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(54) **Modular walling system**

(57) A system for the modular construction of partitions, the system comprising a plurality of modules, each module comprising a security panel and a frame, the security panel being attached to one or more surface of the

frame, the frame comprising at least one box shaped profile, each profile being adapted for connection to an adjacent profile of an adjacent module or to a structural building member.

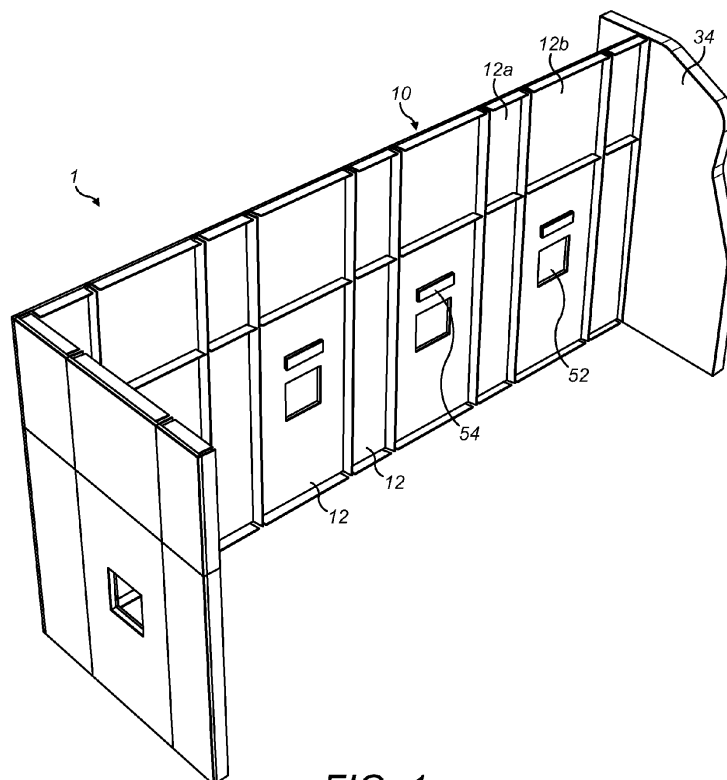


FIG. 1

Description

Field of the Invention

[0001] The present invention relates to a system for the modular construction of partitions and a module for use therein.

Background to the Invention

[0002] Modular partition walling is known. It enables partition walls to be constructed quickly and easily. However, it is an aim of the present invention to provide an improved system for erecting a partition wall.

[0003] Furthermore in some environments, such as banks, building societies and court houses, conventional partition walls are not strong enough to provide the required security. Partition walls may need to be fire-resistant, bullet-resistant, blast-resistant or attack-resistant or a combination thereof. It is therefore a further aim of the invention to provide a system for the modular construction of partition walls that has improved strength.

[0004] Accordingly it is an aim of the present invention to address at least one disadvantage associated with the prior art whether described herein or elsewhere.

Summary of the Invention

[0005] According to the present invention there is provided a system for the modular construction of walling and a module for use therein along with a method of installing a partition wall as set forth in the appended claims. Other features of the invention will be apparent from the dependent claims, and the description which follows.

[0006] According to an exemplary embodiment there is provided a method of installing a partition wall. The method comprises installing a plurality of modules, wherein each module is bounded by a frame. The frame may be formed from one or more profiles wherein the profiles are adapted to optionally secure a security element. Here, the security element is preferably arranged between the removable fastenings and the cladding panel facing an intruder side of the partition wall. The profiles are also adapted to allow a cladding panel to be installed on at least one face. The Profiles being further adapted to be interconnected to adjacent modules or a structure of a building via removable fixings. Advantageously, the method therefore includes removing the fastening connecting one module to adjacent modules or structure of the building and replacing the module with a module having a different configuration. The method may further comprise re-using the removed module in a second partition wall. Advantageously, there is therefore provided a adaptable and quick method of installing a partition wall.

[0007] Preferably, in a particularly exemplary embodiment, the cladding panels are hung on the frame of each module using hidden fixings. The hidden fixings may in-

clude cooperating male and female features. For instance, in the exemplary embodiments, self centre recesses and male protrusions are used. Here, the male protrusion includes a hooked portion such as a bulbous head that passes through an aperture of the recess at one location but does not pass through the aperture at another location. Preferably, the aperture of the self centre recesses narrows from the first location toward the second. Consequently the panels are centred. In the exemplary embodiments, the first location is above the second so that the weight of the cladding panel acts to urge the cladding panel towards the second location. Also, it is beneficial to reduce any bending moment on the fixings by providing a plurality of cooperating fixtures in the direction of movement from the first location to the second.

[0008] In one exemplary embodiment, each module includes a cladding panel on a front face and a back face. Suitably, the removable fixings are hidden behind the cladding panels. Here the fixings secure through sides of the frames. The method in this instance includes removing a cladding panel in order to access the removable fixings.

[0009] According to one aspect there is provided a system for the modular construction of partitions, the system comprising a plurality of modules, each module comprising a panel and at least one profile, each profile being attached to an edge of the panel and being adapted for connection to an adjacent profile of an adjacent module or to a structural building member.

[0010] Preferably the panel comprises a security layer. Preferably the security layer is a metal mesh. Alternatively the security layer may be a continuous layer. The security layer may comprise specialist steels, aluminium alloys and other non ferrous material, glass reinforced plastic, polycarbonate, carbon fibre or ballistic steel sheet material.

[0011] Preferably each said profile comprises a panel fixing portion and a module fixing portion, the panel fixing portion comprising a pair of projections extending along the length of the profile and clamping the security layer there between.

[0012] Preferably the panel further comprises one outer layer located on one side of the security layer. Each said profile may comprise a panel fixing portion and a module fixing portion, the panel fixing portion comprising a pair of projections extending along the length of the profile and clamping the outer layer and the security layer there between. Preferably the panel further comprises two outer layers, each outer layer being located on a respective side of the security layer. The outer layer may comprise plywood, MDF, Sterling board, recycled composite material or glass reinforced plastic.

[0013] Preferably each said profile comprises a panel fixing portion and a module fixing portion. The panel fixing portion may comprise two pairs of projections extending along the length of the profile, each pair of projections clamping a said outer layer there between. The security layer may be clamped in the space formed between the

two pairs of projections. Preferably the projections are provided with serrations to clamp the respective outer layer. Preferably the module fixing portion comprises a flat plate extending at 90 degrees to the plane of the panel. Preferably the plate has a plurality of holes, each hole being adapted to receive a fixing means. Preferably the plate has one or more slots, the or each slot being adapted to receiving trunking. According to a further aspect there is provided a module for use in a system as herein described, each module comprising a panel and at least one profile, each profile being attached to an edge of the panel and being adapted for connection to an adjacent profile of an adjacent module or to a structural building member.

[0014] According to one aspect there is provided a system for the modular construction of partitions, the system comprising a plurality of modules, each module comprising a security panel and a frame, the security panel being attached to one or more surface of the frame, the frame comprising at least one box shaped profile, each profile being adapted for connection to an adjacent profile of an adjacent module or to a structural building member.

[0015] Preferably the security panel is attached within the frame. Preferably the security panel comprises a security layer. The security layer may be a metal mesh. Alternatively the security layer may be a continuous layer. The security layer may comprise specialist steels, aluminium alloys and other non ferrous material, glass reinforced plastic, polycarbonate, carbon fibre or ballistic steel sheet material.

[0016] The module may be an anti-ballistic module or an anti-bandit module.

[0017] Preferably the at least one profile comprises a base and a cover. The cover may be a snap fit on the base.

[0018] The at least one profile may have an external recess for receiving the security panel. The security panel may comprise a connection means for securing the security panel in the frame. Preferably the security layer extends substantially parallel with the plane of the front of the module. The connection means may be a connection frame in which the security layer is secured.

[0019] Alternatively the security layer may be attached directly to at least one surface of the frame. The security layer may be attached to the frame by means of screws or straps.

[0020] The at least one profile may have internal ribs for receiving a profile security insert extending substantially parallel with the plane of the front of the module. The connection means may comprise a connection security insert extending substantially parallel with the plane of the front of the module. Preferably the connection security insert overlaps the security layer and the profile security insert.

[0021] Preferably the module further comprises a front cladding layer. The module may also comprise a rear cladding layer. The front and/or rear cladding layer(s) may be decorative. The front and/or rear cladding layer

(s) may comprise plywood, MDF, Sterling board, recycled composite material or glass reinforced plastic.

[0022] Preferably the at least one profile has a plurality of holes, each hole being adapted to receive a fixing means for mounting the front or rear cladding. The holes may be keyhole shaped for receiving a head of a fixing, such as a screw, pre-mounted on the cladding. Alternatively, the recesses may be arranged on the cladding and the fixings arranged on the profile.

[0023] The at least one profile may be provided with slots adapted to allow trunking to pass there through.

[0024] Preferably the bottom profile of each module may be adapted to receive at least one foot. Preferably each foot is adjustable. A transom may be provided on the bottom profile having screw holes, each screw hole being adapted to receive the treaded shaft of a said foot.

[0025] According to a further aspect there is provided a module for use in a system as herein described, each module comprising a security panel and a frame, the security panel being attached to one or more surfaces of the frame, the frame comprising at least one box shaped profile, each profile being adapted for connection to an adjacent profile of an adjacent module or to a structural building member.

[0026] The present invention includes any combination of the herein referred to features or limitations.

Brief Description of the Drawings

[0027] For a better understanding of the invention, and to show how embodiments of the same may be carried into effect, reference will now be made, by way of example, to the accompanying diagrammatic drawings in which:

Figure 1 shows a partition wall comprising modules according to a first embodiment;

Figure 2 shows a front view of a module according to the first embodiment;

Figure 3 shows an exploded view of a corner of a module according to the first embodiment;

Figure 4 shows a cross-section through the line AT of Figure 2 according to the first embodiment;

Figure 5 shows two modules according to the first embodiment fixed in position on a wall;

Figure 6 shows an enlarged view of area AK of Figure 5;

Figure 7 shows an enlarged view of area AL of Figure 5;

Figure 8 shows an enlarged view of area AM of Figure 5;

Figure 9 shows the arrangement of Figure 5 with two additional modules attached to the first two modules;

Figure 10 shows an enlarged view of area AN of Figure 9;

Figure 11 shows an enlarged view of area AP of Figure 9;

Figure 12 shows the partition wall of Figure 1 with trunking installed;

Figure 13 shows a partition of the partition wall of Figure 1 with a number of cladding panels attached;

Figure 14 shows the partition wall of Figure 1 with cladding panels attached;

Figure 15 shows a cross-section through a module according to a second embodiment;

Figure 16 shows an enlarged view of a partition of area AQ of Figure 15;

Figure 17 is a partial perspective view of two modules to be attached to each other according to a third embodiment;

Figure 18 is a partial cross-sectional view of the modules of Figure 17 when attached to each other;

Figure 19 is a partial cross-section through a profile of a module of Figure 17;

Figure 20 is a partial perspective view of the frame of a module of Figure 17;

Figure 21 is a partial perspective view of the two modules of Figure 17 attached to each other by a corner profile;

Figure 22 is a partial perspective view of a module according to a fourth embodiment.

Figure 23 is a partial perspective view of a module according to a fifth embodiment.

Figure 24 is a partial cross-sectional view of two modules according to a sixth embodiment;

Figure 25 is a partial cross-sectional view of two modules according to a seventh embodiment; and

Figure 26 is partial cross-section through a profile of a module of Figures 24 and 25.

Description of the Preferred Embodiments

[0028] Referring to Figure 1, a modular walling system 1 is provided. The modular walling system forms a partition wall 10 from two or more modules 12. According to an exemplary embodiment, there is provided a method of using the modular walling system to install a partition wall 10. The method comprises installing a first module 12a and then installing a second module 12b by connecting the first and second modules using releasable or detachable fixings such as bolts. Advantageously, the formed partition wall is therefore provided with interchangeable and reusable modules. The adaptability of the partition wall is therefore improved. For instance, in a particular exemplary application, the modular walling system is adapted to provide a partition wall within a bank or other financial institution such as a building society, post office or even other point of sale applications. To exemplify the adaptability, one example is used.. The partition 10 may be formed with a number of cut out partitions 52 for mounting, for example, cash machines to be accessible therethrough. Should the need arise to change a location of a cash machine or to replace a cash machine with a manned till, for instance, the method comprises removing module 12a and replacing it with a new module having an alternative configuration. Because the modules are detachably connected at their periphery, the module can be swapped without affecting the adjacent modules 12. Advantageously, this allows a partition wall to be installed in a matter of hours rather than a matter of days.

[0029] In order to be interchanged, the adjacent modules are only connected at the detachable fixings. Consequently, one or both faces of the partition 10 are formed from a plurality of separate faces. That is, the partition face is not plastered as with traditional partitions. Rather, each module 12 includes a cladding panel 18 that combine to form the face of the partition 10. The modules may be clad on one or both sides.

