(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 4 275 551 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
15.11.2023 Bulletin 2023/46

(21) Application number: **23157671.1**

(22) Date of filing: **21.02.2023**

(51) International Patent Classification (IPC):
A47B 96/14 *(2006.01)*

(52) Cooperative Patent Classification (CPC):
A47B 96/1408

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA
Designated Validation States:
KH MA MD TN

(30) Priority: **24.02.2022 FI 20225168**

(71) Applicant: **Inducing Oy**
62100 Lapua (FI)

(72) Inventors:
- **Ikola, Ari**
  62100 Lapua (FI)
- **Seppälä, Harri**
  62165 Tiistenjoki (FI)

(74) Representative: **Kolster Oy Ab**
Salmisaarenaukio 1
P.O. Box 204
00181 Helsinki (FI)

(54) **MOUNTING BAR**

(57) A mounting bar (100), a fastening member of the mounting bar (200) and a storage arrangement (300) comprising the at least one mounting bar (100) and the at least fastening member of the mounting bar (200). One fastening member (200) is configured to fasten one end of one mounting bar or ends of two separate mounting bars (100). The mounting bar is configured to receive one or more storage members.

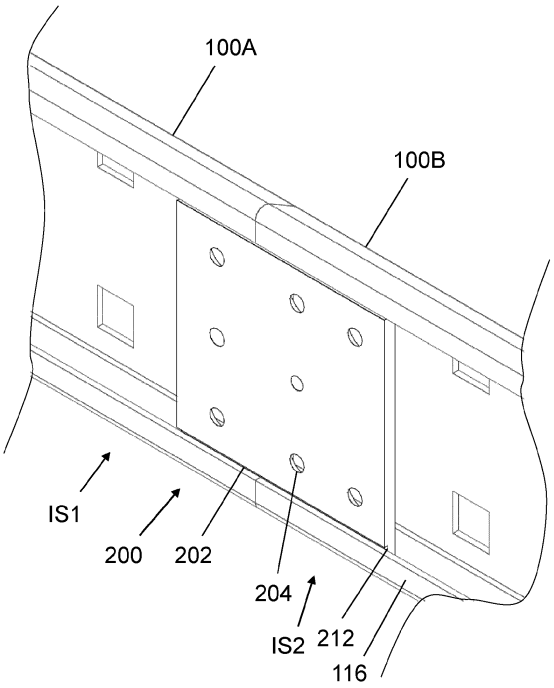

FIG. 2B

EP 4 275 551 A1

Description

Field

[0001] The invention relates to a field of storage arrangements.

Background

[0002] There is a plurality of storage arrangements available in a market. One example of the storage arrangements is a pegboard with storage means like hooks, for example. The known pegboard kind of the storage arrangements have still some drawbacks, especially in fastening of the pegboards and/or coupling a plurality of pegboards together.

[0003] Hence, there is a need for a solution to alleviate the drawbacks in the known storage arrangements.

Brief description

[0004] The present invention is defined by the subject matter of the independent claims.

[0005] Embodiments are defined in the dependent claims.

[0006] The embodiments and features, if any, described in this specification that do not fall under the scope of the independent claim are to be interpreted as examples useful for understanding various embodiments of the invention.

List of drawings

[0007] Example embodiments of the present invention are described below, by way of example only, with reference to the accompanying drawings, in which

Figures 1A and 1B illustrate a mounting bar according to an embodiment of the invention;
Figure 2A illustrates a fastening member according to an embodiment of the invention; and
Figures 2B, 3A, 3B, 3C and 3D illustrate the mounting bar with the fastening member according to an embodiment of the invention.

Description of embodiments

[0008] The following embodiments are only examples. Although the specification may refer to "an" embodiment in several locations, this does not necessarily mean that each such reference is to the same embodiment(s), or that the feature only applies to a single embodiment. Single features of different embodiments may also be combined to provide other embodiments. Furthermore, words "comprising" and "including" should be understood as not limiting the described embodiments to consist of only those features that have been mentioned and such embodiments may contain also features/structures that have not been specifically mentioned. All combinations of the embodiments are considered possible if their combination does not lead to structural or logical contradiction.

[0009] According to an aspect, there is provided a mounting bar comprising a front plane having a plurality of adjacent pairs of openings in a longitudinal direction of the mounting bar configured to receive one or more storage members; a first and second side planes extending from opposite side edges of the front plane such that the first and the second side planes are unparallel to the front plane; and a first back plane extending from the first side plane and a second back plane extending from the second side plane, wherein the first and the second back planes extend towards each other and parallelly with the front plane such that the first back plane ends in a vicinity of a level of a connection of the front plane and the first side plane, and the second back plane ends in a vicinity of a level of a connection of the front plane and the second side plane, and wherein the first and the second back plane form an inner space with the front plane, the first side plane and the second side plane, wherein the inner space is configured to receive a fastening member.

[0010] The mounting bar has an elongated body made of a sheet metal, for example. The elongated body comprises a plurality of bendings such that a shape of a cross section of the mounting bar in the longitudinal direction is substantially C (C-profile). The elongated body refers that the longitudinal direction (length) L of the mounting bar is remarkably bigger that a width W. The length of the mounting bar may be 600, 1200 or 2400mm, for example. The width may vary between 50 - 80mm, for example. The mounting bar can also be called as a mounting rail. The elongated body further comprises a plurality of the adjacent pairs of the openings (holes) configured to receive the one or more storage members. The opening(s) may have a shape of the square, for example. The storage member may be, for example, a box (cup) and/or a hook having a mounting feature for coupling it with the openings of the mounting bar. This kind of structure is known from pegboards, for example. The term "object" in this application refers to the object to which the mounting bar is fastened. It may be wall and/or shelf, for example.

[0011] Referring now to Figure 1A and 1B, in an embodiment, the mounting bar comprises a front plane 102. The front plane is towards the front (is front side of the mounting bar) when the mounting bar is assembled to the object like a wall, for example. In other words, the front plane is not against the object. The front plane 102 comprises a plurality of the pairs of the openings (104) configured to receive the one or more storage members. The storage member is not illustrated in the Figures. In an embodiment, the front plane 102 comprises only two openings 104 in the width direction W of the mounting bar 100, these two openings form the pair of the openings. The front plane 102 may comprise a plurality of the pairs of the openings 104 in the longitudinal direction L

of the mounting bar 100 as illustrated in Figures 1A and 1B. The front plane is dimensioned such that there is enough space in the width direction for the one pair of the openings. The width of the front plane may be 55 - 60mm and a distance between the openings of one pair may be 38mm, for example. A distance between the pairs of the opening may also be 38mm, for example.

[0012] The pair of the openings 104 may extend from a first end E1 to a second end E2 of the mounting bar 100. A spacing of the openings in the width and/or the longitudinal direction may be 38mm, for example. The holes may be spaced such that they can receive standard storage members used with the known pegboards. A shape of the holes may be the square, for example.

