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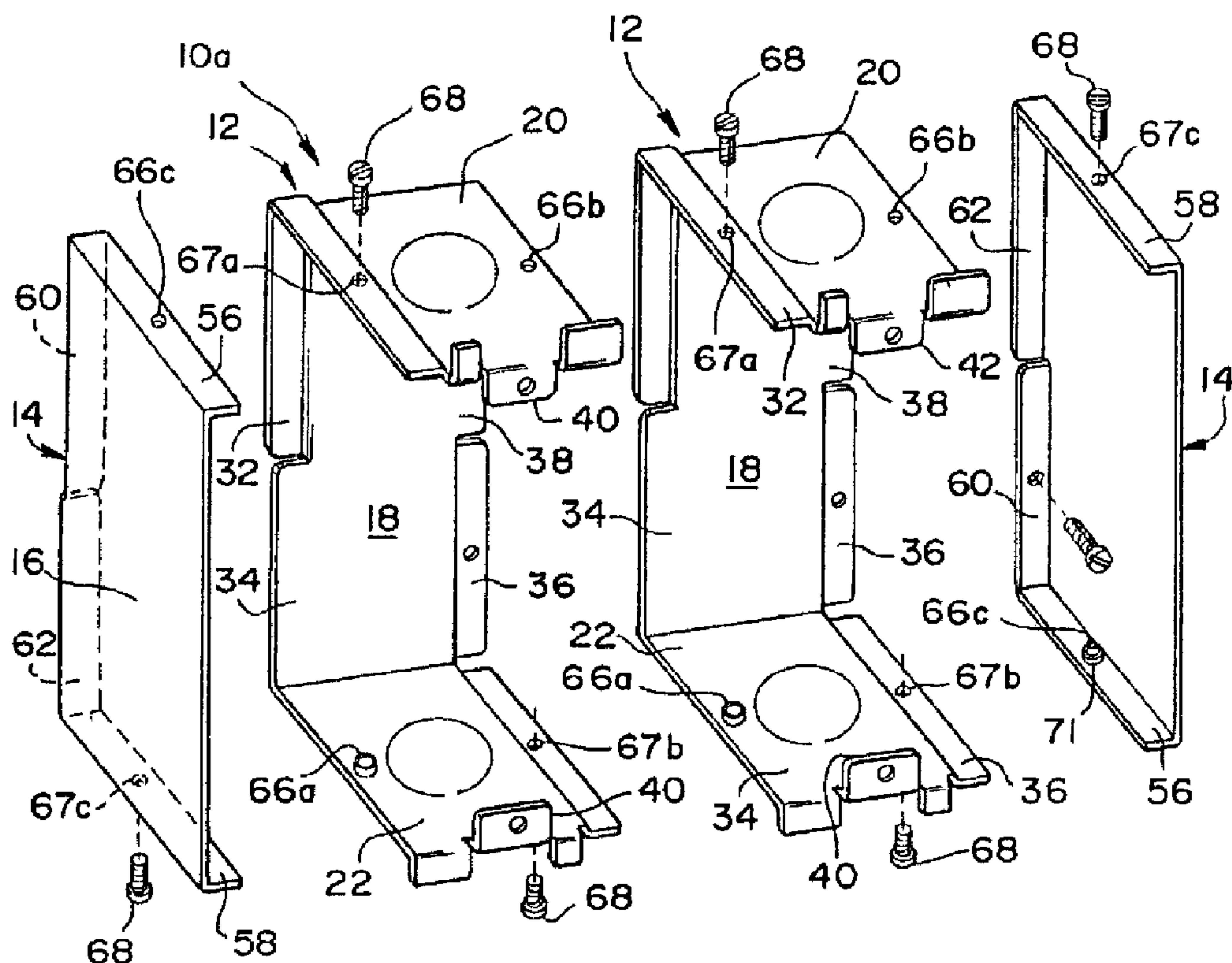
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(54) Titre : COFFRET ELECTRIQUE POUR JUMELAGE

(54) Title: GANGABLE ELECTRICAL BOX



(57) Abrégé/Abstract:

A gangable electrical box includes a main body and a pair of removable sidewalls. The main body has opposite side edges, each side edges having a pair of flanges extending from a midpoint on a rear panel and along the end panels. The sidewalls include flanges along each transverse edge and a pair of flanges on the longitudinal edge. The flanges on the sidewall are formed to complement the flanges on the main body to overlap with each other in a coupling relation. The main body and sidewalls are formed from a folded blank. The flanges of the main body are arranged so that a plurality of identical main bodies can be ganged with the flanges of a first main body telescoping with the flanges of a second main body.

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GANGABLE ELECTRICAL BOX

Abstract of the Disclosure

A gangable electrical box includes a main body and a pair of removable sidewalls. The main body has opposite side edges, each side edges having a pair of flanges extending from a midpoint on a rear panel and along the end panels. The sidewalls include flanges along each transverse edge and a pair of flanges on the longitudinal edge. The flanges on the sidewall are formed to complement the flanges on the main body to overlap with each other in a coupling relation. The main body and sidewalls are formed from a folded blank. The flanges of the main body are arranged so that a plurality of identical main bodies can be ganged with the flanges of a first main body telescoping with the flanges of a second main body.

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- 1 -

GANGABLE ELECTRICAL BOX

Field of the Invention

The present invention is directed to a gangable electrical box for receiving an electrical receptacle or other electrical device. More particularly, the invention is directed to an electrical box having overlapping and interconnecting flanges for ganging a plurality of electrical boxes together.

Background of the Invention

10 Numerous box constructions are known in the art for housing electrical receptacles such as electrical outlets and switches. Many of these boxes are constructed with removable sides so that a plurality of the boxes can be ganged together. Typically, the electrical boxes are coupled together by one or more screws extending through a tab in one box for engaging a screw hole in the adjacent box. This arrangement has the disadvantage in that tabs for receiving the screw usually project outwardly from the side edge of the box. The sidewalls of the box are also secured to the box by the screw and tab arrangement such that the tab protrudes beyond the sidewall of the box. The screw extends through the tab parallel to the sidewall to secure the sidewall to the box. Since the tab extends outwardly from the box and the sidewall, the tab and screw often interfere with the mounting of the box by preventing the box from being mounted flush against a support.

20 Electrical boxes often have a mounting bracket or other structure for mounting the box on a wall or other support structure. Typically, these mounting brackets are separate elements that are attached to the box by screws or welding. The attachment of the mounting brackets to the box increases the number of parts to be assembled and the final cost of the box. It is important that the box and the mounting structure be manufactured inexpensively and be easy to install.

30 Electrical boxes are often formed from sheet metal that is folded and fastened together by welding or screws. The mounting bracket is often welded to one side of the box or attached by screws or other fasteners.

A few examples of the previous electrical boxes are disclosed in U.S. Patent No. 1,705,768 to Johnson et al., U.S. Patent No. 2,644,600 to Senif, U.S. Patent No.

- 3 -

3,588,019 to Cozeck et al., U.S. Patent No. 3,834,658 to Theodorides, U.S. Patent No. 4,135,337 to Medlin, U.S. Patent No. 4,140,293 to Hansen, U.S. Patent No. 4,447,030 to Nattel, U.S. Patent No. 4,533,060 to Medlin, U.S. Patent No. 4,572,391 to Medlin, U.S. Patent No. 4,603,789 to Medlin, Sr., U.S. Patent No. 4,810,128 to Jorgensen, and U.S. Patent No. 5,025,944 to Rodick.

In addition, the coupling arrangement of conventional gangable boxes usually protrude from the upper and lower faces of the ganged boxes. These protrusions produce an irregular surface that can be difficult to mount flush on a support surface.

It is apparent that there is a continuing need in the art for electrical boxes having substantially flush sidewalls to enable the ganged box to be easily mounted flush against a support surface that are inexpensive to manufacture and easy to install. There is further a need for an electrical box that can be ganged with an adjacent box and have a mounting bracket thereon.

Summary of the Invention

Accordingly, this invention seeks to produce an electrical box that can readily receive an electrical receptacle and is simple and inexpensive to produce.

Further, the invention seeks to provide an electrical box having a main body of sufficient width to receive a wide electrical device and with side edges which can telescope with a side edge of an adjacent main body in a ganged assembly, such that the spacing between adjacent ganged electrical devices is less than the width of a single electrical box.

Still further, the invention seeks to provide an electrical box that can be ganged and coupled with an adjacent box while providing sidewalls that are substantially free of projecting tabs or other connecting means to enable the box to be easily mounted flush against a support surface.

- 4 -

Further still, the invention seeks to provide an electrical box having a closed side and an open side which can be ganged and coupled to a spacer, a separate sidewall or an identical electrical box.

Moreover, the invention seeks to provide an assembly of blanks for forming an electrical box.

The invention in one aspect is basically attained by providing an electrical box comprising a main body having a rear panel, and first and second end panels coupled to the rear panel, and having open sides. A pair of sidewalls close each of the open sides and each of the sidewalls comprise a side panel having first and second opposite parallel edges and a third edge extending between the opposite edges. Means are provided for rigidly coupling the sidewalls to the main body and a flange on at least one of the edges of the side panel extends substantially perpendicular to the side panel for rigidly coupling one of the sidewalls to one of the rear panels or first and second end panels of the main body.

The invention in one broad aspect provides an electrical box assembly, comprising in combination a main body formed from a folded unitary blank of sheet material, the main body including a rear panel, a first side panel coupled to the rear panel by a first fold line and extending substantially perpendicular to the rear panel. A first end panel is coupled to the rear panel by a second fold line and a second end panel is coupled to the rear panel by a third fold line. The first and the second end panels extend substantially perpendicular to the rear panel and perpendicular to the side panel. Each of the end panels include a first flap coupled thereto and extend substantially perpendicular thereto for overlying a portion of the first side panel. A second side panel is removably coupled to the rear panel and the first and the second end panels. Means is provided for rigidly coupling the second side panel to the main body, the means for rigidly coupling comprising a first flange on the second side panel, the first flange extending perpendicular to the second side panel for coupling to at least one of the rear panel or the end panels.

- 5 -

Further the invention comprehends an assembly for forming an electrical box, the combination comprising a first blank for forming a main body, the first blank comprising a first end panel, a rear panel and a second end panel coupled in series along parallel fold lines. Two identical second blanks are provided for forming opposite sidewalls for the main body, each of the second blanks comprising a side panel and at least one first flap coupled to the side panel along a fold line.

Further still the invention comprehends an electrical box assembly, comprising in combination a main body formed from a folded unitary blank of sheet material, the main body including a rear panel, a first side panel coupled to the rear panel by a first fold line and extending substantially perpendicular to the rear panel. A first end panel is coupled to the rear panel by a second fold line, a second end panel being coupled to the rear panel by a third fold line and the first and the second end panels extending substantially perpendicular to the rear panel and perpendicular to the side panel. A second side panel is removably coupled to the rear panel and the first and the second end panels, and means rigidly couple the second side panel to the main body, the means for rigidly coupling comprising a first flange on the second side panel, the first flange extending perpendicular to the second side panel for coupling to at least one of the rear panel or the end panels. The main body includes a second flange extending from a side edge thereof for overlapping with the first flange on the second side panel, the second flange having a first portion parallel to the rear panel. A second portion is parallel to the first end panel and a third portion is parallel to the second end panel, each of the portions being inwardly offset from the rear panel and the end panels respectively.

- 5A -

More particularly the invention comprehends a gangable electrical box assembly, comprising a first main body folded from a first sheet of material, and having at least a rectangular rear panel with first and second end edges and first and second side edges. A first rectangular end panel is rigidly coupled to the first end edge of the rear panel and extends substantially perpendicular to the rear panel, and a second rectangular end panel is rigidly coupled to the second end edge of the rear panel and extends substantially perpendicular to the rear panel. A first rectangular side panel is coupled to the first main body and extends substantially perpendicular to the rear panel, and a second rectangular side panel is formed from a second sheet of material coupled to the first main body and extends substantially perpendicular to the rear panel. First coupling means removably couples the second side panel to the first main body, the first coupling means including a first coupling flange integrally formed with the main body and extending substantially perpendicular to the second side panel with the first coupling flange having a first portion parallel to the rear panel, a second portion parallel to the first end panel and a third portion parallel to the second end panel. Each of the portions is inwardly offset from the rear panel and the end panels respectively. A second coupling flange is integrally formed with the first side panel by a fold line and extends substantially perpendicular to the first side panel for overlapping at least part of the first coupling flange, and at least one fastening means is provided for coupling the first coupling flange to the second coupling flange.

Other aspects, advantages and salient features of the invention will become apparent from the following detailed description, which, taken in conjunction with the annexed drawings, disclose preferred embodiments of the invention.

Brief Description of the Drawings

Referring now to the drawings which form a part of this original disclosure:

Figure 1 is a front perspective view of a first embodiment of an assembled electrical box in accordance with the present invention;

Figure 2 is an exploded perspective view of the electrical box in accordance with the embodiment of Figure 1;

10 Figure 3 is a top plan view of the blank of the main body shown in Figures 1-2 after bending the interlocking tabs and prior to folding the end panels in accordance with the invention;

Figure 4 is a transverse cross-sectional view of the main body taken along line 4-4 of Figure 3;

Figure 5 is a front elevational view of the main body formed from completely folding the blank of Figure 3 in accordance with the present invention;

20 Figure 6 is a right side elevational view of the main body of the embodiment of Figure 5;

Figure 7 is a top plan view of a blank of the sidewalls for the main body in accordance with a preferred embodiment of the invention;

Figure 8 is a front elevational view of one sidewall formed from folding the blank of Figure 7;

Figure 9 is a right side elevational view of the sidewall formed from folding the blank of Figure 7;

30 Figure 10 is an exploded perspective view of a ganged electrical box in accordance with an alternative embodiment of the invention;

Figure 11 is a perspective view of the ganged electrical box of Figure 10 in an assembled condition;

Figure 12 is a top plan view of a blank for forming a portion of an electrical box in an alternative embodiment of the invention;

Figure 13 is an exploded front elevational view of an electrical box formed from folding the blank of Figure 12 to form a main body with a bracket and coupling the main body to a removable sidewall;

Figure 14 is a bottom plan view of the electrical box illustrated in Figure 13 without the sidewall;

10 Figure 15 is a perspective view of the electrical box illustrated in Figures 13 and 14 after being mounted to a support member;

Figure 16 is an exploded front elevational view of an electrical box using a pair of main bodies with brackets and a main body without a bracket;

Figure 17 is an exploded front elevational view of an electrical box using a main body with a bracket, a main body without a bracket and a sidewall;

20 Figure 18 is an exploded front elevational view of an electrical box in a further embodiment showing a main body and a pair of sidewalls;

Figure 19 is an exploded, bottom end plan view of the electrical box of Figure 18;

Figure 20 is an exploded front elevational view of an electrical box in accordance with a further embodiment of the present invention showing a main body and a pair of sidewalls;

Figure 21 is an exploded bottom end plan view of the electrical box of Figure 20;

30 Figure 22 is a front elevational view of a sidewall in accordance with a further embodiment of the present invention for use with the electrical box of Figure 20 and in place of the right sidewall;

Figure 23 is a bottom end plan view of the sidewall illustrated in Figure 22; and

Figure 24 is a front elevational view of an electrical box in accordance with a further embodiment of the present invention showing a main body and a pair of sidewalls.

Detailed Description of the Invention

Referring to Figures 1 and 2, a first embodiment of an electrical box 10 in accordance with the present invention is illustrated, and comprises a main body 12 and a pair of identical sidewalls 14 adapted to be removably coupled to main body 12 to enclose an electrical receptacle or other electrical device mounted in the main body 12. The electrical box 10 is structured for coupling adjacent main bodies 12 together in a ganged fashion. Main body 12 and sidewalls 14 are preferably formed by folding a unitary, one-piece blank of sheet material. In preferred embodiments, the main body 12 and sidewalls 14 are formed from a metallic sheet material such as galvanized steel or aluminum or any other suitable material.