[0030] It is preferable for the detachable fixings to be contained within the partition. If only clad on one side, the fixing can easily remain visible. However, when clad on both sides, although the fixings may secure protrusions that extend outward from the cladding panel, it is preferable for the removable fixings to be behind the cladding panel so as to avoid a snagging point. Consequently, it is preferable if at least one side of the module includes a removable cladding panel. Here, the method comprises removing the cladding panel from a module to access the removable fixings, removing the fixings to interchange the module, replacing the fixings and re-installing the removable cladding panel or replacement cladding panel.

[0031] The modular walling system will now be described in more detail with reference to exemplary partitions 10 and modules 12.

[0032] Figure 1 shows an exemplary partition 10 constructed using a modular walling system. The partition

10 may be fire-resistant, bullet-resistant, blast-resistant, attack-resistant or a combination thereof. The partition 10 comprises a plurality of modules 12 which are connected together as will be described below.

[0033] Figures 2 and 3 show details of modules adapted to provide ballistic protection. Each module 12 comprises a frame 14, a security panel 16, a front cladding panel 18 and a rear cladding panel 20. Each frame 14 comprises four profiles 22a-d.

[0034] Each module 12 comprises a panel 14 and four profiles 20a-d. Each panel 14 comprises an inner layer 16 and two outer layers 18a and 18b. The inner layer 16 is a security layer in the form of a security mesh. However, the security layer 16 is not limited to security meshes and may be a solid sheet of material. The security layer 16 may comprise any suitable material capable of providing the required security protection, such as specialist steels, aluminium alloys and other non ferrous material, glass reinforced plastic, polycarbonate, carbon fibre and ballistic steel sheet material. The outer layers 18a and 18b are preferably attack rated and comprise a material such as plywood, MDF, Stirling board, recycled composite material and glass reinforced plastic. The choice of material for both the inner layer 16 and the outer layers 18a and 18b will depend on whether, for example, the partition is required to be fire-resistant, bullet-resistant, blast-resistant, attack-resistant or a combination thereof.

[0035] Each profile 20a-d extends along a respective edge of the panel as shown in Figure 2. Each profile 20a-d has a panel fixing partition 22 and a module fixing partition 24 as shown in Figure 3. The panel fixing partition 22 comprises two pairs of serrated projections 26a and 26b, 28a and 28b running along the length of the respective profile 20a-d. Each pair of serrated projections 26a and 26b, 28a and 28b is adapted to receive an outer layer 18a or 18b of the module 12 respectively. The serrations are shaped to enable easy insertion of the outer layer 18a and 18b, and also to hold the outer panels 18a and 18b securely in place by biting into the outer panel when the outer layer 18a or 18b is pulled in a direction away from the respective profile 20a-d. The security layer 16 is accommodated in the space between the two pairs of serrated projections 26, 28.

[0036] The module fixing partition 24 is shown in Figure 4 and comprises a flat plate extending at 90 degrees to the plane of the panel 14. The plate has a plurality of holes 30, each hole for receiving a fixing means (described later). The plate of profiles 20a and 20b also has slots 32, each slot 32 for receiving trunking for electrical cables, optical cables and the like.

[0037] Although the plate of the module fixing partition 24 is shown with holes 30 for receiving fixing means, it may be provided with any suitable means to enable the respective profile 20a-d to be attached to an adjacent module 12 or a structural building member such as a wall, a floor, a ceiling or the like. Alternatively the plate may be fixed to the adjacent module 12, without the need for any such attachment means. Also, it is not always re-

quired to provide slots 32 for receiving trunking. Thus, it may be desirable for the plate to be left blank.

[0038] Figure 5 shows the first two modules 12 of a partition fixed in position on a wall 34. As can be seen in detail in Figures 6-8, the respective profiles 20b are attached to the wall 34 by fixing means in the form of bolts 36 inserted through the holes 30. Likewise, the profile 20c of the upper module is attached to the ceiling (not shown) by means of bolts 36 inserted through the holes 30, and the profile 20d of the lower module is attached to the floor (not shown) by means of bolts 36 inserted through the holes 30. The two modules 12 are held together by fixing means in the form of bolts 38 inserted through each of the adjacent holes 30 in the profile 20d of the upper module 12 and the profile 20c of the lower module 12, each bolt 38 being fastened by means of a nut 40 and washer 41 (not shown).

[0039] Figure 9 shows the next two modules of the partition fixed in position to the first two modules. As can be seen in detail in Figures 10 and 11, the upper two modules 12 and lower two modules 12 are respectively held together by means of bolts 38 inserted through each of the adjacent holes 30 in the profile 20b of the left hand module and the profile 20a of the right hand module 12, each bolt 38 being fastened by means of a nut 40 and washer 41. The upper and lower modules 12 are held together by means of bolts 38 inserted through each of the adjacent holes 30 in the profile 20d of the upper module 12 and the profile 20c of the lower module 12, each bolt 38 being fastened by means of nut 40. The profile 20c of the upper module is attached to the ceiling (not shown) by means of bolts 36 inserted through the holes 30, and the profile 20d of the lower module is attached to the floor (not shown) by means of bolts 36 inserted through the holes 30.

[0040] The remaining modules of the partition are fixed in place to the ceiling, floor in a corresponding manner. Corners and junctions may be provided with appropriately shaped box sections or angle connectors to which the modules are attached.

[0041] Figure 12 shows the partition of Figure 1 with trunking 50 installed horizontally through the slots 32. Figures 1 and 12 also show that some of the lower modules 12 are provided with cut-out partitions 52 in the panels 14 to accommodate equipment, such as a cash machine. Some of the lower modules 12 have also been provided with power and data modules

[0042] Figure 13 shows a number of cladding panels 56 having been applied to the front of respective modules 12, i.e adjacent the outer layer 18a of the panel 14 of the module 12. Each cladding panel 56 is attached to its respective module by suitable fastening means from the rear. The fastening means could be attack rated. The fastening means may be angle or rear fixings, for example, screws through the security layer 16, Z channels etc. The cladding panels 56 are applied to the whole of the partition 10 as shown in Figure 14, to give it a more attractive appearance. The surface of the cladding panels

56 is prefinished to suit customer requirements. Some of the cladding panels 56 are provided with a cut-out partition 58 to match the cut-out partition 52 in the adjacent module 12. Importantly, the cladding panels do not require plastering or other finishes being applied.

[0043] Figures 15 and 16 show the construction of a module 12' according to a second exemplary embodiment. It is the same as the module 12 of the first embodiment, except as will now be described. All features that are the same as in the first embodiment will be referred to using the suffix ''.

[0044] Panel 14' comprises a security panel 16' and one outer panel 18a'. The panel fixing partition 22' comprises a pair of projections 60a and 60b running along the length of the respective profile 20a'-d'. The pair of projections 60a and 60b is adapted to receive the security layer 16' and the outer layer 18a' of the module 12.

[0045] The panel may also simply comprise a security layer, i.e. no outer panels. In this case the panel fixing partition may comprise a pair of projections running along the length of the respective profile which are adapted to receive the security layer.

[0046] The modules of the present invention may be provided in any size or shape. Although the modules described above are all rectangular, they may also be, for example, square or triangular. A range of modules of different sizes and shapes may be used in any one partition according to the requirements of the location.

[0047] Furthermore, the panel fixing partition may comprise any suitable panel fixing means and the module fixing partition may comprise any suitable module fixing means.

[0048] Referring to Figures 17 to 26, a particularly exemplary embodiment is shown. Here, the modular walling system 101 is formed from a plurality of modules 112. Each module is formed from a frame 114 that bounds each module to form a periphery. In the exemplary embodiments described herein, square or rectangular modules are described having four profiles 122a-122d along each side. However, other shaped modules are envisaged having more or fewer profiles 122 required to form the module periphery. Each module may include a security panel 116 as herein described, though this is not essential. The security panel 116 is sealed to an inner edge of the frame 114. One or both sides are then clad with cladding panels. A front cladding panel 118 and rear cladding panel 120 for instance. Advantageously, the method comprises assembling the pre-installed frames by interconnecting adjacent frames with releasable fasteners such as bolts 162, 164. Thus the method entails removing the fasteners of one module 112 to replace or swap or reconfigure the partition wall 101. Importantly, it is not necessary to finish a front or rear face of the partition with plaster or the like. In the previous embodiments, cladding panels were applied to a front side only. However, it is often desirable to apply a finish to both side. Consequently, a hidden fastening technique is required. As will be described herein, suitably the hidden fastening technique

comprises female features that co-operate with male features, for instance holes 166 that cooperate with fastening on the back of the cladding panels to hang the cladding panels to the frame.

[0049] Figure 17 shows a cross-section through profile 122a, which is identical to the cross section through profile 122b. The cross-sections through profiles 122c and 212d are slightly different as the width W is larger than for profiles 122a and 122b. The profiles 122a-d comprise a base 124 and a cover 126. The base 124 and the cover 126 together form a box profile. The base 124 is connected to the cover 126 by means of a snap fit connection. The snap fit connection is provided by resilient latches 128 and 30 on the cover 126 engaging with locking projections 132 and 134 on the base 124. The profiles 22a-d may be made of aluminium.

[0050] The base 124 and the cover 126 are each provided with a number of ribs 136. The ribs 36 enhance the stiffness of the longer walls of the profile 122a, and also provide slots 38 each for receiving a security insert 140 as illustrated in Figure 18. The security insert 40 preferably extends along the full length of the profile 122a.

[0051] The base 124 and the cover 126 are each provided with a number of screw receptacles 141 and a number of screw holes 142. As shown in Figure 20, screws 143 are inserted through the screw holes 142 of the profile 122b and into the screw receptacles of profile 122c to hold the two profiles together.

[0052] The base 124 and the cover 126 are each provided with a panel connection recess 144 for receiving a side of a connection frame 146 as will be described below.

[0053] The security panel 16 comprises a security sheet 148 and the connection frame 146. The security sheet 48 provides the main ballistic security for the module 112. The security sheet 148 may comprise any suitable material capable of providing the required ballistic security protection, such as ballistic steel sheet material. The connection frame 146 comprises means 150 for holding the edges of the security layer 148, means 152 for attaching the connection frame 146 to the profile 122a-d and means 154 for receiving a security insert 156. Together security layer 148 and security inserts 140 and 156 provide the required security over the entire area of the module 112.

[0054] Modules 112 may be attached to each other or to a structural building member such as a wall, a floor, a ceiling or the like. Alternatively a single profile 122a-d of a module 112 may be bolted directly to a structural member, such as a wall 157, ceiling or floor. Corners and junctions may be provided with appropriately shaped box sections, as shown in Figure 21, or angle connectors to which the modules are attached.

[0055] The front cladding panel 118 and the rear cladding panel 120 may both be decorative. The front cladding panel 118 and the rear cladding panel 120 may be attack rated and comprise a material such as plywood, MDF, Stirling board, recycled composite material and

glass reinforced plastic. The choice of material for both the front cladding panel 118 and a rear cladding panel 120 will depend on whether, for example, the partition is required to be fire-resistant, bullet-resistant, blast-resistant, attack-resistant or a combination thereof. The rear cladding panel 120 is optional.

[0056] Figure 22 shows how a cladding panel 18 is applied to the front of a module 112. The cladding panel 18 is attached to the module 112 by suitable fastening means. The fastening means are preferably attack rated. The fastening means may be screws 167 pre-mounted on the cladding and extending through keyhole shaped holes 166 to lock behind the narrow partition of the holes 166.

[0057] The embodiment of Figure 22 also shows how a cross profile 122e may be attached to a frame to give additional strength and rigidity to the frame and support to the cladding.

[0058] The cladding panels 118 are applied to the whole of the partition 110 as shown in Figure 1, to give it a more attractive appearance. The surface of the cladding panels 118 is prefinished to suit customer requirements.

[0059] Figure 23 shows an arrangement in which the lower modules in a partition are provided with adjustable feet 70. A transom (not shown) may be provided on the profile 122d having screw holes, each screw hole being adapted to receive a threaded shaft 172 of a said foot 170. A plate 174 having recesses 176 may be attached to the floor to locate the feet 170.

[0060] Figures 24 and 25 show details of modules 212 adapted to provide anti-bandit protection. They are the same as the module 112 of the previous embodiment, except for the internal details of the profiles and the location of the security panel as will now be described. All features that are the same as in the first embodiment will be referred to using the prefix "2".

[0061] Each module 212 comprises a frame 214, a security panel 216, a front cladding panel 118 and a rear cladding panel 220. Each frame 214 comprises four profiles 222a-d.