[0013] Still referring to Figure 1A and 1B, in an embodiment, the mounting bar 100 further comprises the first and the second side planes 106, 110 extending from opposite side edges of the front plane 108, 112 such that the first and the second side planes 106, 110 are unparallel to the front plane 102. The opposite side edges of the front plane 108, 112 refer to the edges of the front plane that are substantially parallel with the longitudinal direction L. In other words, they are the longer side edges of the front plane that are opposite. A first side edge 108 may be on an upper side and a second side edge 112 may be a lower side of the mounting bar when the mounting bar is in use and fastened to the object. The first side plane 106 may extend from the first side edge 108 and the second side plane 110 may extend from the second side edge 112, wherein the side planes may extend in a same angle form the front plane 102. The first and the second side planes may extend such that they are unparallel with the front plane. In other words, there may be a predetermined angle between the first side plane and the front plane, and between the second side plane and the front plane. The predetermined angle may be the same. In an embodiment, an angle A1 between the side planes and the front plane is greater than 90 degrees such that the distance between the side planes grow (in the width direction W) when the side planes extend away from the front plane. The angle A1 is an inner angle between the side planes and the front plane as illustrated in Figure 1B. The side planes determine a thickness of the mounting bar, the thickness is the same as a height H of the mounting bar illustrated in Figure 1A. In other words, a length of the side planes determines the thickness of the mounting bar. The length of the side planes may be the same. The thickness of the mounting bar may be 12mm, for example.

[0014] Still referring to Figure 1A and 1B, in an embodiment, the mounting bar 100 further comprises the first back plane 114 extending from the first side plane 106 and the second back plane 116 extending from the second side plane 110. The first and the second back planes may extend from side edges of the side planes that are parallel with the longitudinal direction L of the mounting bar as illustrated in Figures 1A and 1B. In other words, from the longer side edges of the side planes. The first and the second back planes extend towards each other (in the width direction W) and substantially parallelly with the front plane. The first back plane 114 extends towards the second back plane 116 such that it reaches the level L1 which is in the vicinity of the connection of the front plane and the first side plane. The level L1 may be determined such that it is a line in the direction H (parallel with direction H) from the connection of the first side plane and the front plane (from which the first side plane starts) that is substantially perpendicular to the front plane. The first back plane ends in the vicinity of this level L1 (line) as illustrated in Figure 1B. The second back plane 116 extends towards the first back plane 114 such that it reaches the level L2 which is in the vicinity of the connection of the front plane 102 and the second side plane 110. The level L2 may be determined such that it is a line in the direction H (parallel with direction H) from the connection of the second side plane and the front plane (from which the second side plane starts) that is substantially perpendicular to the front plane. The second back plane ends in the vicinity of this level L2 (line) as illustrated in Figure 1B. Hence, both back planes extend in the width direction to the level (L1 and L2) which is in the vicinity of the points in which the front panel ends, and the side panel starts. The term "vicinity" shall be understood broadly, it means that the first and the second back boards extend to the level that is near by the levels L1 and L2.

[0015] In an embodiment, the first and the second back plane 114,116 may not reach the openings of the front plane 104 in the width direction W, when extending towards each other. This means that the back planes may not cover the openings totally in the width direction W. In other words, the first and the second back plane ends in the width direction such that a fastener may be assembled through the opening without hitting the back plane(s). The fastener may refer to the fastener that is used with the fastening member. The back planes may also end before the openings in the front plane starts. Then the back plane(s) may not be visible, or is only partly visible, through the hole of the front plane when viewing directly from the front side of the mounting bar. This make possible to assemble the fastener though the opening to the fastening member which is in the inner space of the mounting bar with out hitting the back plane(s). This feature is achieved when the back plane(s) ends to the level L1 and L2 as described above.

[0016] Still in further embodiment, the back plane(s) comprises a hole in place(s) in which the openings of the front plane are. Then even though the back plane may cover the opening in the width direction, the hole in back plane(s) make possible to use the fastener assembled through the opening of the front plane.

[0017] The first and the second back plane 114, 116 form the inner space IS with the front plane 102, the first side plane 106 and the second side plane 110, wherein the inner space IS is configured to receive the fastening member. As described above, the mounting bar with the

above mentioned planes may form the C-profile, and the inner space of the mounting bar refers to the space inside the C-profile. The inner space is configured to receive, at least partly, the fastening member used for fastening the mounting bar to the object. Then at least a part of the fastening member is inside the mounting bar.

[0018] In an embodiment, the ends of the mounting bar are open such that the inner space is configured to receive the fastening member through the open end. Referring to Figure 1A, the first and the second ends E 1, E2 of the mounting bar are open such that the fastening member may be inserted, at least partly, into the inner space through the open ends.

[0019] In an embodiment, there is a gap between the first and the second back plane configured to allow an access into the inner space. Referring to Figure 1A, as described above, the mounting bar 100 may be C-profile which is partly open on one side. The open side is formed by the first and the second back planes 114, 116 having the gap G between them. So, the gap opens the inner space of the mounting bar such that the gap enables access into the inner space.

[0020] In an embodiment, the mounting bar 100 further comprises a fastening hole in the front plane for a fastener to fasten the mounting bar with the fastening member. The fastening hole may be in a vicinity of the end of the mounting bar. This is not illustrated in Figures. This hole may be used to couple the fastening member and the mounting bar together before assembling the fastening member with the mounting bar to the object, for example. The fastener may be a screw, for example.

[0021] A structure of the mounting bar according to the invention provides the solution wherein the mounting bar may not comprise any holes for fastening it to the object, and all the openings on the front plane can be used only for mounting the storage members.

[0022] According to another aspect, there is provided the fastening member of a mounting bar comprising: a body part having at least one hole configured to receive a fastener and a first and a second end portions, wherein the fastening member is configured to be insertable to an inner space of one or two mounting bars such that when the fastening member is used for fastening one mounting bar, at least the first end portion is configured to be in the inner space of the mounting bar, and when the fastening member is used for fastening two mounting bars, the first end portion is configured to be in the inner space of a first mounting bar and the second end portion is configured to be in an inner space of a second mounting bar, wherein the body part in the inner space is configured to press against the mounting bar when the fastening member is fastened by the fastener through the at least one hole to enable fastening of one or two mounting bars.

[0023] Referring to Figure 2A, in an embodiment, the fastening member 200 comprises the body part 202 configured to be insertable to the inner space of the mounting bar IS. The body part may be a plate kind of structure having the opposite first and the second end portions EP1, EP2. The fastening member may be made of plastic, for example. The body part may further comprise at least one hole configured to receive the fastener. The fastener may be a screw, for example. The fastener is used to fasten the fastening member with the mounting bar to the object like the wall, for example.