Main body 12, as shown in Figures 1 and 2, is bent to form a substantially U-shape body member having a substantially planar rear panel 18, a first end panel 20 shown as a substantially planar top wall, and a second end panel 22 shown as a substantially planar bottom wall. Rear panel 18 has a substantially rectangular shape defining opposite side edges 24 and 26 and transverse end edges 28 and 30. End panels 20 and 22 are coupled to transverse end edges 28 and 30 respectively of rear panel 18 by fold lines and are disposed substantially perpendicular to the plane of rear panel 18. The side edges of the end panels 20 and 22 together with the side edges 24 and 26 of the rear panel 18 define the two opposite side edges of main body 12 which are coupled to the pair of sidewalls 14. In alternative

embodiments as discussed hereinafter in greater detail, main body 12 can be coupled to an adjacent main body as shown in Figure 10 or to a main body with a bracket 110 shown in Figure 13.

As viewed in Figure 2, the left side of main body 12 has a first flange 32 and second flange 34. In the embodiment shown in Figure 2, each of flanges 32 and 34 begins from a midpoint on side edge 26 of rear panel 18 and extends continuously along end panels 20 and 22, respectively. The right side of main body 12, as viewed in Figure 2, has first and second flanges 36 and 38 extending along the side edges thereof. Similarly, flanges 36 and 38 begin from a midpoint on side edge 24 and extend continuously along end panels 20 and 22, respectively. As shown in Figure 2, each of the flanges 32, 34, 36 and 38 have a substantially L-shape when viewed in side elevation for engaging sidewalls 14 as discussed hereinafter in greater detail.

Flanges 32 and 36 are formed to have a shape complementing the shape of the rear panel 18 and the respective end panel 20 or 22 and to be spaced slightly outward from the plane of the rear panel 18 and end panels 20 and 22. In preferred embodiments, flanges 32 and 36 are spaced from the plane of the rear panel 18 and end panels 20 and 22 by a distance of about the thickness of the sheet material from which the electrical box is made as discussed hereinafter in greater detail.

Flanges 34 and 38 preferably have a shape complementing the shape of rear panel 18 and end panels 20 and 22 and are disposed in the same plane as the rear panel 18 and its respective end panel 20 or 22. As shown in Figures 1 and 2, flanges 32 and 36 are positioned along opposite sides and opposite ends of the main body so that the main body is symmetrical. In alternative embodiments,

the flanges may extend only partially the length of the panels.

10 A mounting tab 40 also extends from the front edges of top and bottom end panels 20 and 22 for mounting an electrical device to the electrical box 10. Tabs 40 extend inwardly toward the center of main body 12 substantially parallel with rear panel 18. Each of the tabs 40 includes a threaded hole 44 for receiving a screw or other fastener for attaching an electrical device to the main body 12 in a conventional manner.

20 A pair of plaster ears 41 extend from the front edge of each of the first and second end panels 20 and 22. Ears 41 are positioned on opposite sides of tabs 40 and extend outwardly from main body 12 substantially parallel to rear panel 18. Ears 41 are dimensioned for mounting electrical box 10 to an existing wall and in particular a plaster wall such that ears 41 lie flat against the exterior surface of the wall (not shown). Each ear 41 may include an optional hole for receiving a screw or other fastener for securing electrical box 10 to the wall.

30 Each sidewall 14 is substantially identical to each other so that they can be attached to either side of main body 12. Each of the sidewalls 14 has a substantially rectangular shaped side panel 16 complementing the sides of main body 12 defining longitudinal edges 48 and 50 and transverse edges 52 and 54. Each transverse edge 52 and 54 has a flange 56 and 58, respectively, extending substantially perpendicular to the plane of side panel 16. Rear longitudinal edge 48 also has a pair of substantially parallel flanges 60 and 62 extending substantially perpendicular to the plane of the side panel 16. Flange 62 is substantially parallel to flange 60 and spaced outwardly from flange 60 by a distance substantially equal to the thickness of the sheet material. Flanges 56, 58, 60 and 62

are coupled along the edges 52,54 and 48 of side panel 16, respectively, by fold lines.

10 In preferred embodiments, at least one knock-out 64 is provided in one or more of the panels of the main body 12 or sidewalls 14 to allow suitable electrical connections to an electrical device mounted in the electrical box 10. In the embodiment shown in Figures 1 and 2, knock-outs 64 are provided in end panels 20 and 22 of main body 12. Of course, in alternative embodiments, the knock-outs may be in the sidewalls 14 or rear panel 18 or any combination thereof. In further embodiments, pry-outs for one or more cables may be included instead of or in addition to the knock-outs.

20 The electrical box 10 is assembled by coupling sidewalls 14 to main body 12. Specifically, as seen in Figure 1, flanges 32,34,36 and 38 on main body 12 and flanges 56,58,60 and 62 of each of sidewalls 14 are arranged to overlap each other in a coupling relationship. As also seen in Figure 1, flange 56 on the transverse edge 52 of each of the sidewalls 14 and flange 60 on the longitudinal edge 48 of each of the sidewalls 14 are adapted to fit inside and overlap with flanges 32 and 36 of main body 12. Flange 62 on the longitudinal edge 48 of each of the sidewalls 14 and flange 58 on the transverse edge 54 of each of the sidewalls 14 fit outside and overlap with flanges 34 and 38 of main body 12. Accordingly, flanges 56 and 60 of sidewalls 14 overlap inside surface of flanges 32 and 36 while flanges 58 and 62 of sidewalls 14 overlap outside surface of flanges 34 and 38.

30 Sidewalls 14 are fixedly secured to main body 12 by a plurality of screws or threaded fasteners 68. In particular, flange 38 on top end panel 20 of main body 12, and flange 34 on bottom end panel 22 each have a threaded hole 66a and 66b, respectively, for threadedly receiving

- 12 -

one of the screws 68. Alternatively, holes 66a and 66b could be unthreaded and receive thread cutter screws which will thread holes 66a and 66b during assembly. Holes 66a and 66b are preferably extruded to form elongated holes with collars so that holes 66a and 66b can have more threads than conventional punched holes. Flanges 32 and 36 along top and bottom end panels 20 and 22, respectively include a punched hole 67a and 67b, respectively, to allow screws 68 to pass therethrough. Flange 56 of sidewall 14 also includes a threaded, extruded hole 66c having a threaded collar to receive one of the screws 68 when hole 66c is aligned with hole 67a of main body 12. Flange 58 of sidewall 14 includes a punched hole 67c to allow one of the screws 68 to pass therethrough. When assembled, screws 68 pass through the punched holes 67a and 67b in flanges 32 and 36, respectively, and into the threaded holes 66c of flanges 56 of the two sidewalls 14. Likewise, screws 68 also pass through punched holes 67c in flanges 58 of sidewalls 14 and into threaded hole 66a and 66b of flanges 34 and 38, respectively.

Referring to Figure 2, a threaded hole 61 may be included in one or more of the flanges of the rear panel 18 and another threaded hole 63 may be included in one of the flanges of the sidewalls 14 to receive a ground screw 65 for connecting a ground wire (not shown). Specifically, the electrical box 10 may include a threaded hole 61 in flange 36 and a threaded hole 63 in flange 60 aligned with hole 61 for receiving a screw 65 for connecting a ground wire. By threading screw 65 through both flanges 36 and 60, a sufficient thickness is provided to ensure screw 65 will engage at least two full threads at a thirty-two threads per inch pitch without the need for extruding a ground hole or providing thicker material for the electrical box 10. Alternatively, holes 61 and 63 could be

unthreaded for receiving a thread cutter or self tapping ground screw.

The assembly of sidewalls 14 to main body 12 in this embodiment have outer sidewall surfaces that are substantially flush with no protrusions. In this manner, the electrical box 10 can be easily mounted flush with a support surface. The upper and lower surfaces of the electrical box are also sufficiently smooth to allow easy mounting of the assembly. In this embodiment, the screw heads in the end panels slide past the wallboard into an empty wall cavity.

An advantageous feature of the invention is the ability of the flanges of the main body to overlap with flanges of an adjacent main body in a telescoping fashion. In this manner, the spacing between adjacent electrical devices in a ganged assembly is less than the width of a single electrical box. In preferred embodiments, the single electrical box is about $2 \frac{3}{16}$ inches wide to easily accommodate wide electrical devices such as G.F.I. devices in comparison to conventional boxes having a width of $1 \frac{13}{16}$ inch. In a multiganged assembly, the spacing between the electrical device and the sidewall remain unchanged from the spacing in a single box. The coupling flanges telescope with the flanges of an adjacent main body a distance such that the spacing between adjacent electrical devices of the ganged assembly is substantially the same as the spacing in conventional ganged boxes. In preferred embodiments, the coupling flanges of the adjacent main bodies overlap about $\frac{3}{8}$ inch so that the spacing between adjacent electrical devices is about $1 \frac{13}{16}$ inch.

Flange 32 is spaced away from the plane of the panel 20 by a distance proximating the thickness of the material of the electrical box 10 such that the flange 32 lies in substantially the same plane as flange 58 on the opposite

sidewall 14. The overlapping flanges of main body 12 and sidewalls 14 also provide added strength to the assembled electrical box 10. The double thickness of material in the corners of the box 10 resist crushing or bending during installation of the electrical box 10. In the illustrated embodiment, the overlapping flanges extend substantially the full length of the panels making up the electrical box 10. In alternative embodiments, the overlapping flanges may extend only along a portion of the panels.

10 Holes 66,67,69 and 73 and screws 68 are shown in Figures 1-4 as being substantially centered in the flanges so that screws 68 are axially aligned. In alternative embodiments, the screws and holes may be arranged such that the axes of the screws in upper end panel 20 are spaced apart from the axes of the screws in bottom end panel 22. Moreover, one or more screws may also extend through the overlapping flanges on rear panel 18 and the respective overlapping flanges on the sidewalls 14 to resist relative movement between sidewalls 14 and main body 12.

20 Referring to Figures 3 and 7, main body 12 and sidewalls 14 are preferably formed from blanks of metal or other suitable rigid material. Specifically, the main body 12 is formed from a stamped blank 70 having a substantially rectangular shape as seen in Figure 3, while sidewalls 14 are formed from blanks 84 as seen in Figure 7.

30 Blank 70 includes rear panel 18 and end panels 20 and 22 connected together along fold lines 72 and 74. Flanges 32 and 38 extend from about the midpoint of the blank 70 to the end 76 of blank 70. Flanges 34 and 36 extend from a midpoint of blank 70 to end 78. One of the tabs 40 extends from each of the ends 76 and 78 and are coupled thereto by fold lines 80 and 82, respectively.

Referring to Figure 4, each of the flanges 34 and 38 has a first portion disposed in the same plane as rear

panel 18 and a second portion disposed in the same plane as its respective end panel 20 or 22. Each of the flanges 32 and 36, on the other hand, is formed or offset bent to have a first portion substantially parallel to rear panel 18 and a second portion substantially parallel to its respective end panel 20 or 22. Flanges 32 and 36 are spaced from the planes of the rear panel 18 and its respective end panel 20 or 22 by a distance substantially equal to the thickness of the sheet material.

10 Main body 12 is formed by folding end panels 20 and 22 along fold lines 72 and 74 to a right angle with respect to rear panel 18 as shown in Figures 5 and 6. Blank 70 is folded so that the flanges 32 and 36 are in a plane spaced outward from the interior of the main body 12. Tab 40 is then folded inwardly along fold lines 80 and 82 so that the tab 40 is essentially at right angles to the respective end panels 20 and 22 and parallel to the rear panel 18.

20 In the embodiment of Figures 1-11, flanges 32 and 36 are wider than the flanges 34 and 38. The difference in width between flanges 32 and 36 and flanges 34 and 38 is approximately the thickness of the sheet material from which blank 70 is made. As shown in Figure 4 and Figure 6, the portion of flange 36 extending along rear panel 18 is parallel to the portion of flange 38 extending along rear panel 18 and spaced apart a distance equal to the thickness of the sheet material. Ears 41 are folded outwardly perpendicular to end panels 20 and 22.

30 Each of the sidewalls 14 is substantially identical and interchangeable. Thus, each of the sidewalls 14 can be coupled to either side of main body 12. Referring to Figure 7, sidewalls 14 are formed from a blank 84 preferably made from the same sheet material used for main body 12. Blank 84 is formed to include a rectangular side panel 16 with end flanges 56 and 58 connected to panel 16

along fold lines 86 and 88, respectively, and flanges 60 and 62 attached to side panel 16 along fold lines 90 and 92, respectively. As shown in Figure 7, flange 62 is wider than flange 60 by about the thickness of the sheet material of the blank 84. Fold line 92 is also spaced slightly outward from the fold line 90 a distance substantially equal to the sheet material thickness.

Blank 84 is formed into sidewall 14 by folding flanges 56 and 58 inwardly to form substantially right angles with side panel 16. Flanges 60 and 62 are also folded inwardly to form substantially right angles with side panel 16. The spacing between the fold lines 90 and 92 of flanges 60 and 62 produce the same spacing between the flanges 60 and 62 when folded as shown in Figure 9. As shown in the front view of Figure 8, flanges 58 and 62 are slightly longer than flanges 56 and 60. In alternative embodiments, each of the flanges may be the same dimension.

As shown in Figure 1, the flanges 56 and 60 of the sidewall 14 overlap with flanges 32 and 36 of main body 12 on the interior surface of the main body 12. Flanges 56 and 60 are preferably slightly narrower than flanges 32 and 36 so that when assembled, the edges of flanges 32 and 36 are substantially flush with the outer surfaces of side panels 16.

Electrical Box 10a of Figures 10 and 11

A particularly advantageous feature of main body 12 is the ability to be coupled to an adjacent identical main body 12 in a ganged fashion to form a two ganged electrical box 10a as shown in Figures 10 and 11. Of course, any number of main bodies 12 may be coupled together with sidewall 14 at each end. The ganged electrical box 10a is constructed from two identical main bodies 12 and two identical sidewalls 14. The structural features of the

main bodies 12 and sidewalls 14 are substantially the same as in the embodiment of Figures 1-9. Thus, similar elements are identified by like reference numbers.

Referring to Figures 10 and 11, two adjacent main bodies 12 are coupled together by overlapping flanges 36 and 38 of first main body 12 with flanges 32 and 34 of a second adjacent main body 12. A screw 68 is threaded through the holes 66 in the flanges of main bodies 12 to rigidly couple the two main bodies 12 together. Sidewalls 14 are attached to the open ends of the ganged main bodies 12 by overlapping the flanges 32 and 34 of the left main body 12 and the flanges 36 and 38 of the right main body 12 with the flanges 60 and 62 on the respective sidewalls 14 as shown in Figure 11. Screws 68 are threaded through the holes 66 and 67 to rigidly couple the sidewalls 14 to the respective main bodies 12.

Main bodies 12 have a width capable of accommodating conventional electrical devices. The interlocking flanges of main body 12 overlap with the interlocking flanges on the adjacent main body 12 as shown in Figure 11 by a distance to provide a rigid connection therebetween, while maintaining proper spacing between ganged electrical devices. In preferred embodiments, each of the main bodies 12 has a width of $2 \frac{3}{16}$ inches with the flanges being $\frac{3}{8}$ inch wide. This provides an electrical box 10a having a width to accommodate a single electrical device when two sidewalls 14 are coupled to opposite sides of the main body 12. When two or more main bodies 12 are ganged, the flanges coupling the main bodies 12 together overlap by approximately $\frac{3}{8}$ inch to maintain minimum spacing of adjacent electrical devices at approximately $1 \frac{13}{16}$ inches. This spacing is sufficient to accommodate ganged electrical devices. Accordingly, the main body 12 is constructed to provide sufficient dimensions for a single

electrical device and can be ganged to accommodate a plurality of electrical devices without making the ganged assembly unnecessarily large.

Embodiment of Figures 12-15

10 In the embodiment illustrated in Figures 12-15, an electrical box 110 is formed from a main body 112 and a sidewall 114. Main body 112 is formed from a unitary blank 116 of sheet material as shown in Figure 12. Sidewall 114 is substantially identical to sidewalls 14 of the embodiment of Figures 1-11 as previously discussed. Thus, sidewall 114 will not be discussed in detail. As seen in Figure 13, when blank 116 is folded, main body 112 is formed with an integral mounting bracket 118.

20 The main body 112 of electrical box 110 includes a rear wall panel 120, a sidewall portion or panel 122 coupled to rear wall panel 120 by a fold line 124, a first end wall panel 126 coupled to rear wall panel 120 by fold line 128, and a second end wall panel 130 coupled to rear wall panel 120 by fold line 132. Knock-out or pry-out members 133 are provided in end wall panels 126 and 130.