[0062] Figure 26 shows a cross-section through profile 222a. Profile 222a comprises a base 224 and a cover 226. The base 224 and the cover 226 do not have the ribs or the panel connection recess of the ballistic module of the first embodiment. The base 224 is provided with an additional screw receptacle 241. The security panel 216 is a security sheet, for example in the form of a mesh or a continuous sheet of material, attached directly to the profile 222a by means of screw or straps. The security layer 216 may comprise any suitable material capable of providing the required security protection, such as specialist steels, aluminium alloys and other non ferrous material, glass reinforced plastic, polycarbonate, carbon fibre and ballistic steel sheet material.

[0063] Figure 25 shows the modules 212 having non-glazed cladding panels 218, whilst

[0064] Figure 26 shows the modules having glazed

cladding panels 218'.

[0065] The profiles may be provided with slots (not shown) to enable trunking for electrical cables, optical cables and the like to extend across with width W. Figure 1 also shows that some of the lower modules 12 are provided with cut-out partitions 52 to accommodate equipment, such as a cash machine. Some of the lower modules 12 have also been provided with power and data modules 54.

[0066] The exemplary modules herein described may be provided in any size or shape. Although the modules described above are all rectangular, they may also be, for example, square or triangular. A range of modules of different sizes and shapes may be used in any one partition according to the requirements of the location.

[0067] The use of box section profiles provide strengths and rigidity to the frame of the modules and support to the cladding. The use of the profiles in combination with the security panels results in partition walling having improved anti-bandit and/or anti-ballistic properties.

[0068] Although preferred embodiment(s) of the present invention have been shown and described, it will be appreciated by those skilled in the art that changes may be made without departing from the scope of the invention as defined in the claims.

Claims

1. A method of using a system for the modular construction of a partition wall, the method comprising:
 - a) arranging a first of a plurality of modules adjacent to the structure of a building or adjacent module;
 - b) securing the first module to the adjacent structure or module using removable fixings;
 - c) repeating steps a) and b) for a second and each remaining module of the plurality of modules;
 - d) hanging a cladding panel to one face of each module so as to provide a finished wall.
2. The method of claim 1, wherein the method comprises removing one of the plurality of modules by removing the removable fixings securing said module, and replacing said module with a replacement module having a different configuration including replacing the removable fixing to secure the replacement module in place.
3. The method of claim 2, wherein the method includes reusing the removed module in a second partition wall.
4. The method of any preceding claim, wherein the method comprises hanging a cladding panel on both

sides of each module.

5. The method of claim 4, wherein the step of removing a module comprises removing a cladding panel from at least one side in order to access the removable fixings. 5
6. The method of any preceding claim, wherein the step of arranging each module adjacent to a structure or adjacent module includes the step of adjusting the height of said module by adjusting at least one foot. 10
7. The method of any preceding claim, wherein the step of hanging a cladding panel comprises engaging a male feature with a female feature and moving the cladding panel in a first direction in order to cause the male feature and female feature to move relative to each other and from a first position in which the male and female features are not engaged to a second position where the male and female features are arranged to secure the cladding panel to the module. 15
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8. The method of any preceding claim, wherein the method comprises removing a cladding panel and replacing it with a replacement cladding panel having a different configuration. 25
9. The method of claim 8, wherein the method comprises reusing the removed cladding panel in a second partition wall. 30
10. A system for the modular construction of a partition wall, the system comprising a plurality of modules, each module being bounded about an edge by a frame, wherein the frame is adapted to hang at least one cladding panel on a front or back of the module and the frame being adapted to be secured to an adjacent module or structure of a building via removable fixings. 35
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11. The system of claim 10, wherein the frame of each module is adapted to receive a security layer.
12. The system of claim 10 or claim 11, wherein the frame includes one of a male or female feature and the cladding panel includes the other of the male or female member, wherein the male and female features are adapted such that moving the cladding panel in a first direction to causes the male feature and female feature to move relative to each other and from a first position in which the male and female features are not engaged to a second position where the male and female features are arranged to secure the cladding panel to the module. 45
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13. The system of claims 10 to 12, wherein the female feature includes a self centre feature.
14. The system of claims 10 to 13, wherein each module includes adjustable feet.
15. A module for use in the system of claims 10 to 14, the module being bounded about an edge by a frame, wherein the frame is adapted to hang at least one cladding panel on a front or back of the module and the frame being adapted to be secured to an adjacent module or structure of a building via removable fixings.