[0024] In an embodiment, the fastening member is configured to fasten one mounting bar such that at least the first end portion of the body part is in the inner space. The at least the first end portion of the body part in the inner space is configured to press against the mounting bar and enabling fastening of the mounting bar through the at least one hole as illustrated in Figures 3A and 3B.

[0025] In another embodiment, the fastening member is configured to fasten two mounting bars such that the first end portion of the body part is in the inner space of the first mounting bar, and the second end portion of the body part is in the inner space of the second mounting bar. The first end portion of the body part in the inner space of the first mounting bar, and the second end portion of the body part in the inner space of the second mounting bar are configured to press against the mounting bars and enabling fastening of the mounting bars through the at least one hole as illustrated in Figures 2B, for example.

[0026] The one fastening member may then be used to fasten one mounting bar such that the fastening member is substantially in the inner space of the mounting bar (fastens one end of the one mounting bar), or two adjacent mounting bars such that the first end portion of the fastening member is in the inner space of the first mounting bar and the second end portion is in the inner space of the second mounting bar (fastens ends of two adjacent mounting bars). The fastening member may not be substantially visible after assembling the two mounting bars, in other words, the fastening member may go substantially inside the mounting bars after assembling and the adjacent ends of the mounting bar are side by side (may be in contact).

[0027] In an embodiment, the fastening member comprises a plurality of the holes 204A - C in the body part 202. The fastening member may comprise three pairs of the holes 204A, 204B, 204C in the body part as illustrated in figure 2A. A first hole of the pair may be in vicinity of a first side portion of the body part SP1, and a second hole may be in vicinity of the second side portion of the body part SP2. The hole pairs 204A and 204C may be used when the fastening member is used to fasten one end of the one mounting bar, then both these hole pairs are in the inner space of one mounting bar. The hole pairs 204A and 204B may be used when the adjacent mounting bars are fastened such that the hole pair 204A is in the inner space of the first mounting bar and the hole pair 204B is in the inner side of the second mounting bar. The hole pair may be dimensioned such that they are aligned with the openings in the front plane of the mounting bar.

[0028] In an embodiment, illustrated in Figure 2A, the

fastening member 200 further comprises an end part 206 coupled with the second end portion of the body part EP2 by a coupling interface 208. The coupling interface 208 is configured to enable removal of the end part 206 from the body part 202. So, the fastening member may be used with or without the end part, depending on the purpose of use. In an embodiment, the end part is integral with the body part, and the coupling interface is a weakening in the material allowing removal (cutting) of the end part. The fastening member may then be cut to remove the end part from the body part, for example. The fastening means may comprise one or more strips of the material of the fastening member that can be cut easily, for example.

[0029] In an embodiment, the coupling interface is configured to enable reassemble of the end part. Hence, the coupling interface may be configured to enable assembling of the end part back to the body part. The coupling interface may comprise a first and a second locking features configured to be removably coupled together. The first locking feature may be a protrusion and the second locking feature may a groove/hole configured to receive the protrusion in a removably manner. Then the removed end part may be possible to couple with the body part again after removal.

[0030] In an embodiment, the fastening member further comprises at least one support member. Referring to Figure 2A, the fastening member 200 may comprise in the body part 202 the support member 210. The support member is configured to act as a spacer between the fastening member (body part) and the inner surface of the front plane of the mounting bar preventing a deformation of the mounting bar during the fastening of the fastener, for example. The support member may further comprise a hole configured to receive a fastener. As described above, the front plane of the mounting bar may comprise the hole for fastener. The hole in the front plane may be aligned with the hole of the support member when the fastening member is used with the one or two mounting bars.

[0031] In an embodiment, fastening member comprises two support members. When the fastening member is used to couple two mounting bars, the first support member is in the inner space of the first mounting bar, and the second support member is in the inner side of the second mounting bar. The first support member supports the first mounting bar, and the second support member supports the second mounting bar.

[0032] In an embodiment, the body part further comprises a first and a second side portions wherein at least one of the side portions comprises a groove configured to receive the mounting bar. Referring to Figure 2A, the body part 202 comprises the groove 212 in the first and/or the second side portions SP1, SP2. The groove is configured to receive the mounting bar when the mounting bar is fastened to the object by the fastening member as illustrated in Figure 3B.

[0033] According to still another aspect, there is provided a storage arrangement comprising at least one mounting bar and at least one fastening member. AS described above, the mounting bar may be coupled with the object with the fastening member. The fastening member is set into the inner space of the mounting bar, and the fastening member is fastener by one or more fasteners to the object. The fastener may be a standard screw, for example. The fastening member is shaped such that it does not prevent the use of the storage members in the openings of the mounting bar. In other words, all the openings in the mounting bar can be used by the storage members nevertheless the fastening member is assembled to the mounting bar.

[0034] Figures 3A and 3B illustrates an embodiment in which the fastening member 200 is coupled with one end of the mounting bar E1, E2. Then the body part of the fastening member 202 is inserted into the inner space of the mounting bar IS and the end part of the fastening member 206 is outside of the mounting bar 100 (not in the inner space). As described above, the mounting bar 100 has two ends E1, E2, and hence two fastening members 200 may be used to fasten the (one) mounting bar from both ends E1, E2 in the manner as described above. In other words, the storage arrangement may then comprise one mounting bar and two fastening members.

[0035] Figures 2B, 3C and 3D illustrate an embodiment in which one fastening member 200 is used to fasten two ends of two separate mounting bars 100A, 100B, and the fastening member 200 is also configured to couple the mounting bars 100A, 100B together. In this case, the end part of the fastening member 206 may be removed (if it is in the fastening member), and the first end portion of the fastening member EP1 is in the inner side of the first mounting bar IS1, and the second end portion EP2 is in the inner side of the second mounting bar IS2 as illustrate in Figure 2B. Then the storage arrangement may comprise two mounting bars 100A, 100B and totally three fastening members 200. A first fastening members 200 is configured to fasten adjacent ends of the mounting bars, a second mounting bar is configured to fasten one end of the first mounting bar, and a third mounting bar is configured to fasten one end of the second mounting bar. The term "one end" refers to (opposite) end of the mounting bars that are not coupled by the one fastening member.

[0036] Referring now to Figure 2B, in an embodiment, the body part of the fastening member 202 is configured to be pressed against the first and/or the second back plane 114, 116 in the inner side of the mounting bar IS when the mounting bar 100 is fastened with the fastening member 200. The fastener may be used to press the fastening member against the back planes of the mounting bar. Hence, the fastening member may be in contact with the mounting bar via back planes. The fastener fastens the fastening member to the object, and the fastening member, that is pressed against the back planes, holds the mounting bar.

