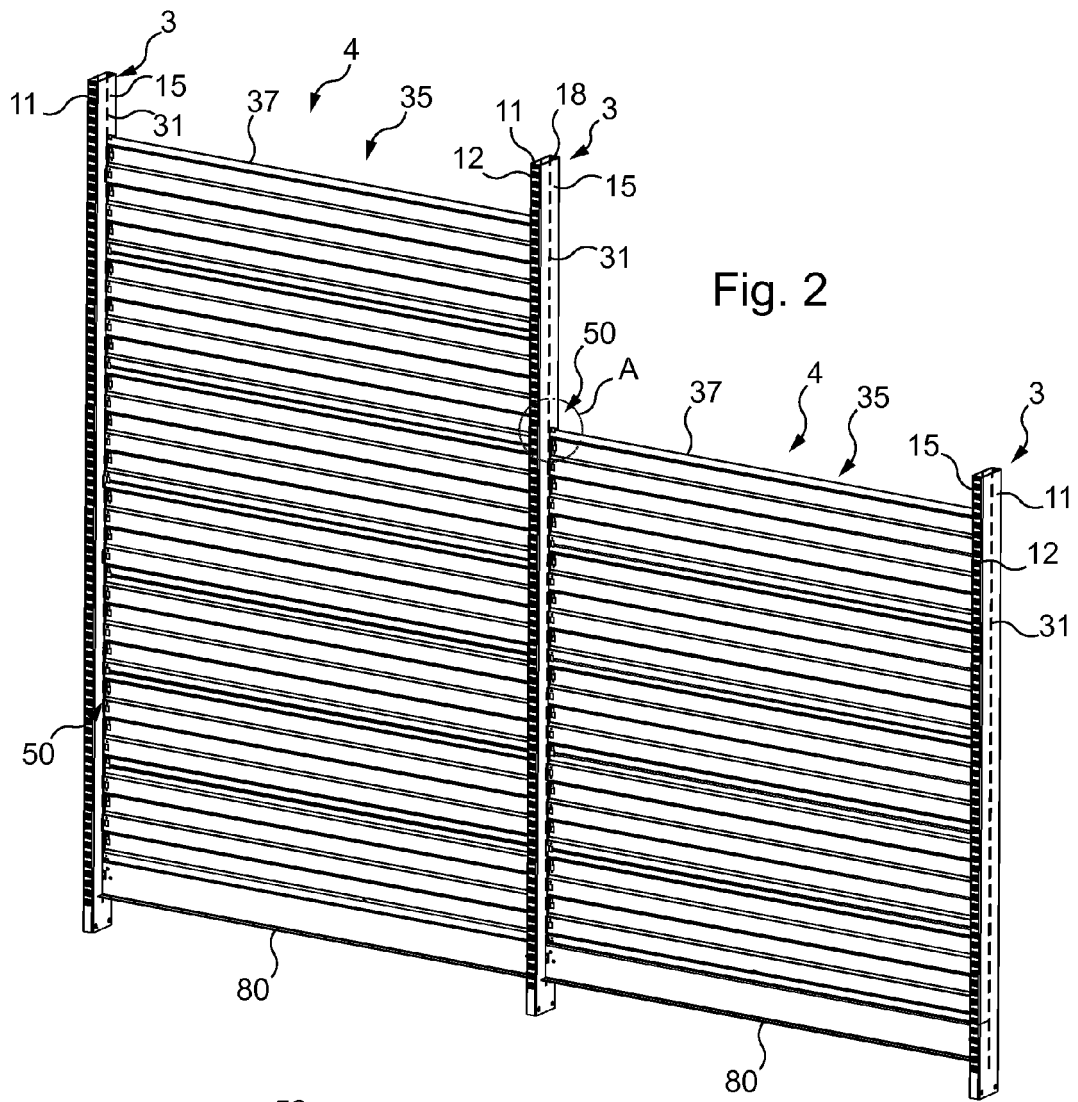
15. Shelving device comprising at least one assembly
according to any one of claims 1 to 14 and at least
one shelf (5) which is mounted on said back panel
structure (4). 40