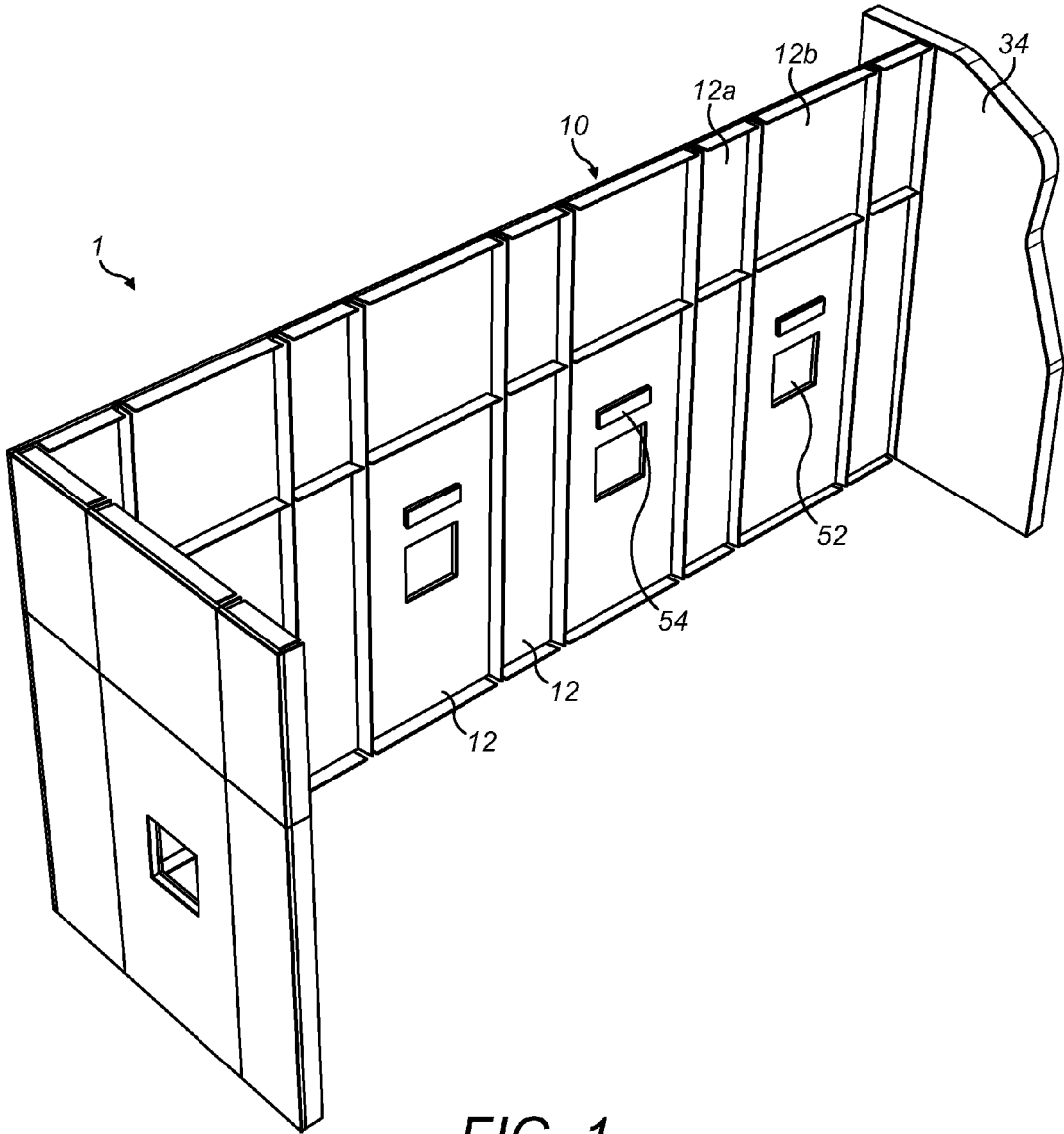


FIG. 1

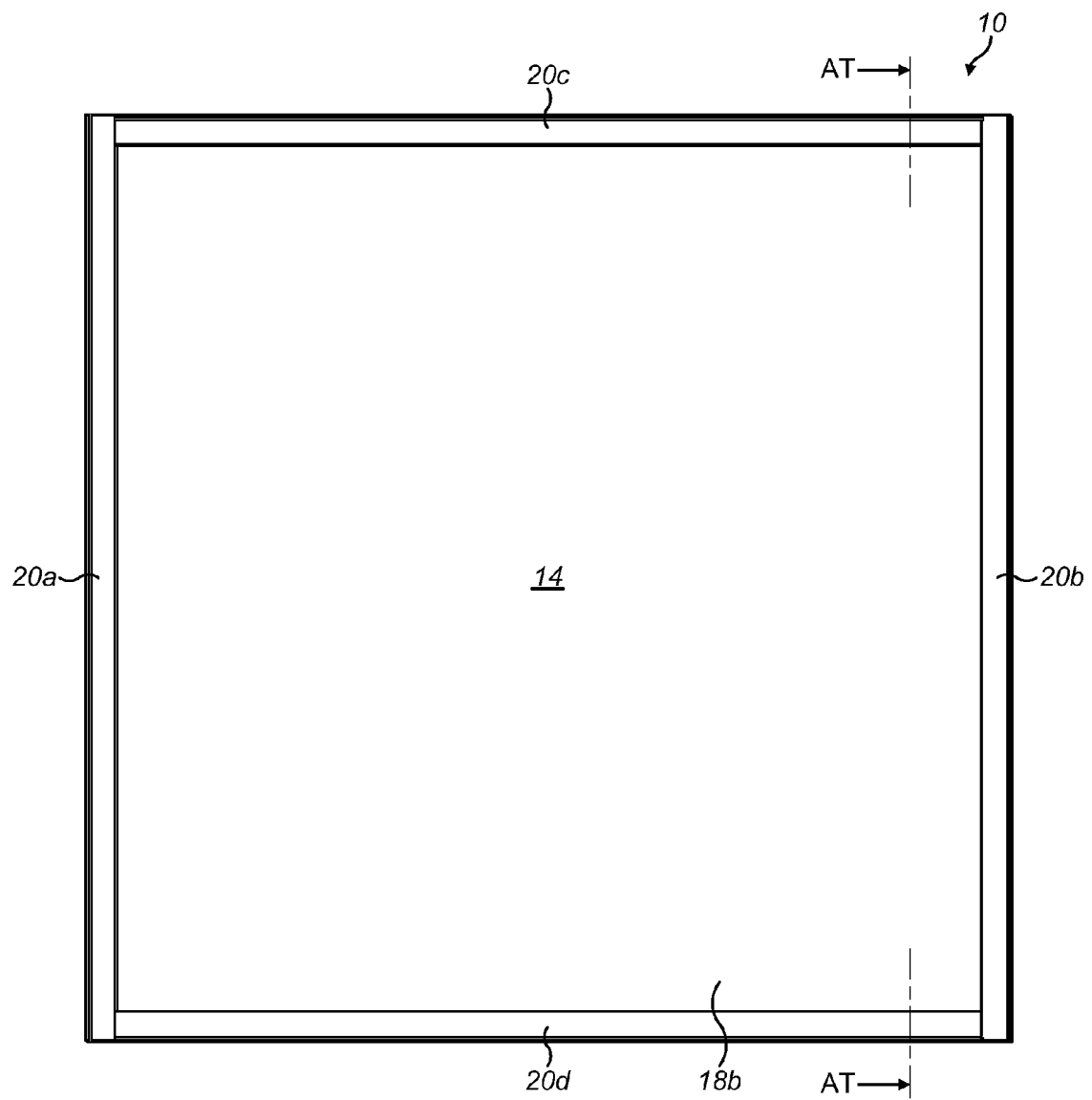


FIG. 2

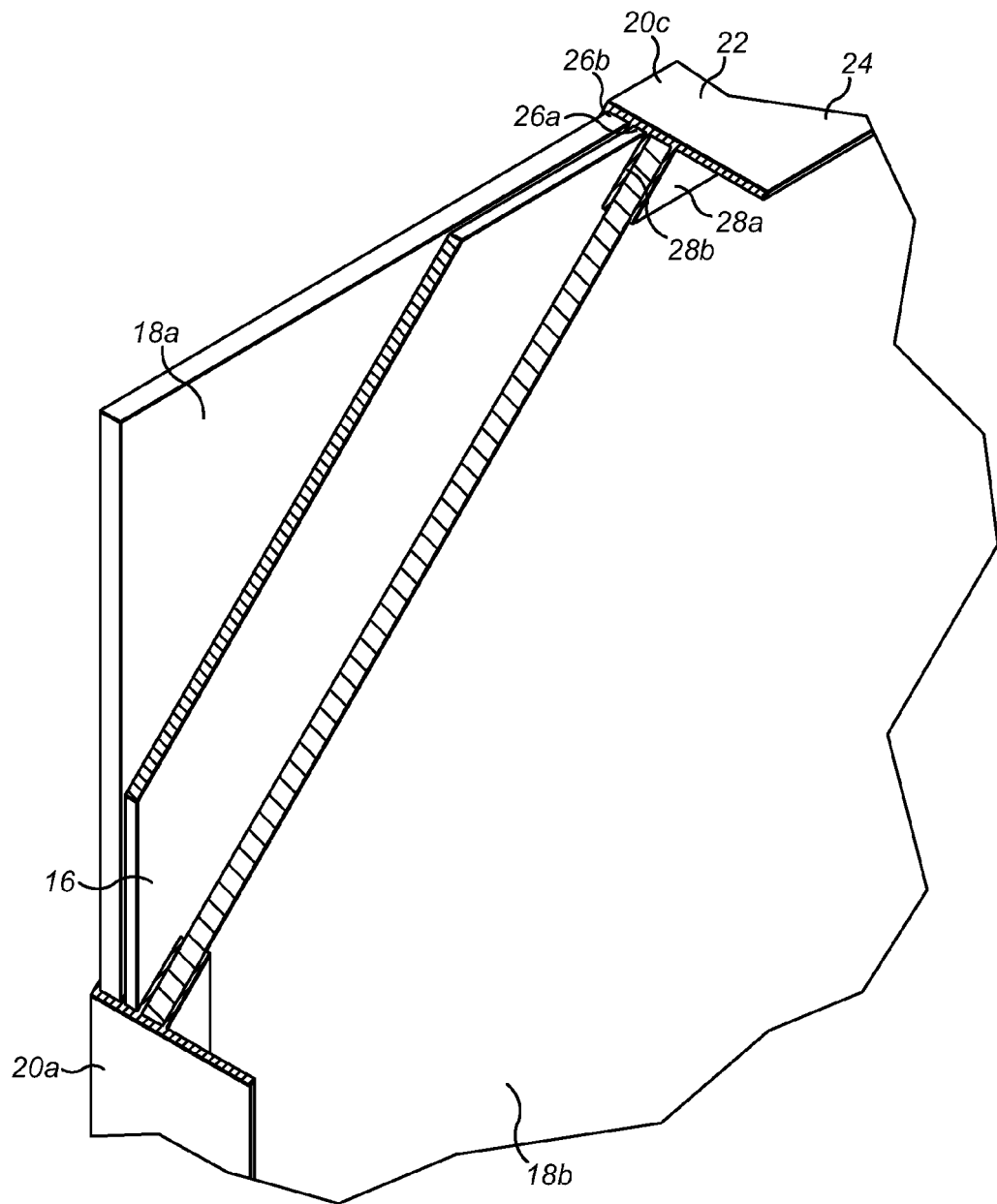


FIG. 3

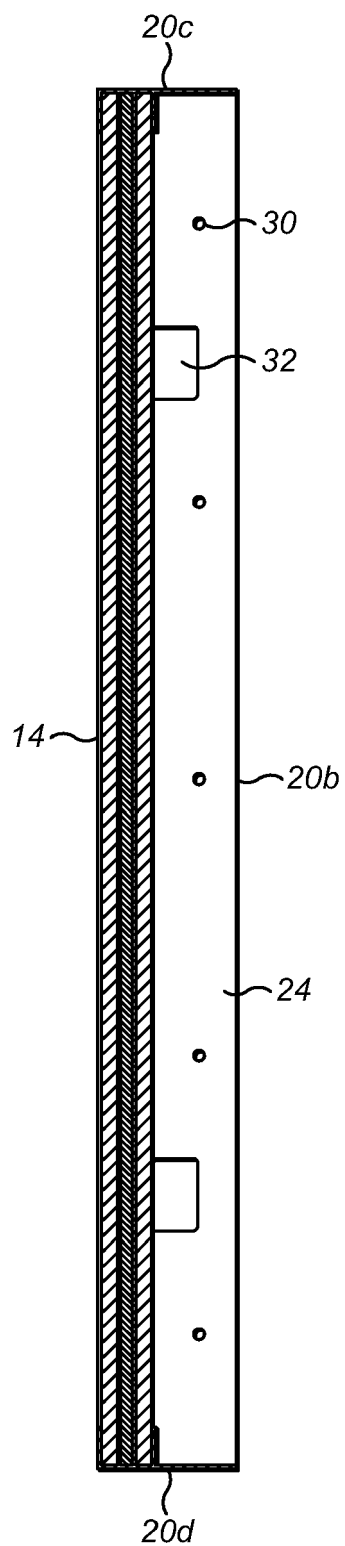


FIG. 4

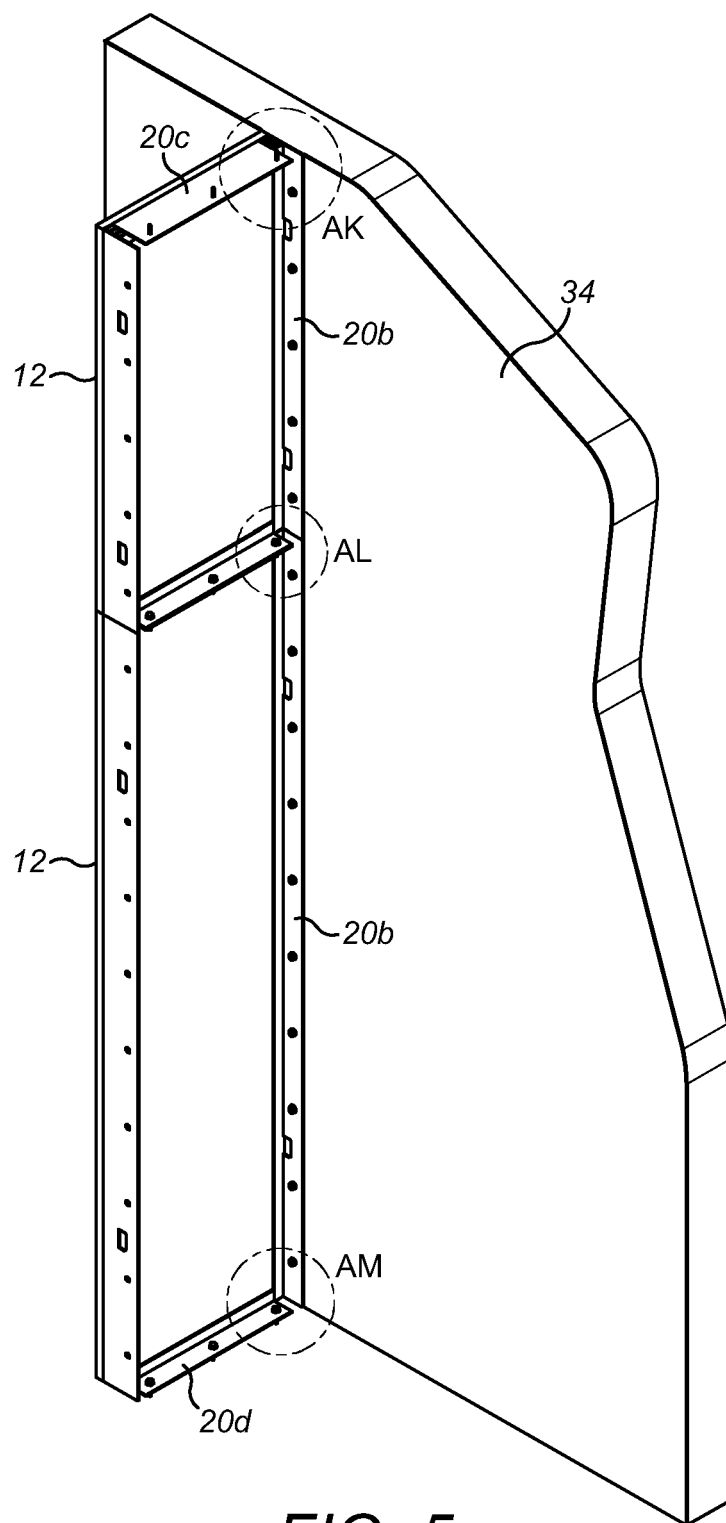


FIG. 5