[0037] Still referring to Figure 2B, in an embodiment,

the groove 212 in the first and/or the second side portions of the body part SP1, SP2 are configured to receive the first and/or the second back plane 114, 116 when the fastening member 200 is pressed against the first and/or the second back plane 114, 116. Hence, the back plane(s) may be in the groove when the fastening member is pressed against the mounting bar. This enables easier assembling of the fastening member with the mounting bar and make easier the positioning of the fastening member in relation to the mounting bar.

[0038] As described, the first hole of the hole pair may be in vicinity of a first side portion of the body part of the fastening member SP1, and the second hole may be in vicinity of the second side portion of the body part of the fastening member SP2. Then the fasteners coupled with the first holes press the first side portion of the fastening member against the first back plane of the mounting bar, and the fasteners coupled with the second holes press the second side portion of the fastening member against the second back plane of the mounting bar. This makes possible strong fastening of the mounting bar with the fastening member.

[0039] In an embodiment, illustrated in Figure 3A, the end part of the fastening member 206 is configured substantially to block the open end of the mounting bar E1, E2 which is configured enable insertion of the fastening member 200 (body part) into the inner space IS. As described above, the fastening member stay outside of the mounting bar when the fastening member is correctly assembled with the mounting bar through the open end, and the end part block the open end. The correctly assembled refers to situation in which the fastening member is coupled with the mounting bar in use.

[0040] Referring now to Figure 3A, in an embodiment, at least one hole 204 in the body of the fastening member 202 is in line with one opening of the front plane of the mounting bar 104 configured to enable assembly of the fastener into the least one hole of the body of the fastening member 204 through the opening of the front plane of the mounting bar 104. The holes are aligned with the openings when the fastening member is assembled with the mounting bar (one or two) correctly. Then the fastener can be assembled through the openings of the front plane of the mounting bar(s) into the hole of the fastening member. As discussed above, the mounting bar may comprise three pairs of the holes, for example. These holes are aligned with the pairs of the openings in the front plane such that the fastening member can be installed through the opening into the hole of the fastening member.

[0041] In an embodiment, the storage arrangement further comprises one or more storage members configured to be removably coupled with the holes of the front panel of the mounting bar. As described, the storage members may comprise hook(s) and box(es), for example.

[0042] The mounting bar, the fastening member of the mounting bar and combination of them provides many benefits. The mounting bar is shaped such that its size is compact, and its area is utilized effectively for storing. There are not any extra features for fastening and hence, the area of the mounting bar is utilized effectively from the storage point of view since all the openings of the front panel can be used with the storage member.

[0043] The fastening member provides a solution which can be used for fastening one end of the one mounting bar (with end part) or ends of the two separate mounting bars (without the end part). Then the same part can be used for fastening one mounting bar or coupling a plurality of the mounting bar together and to the object. And when the end part of the fastening member is used, the end part blocks the open end of the mounting bar.

[0044] It will be obvious to a person skilled in the art that, as technology advances, the inventive concept can be implemented in various ways. The invention and its embodiments are not limited to the example embodiments described above but may vary within the scope of the claims.

Claims

1. A mounting bar (100) comprising:

a front plane (102) having a plurality of adjacent pairs of openings (104) in a longitudinal direction of the mounting bar (100) configured to receive one or more storage members;
a first and a second side planes (106, 110) extending from opposite side edges of the front plane (108, 112) such that the first and the second side planes (106, 110) are unparallel to the front plane (102); and
a first back plane (114) extending from the first side plane (106) and a second back plane (116) extending from the second side plane (110), wherein the first and the second back planes (114, 116) extend towards each other and parallelly with the front plane (102) such that the first back plane (114) ends in a vicinity of a level of a connection of the front plane and the first side plane (L 1), and the second back (116) plane ends in a vicinity of a level of a connection of the front plane and the second side plane (L2), and wherein
the first and the second back plane (114, 116) form an inner space (IS) with the front plane (102), the first side plane (106) and the second side plane (110), wherein the inner space (IS) is configured to receive a fastening member.

2. The mounting bar (100) of claim 1, wherein ends of the mounting bar (E1, E2) are open such that the inner space (IS) is configured to receive the fastening member (118) through the open end (E1, E2).

3. The mounting bar (100) of any preceding claim,

wherein the mounting bar further comprises at least one fastening hole in the front plane for a fastener to fasten the mounting bar with the fastening member.

4. A fastening member of a mounting bar (200) comprising:

a body part (202) having at least one hole (204) configured to receive a fastener, and a first and a second end portions (EP1, EP2), wherein
the fastening member is configured to be insertable to an inner space of one or two mounting bars (IS) such that when the fastening member (200) is used for fastening one mounting bar (100A), at least the first end portion (EP1) is configured to be in the inner space of the mounting bar (IS1), and when the fastening member (200) is used for fastening two mounting bars (100A, 100B), the first end portion (EP1) is configured to be in the inner space of a first mounting bar (IS1) and the second end portion (EP2) is configured to be in an inner space of a second mounting bar (IS2), wherein
the body part (202) in the inner space (IS) is configured to press against the mounting bar (100A, 100B) when the fastening member (200) is fastened by the fastener through the at least one hole (204) to enable fastening of one or two mounting bars (100A, 100B), wherein
the fastening member (200) further comprises an end part (206) configured to block an open end of the mounting bar (E1, E2) when the fastening member (200) is used for fastening one mounting bar (100A), wherein the end part (206) is coupled with the body part (202) by a coupling interface (208) configured to enable removal of the end part (206) from the body part (202) when the fastening member (200) is used for fastening two mounting bars (100A, 100B).

5. The fastening member (200) of claim 4, wherein the coupling interface (208) is further configured to enable reassemble of the end part (206) with the body part (202).

6. The fastening member (200) of claims 4 - 5, wherein the fastening member (200) further comprises at least one support member (210).

7. The fastening member (200) of claims 4 - 6, wherein the body part (202) further comprises a first and a second side portions (SP1, SP2) wherein at least one of the side portions (SP1, SP2) comprises a groove (212) configured to receive the mounting bar (100).

8. A storage arrangement (300) comprising at least one mounting bar (100) and at least one fastening member (200).

9. The storage arrangement (300) of claim 8, wherein a body part of the fastening member (202) is configured to press against a first and/or a second back plane of the mounting bar (114, 116) in an inner space of the mounting bar (IS) when the mounting bar (100) is fastened with the fastening member (200).

10. The storage arrangement (300) of claim 9, wherein a groove (212) in a first and/or a second side portions of the body part of the fastening member (SP1, SP2) are configured to receive the first and/or the second back plane of the mounting bar (114, 116) when the fastening member (200) is pressed against the first and/or the second back plane of the mounting bar (114, 116).

11. The storage arrangement (300) of claims 8 -10, wherein an end part of the fastening member (206) is configured to block an open end of the mounting bar (E1, E2).