30 As illustrated in Figure 13, electrical box 110 forms a two and one-half ($2\frac{1}{2}$) inch deep single gangable electrical box. It is apparent to those skilled in the art that electrical box 110 can have a variety of shapes or sizes without departing from the invention. Rear wall panel 120, first sidewall panel 122 and end panels 126 and 130 are substantially planar members. Fold lines 128 and 132 are substantially parallel and form a pair of opposite edges of rear wall panel 120. Fold line 124 and edge 134 form the second pair of opposite edges of rear wall panel 120.

Sidewall panel 122 has a free edge 136 which is substantially parallel to the edge formed by first fold

line 124, and a pair of opposite, parallel edges 138 and 140 extending perpendicularly between free edge 136 and fold line 124. Edges 138 and 140 are substantially aligned with fold lines 128 and 132, respectively. When main body 112 is folded, sidewall panel 122 is bent along fold line 124 to extend substantially perpendicular to rear wall panel 120.

10 First end wall panel 126 has a substantially flat, planar, rectangular shape, and includes a first pair of opposite, parallel edges formed by fold line 128 and free edge 142. End wall panel 126 further includes a second pair of opposite, parallel free edges 144 and 146. A first coupling flap 148 is coupled to first end wall panel 126 by a fold line 150 for engaging the exterior surface of first sidewall panel 122. A flange 152 is coupled to first end wall panel 126 and rear panel 120 by fold line 154. A wiring device mounting flange 156 is coupled to first end wall panel 126 by fold line 158 for attaching a wiring device (not shown) to main body 112. When blank 116 is
20 folded, first end wall panel 126 is bent along fold line 128 to extend substantially perpendicular to rear wall panel 120 and flange 152 is folded to be spaced outwardly from main body 112 as shown in Figure 13. Flange 152 is shaped to overlap and couple to sidewall 114.

30 First coupling flap 148 is a substantially flat, planar half circular member. When first coupling flap 148 is folded along fold line 150, coupling flap 148 extends substantially parallel to sidewall panel 122 and perpendicular to end wall 126 for engaging the exterior surface of sidewall panel 122. Accordingly, coupling flap 148 holds first end wall panel 126 substantially perpendicular to first sidewall panel 122, and provides rigidity to assembly 110. Fold line 150 is substantially parallel to edge 144 of first end wall panel 126 and spaced

approximately the thickness of first sidewall panel 122 from edge 144. Fold line 150 is also substantially parallel to fold line 154. Coupling flap 148 includes a hole 149 to align with a hole 151 in sidewall panel 122 to receive an optional fastener (not shown).

10 Flange 152 is substantially the same as the overlapping flanges in the embodiment of Figures 1-4. In the embodiment illustrated, flange 152 extends the length of end panel 126 and about one-half the length of rear wall panel 120. Flange 152 forms a portion of rear wall panel 120 and end panel 126 and is spaced outwardly about the thickness of the sheet material. A punched hole 153 is provided in flange 152 to receive a fastener (not shown) to couple flange 152 to sidewall 114.

20 Second end wall panel 130 has a substantially flat, planar, rectangular shape having a first pair of opposite, parallel edges formed by fold line 132 and free edge 160 together with free side edges 162 and 164. A first coupling flap 166 is coupled to second end wall panel 130 by a fold line 168 for the exterior surface of engaging sidewall panel 122. A flange 170 is formed from portions of second end wall panel 130 and rear panel 120 for engaging sidewall 114. Unlike flange 152, flange 170 lies in the same plane as end wall panel 130 and rear wall panel 120. A wiring device mounting flange 172 is coupled to second end wall panel 130 by fold line 173 for attaching a wiring device (not shown) to main body 112. When blank 116 is folded, second end wall panel 130 is bent along fold line 132 to extend substantially perpendicular to rear wall panel 120, and flap 166 and flange 172 are bent along their fold lines to extend substantially perpendicular to second end wall panel 130 as seen in Figures 13 and 14.

30 First coupling flap 166 is a substantially flat, planar half circular member. When first coupling flap 166

is folded along fold line 168, coupling flap 166 extends substantially perpendicular to second end wall panel 130 for engaging the exterior surface of first sidewall panel 122. Accordingly, coupling flap 166 holds second end wall panel 130 substantially perpendicular to first sidewall panel 122, and provides rigidity to electrical box 112. Fold line 168 is substantially parallel to edge 162 of second end wall panel 130 and spaced approximately the thickness of first sidewall panel 122 from edge 162. Fold line 168 is also substantially parallel to edge 164. Coupling flap 166 includes a hole 167 for aligning with a hole 169 in side panel 122 to receive an optional fastener (not shown).

Bracket 118 includes a first bracket portion 174 and a second bracket portion 176 integrally formed with first sidewall panel 122. First bracket portion 174 is coupled to first sidewall panel 122 by fold line 178 which lies on edge 138 of sidewall panel 122. Second bracket portion 176 is coupled to sidewall panel 122 by fold line 180 which lies on edge 140 of sidewall panel 122. When folded, bracket portions 174 and 176 are preferably spaced one-half inch from edge 136 of sidewall panel 122 so that electrical box 110 is flush with one-half inch drywall when coupled to a support member. An extruded hole 155 is provided in flange 170 to receive a threaded screw.

First bracket portion 174 includes a first side mounting section 182, and a face mounting section 184 with a pair of mounting holes 186 for receiving fasteners therein. Side mounting section 182 includes a first portion 188 and a second portion 190 coupled to first portion 188 by fold line 192. First portion 188 is substantially rectangular and extends outwardly from sidewall panel 122 at approximately a forty-five degree angle. Second portion 190 extends outwardly from first

portion 188 and is substantially parallel to sidewall panel 122. Accordingly, side mounting section 182 spaces sidewall panel 122 from support member 194 as seen in Figure 14.

10 Mounting portion 190 includes holes 196 for mounting bracket 174 to a support 194 by nails, screws or any other fasteners. A punch member 198 is also formed in portion 190 and connected thereto along fold line 200. Punch member 198 is folded in half along fold line 202 to define a leg 204 which is nailed into wood support 194 in a conventional manner as shown in Figure 14. When the electrical box is mounted to a metal stud, the leg 204 is not nailed into the stud.

20 Second bracket portion 176 includes a first side mounting section 206, a face mounting section 208 with a pair of mounting holes 210 for receiving fasteners therein. Side mounting section 206 includes a first portion 212 and a second portion 214 coupled to first portion 212 by fold line 216. First portion 212 is substantially rectangular and extends outwardly from sidewall panel 122 at approximately a forty-five degree angle. Second portion 214 extends outwardly from first portion 212 and is substantially parallel to sidewall panel 122. Accordingly, side mounting section 176 spaces sidewall panel 122 from the support member 194 as seen in Figure 14. A punch member 218 similar to punch 198 is also formed in portion 214 for engaging support 194 along with holes 220 for receiving conventional fasteners therein.

30 Sidewall 114 is also formed from a blank similar to the sidewall of the embodiments of Figures 1-11. Sidewall 114 includes a side panel 223 having end flanges 224 and 226 coupled thereto along fold lines 228 and 230, respectively. As in the previous embodiment, flange 224 is in a plane spaced from the plane of flange 226 by a

distance equal to the thickness of the sheet material. End flanges 225 and 227 are coupled to side panel 223 along fold lines 229 and 231, respectively. Flange 225 includes a threaded extruded hole 233 for aligning with hole 153 in main body 112 to receive fasteners (not shown) for coupling sidewall 114 to main body 112. Flange 227 includes a punched hole 235 for aligning with extruded hole 155 and to receive a suitable screw.

10 Referring to Figures 13 and 14, main body 112 is constructed by folding blank 116 along the fold lines discussed above. Electrical box 110 is formed by coupling to sidewall 114 to main body 112 as previously discussed by overlapping the flanges on sidewall 114 with the flanges on main body 112. Alternatively, main body 112 may also be coupled to an identical main body 112 or to main body 12 which is substantially identical to the embodiment of Figures 1-11. In this manner, the elements can be ganged together to form the desired size of the assembly.

Electrical Boxes 110a and 110b of Figures 16 and 17

20 Referring to Figures 16 and 17, a pair of electrical boxes 110a and 110b are illustrated in accordance with the present invention. In particular, electrical box 110a is constructed using a pair of main bodies 112 with brackets 118 and a main body 12 with plaster ears 41 removed. Main bodies 112 are coupled to main body 12 in substantially the same manner in which sidewalls 14 are coupled to main body 12 in the embodiment of Figure 1. Accordingly, the assembly of electrical box 110a will not be discussed or illustrated herein.

30 Electrical box 110b is constructed using a main body 112, a main body 12 with plaster ears 41 removed and a sidewall 14. The assembly of main body 112 to main body 12 is substantially the same as the assembly of a sidewall 14

to a main body 12 as discussed above. Accordingly, the assembly of electrical box 110b will not be discussed or illustrated herein.

Embodiment of Figures 18 and 19

Referring to Figures 18 and 19, a further embodiment of the electrical box 310 includes a main body 312 and a pair of sidewalls 314a and 314b. Main body 312 is formed from a folded blank of sheet material to define a rear wall panel 318, top end panel 320 coupled to rear panel 318 along fold line 328 and extending perpendicular to rear panel 318, and bottom end panel 322 coupled to rear panel 318 along fold line 330 and extending perpendicular to rear panel 318. Electrical device mounting tabs 340 depend from top end panel 320 and bottom end panel 322, respectively. A continuous first flange 332 extends from the left side of main body 312 as viewed in Figure 18. Flange 332 extends the full length of top end panel 320, along rear panel 318, and along bottom end panel 322. As shown in Figure 19, flange 332 is offset inwardly from the plane of rear panel 318, top end panel 320 and bottom end panel 322 by a distance substantially equal to the thickness of the sheet material. A slot 334 is disposed in flange 332 as shown in Figure 18. A second flange 336 is defined along the right side edge of main body 312 opposite flange 332 as viewed in Figure 18. A slot 338 is formed in flange 336.

Sidewall 314a is formed from a folded blank of sheet material to define a side panel 316. A first flange 356 is coupled to side panel 316 along fold line 352 to extend perpendicular thereto. A second flange 358 extends perpendicular to side panel 316 and is coupled thereto by fold line 354. A third flange 360 extends perpendicular to side panel 316 and is coupled thereto along fold line 348. An interlocking tab 362 extends perpendicular from flange

360 and is coupled thereto by fold line 363. Tab 362 is dimensioned to mate with slot 334 when sidewall 314 is coupled to main body 312.

10 Sidewall 314b is substantially the same as sidewall 314a, except that sidewall 314b is larger in height and width than sidewall 314a. Thus, similar elements are identified by like reference numbers with the addition of a prime. Sidewall 314b includes a side panel 316', a first flange 356' coupled thereto by fold line 352', second
10 flange 358' coupled to side panel 316' along fold line 354', and third flange 360' coupled to side panel 316' by fold line 348'. Each of the flanges 356', 358' and 360' extends perpendicular to side panel 316'. Flange 360 includes an interlocking tab 362' coupled thereto by fold line 363'.

20 The electrical box 310 is assembled by coupling sidewalls 314a and 314b to main body 312 so that the corresponding flanges overlap and interlocking tabs 362 and 362' interlock with slots 334 and 338, respectively. In
20 the embodiment illustrated, a plurality of threaded holes 366 and 366' are provided in the flanges for receiving screws (not shown) as previously discussed.

30 In the embodiment of Figures 18 and 19, sidewall 314b is dimensioned so that flanges 356', 358' and 360' overlap flange 336 along the outside surface of main body 312. The flanges 356, 358 and 360 of sidewall 314a nest in the recess defined by offset flange 332. Tabs 362 and 362' are received in slots 334 and 338, respectively. In this fashion, the outside surfaces of the electrical box 312 are
30 substantially smooth since the outer surfaces of sidewall 314a lie in the same plane as the outer surfaces of main body 312. In the embodiment of Figures 18 and 19, the flanges 356', 358' and 360' of sidewall 314b are dimensioned to nest outside main body 312. Of course, the flanges

356', 358' and 360' and sidewall 314b may be dimensioned to overlap the inside surface of main body 312 to provide a substantially smooth outer surface.

Embodiment of Figures 20 and 21

Referring now to the embodiment illustrated in Figures 20 and 21, an electrical box 410 is illustrated. Electrical box 410 is substantially identical to electrical box 310, except for modifications to the coupling of main body 412 and sidewall 414b. More specifically, sidewall 10 414b is similar to sidewall 314b of Figure 18, except for flanges 456' and 458' being spaced from third flange 460' by a distance substantially equal to the thickness of the sheet material forming main body 412 so that flanges 456' and 458' overlap flange 436 along the outside surface of main body 414, and a slot 462' being formed in flange 460' of sidewall 414b for receiving an interlocking tab 438 formed in flange 436 of main body 412.

Flange 460' is dimensioned to fit inside of flange 436 along rear panel 418. End flanges 456' and 458' are 20 coupled to side panel 416' by fold line 452' and 454', respectively. Fold lines 452' and 454' are spaced from the ends of flange 460' by a distance equal to the thickness of the sheet material from which main body 412 is made. The spacing between flanges 456' and 458' and flange 460' allows flanges 456' and 458' to overlap on the outside surface of flange 436 of main body 412 while allowing flange 460' to fit inside of flange 436 of main body 412.

In this illustrated embodiment, flange 460' includes a slot 462' to receive a tab 438 projecting inwardly from 30 flange 436 on main body 412. As in the previous embodiments, main body 412 includes flange 432 for coupling with sidewall 414a.

Sidewall 414c of Figures 22 and 23

Referring to Figures 22 and 23, a modified sidewall 414c is illustrated for use with electrical box 410 of the embodiment of Figure 20. In particular, sidewall 414c can be used instead of sidewall 414b in constructing electrical box 410. Sidewall 414c is substantially identical to sidewall 414b, except that sidewall 414c has been modified to fit inside of flange 436 of main body 410. In other words, side panel 416c and third flange 460c are shorter in height than side panel 416' and third flange 460' of sidewall 416b. Also, slot 462c has been moved closer to side panel 416c. Since sidewall 414c is substantially similar to sidewall 414b, sidewall 414c will not be discussed in detail. In this embodiment, the outer surface of the assembly is smooth since end wall 414c is nested within the flange 436 of main body 410.

Embodiment of Figure 24

Referring to Figure 24, a modified electrical box 510 is illustrated. Electrical box 510 is substantially identical to electrical box 10, except for the modifications to the coupling of main body 512 to sidewalls 514a and 514b. More specifically, main body 512 and sidewalls 514a and 514b are provided with an interlocking tab and slot arrangement. Main body 512 includes a pair of flanges 532 and 536 on opposite sides of main body 512 and are offset inwardly from the plane of rear panel 518 and end panels 520 and 522 by a distance equal to the thickness of the sheet material. Interlocking slots 531 and 533 are provided in flanges 532 and 536, respectively. Flanges 534 and 538 are provided on opposite sides of main body 512 opposite flanges 532 and 536. Flanges 534 and 538 are positioned in the same plane as rear panel 518 and end panels 520 and 522, respectively. Interlocking tabs 535

and 537 are provided in flanges 534 and 538, respectively. Flanges 532 and 536 also include extruded holes 560 to receive a threaded screw (not shown) to fixedly couple the sidewalls 514a and 514b to main body 512.

10 Sidewalls 514a and 514b are identical and interchangeable. Sidewall 514a is formed from a folded blank of sheet material to define a side panel 516a, a pair of end flanges 556a and 558a extending perpendicular to side panel 516a, and a pair of side flanges 560a and 562a extending perpendicular to side panel 516a and end flanges 556a and 558a.

Flange 562a is substantially parallel to flange 560a and offset outwardly a distance substantially equal to the thickness of the sheet material of main body 512. Flange 562a includes an inwardly extending tab 561a dimensioned to engage slot 531 in flange 532 of main body 512.

20 Flange 558a includes an extruded hole 571a to receive a threaded screw. Flange 556a includes a punched hole 573a to allow a screw (not shown) to pass through. Sidewall 514b is identical to sidewall 514a such that identical components are identified by the same reference number with the addition of the letter b. Thus, the construction of sidewall 514b will not be discussed in detail herein.