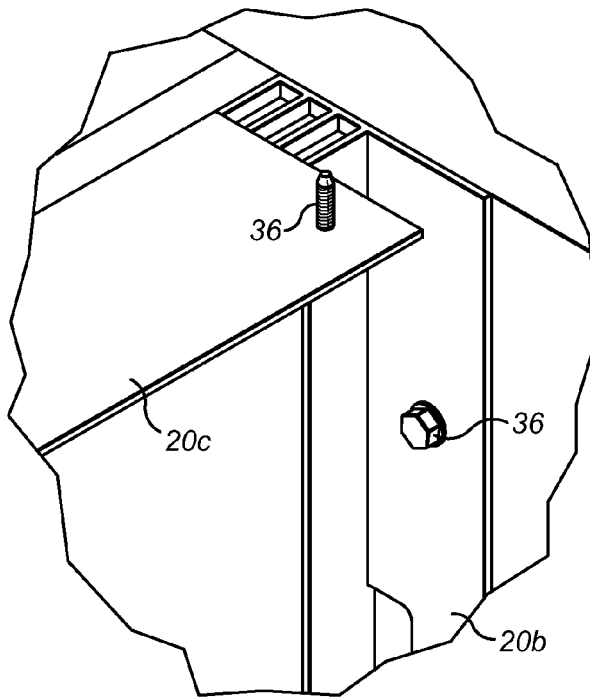


FIG. 6

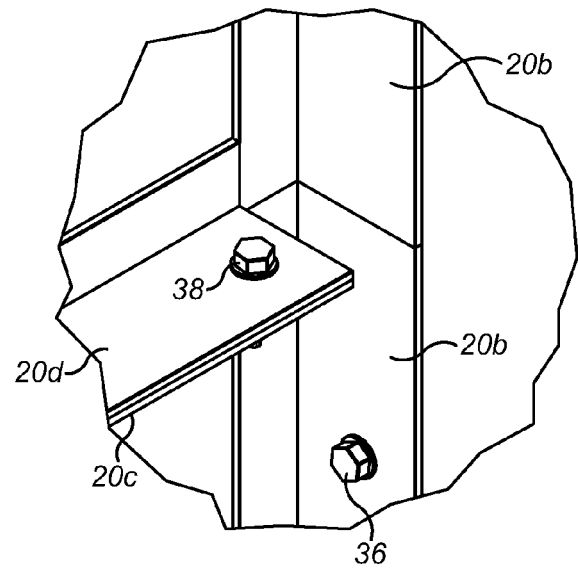


FIG. 7

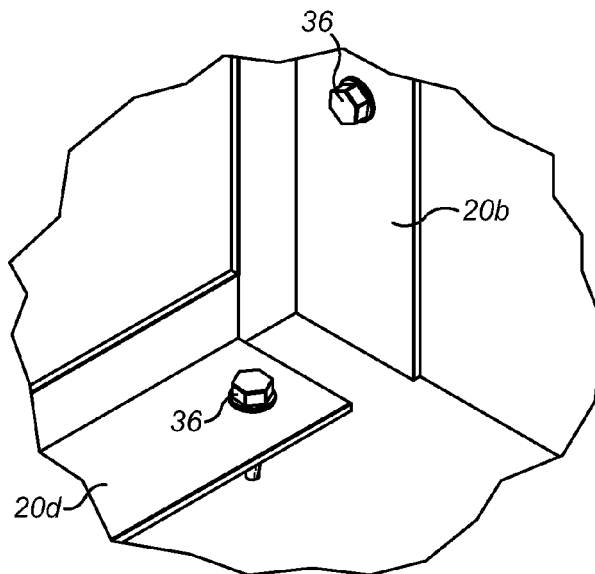


FIG. 8

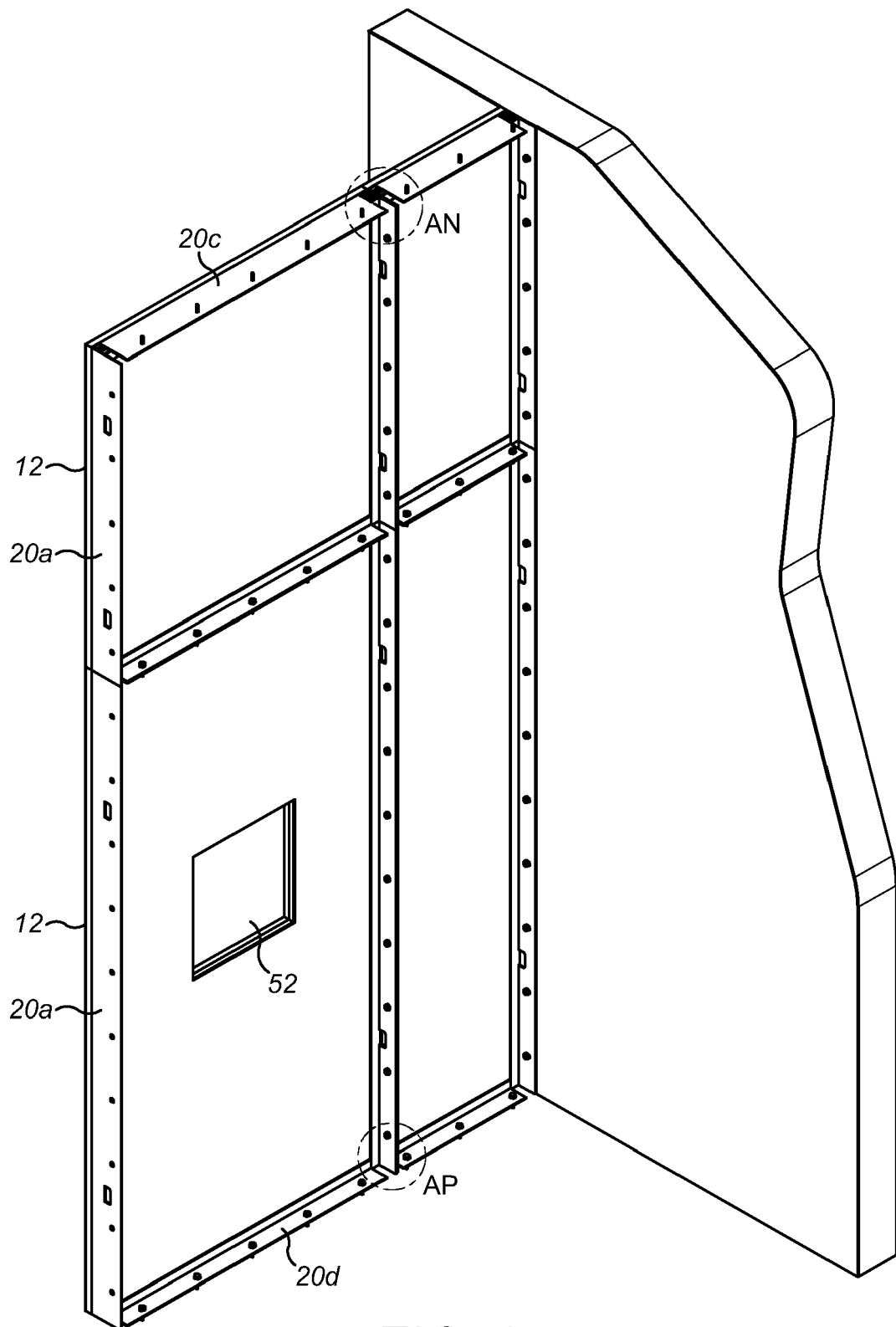


FIG. 9

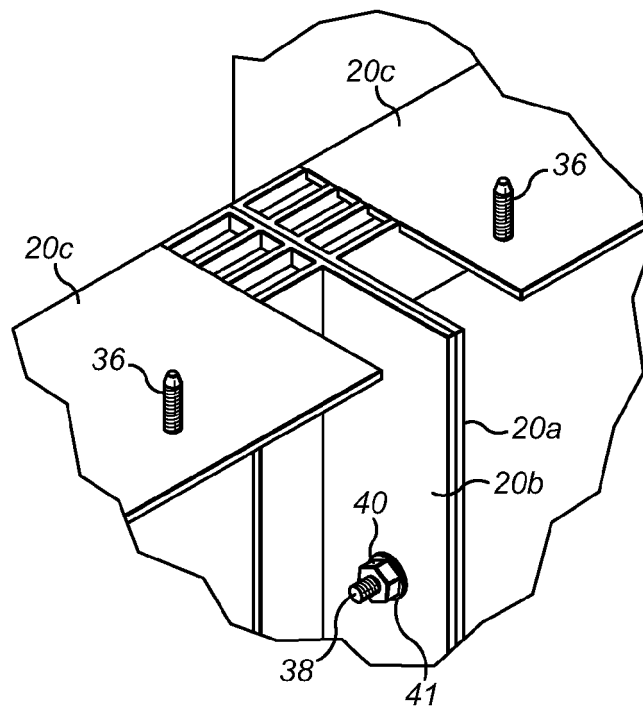


FIG. 10