12. The storage arrangement (300) of claims 8 -11, wherein at least one hole (204) in the body part of the fastening member (202) is configured to be in line with at least one opening of a front plane of the mounting bar (104), when the fastening member (202) is used with mounting bar (100), to enable assembly of a fastener into the least one hole of the body part of the fastening member (204) through the opening of the front plane of the mounting bar (104).

13. The storage arrangement (300) of claims 8 - 12, wherein the storage arrangement (300) further comprises one or more storage members configured to be removably assembled with the openings of the front panel of the mounting bar (104).

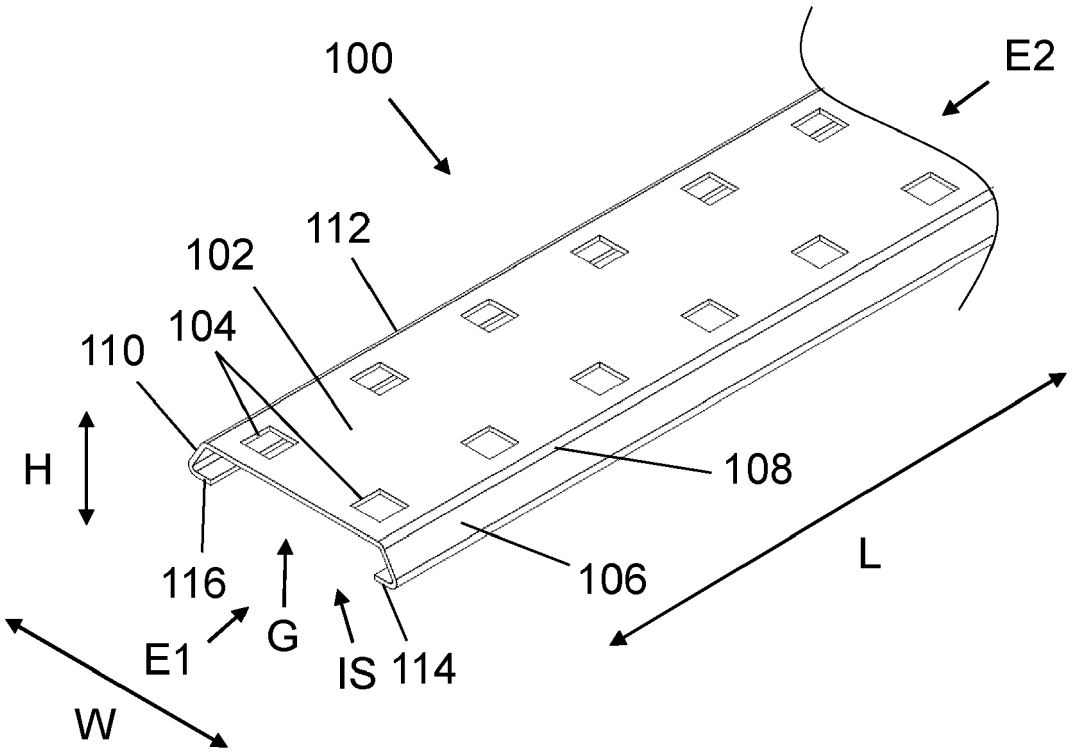
100
E2
112
102
104
110
H
108
L
116
106
E1
G
IS
114
W

FIG. 1A

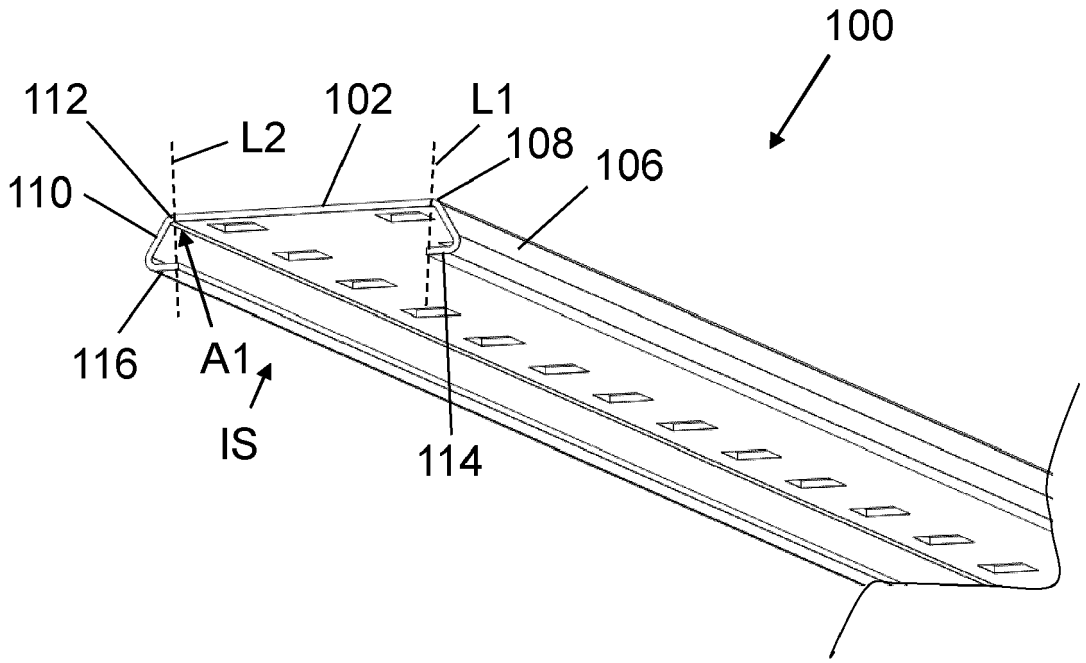
100
112
L2
102
L1
108
106
110
116
A1
IS
114