30 The electrical box 510 is assembled as in the previous embodiments by coupling sidewalls 514a and 514b to main body 512 so that the corresponding flanges overlap and interlocking tabs 535 and 537 of main body interlock with slots 563a and 563b, respectively. Interlocking tabs 561a and 561b also interlock with slots 531 and 533 of main body 512. Screws (not shown) are passed through the punched holes 567 and 573a in flanges 534 and 556a, respectively, and threaded into extruded holes 571a and 560 in flanges 558a and 532, respectively.

In the embodiment of Figure 24, sidewalls 514a and 514b are dimensioned so that flanges 556a and 556b fit outside offset flanges 532 and 536 so that flanges 556a and 556b lie substantially flush with end panels 520 and 522. Flanges 558a and 558b are dimensioned to fit inside flanges 534 and 538 to provide a substantially smooth outer surface.

10 Rear panel 518 includes optional knock-outs or pry-outs 564. Flanges 560a and 560b, include an arcuate shaped notch 580 to prevent the flanges from interfering with cables or cable couplings passing through the knock-out opening. Similar notches 580a are provided in flanges 532 and 536 of main body 512 so that the flanges do not interfere with a cable coupling in the knock-out opening when two or more main bodies are coupled together.

20 Flange 534 and 538 of main body 510 include punched holes 582 and 584, respectively. Flanges 560a and 560b of side walls 514a and 514b include punch holes 586a and 586b to align with holes 582 and 584 when assembled. A self-threading ground screw (not shown) is installed through the holes. The overlapping flanges provide a double thickness of material to ensure two full threads of engagement for the ground screw.

30 The embodiments discussed above are preferred embodiments of the invention although numerous variations can be made. For example, in the illustrated embodiments, the coupling flanges extend the full length of the side of the sidewall and main body. Alternatively, the flanges extend only partially the length of the sides a sufficient distance to ensure tight assembly of the components. Similarly, a single interlocking tab is shown projecting from the flange of the sidewalls although one or more tabs instead may be formed on the flanges of the main body. The flanges on the rear panel 18 in the embodiment of Figures

1-11 are split so that they fit over and under the complementary flanges of the sidewall. This split assists in making a more secure assembly. The flanges of the top and bottom end panels may also be split if desired. The slot and tab arrangement of Figures 20-23 can be used in place of one or more of the fasteners on any of the flanges.

10 In a further embodiment, a ground screw may extend through the overlapping flanges to secure the components of the assembly together as well as providing a ground connection to the assembly.

While several advantageous embodiments have been used to illustrate the invention, it will be understood by those skilled in the art that various changes and modifications of the invention can be made without departing from the scope of the invention as defined in the following claims.

- 31 -

WHAT IS CLAIMED IS:

1. A gangable electrical box assembly, comprising:

a first main body folded from a first sheet of material, and having at least a rectangular rear panel with first and second end edges and first and second side edges, a first rectangular end panel rigidly coupled to said first end edge of said rear panel and extending substantially perpendicular to said rear panel, and a second rectangular end panel rigidly coupled to said second end edge of said rear panel and extending substantially perpendicular to said rear panel;

a first rectangular side panel coupled to said first main body and extending substantially perpendicular to said rear panel;

a second rectangular side panel formed from a second sheet of material coupled to said first main body and extending substantially perpendicular to said rear panel; and

first coupling means for removably coupling said second side panel to said first main body, said first coupling means including

a first coupling flange integrally formed with said main body and extending substantially perpendicular to said second side panel, said first coupling flange having a first portion parallel to said rear panel, a second portion parallel to said first end panel and a third portion parallel to said second end panel, each of said portions being inwardly offset from said rear panel and said end panels respectively,

a second coupling flange integrally formed with said first side panel by a fold line and extending substantially perpendicular to said first side panel for overlapping at least part of said first coupling flange, and

at least one fastening means for coupling said first coupling flange to said second coupling flange.

2. The gangable electrical box assembly of claim 1, wherein said fastening means is a screw, and each of said first and said second coupling flanges include a mounting hole for receiving said screw.

- 32 -

3. The gangable electrical box assembly of claim 1, wherein said main body has a rear panel outer surface along said rear panel,

said second coupling flange has a rear portion outer surface along a rear portion with said rear portion outer surface lying in a first plane,

said fastening means comprises a coupling tab on said first coupling flange extending parallel to said first side panel, and a hole in said second coupling flange for receiving said coupling tab, and

said fastening means arranged so that said rear portion outer surface lies entirely in said first plane of said rear panel outer surface.

4. The gangable electrical box assembly of claim 1, wherein said main body has a rear panel outer surface along said rear panel,

said second coupling flange has a rear portion outer surface along a rear portion, with said rear portion outer surface lying in a first plane,

said fastening means comprises a coupling tab on said second coupling flange extending parallel to said first side panel, and a hole in said first coupling flange for receiving said coupling tab, and

said fastening means arranged so that said rear panel outer surface lies entirely in said first plane of said rear portion outer surface.

5. The gangable electrical box assembly of claim 1, wherein said main body includes a third coupling flange integrally formed with said main body, and

said second side panel includes a fourth coupling flange integrally formed with said second side panel for overlapping with said third coupling flange.

- 33 -

6. The gangable electrical box assembly of claim 5, wherein said third coupling flange extends along said rear panel of said main body and along said first and said second end panels.
7. The gangable electrical box assembly of claim 6, wherein said second and said fourth coupling flanges each include first portions parallel to said rear panel and second and third portions parallel to said first end panel and said second end panel.
8. The gangable electrical box assembly of claim 5, wherein said third and said fourth coupling flanges include a hole which receives a second fastening means for rigidly coupling said second side panel to said main body.
9. The gangable electrical box assembly of claim 8, wherein said second fastening means is a screw.
10. The gangable electrical box assembly of claim 1, wherein each of said first and said second end panels of said main body include a tab extending inwardly with respect to said electrical box, said tabs being parallel to said rear panel for coupling with an electrical device.
11. The gangable electrical box assembly of claim 1, wherein said electrical box is a ganged assembly comprising a second main body for coupling said first main body with said second side panel.
12. The gangable electrical box assembly of claim 11, wherein said second main body includes a first coupling flange extending from a first side edge of said second main body, and a third coupling flange extending from a second side edge of said second main body, said first coupling flange on said second main body being disposed for coupling with said third coupling flange on said first main body.

- 34 -

13. The gangable electrical box assembly of claim 12, wherein said first coupling flange of said second main body is adapted for overlapping and telescoping with said third flange of said first main body.

14. A gangable electrical box assembly comprising:

a first main body folded from a first sheet of materials, and having at least a rectangular rear panel with first and second end edges and first and second side edges, a first rectangular end panel rigidly coupled to said first end edge of said rear panel and extending substantially, perpendicular to said rear panel, and a second rectangular end panel rigidly coupled to said second end edge of said rear panel and extending substantially perpendicular to said rear panel;

a first rectangular side panel coupled to said first main body and extending substantially perpendicular to said rear panel;

a second rectangular side panel formed from a second sheet of material coupled to said first main body and extending substantially perpendicular to said rear panel; and

first coupling means for removably coupling said second side panel to said first main body, said first coupling means including

a first coupling flange integrally formed with said main body and extending substantially perpendicular to said second side panel,

a second coupling flange integrally formed with said second side panel by a fold line and extending substantially perpendicular to said second side panel for overlapping at least part of said first coupling flange,

said second coupling flange comprises a first portion coupled to a first edge of said second side panel, a second portion coupled to a second edge of said second side panel, and a third portion coupled to a third edge of said second side panel,

- 35 -

said third portion of said second coupling flange includes a slot,

said first coupling flange includes a coupling tab extending substantially parallel to said second side panel for coupling with said slot, and

at least one fastening means for coupling said first coupling flange to said second coupling flange,

said main body including a third coupling flange integrally formed with said main body, and a fourth coupling flange integrally formed with said first side panel for overlapping with said third coupling flange.

15. A gangable electrical box assembly comprising:

a first main body folded from a first sheet of material, and having at least a rectangular rear panel with first and second end edges and first and second side edges, a first rectangular end panel rigidly coupled to said first end edge of said rear panel and extending substantially perpendicular to said rear panel, and a second rectangular end panel rigidly coupled to said second end edge of said rear panel and extending substantially perpendicular to said rear panel;

a first rectangular side panel coupled to said first main body and extending substantially perpendicular to said rear panel;

a second rectangular side panel formed from a second sheet of material coupled to said first main body and extending substantially perpendicular to said rear panel; and

first coupling means for removably coupling said second side panel to said first main body, said first coupling means including

a first coupling flange integrally formed with said main body and extending substantially perpendicular to said second side panel,

a second coupling flange integrally formed with said second side panel by a fold line and extending substantially perpendicular to said second side panel for overlapping at least part of said first coupling flange,

- 36 -

said second coupling flange comprises a first portion coupled to a first edge of said second side panel, a second portion coupled to a second edge of said second side panel, and a third portion coupled to a third edge of said second side panel,

said first and said second portions of said second coupling flange are coupled to said second side panel by first and second fold lines, said first and said second portions being adapted for overlapping an outside surface of said first coupling flange and said third portion being adapted for overlapping an inside surface of said first coupling flange, and

at least one fastening means for coupling said first coupling flange to said second coupling flange,

said main body including a third coupling flange integrally formed with said main body, and a fourth coupling flange integrally formed with said first side panel for overlapping with said third coupling flange.

16. An electrical box assembly, comprising in combination:

a main body formed from a folded unitary blank of sheet material, said main body including a rear panel, a first side panel coupled to said rear panel by a first fold line and extending substantially perpendicular to said rear panel, a first end panel coupled to said rear panel by a second fold line, a second end panel coupled to said rear panel by a third fold line, said first and said second end panels extending substantially perpendicular to said rear panel and perpendicular to said side panel, each of said end panels including a first flap coupled thereto and extending substantially perpendicular thereto for overlying a portion of said first side panel;

a second side panel removably coupled to said rear panel and said first and said second end panels; and

means for rigidly coupling said second side panel to said main body, said means for rigidly coupling comprising a first flange on said second side panel, said first flange extending perpendicular to said second side panel for coupling to at least one of said rear panel or said end panels.

- 37 -

17. An electrical box assembly, comprising in combination:

a main body formed from a folded unitary blank of sheet material, said main body including a rear panel, a first side panel coupled to said rear panel by a first fold line and extending substantially perpendicular to said rear panel, a first end panel coupled to said rear panel by a second fold line, a second end panel coupled to said rear panel by a third fold line, said first and said second end panels extending substantially perpendicular to said rear panel and perpendicular to said side panel;

a second side panel removably coupled to said rear panel and said first and said second end panels; and

means for rigidly coupling said second side panel to said main body, said means for rigidly coupling comprising a first flange on said second side panel, said first flange extending perpendicular to said second side panel for coupling to at least one of said rear panel or said end panels,

said main body includes a second flange extending from a side edge thereof for overlapping with said first flange on said second side panel, said second flange having a first portion parallel to said rear panel, a second portion parallel to said first end panel and a third portion parallel to said second end panel, each of said portions being inwardly offset from said rear panel and said end panels respectively.

18. The gangable electrical box assembly of claim 5, wherein

said third coupling flange extends within the fourth coupling flange.

19. The gangable electrical box assembly of claim 18, wherein

said first portion of said fourth coupling flange is spaced from said second and said third portions of said fourth coupling flange.

20. The gangable electrical box assembly of claim 7, wherein

said fourth coupling flange extends within the third coupling flange.

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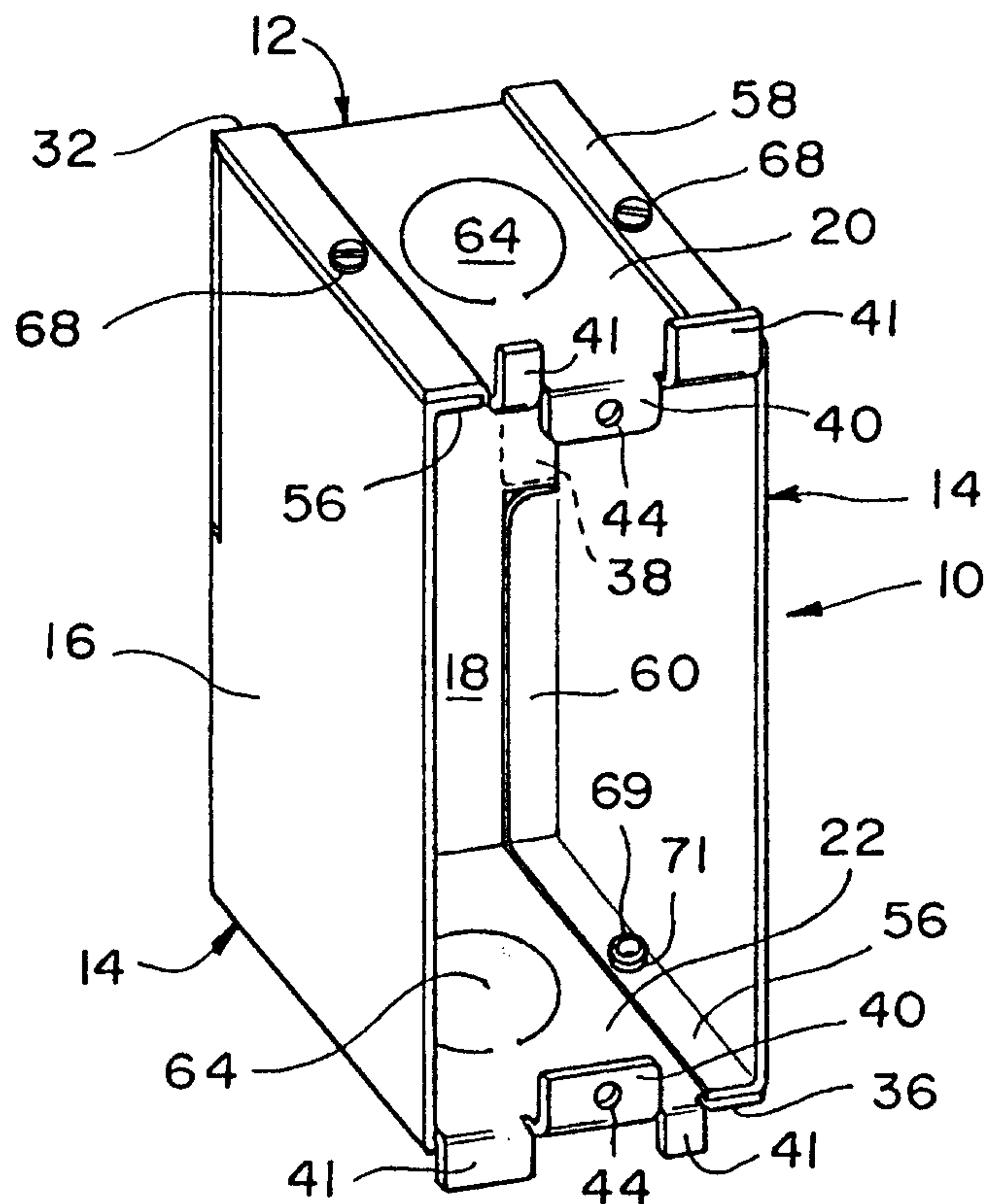