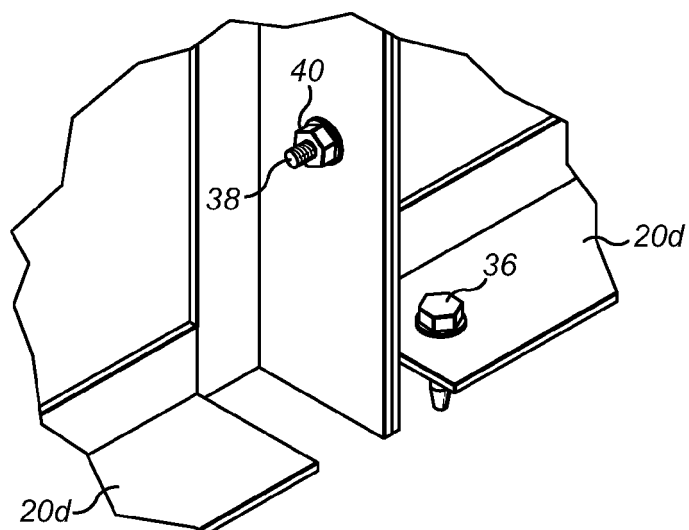


FIG. 11

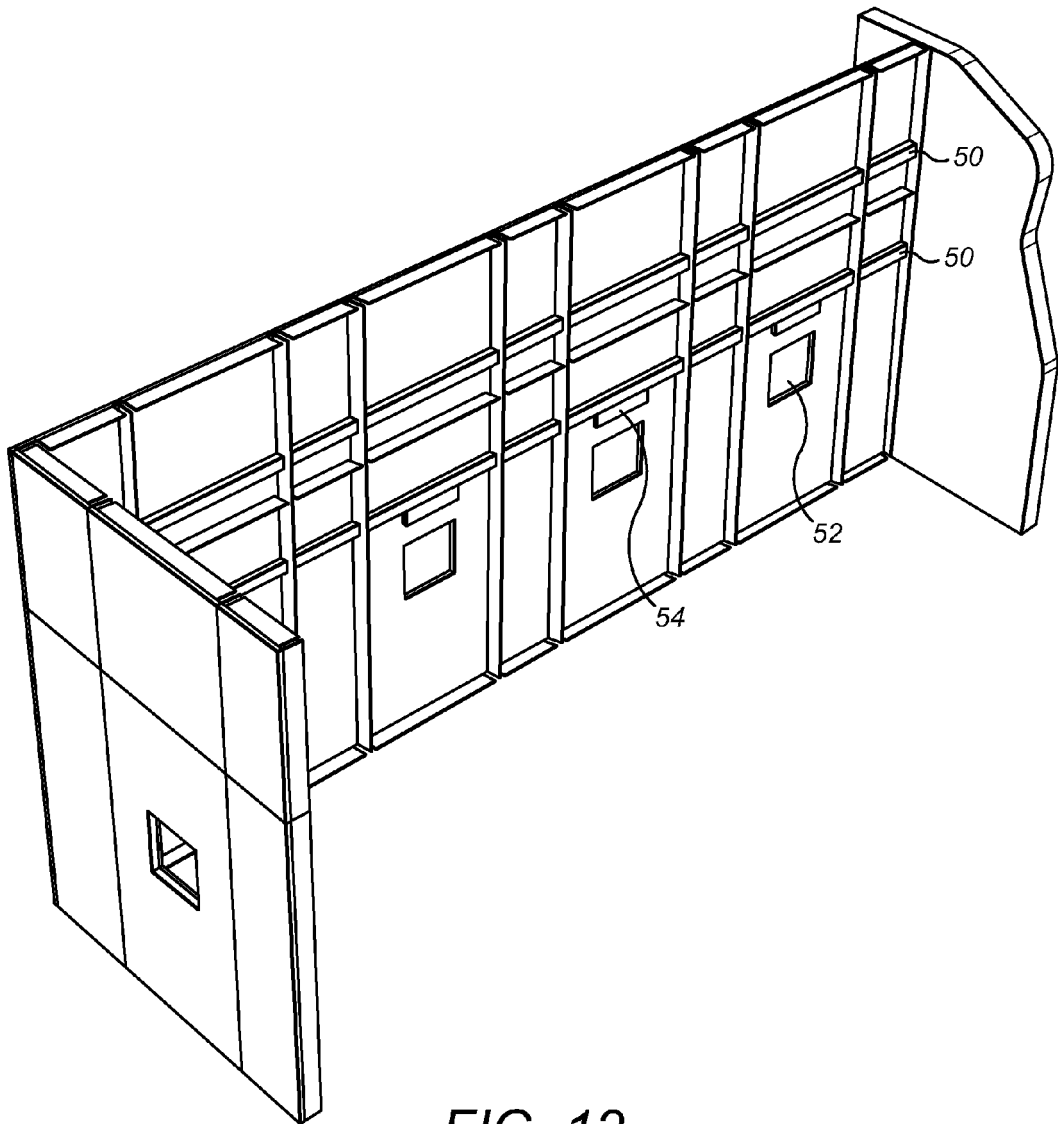


FIG. 12

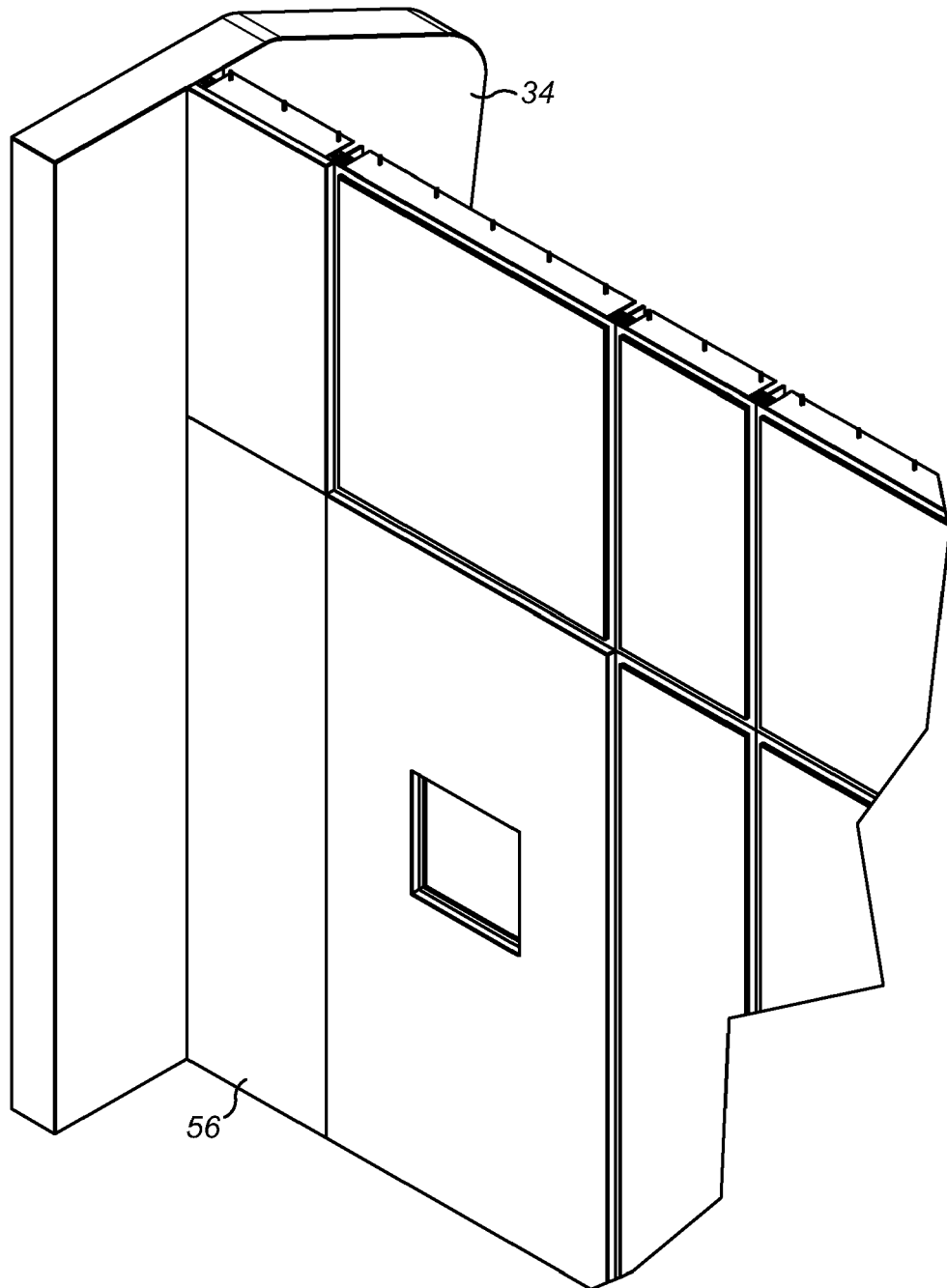


FIG. 13

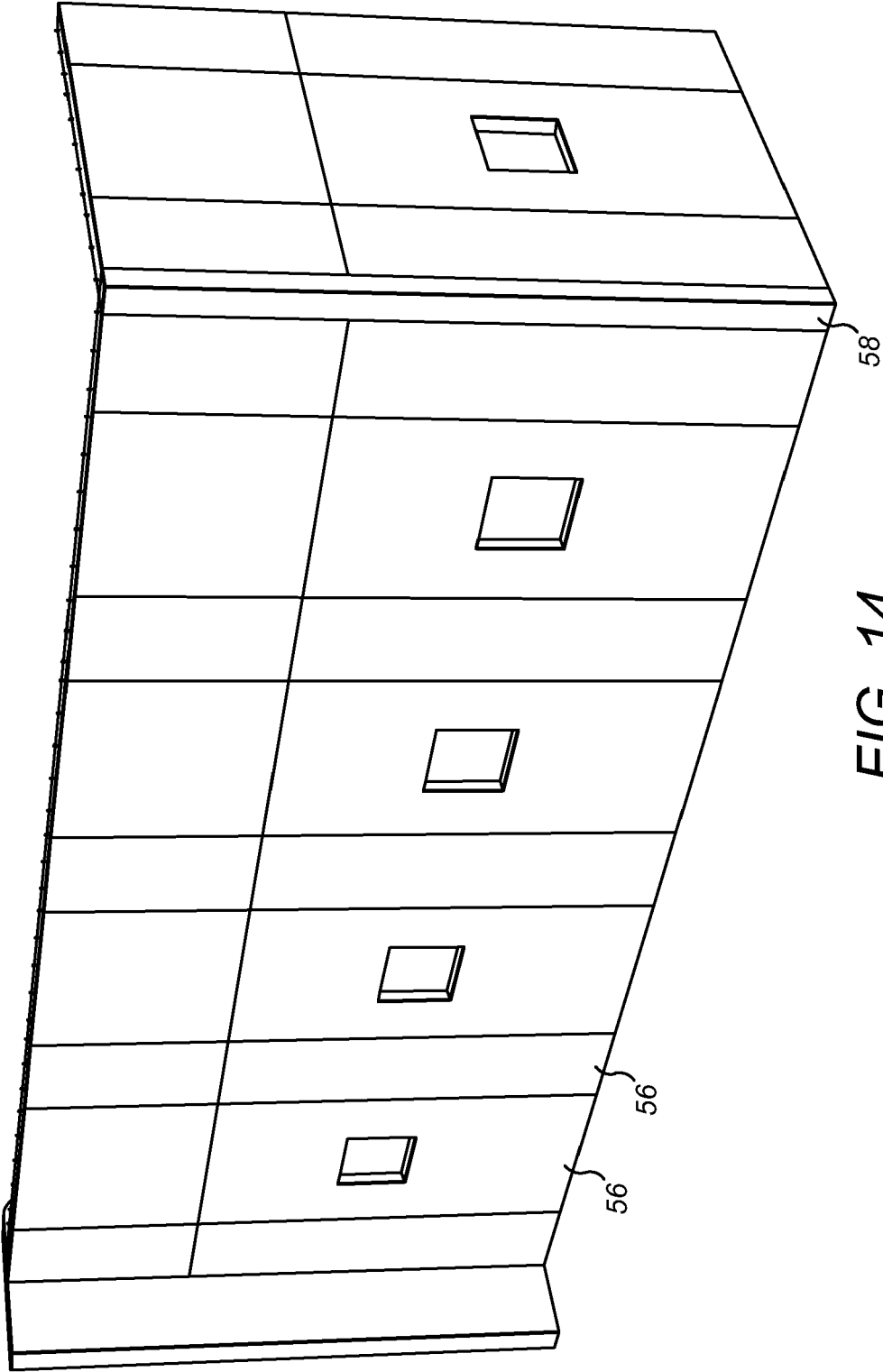


FIG. 14

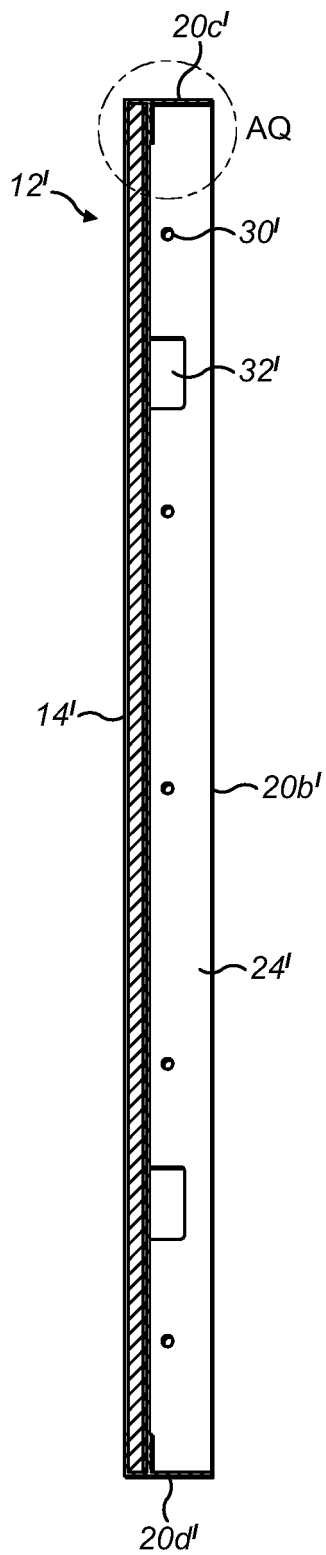


FIG. 15

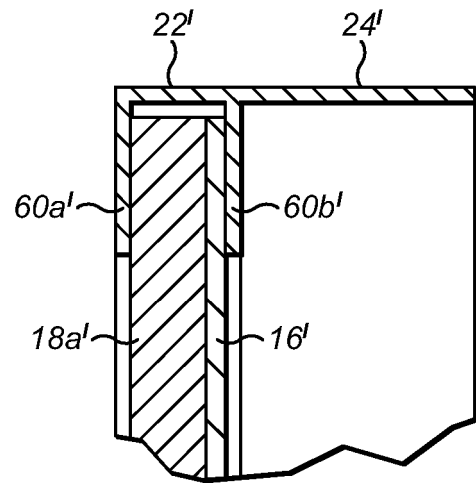