FIG. 1B

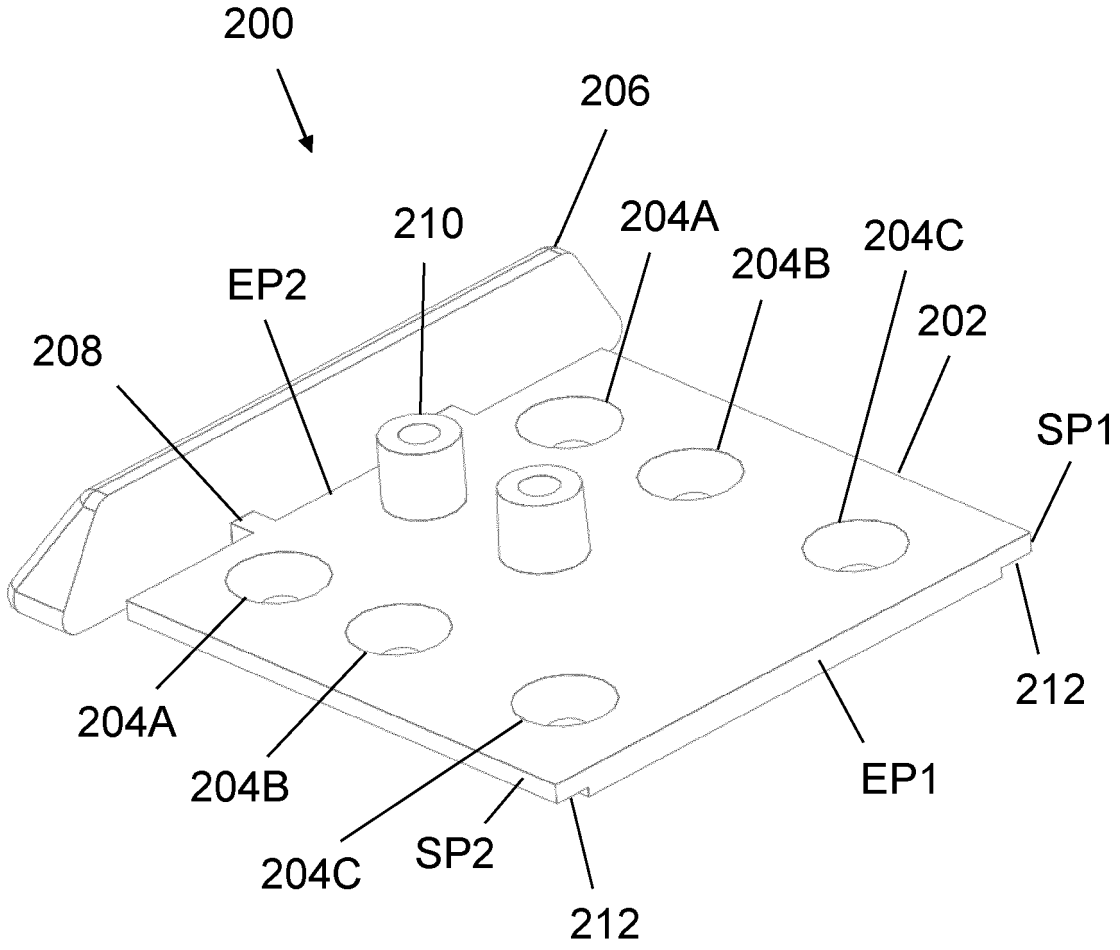
200
206
210
204A
204C
204B
EP2
202
208
SP1
204A
212
204B
EP1
204C
SP2
212