FIG. 1

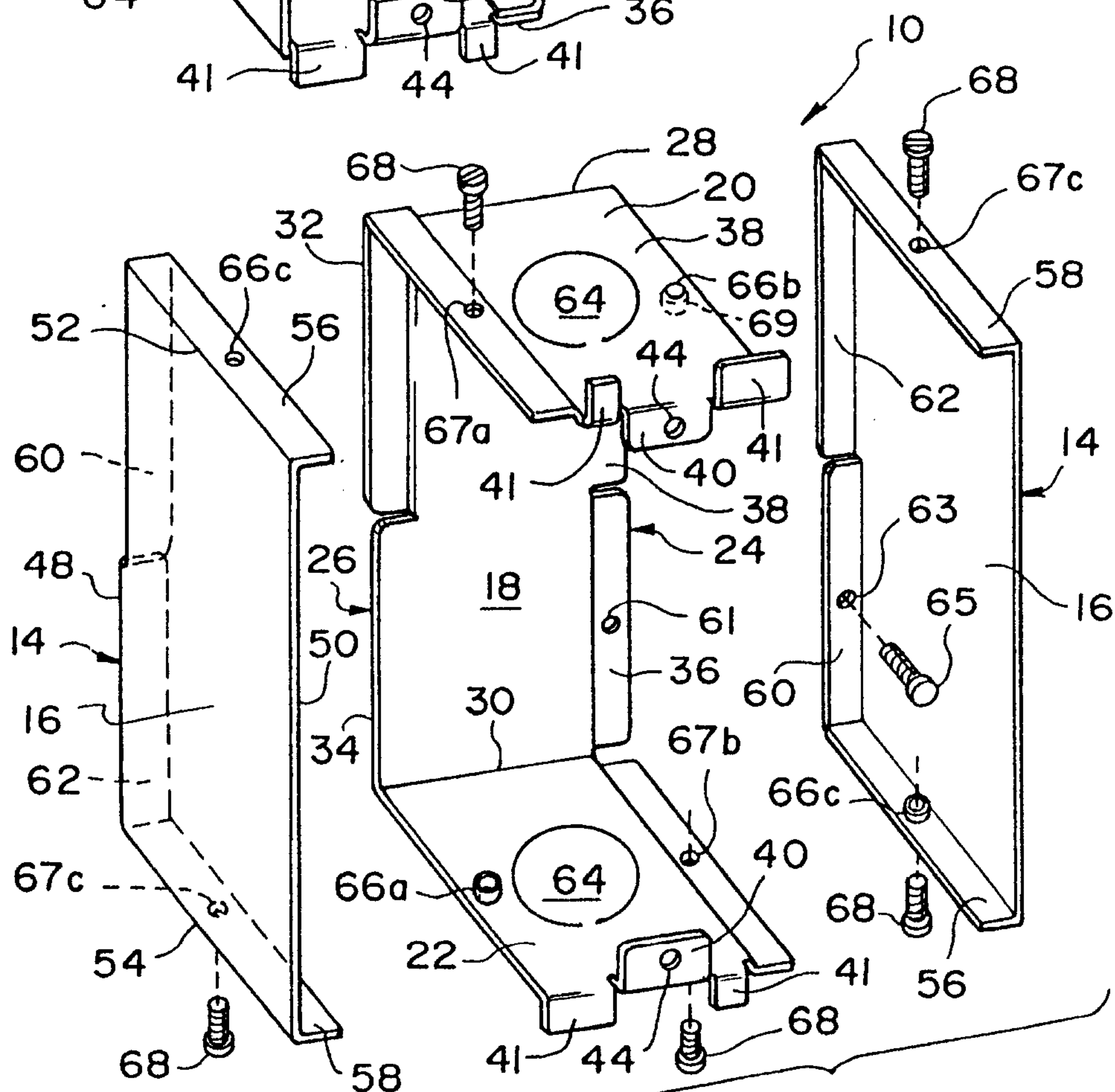


FIG. 2

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FIG. 3

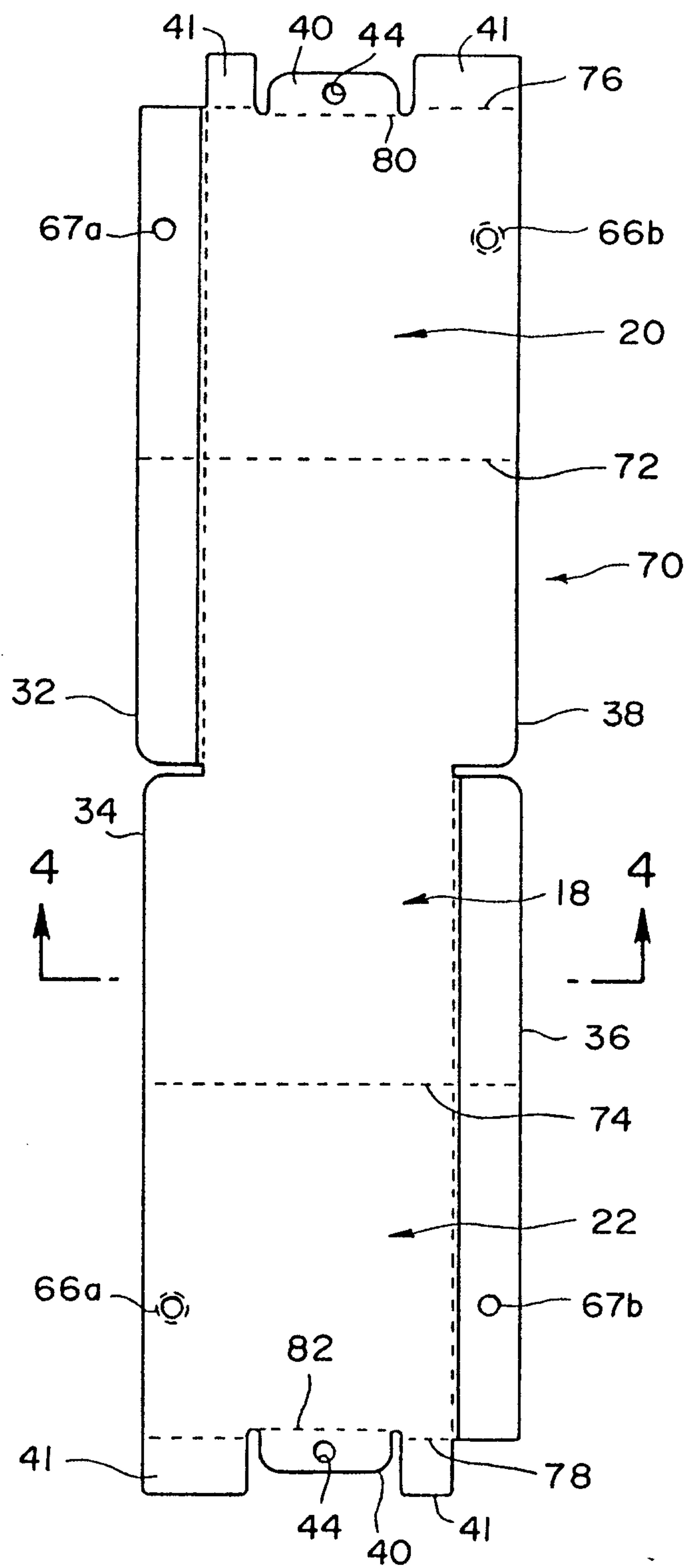
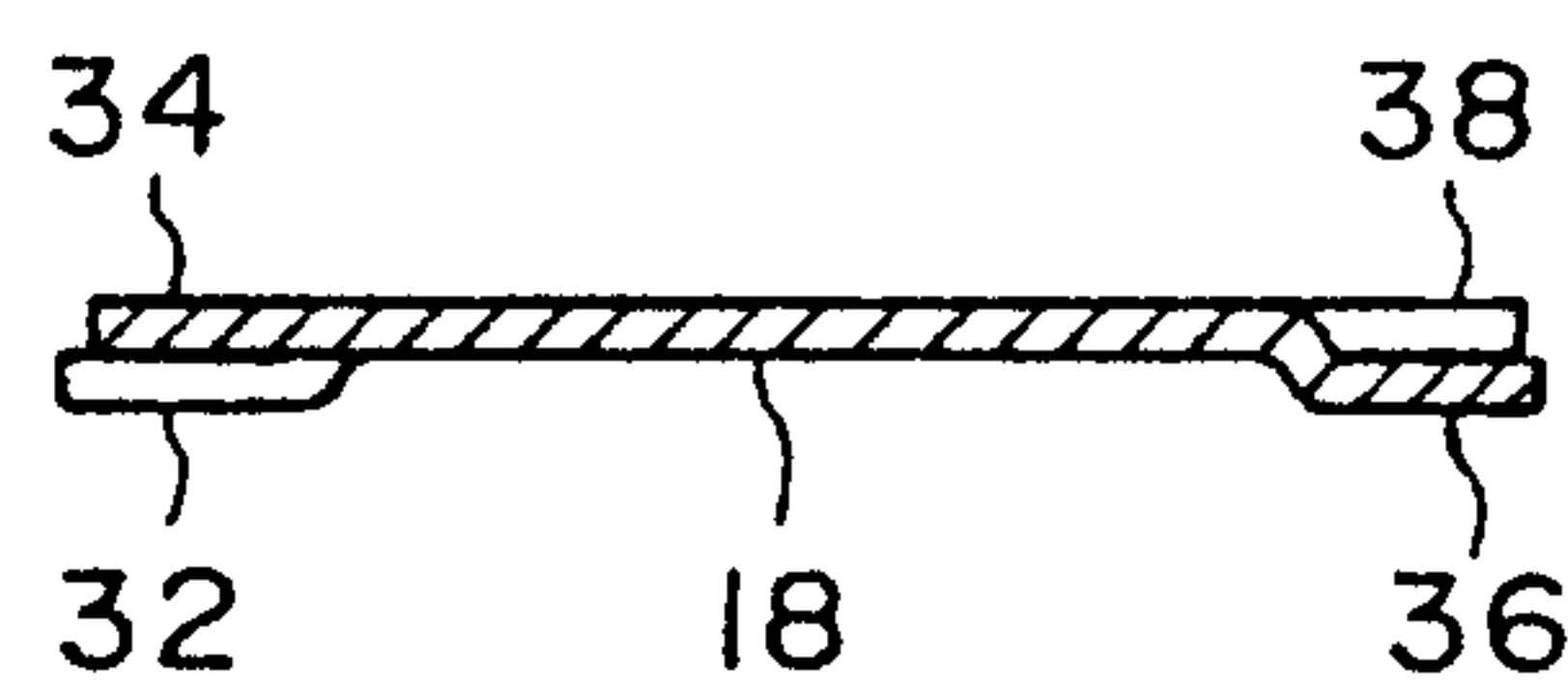


FIG. 4



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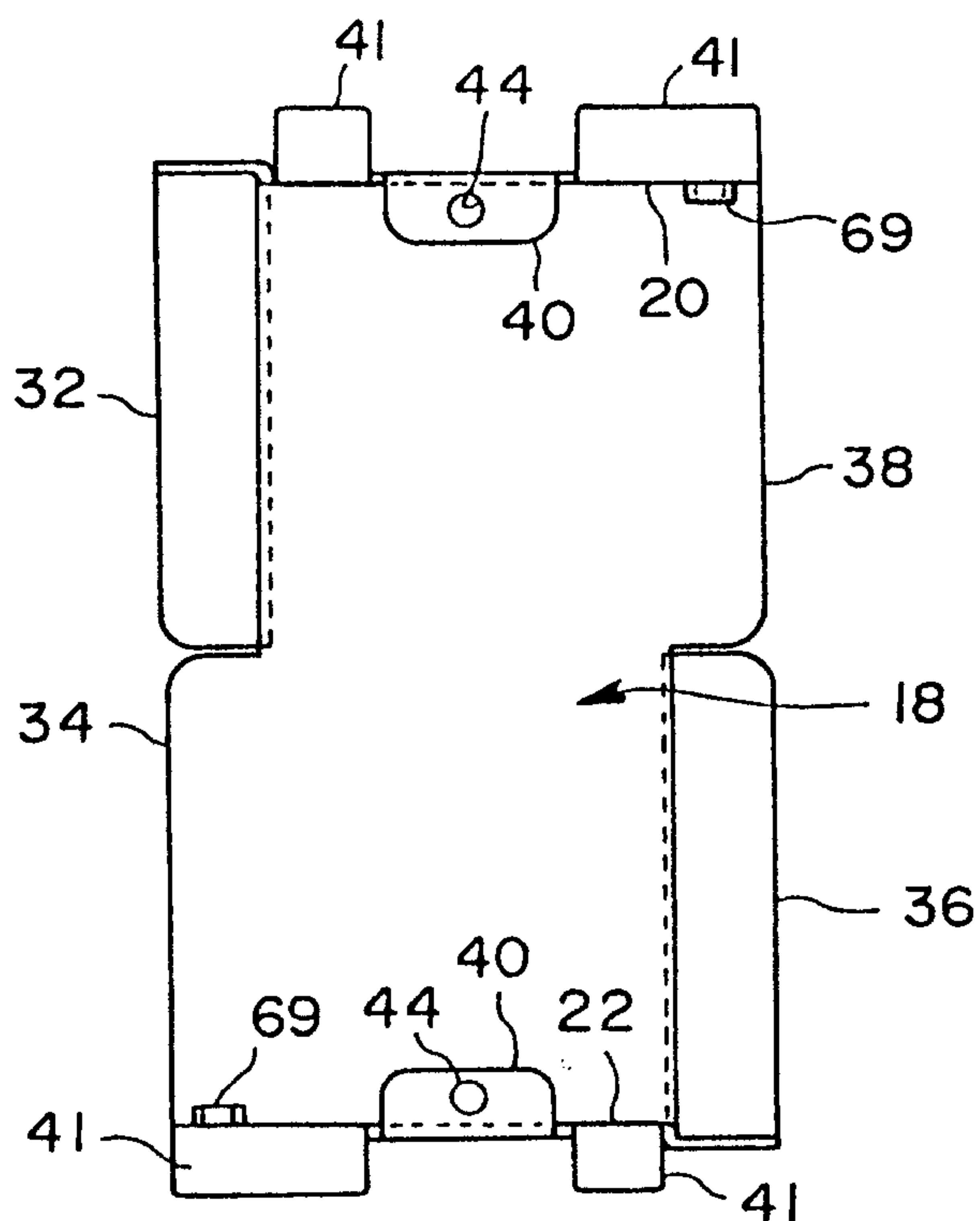