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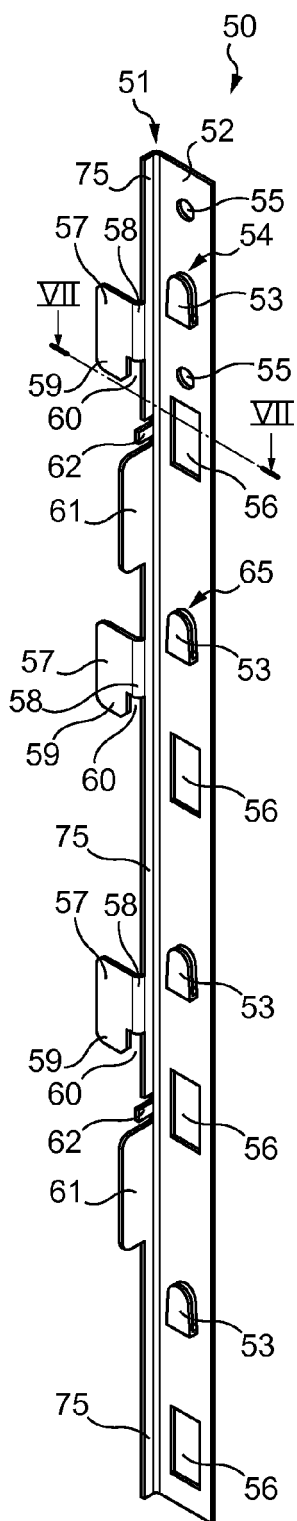