FIG. 2A

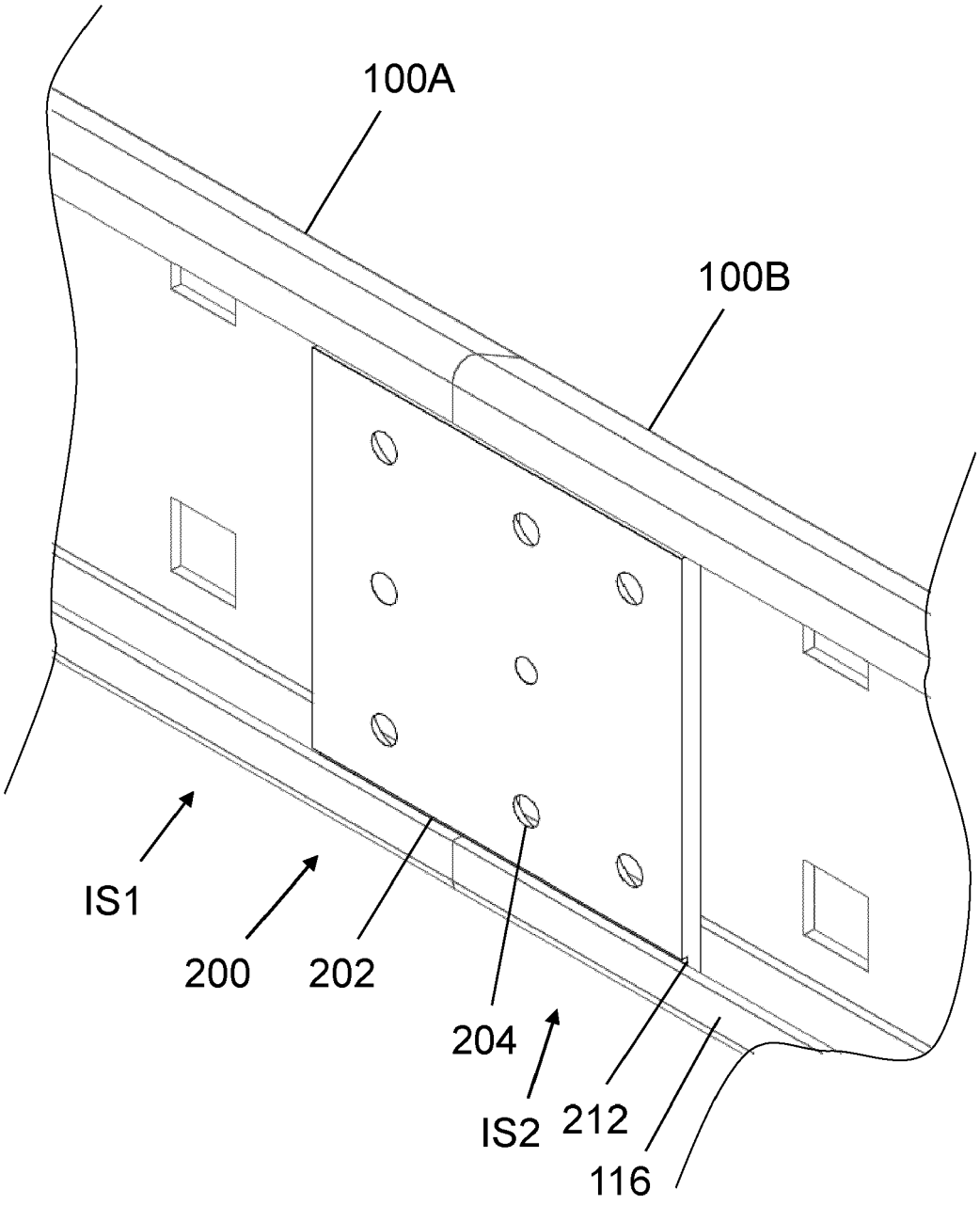

FIG. 2B

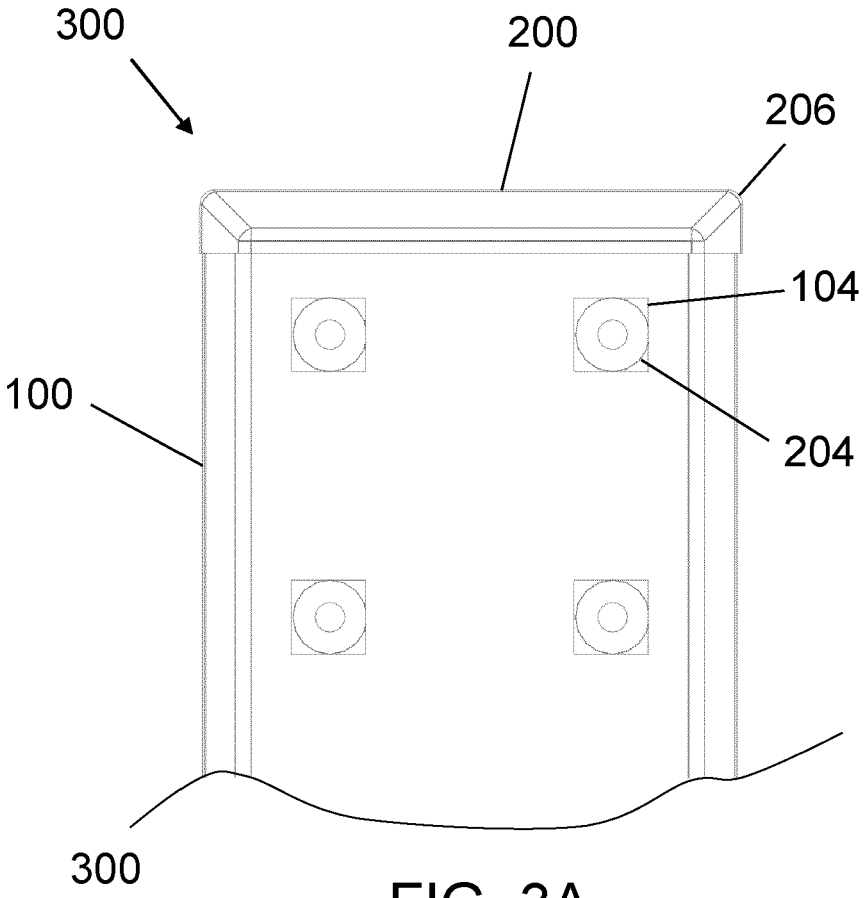

FIG. 3A

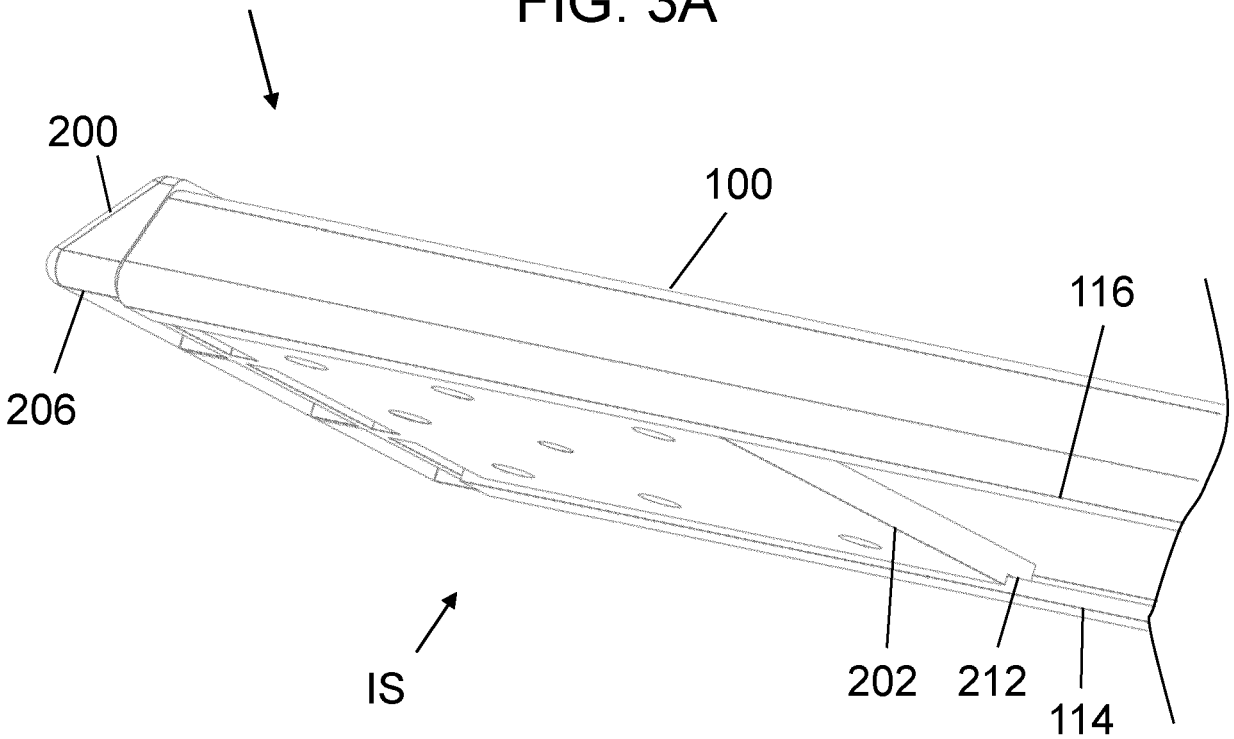

FIG. 3B

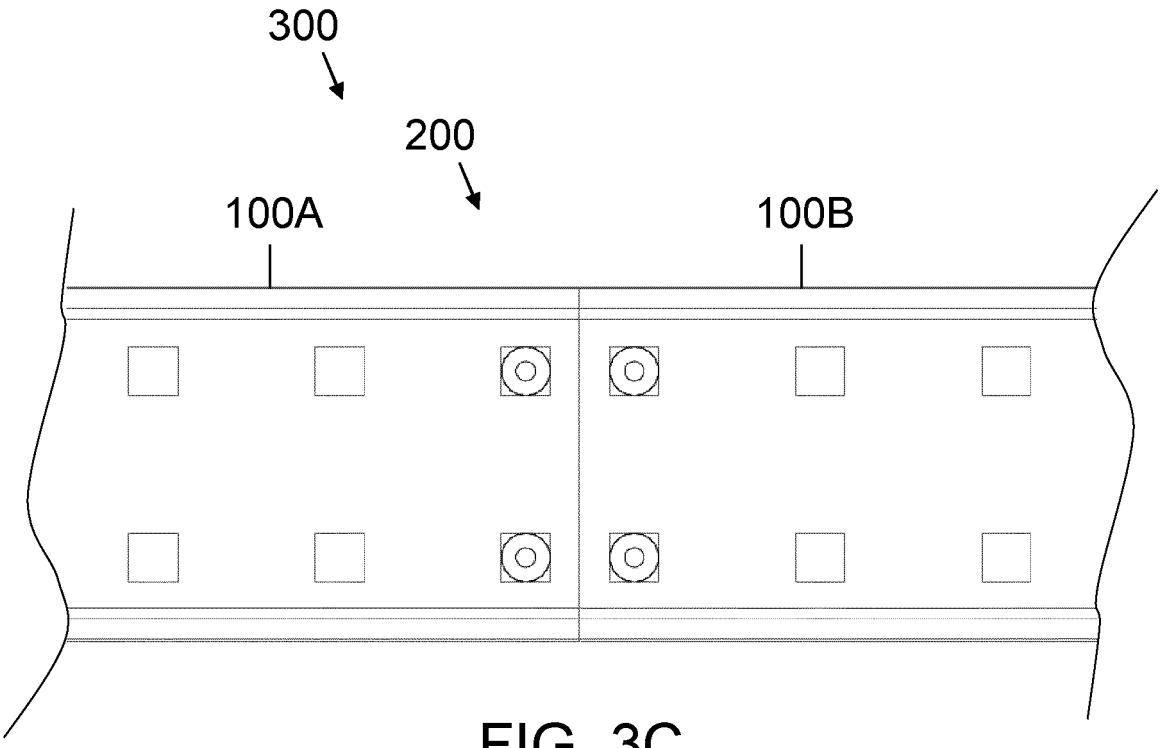

FIG. 3C

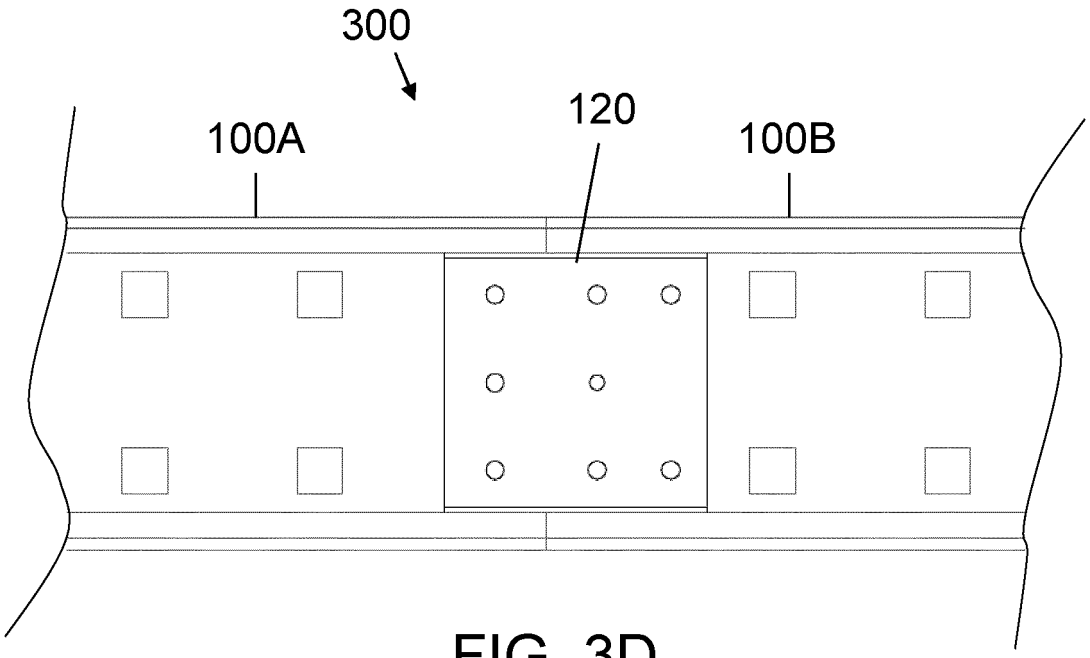

FIG. 3D

Europäisches Patentamt
European Patent Office
Office européen des brevets

PARTIAL EUROPEAN SEARCH REPORT

under Rule 62a and/or 63 of the European Patent Convention. This report shall be considered, for the purposes of subsequent proceedings, as the European search report

Application Number
EP 23 15 7671

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	CH 337 315 A (TUCHSCHMID AG GEB [CH]) 31 March 1959 (1959-03-31) * figures 1-11 *	1-3	INV. A47B96/14
X	US 2020/323340 A1 (NILSSON PETER [SE] ET AL) 15 October 2020 (2020-10-15) * figures 1-15 *	1-3	
X	ES 233 096 U (BERNAL AROCA) 1 March 1978 (1978-03-01) * figures 1-6 *	1-3	
X	US 5 348 385 A (BERG ISRAEL [IL]) 20 September 1994 (1994-09-20) * figures 2, 3 *	1-3	
X	GB 2 169 791 A (INTERIOR SYSTEMS) 23 July 1986 (1986-07-23) * figures 1-7 *	1-3	

TECHNICAL FIELDS SEARCHED (IPC)

A47B

INCOMPLETE SEARCH

The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC so that only a partial search (R.62a, 63) has been carried out.

Claims searched completely :

Claims searched incompletely :

Claims not searched :

Reason for the limitation of the search:

see sheet C

Place of search	Date of completion of the search	Examiner
The Hague	4 October 2023	Linden, Stefan

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

EPO FORM 1503 03.82 (P04E07)

Europäisches Patentamt
European Patent Office
Office européen des brevets

INCOMPLETE SEARCH