FIG. 5

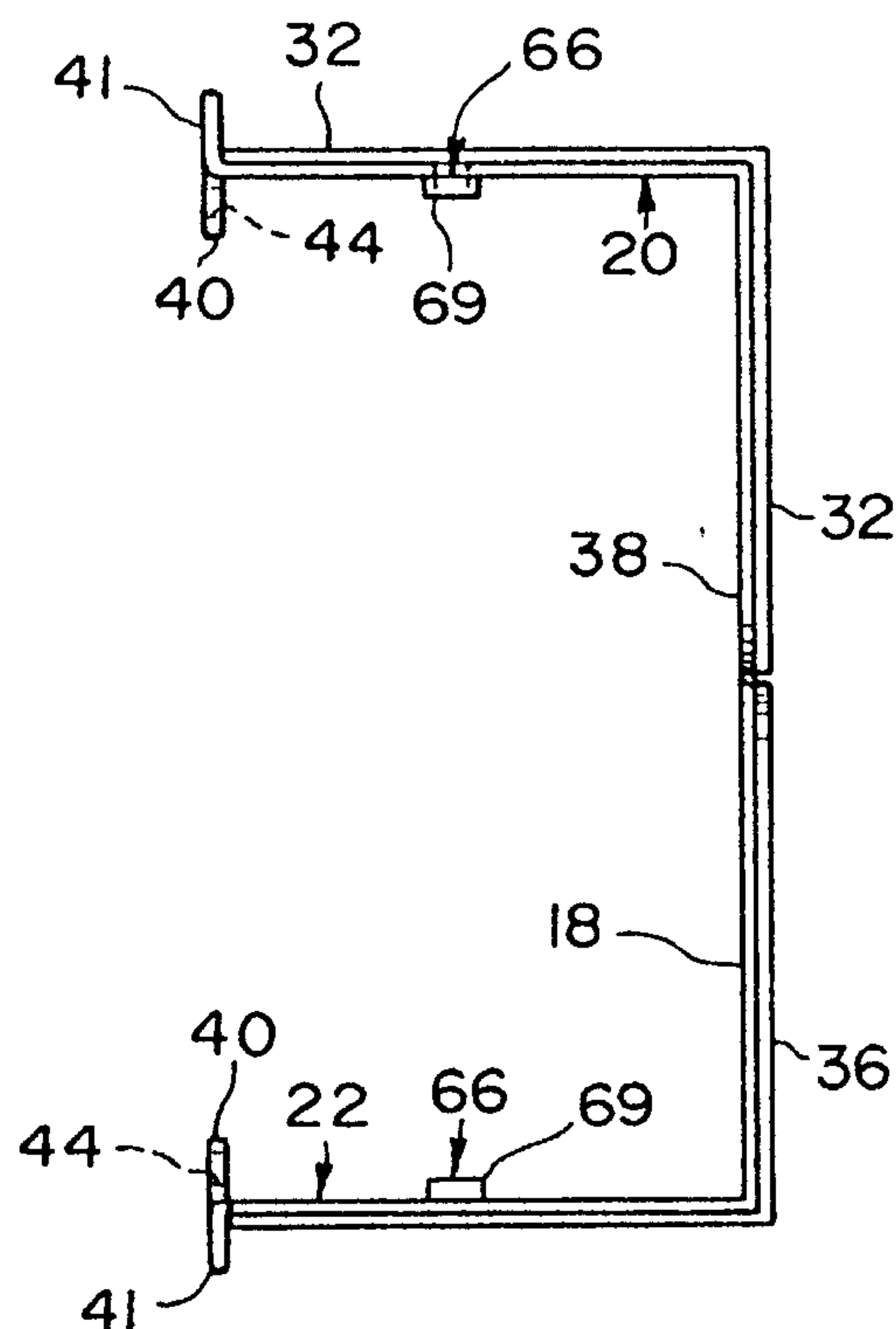


FIG. 6

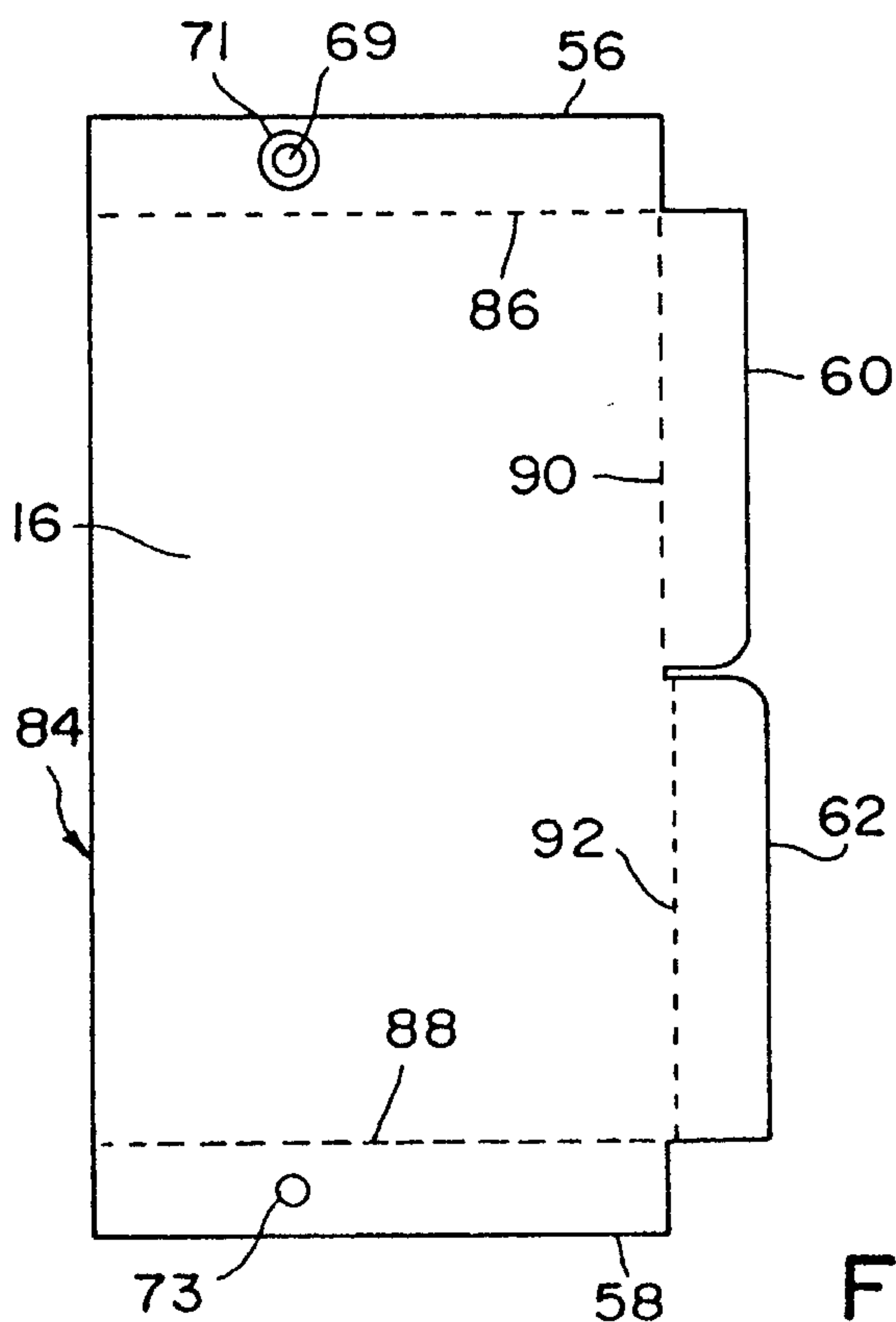


FIG. 7

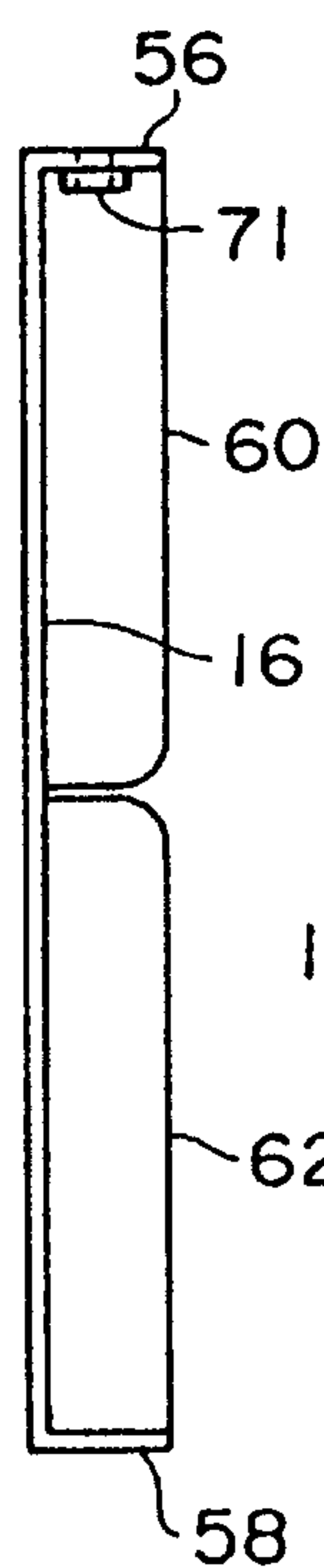


FIG. 8

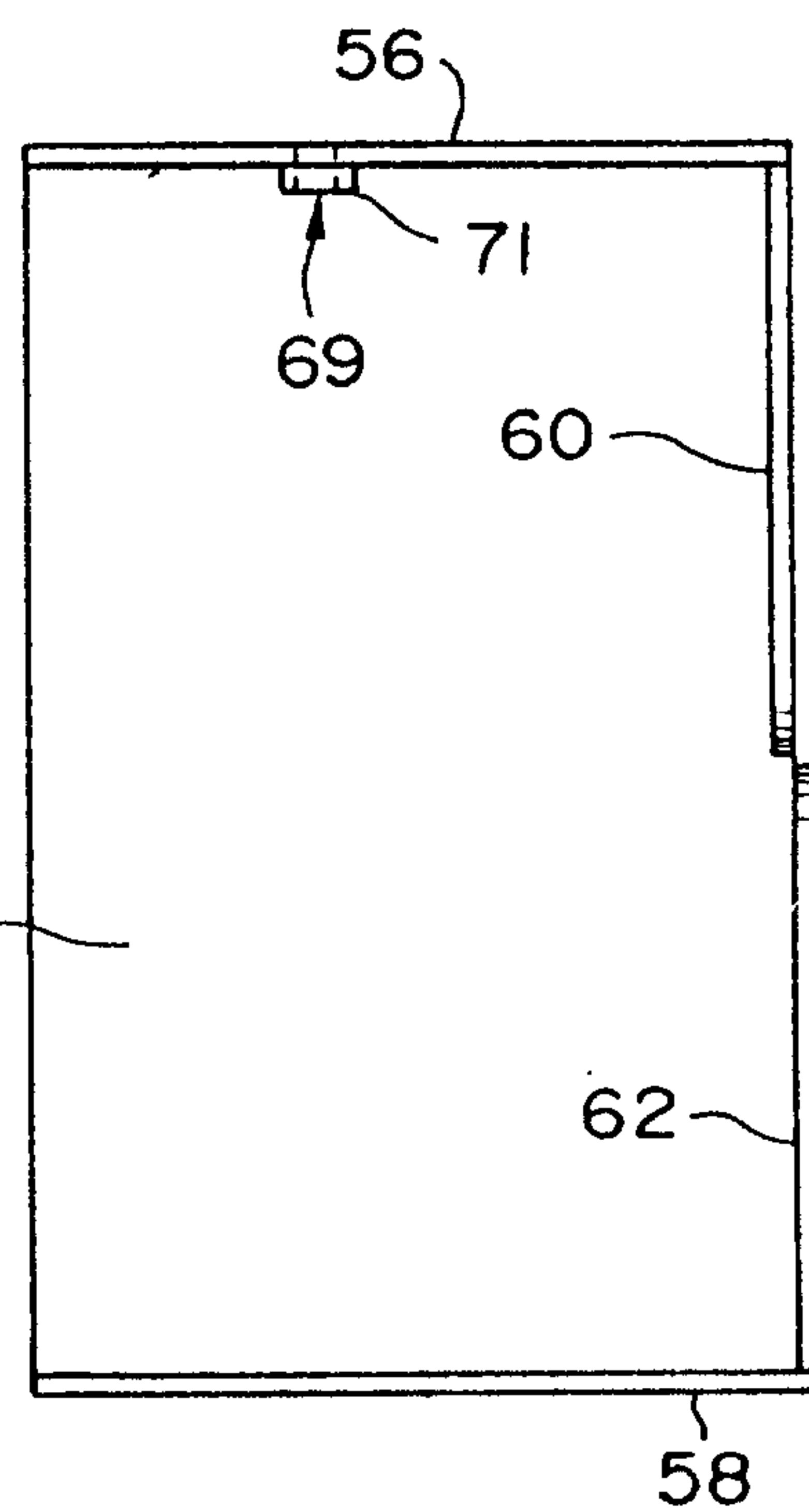


FIG. 9

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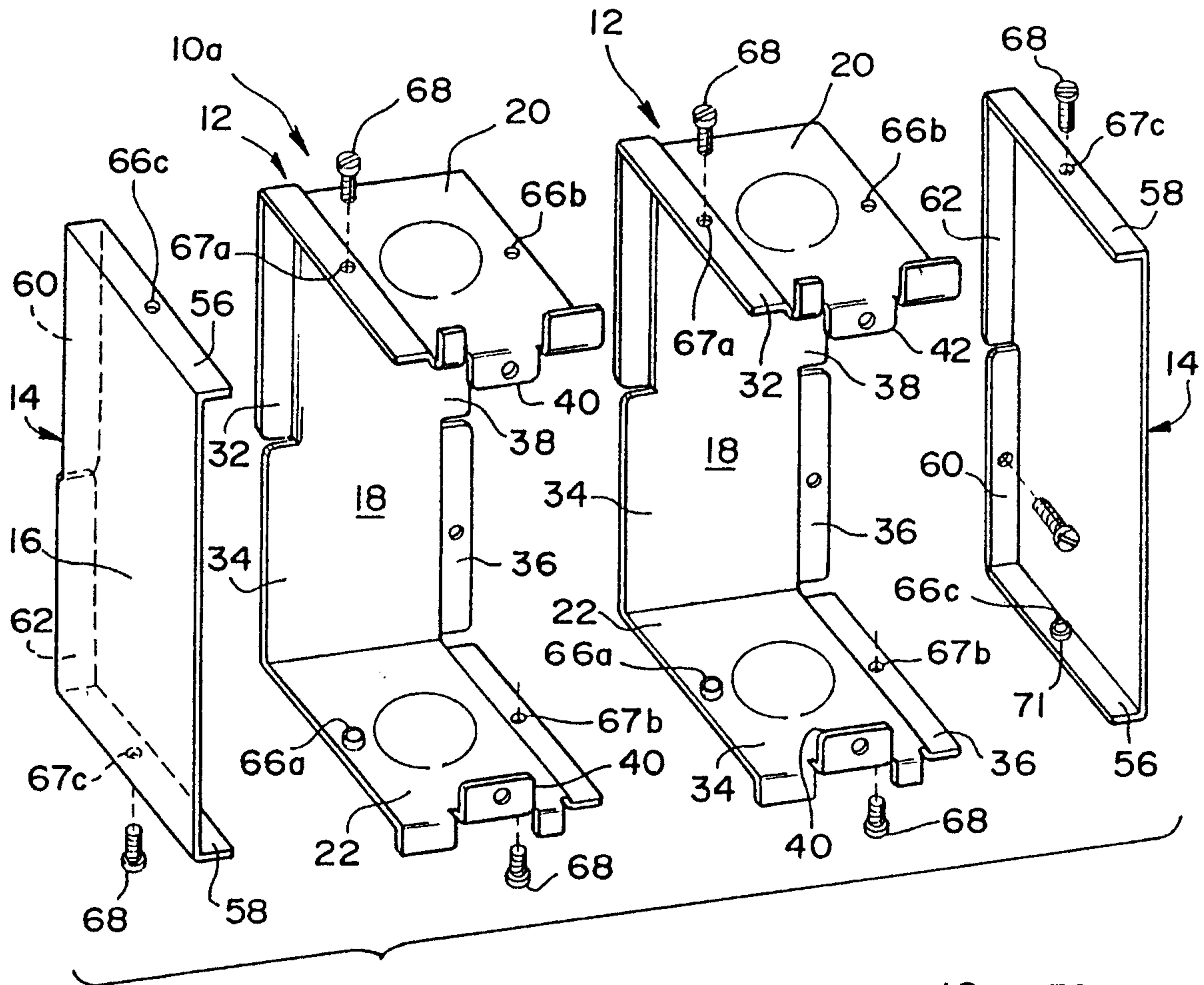