Fig. 5

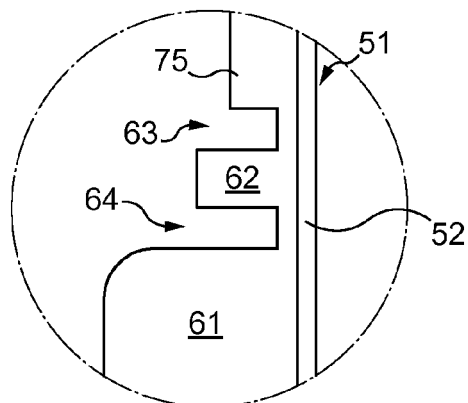


Fig. 6

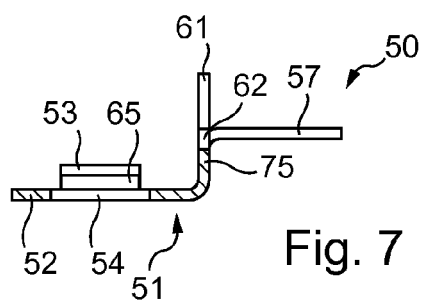


Fig. 7

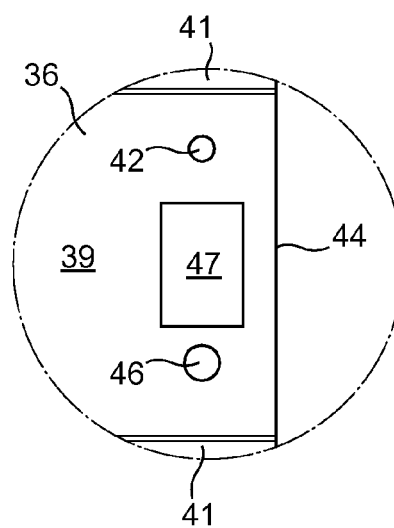
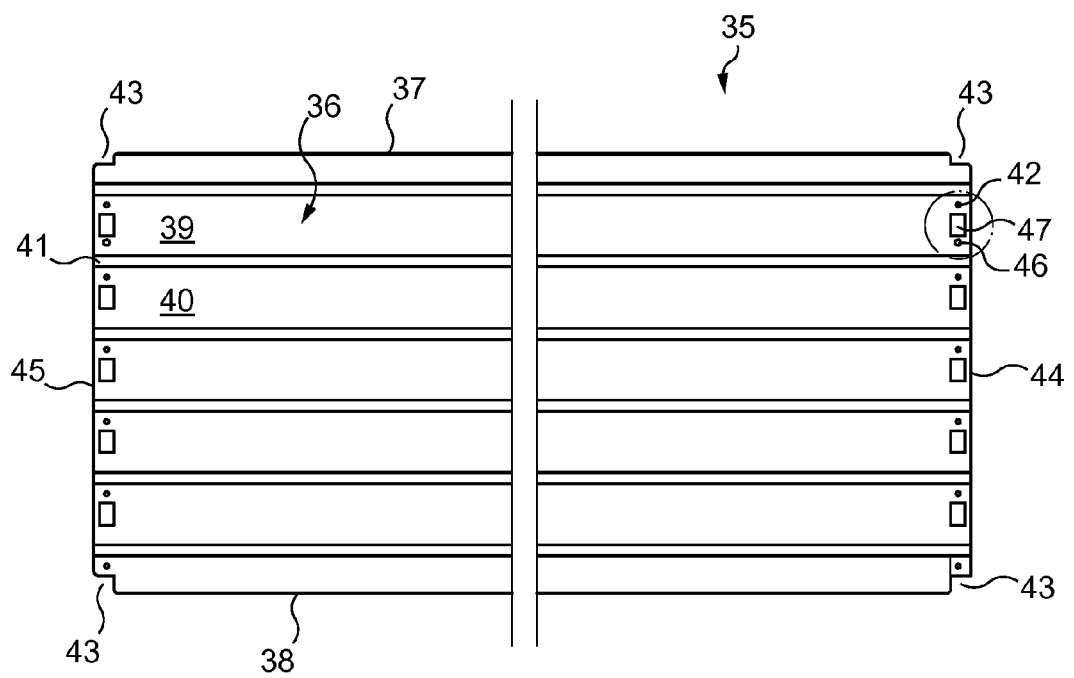
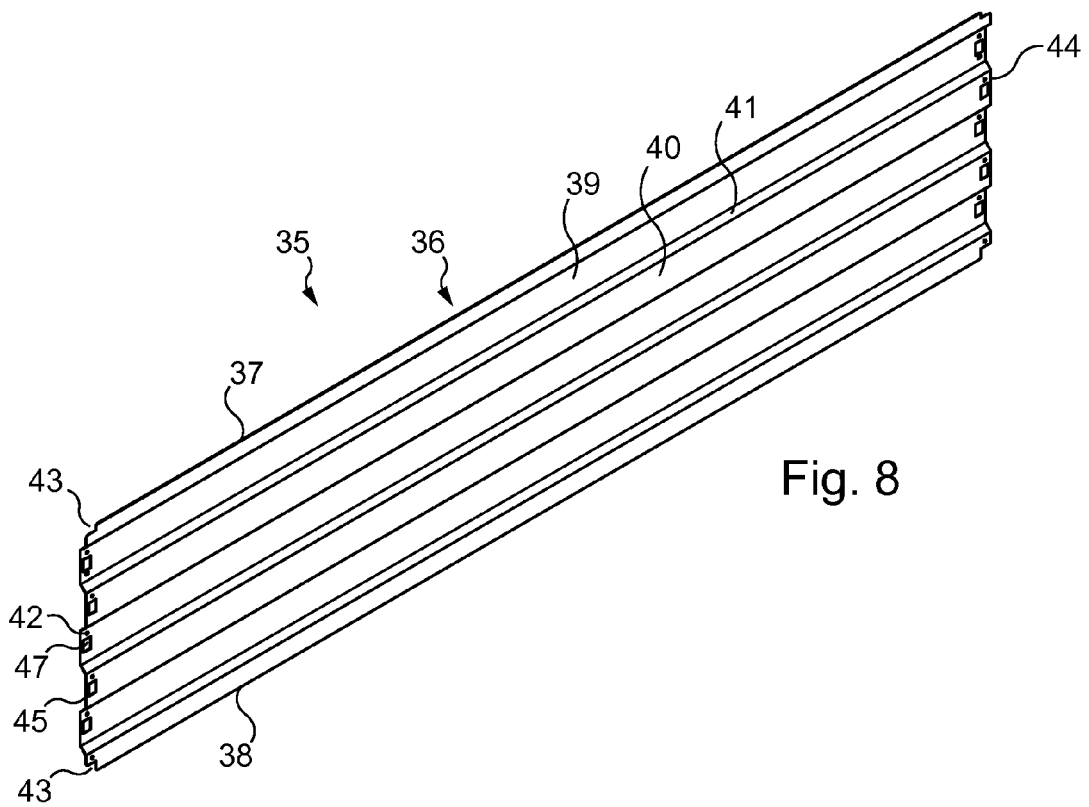
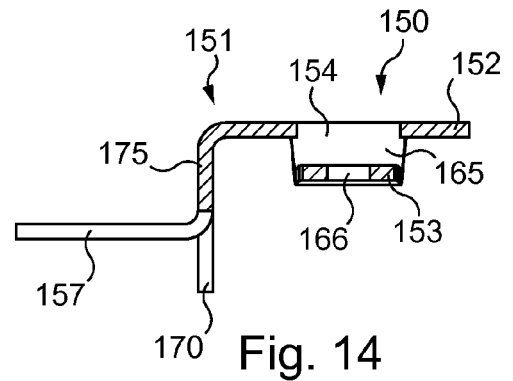
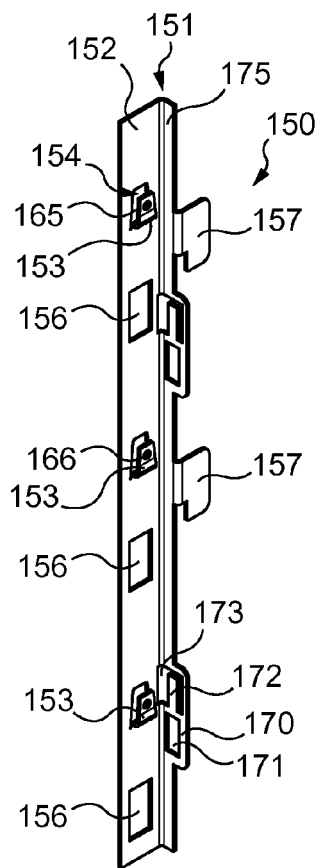
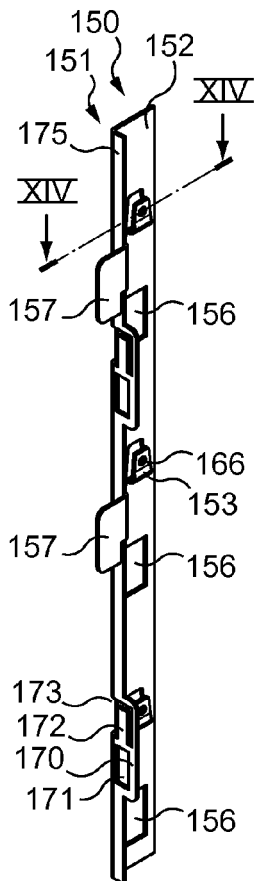
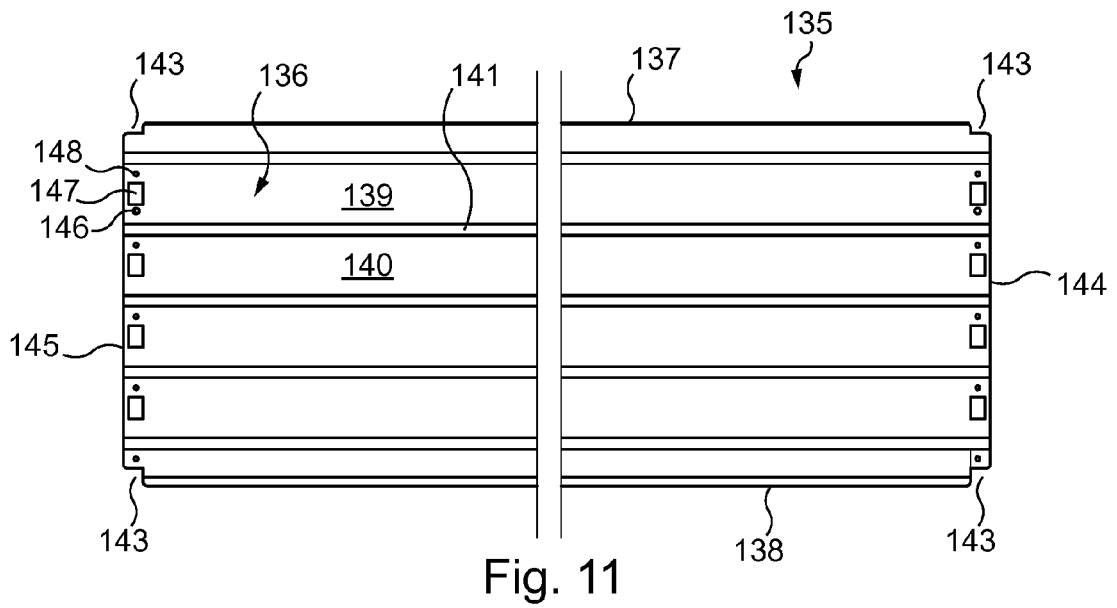


Fig. 10







EUROPEAN SEARCH REPORT

Application Number
EP 12 30 5980

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A,D	FR 2 874 488 A1 (HMY INVESTISSEMENTS SA [FR]) 3 March 2006 (2006-03-03) * page 1 - page 13; figures 1-6 * -----	1-15	INV. A47B96/14 A47F5/10
			TECHNICAL FIELDS SEARCHED (IPC)
			A47F A47B
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 7 January 2013	Examiner Kohler, Pierre
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 12 30 5980

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The members are as contained in the European Patent Office EDP file on
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07-01-2013

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