SHEET C

Application Number
EP 23 15 7671

Claim(s) completely searchable:
1-3

Claim(s) not searched:
4-13

Reason for the limitation of the search:

The present application comprises three independent claims (claims 1, 4 and 8 on file) in the same category (device). It is noted that claims 1, 4 and 8, defining a mounting bar, a fastening member and a storage assembly, do not meet the requirements of Rule 43(2) EPC as they do not fall under one of the exceptions mentioned under points (a)-(c) of Rule 43(2) EPC.
The applicant did not reply, within the time limit, to the invitation to indicate the claims on which the search is to be based (Rule 62a(1) EPC). Consequently, as reply has been submitted in due time, the search has been carried out on the basis of the first independent claim of each category (Rule 62a(1) EPC) and its dependent claims. In the present case the search has been carried out on the basis of claims 1-3.

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 23 15 7671

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

04-10-2023

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
CH 337315 A	31-03-1959	NONE	
US 2020323340 A1	15-10-2020	EP 3700391 A1	02-09-2020
		EP 3849381 A1	21-07-2021
		RU 2020116366 A	29-11-2021
		RU 2022100726 A	14-02-2022
		TW 202017456 A	01-05-2020
		TW 202029909 A	16-08-2020
		US D984257 S	25-04-2023
		US 2020323340 A1	15-10-2020
		US 2022047071 A1	17-02-2022
		US 2023276940 A1	07-09-2023
		WO 2019083632 A1	02-05-2019
		WO 2020055438 A1	19-03-2020
ES 233096 U	01-03-1978	NONE	
US 5348385 A	20-09-1994	NONE	
GB 2169791 A	23-07-1986	NONE	

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82