FIG. 16

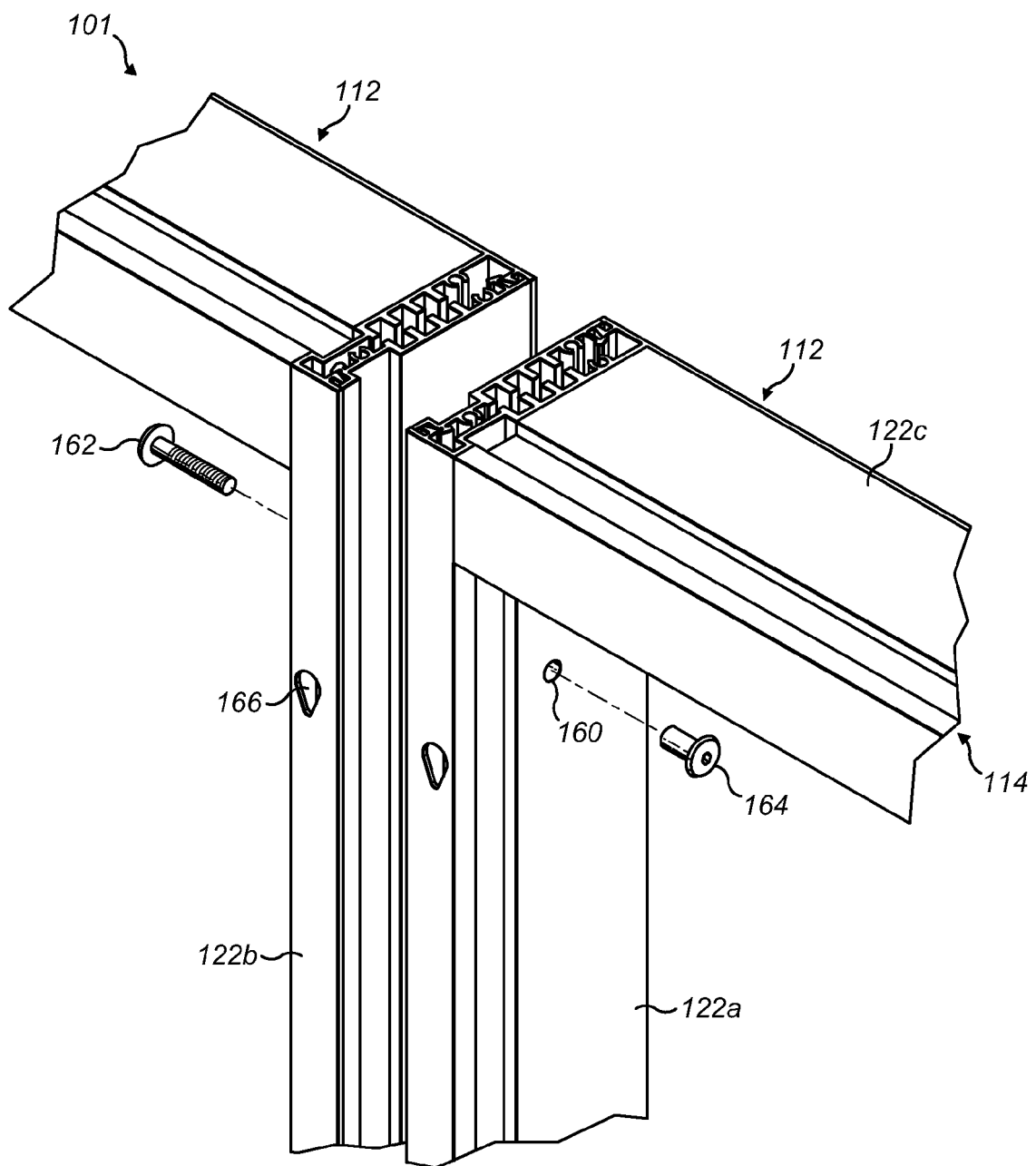


FIG. 17

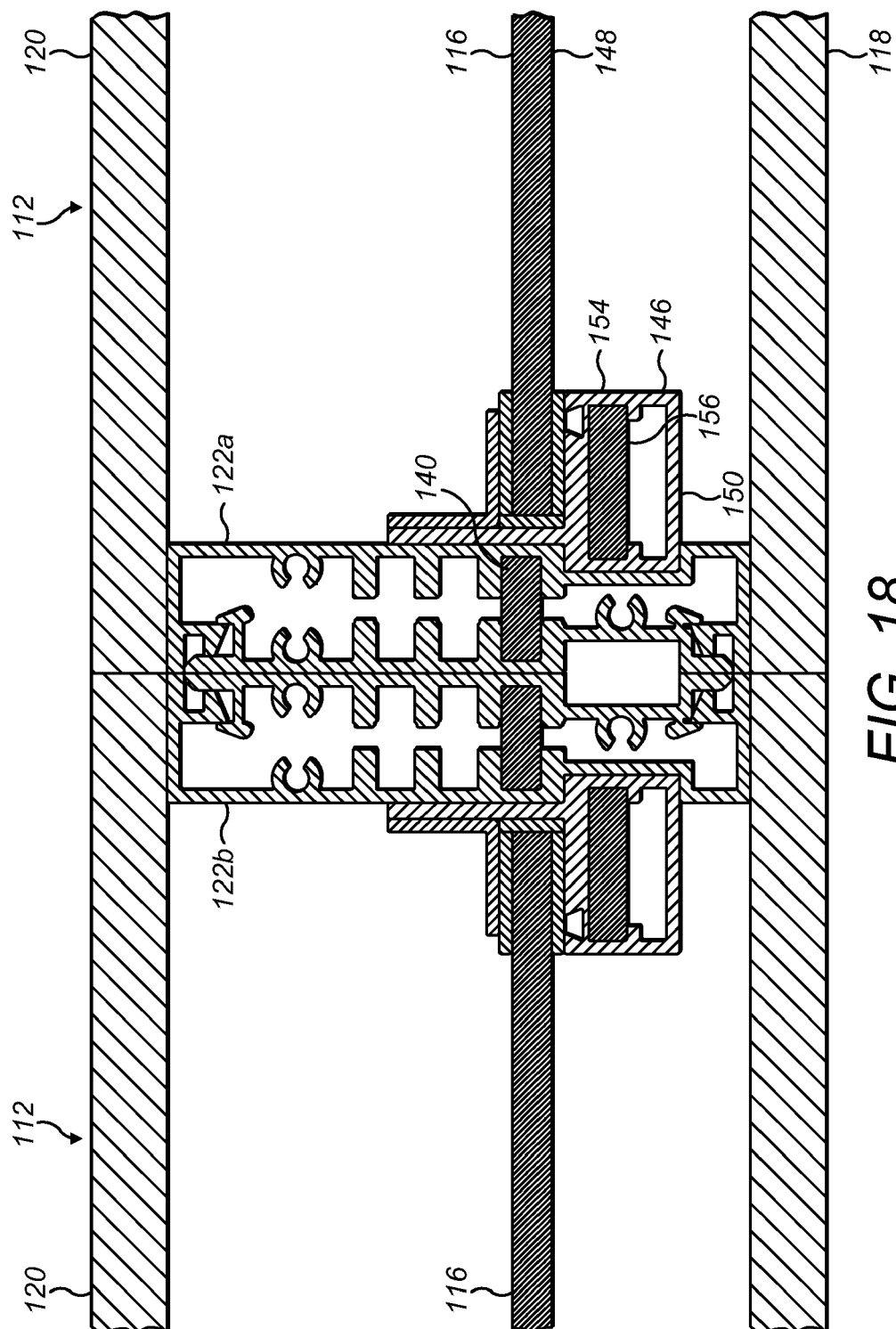


FIG. 18

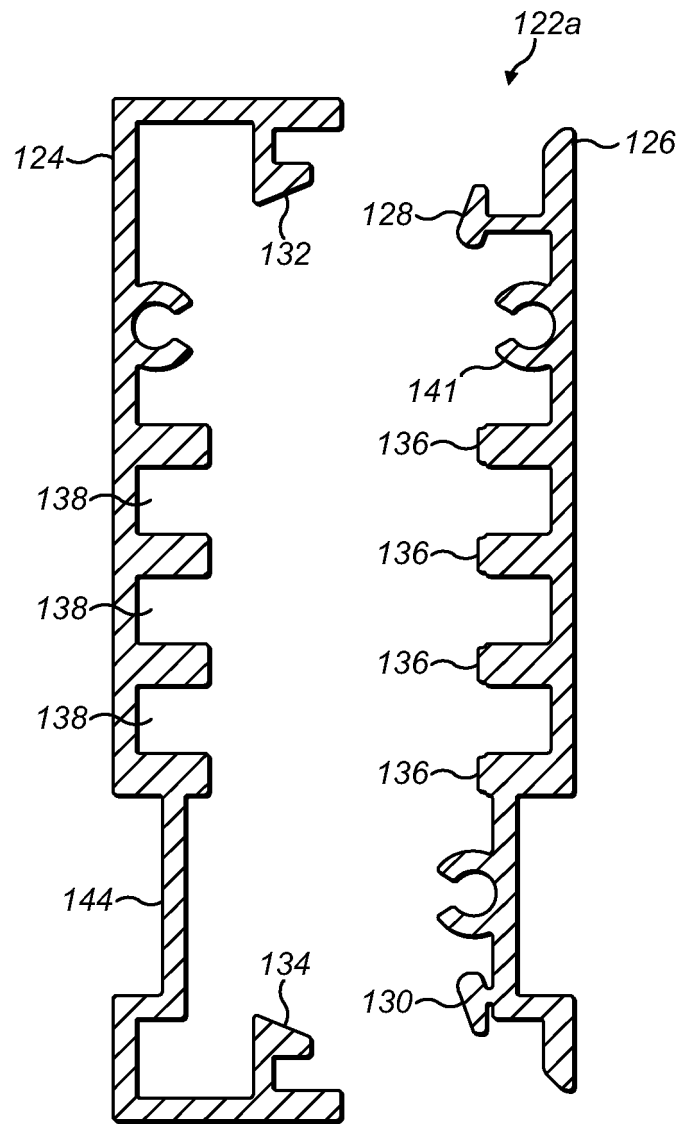


FIG. 19

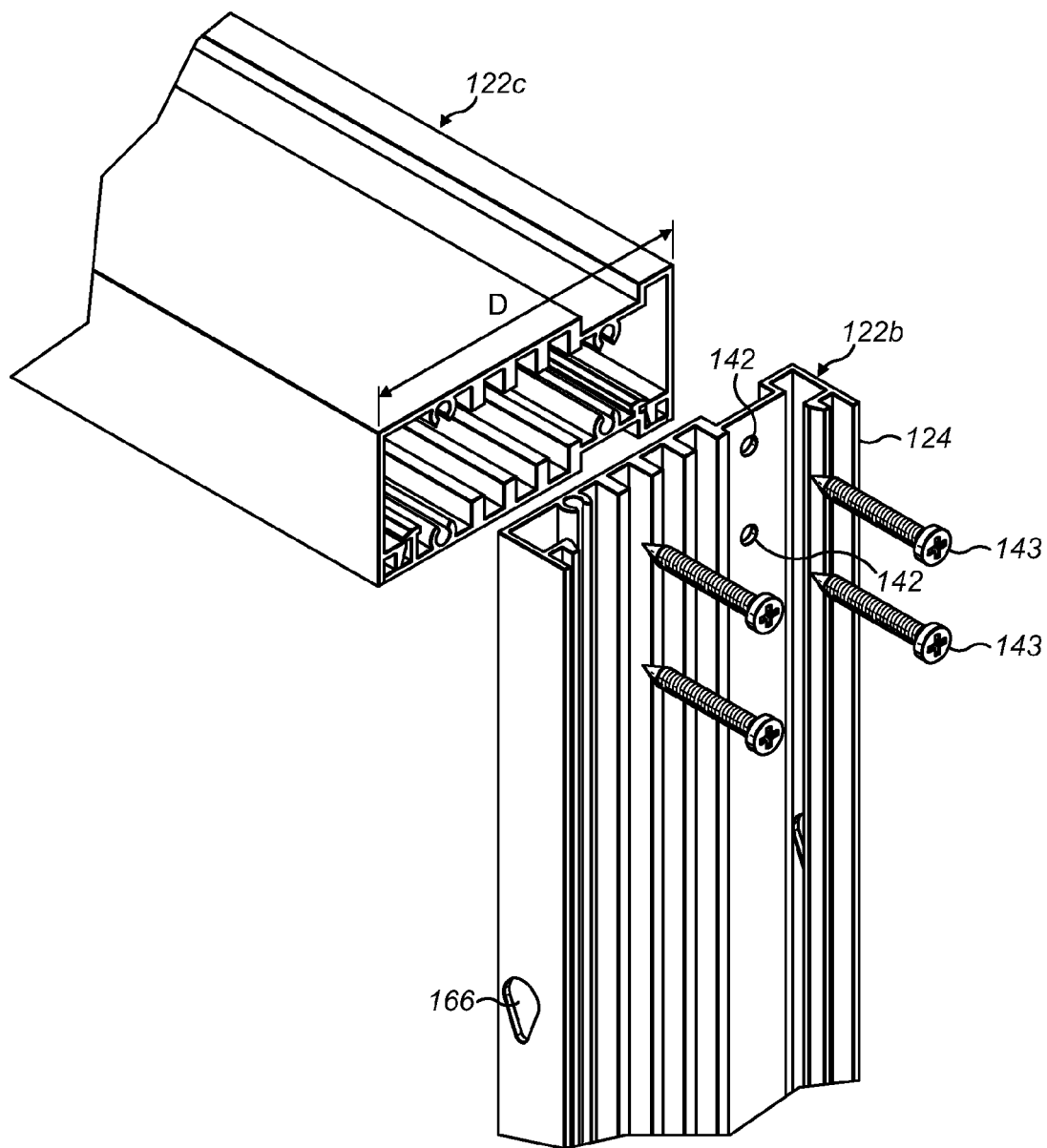


FIG. 20

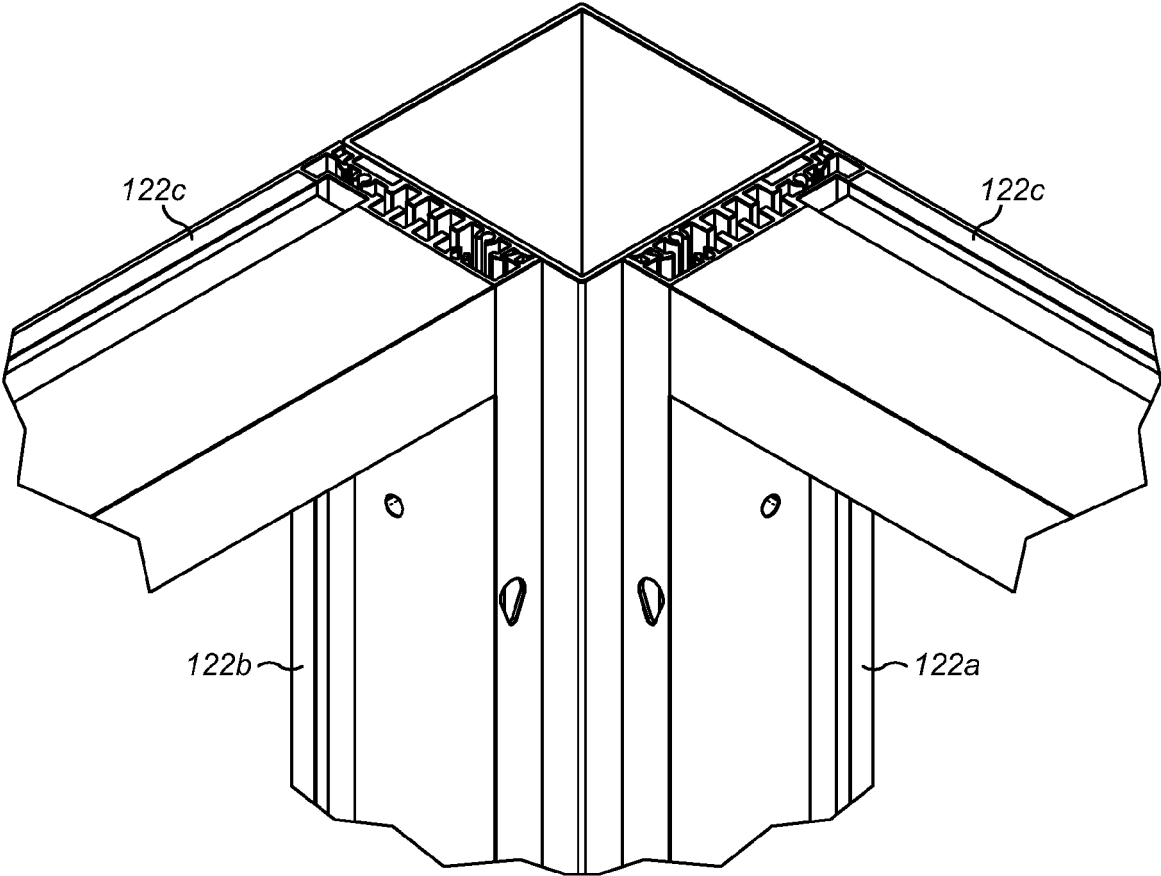