FIG. 10

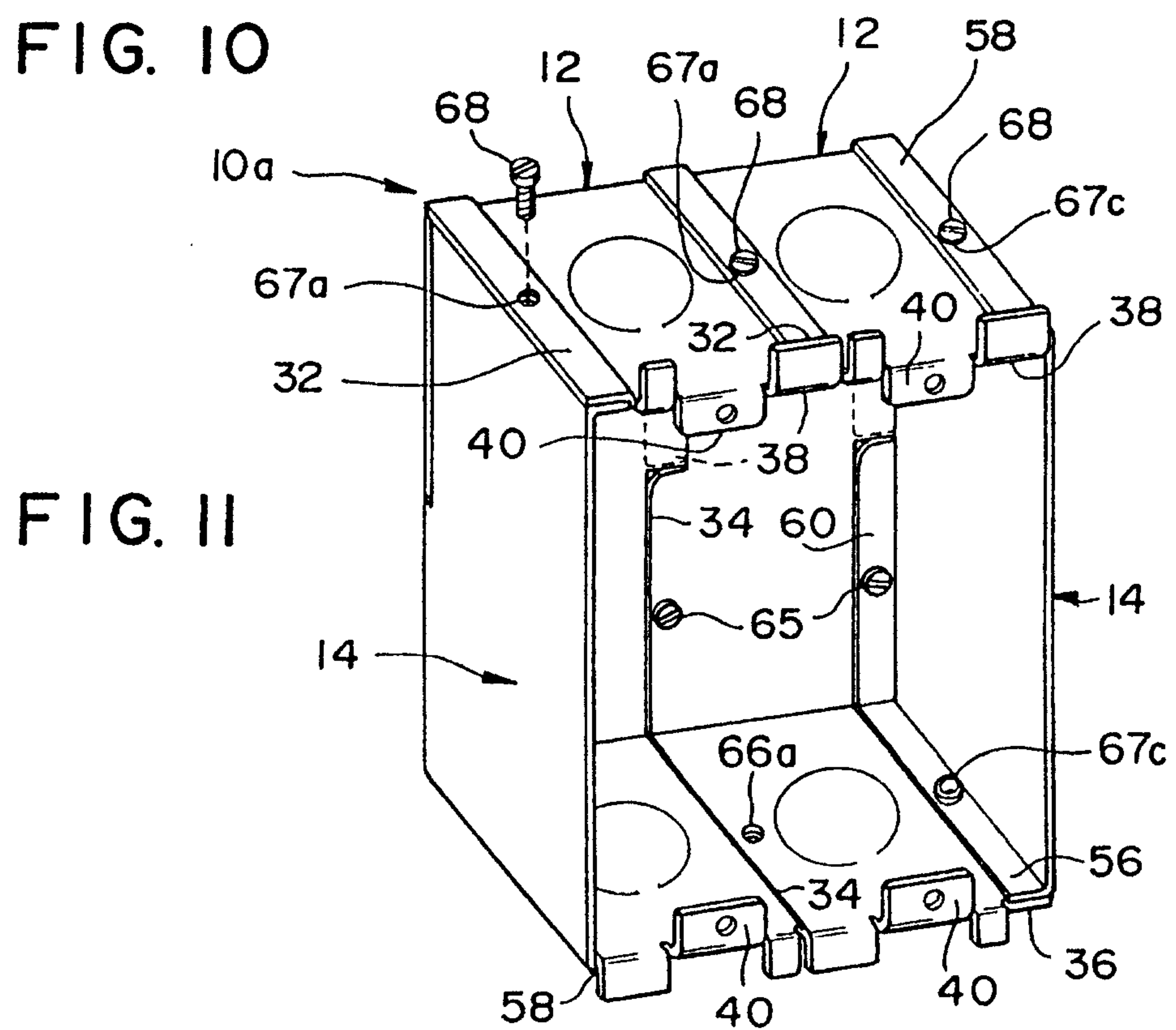


FIG. 11

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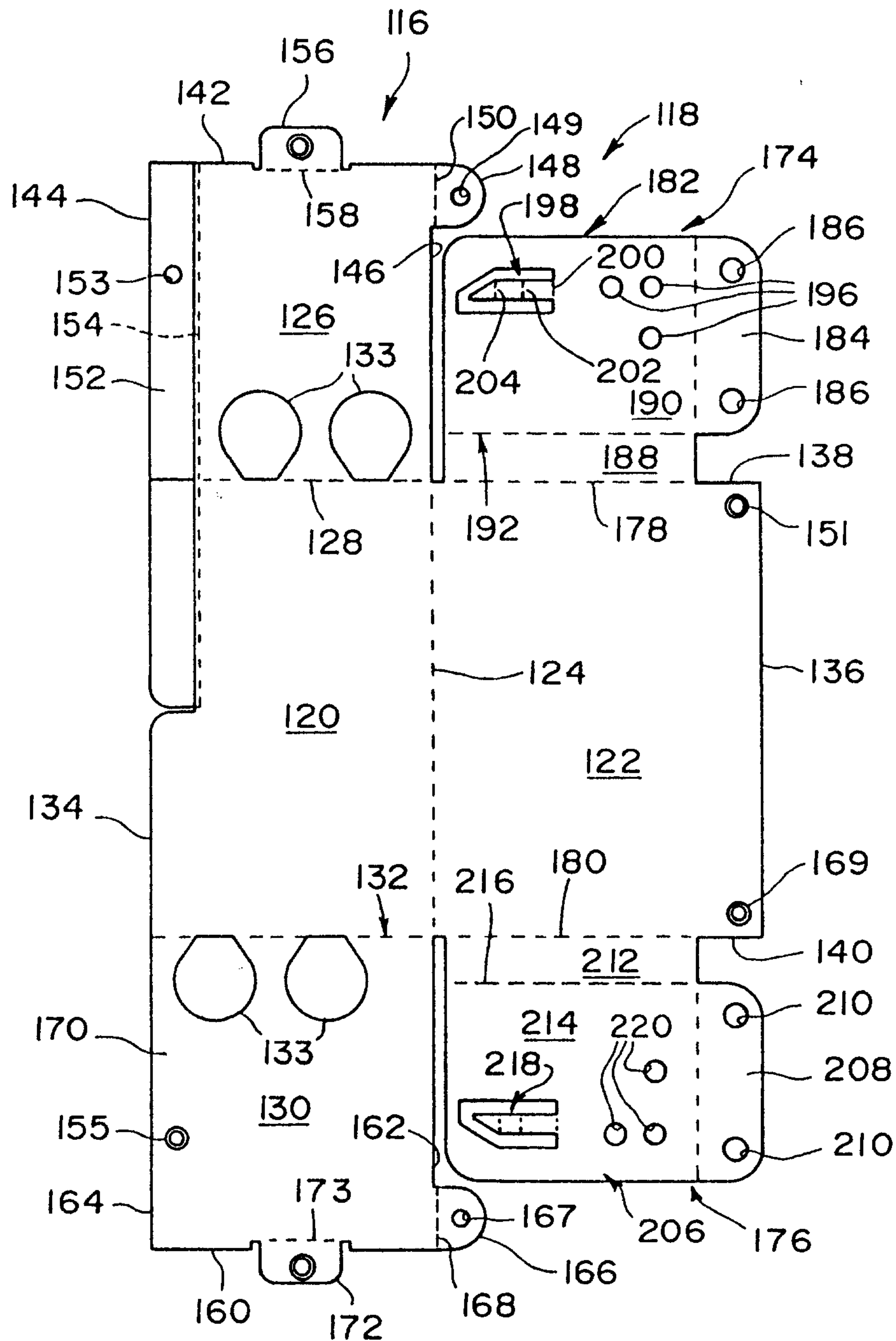


FIG. 12

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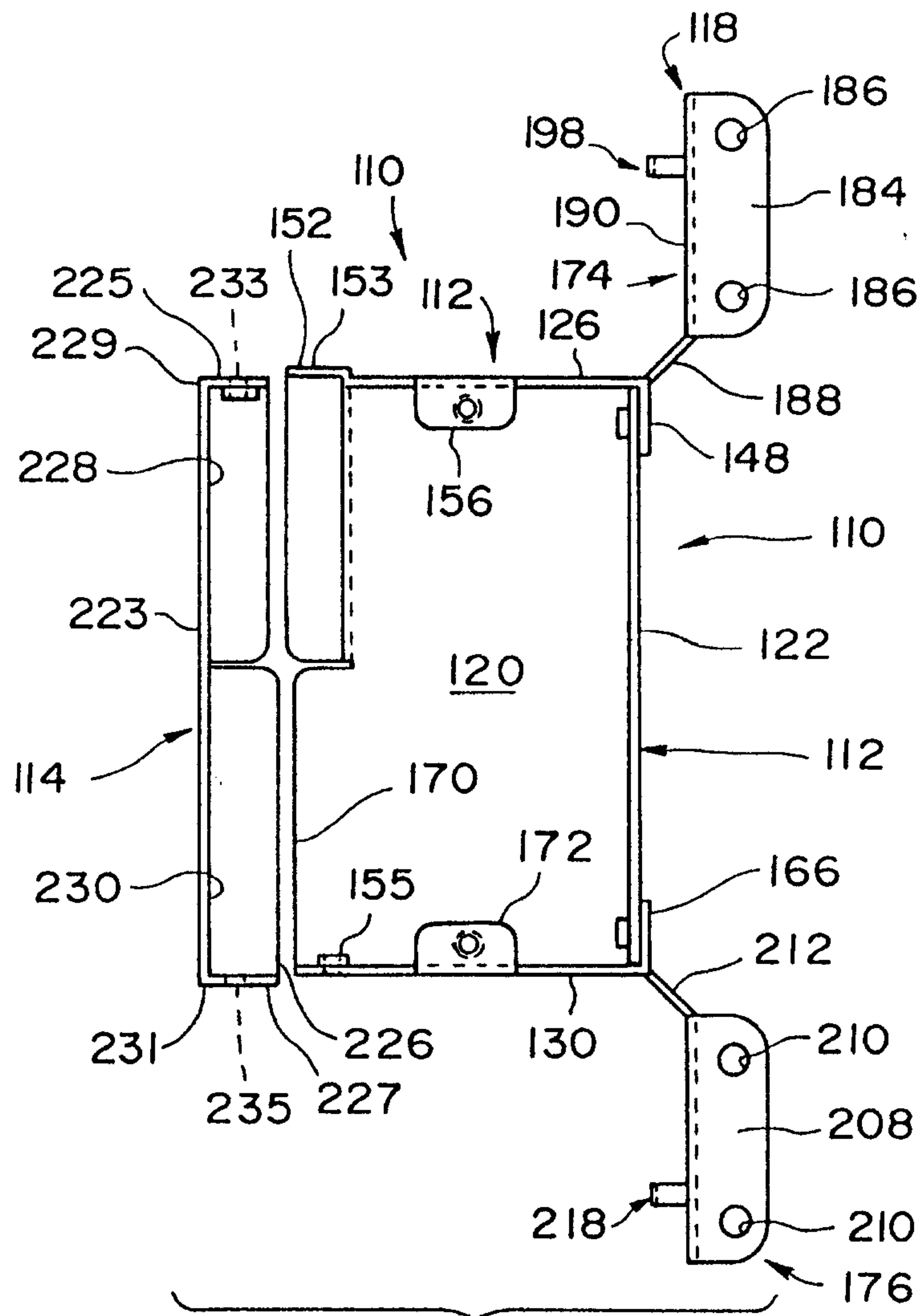