FIG. 21

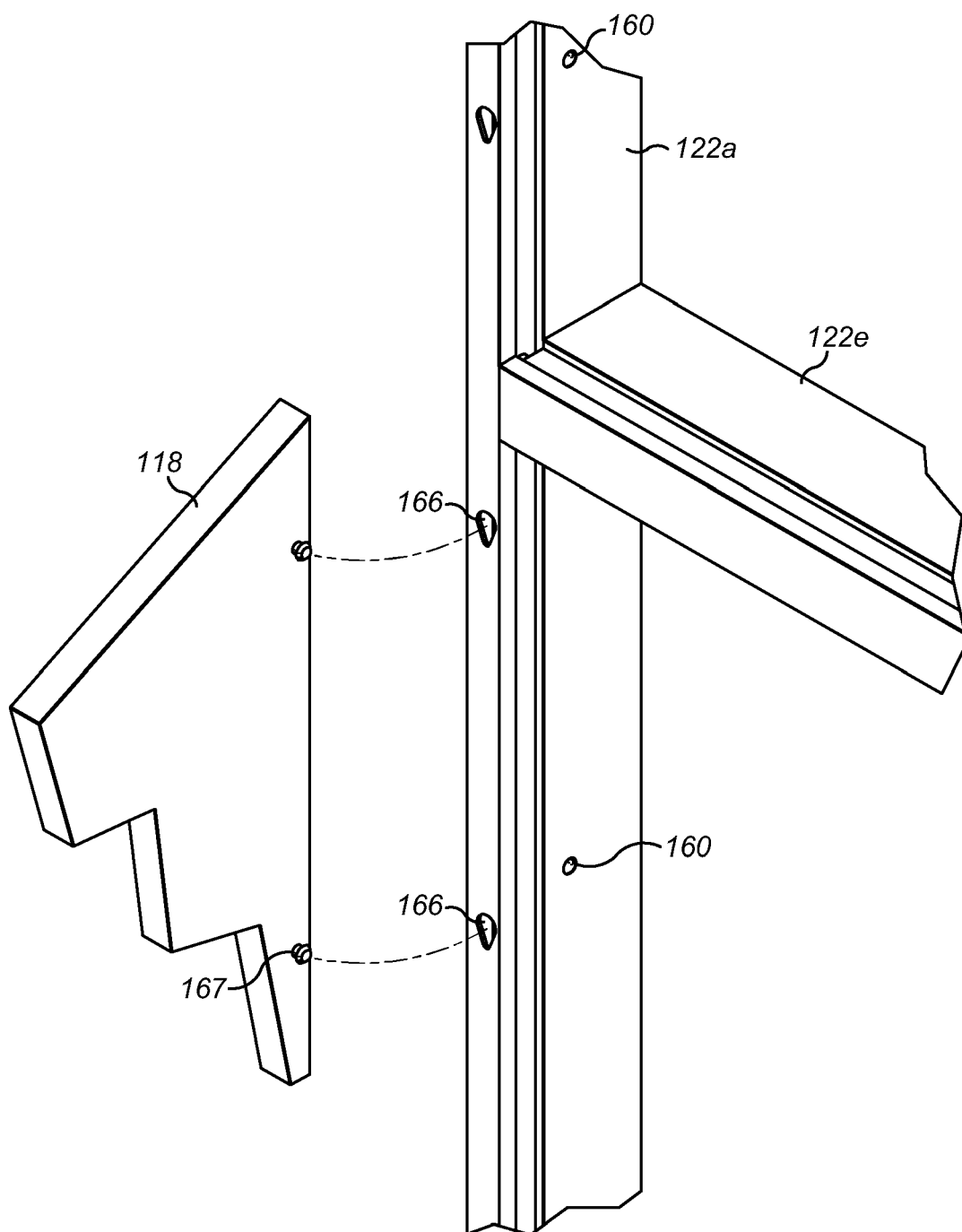


FIG. 22

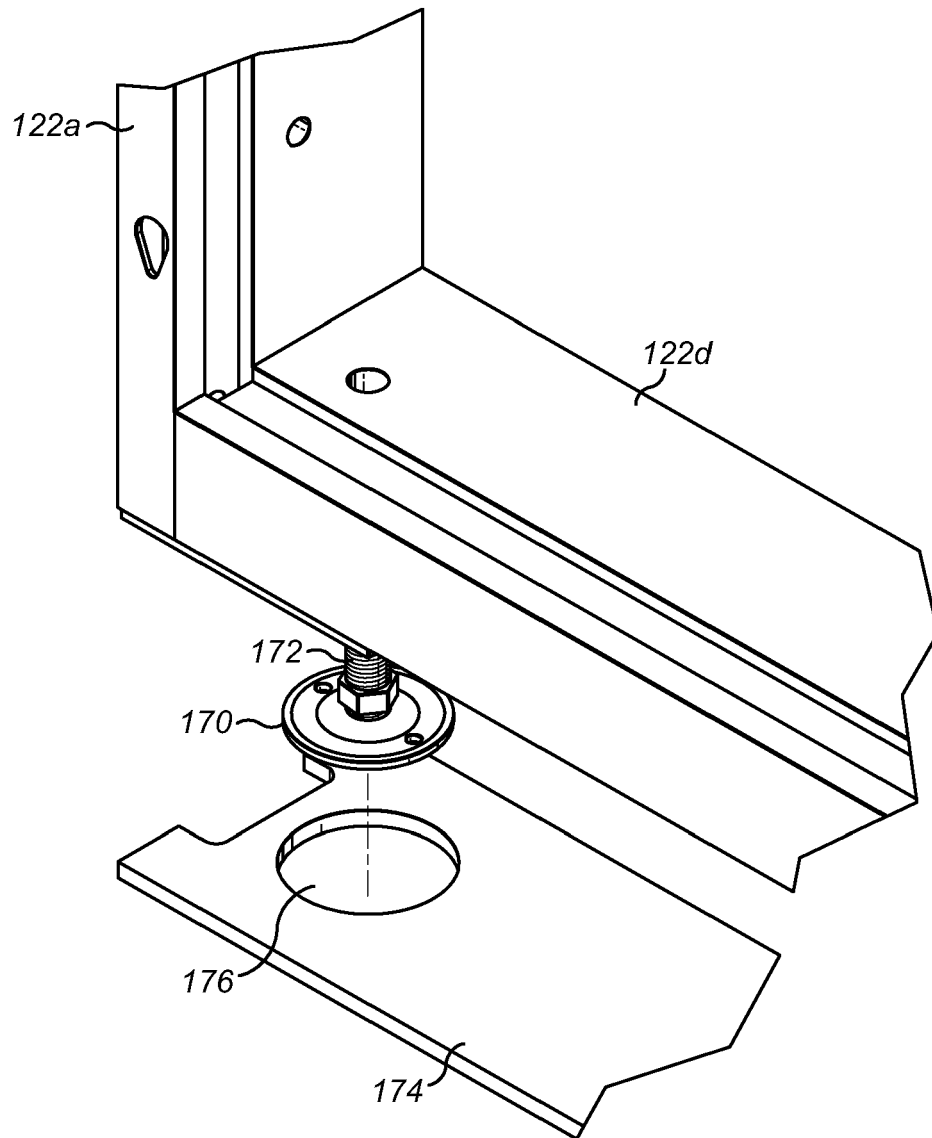
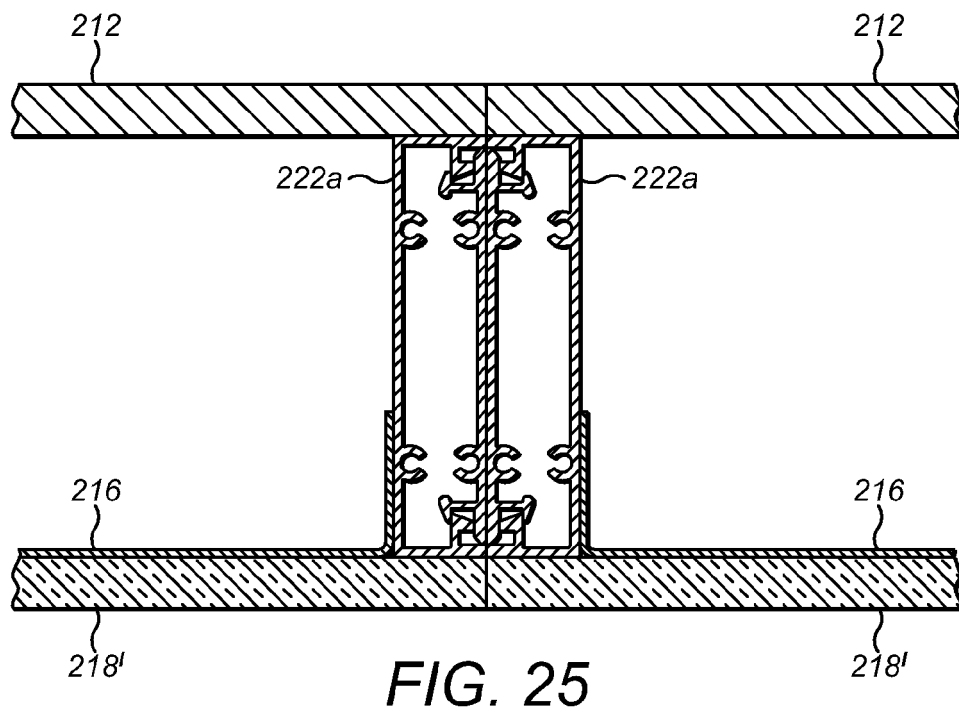
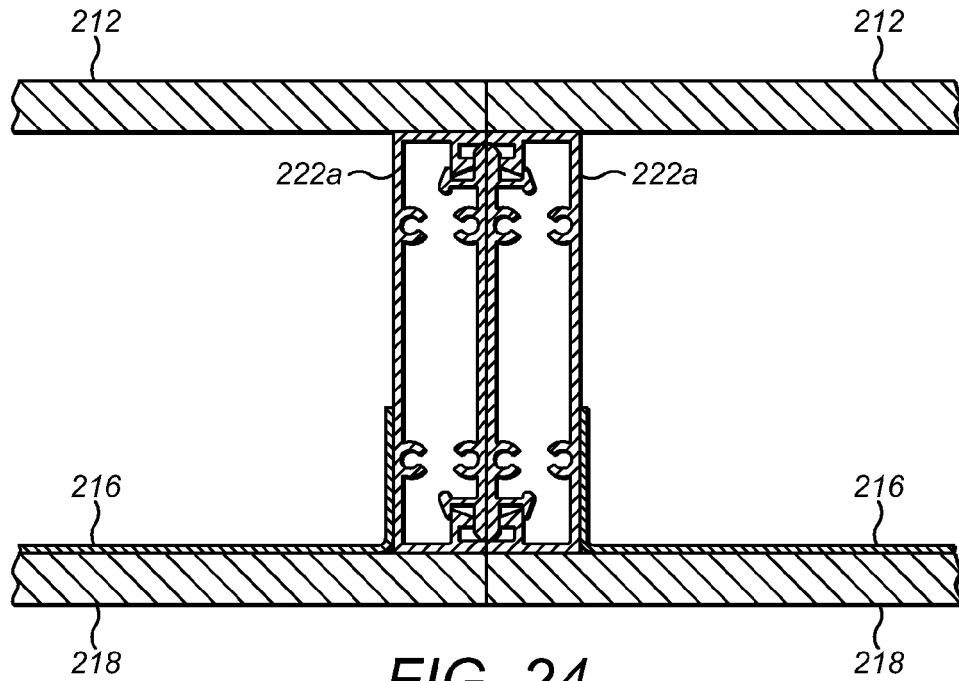


FIG. 23



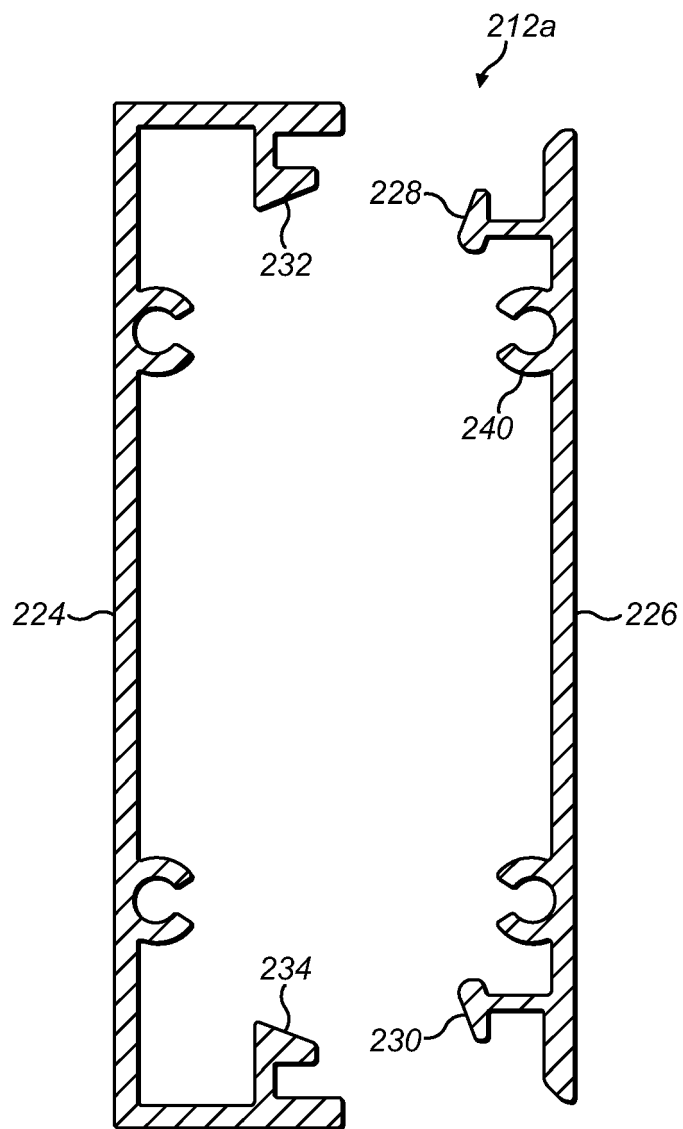


FIG. 26