FIG. 13

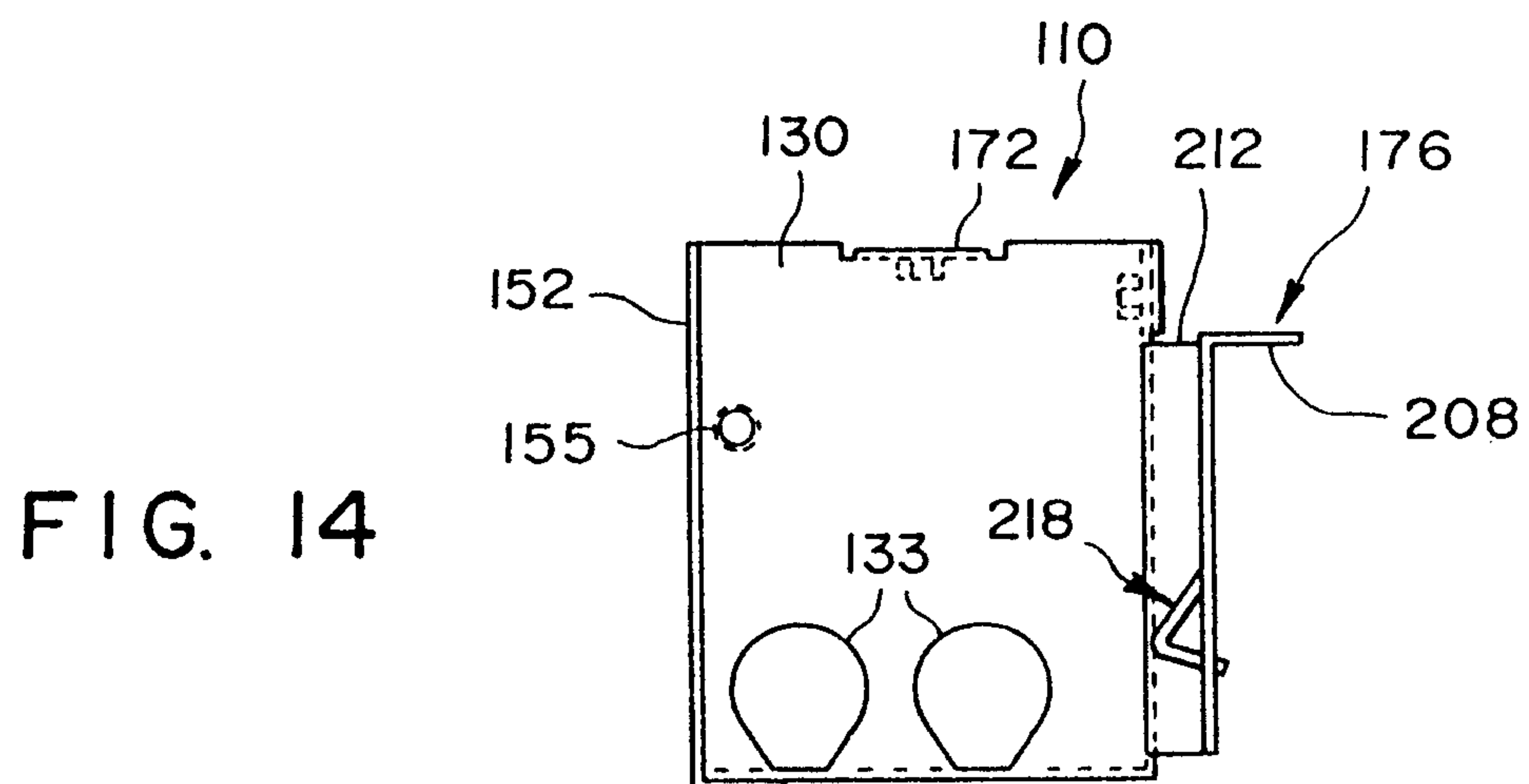


FIG. 14

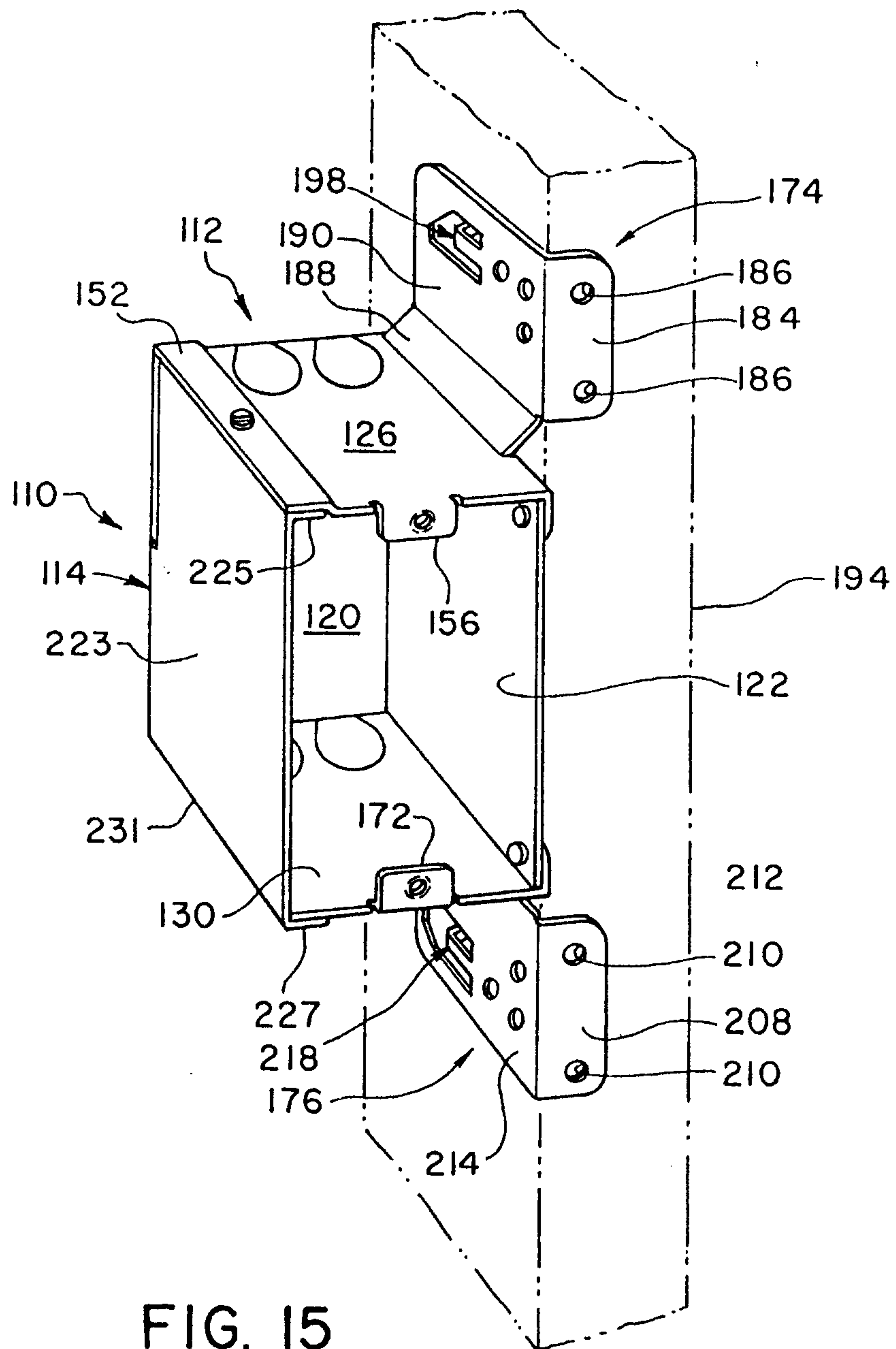


FIG. 15

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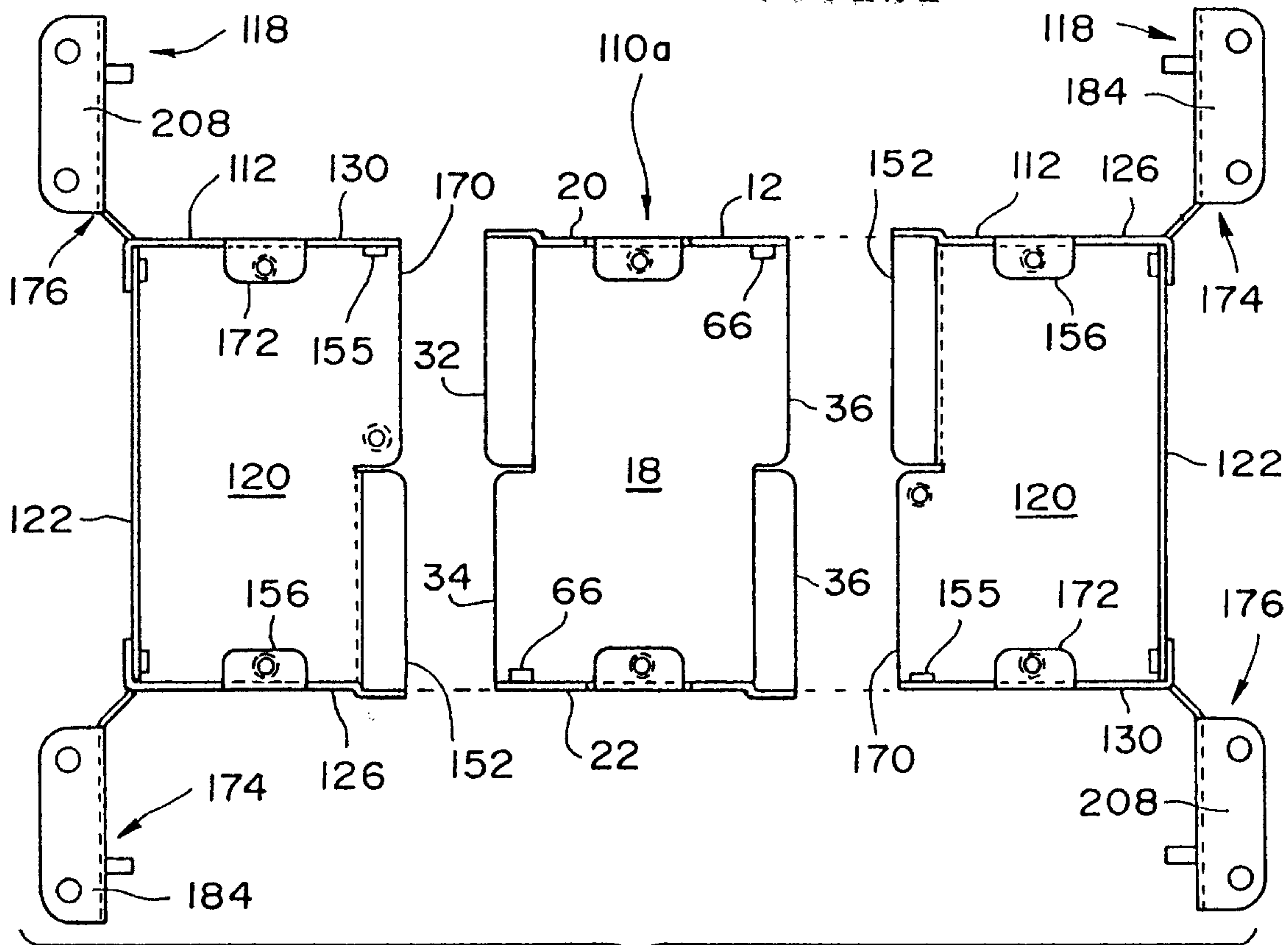


FIG. 16

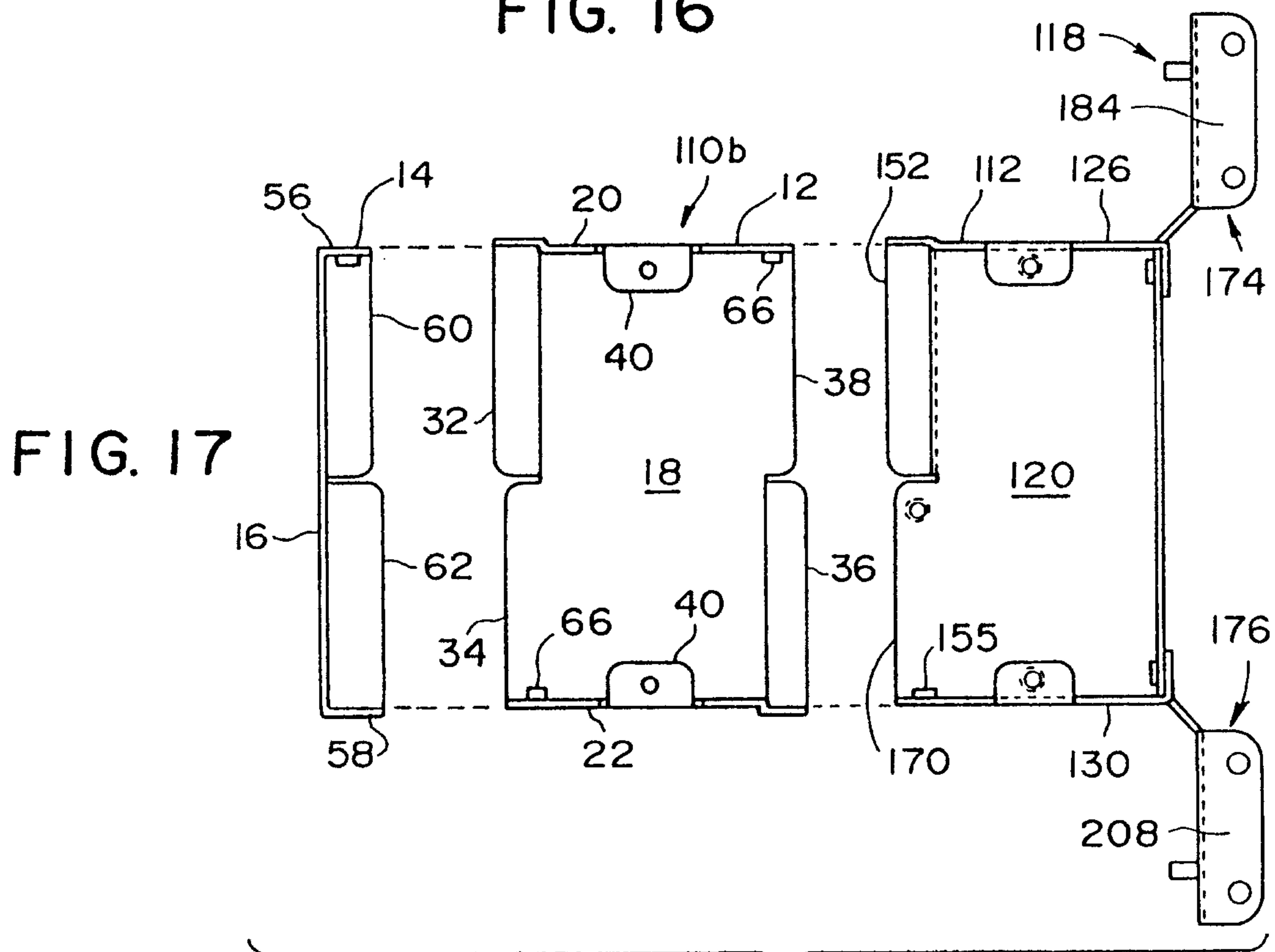


FIG. 17

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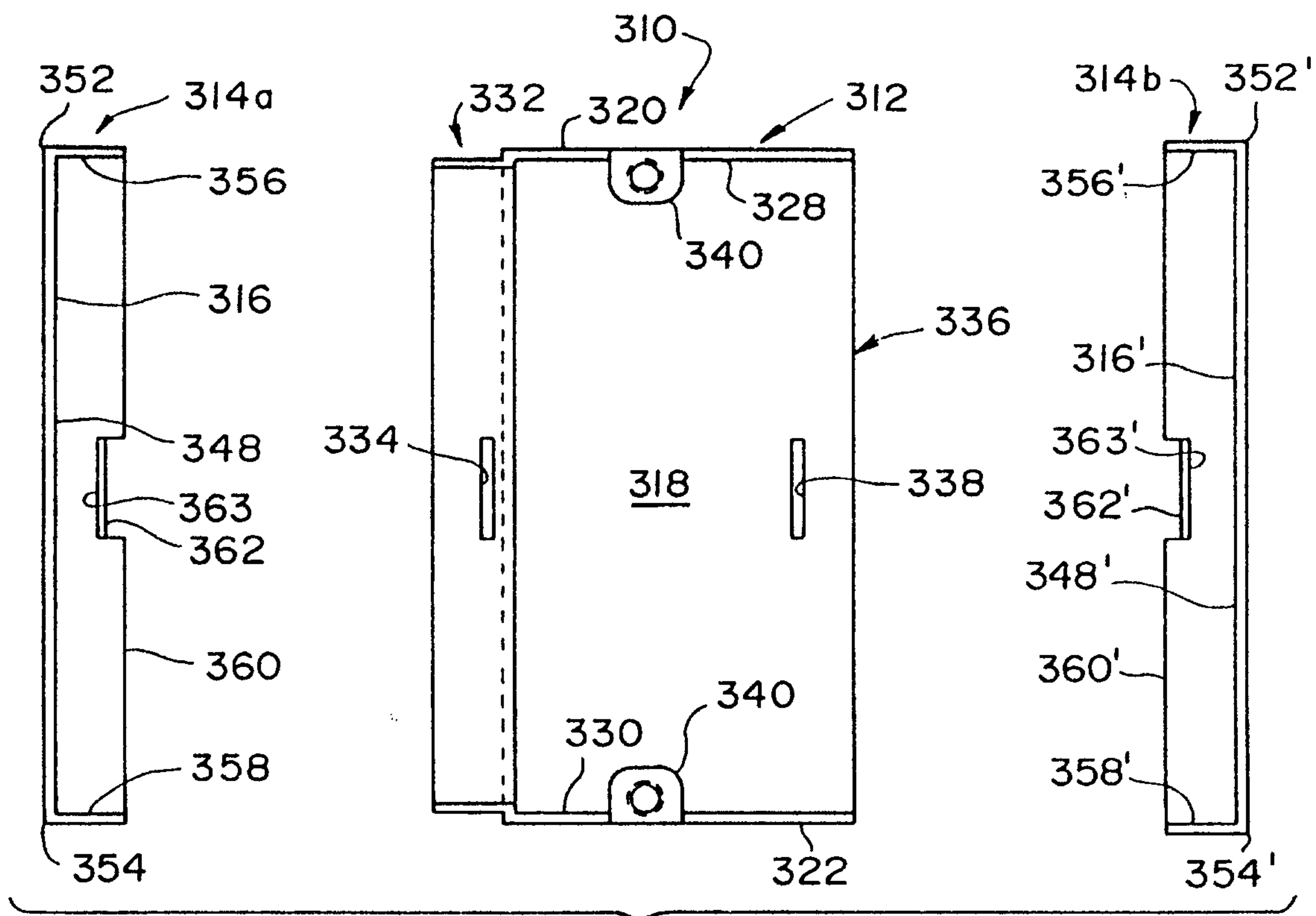


FIG. 18

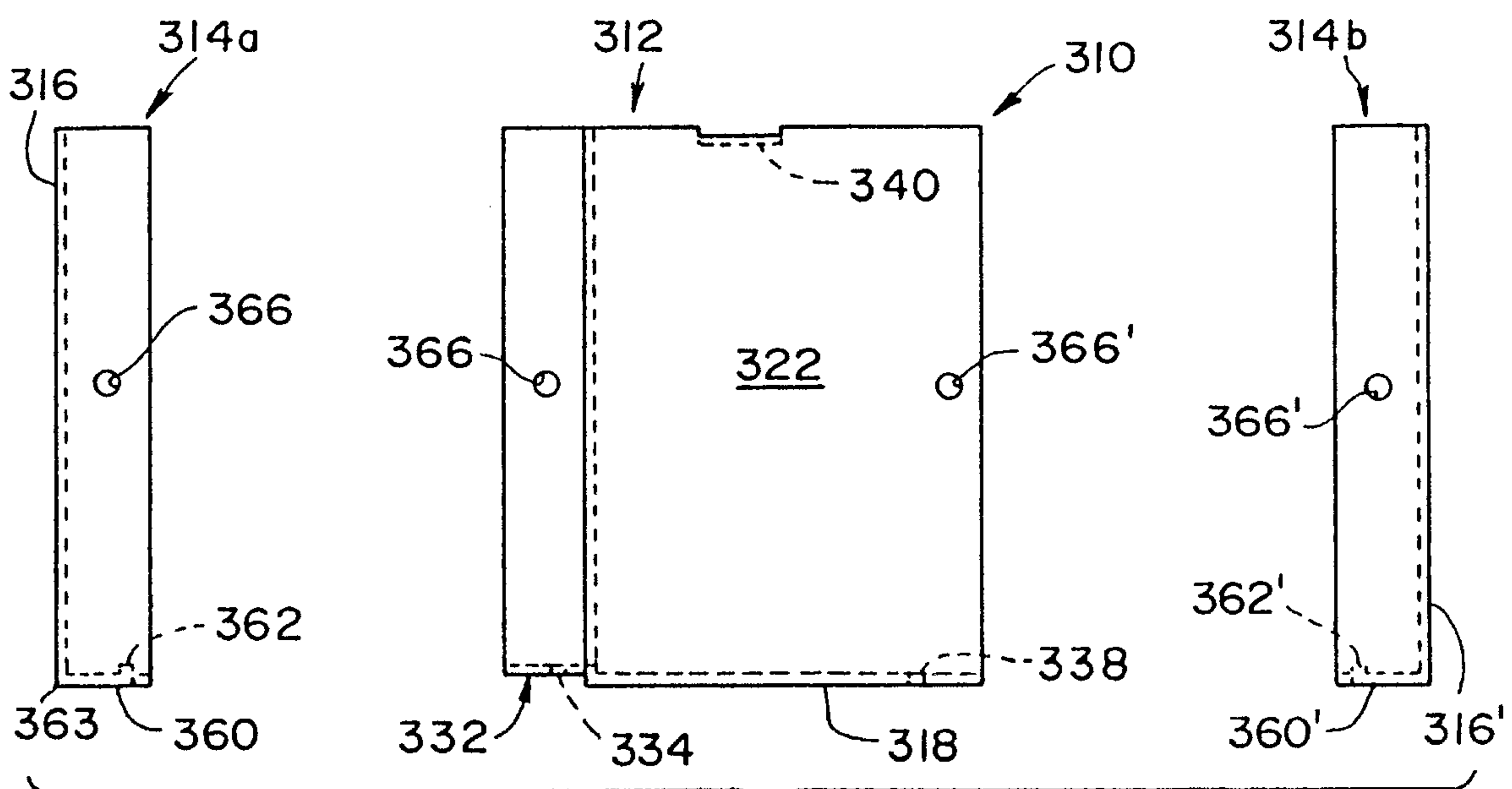


FIG. 19

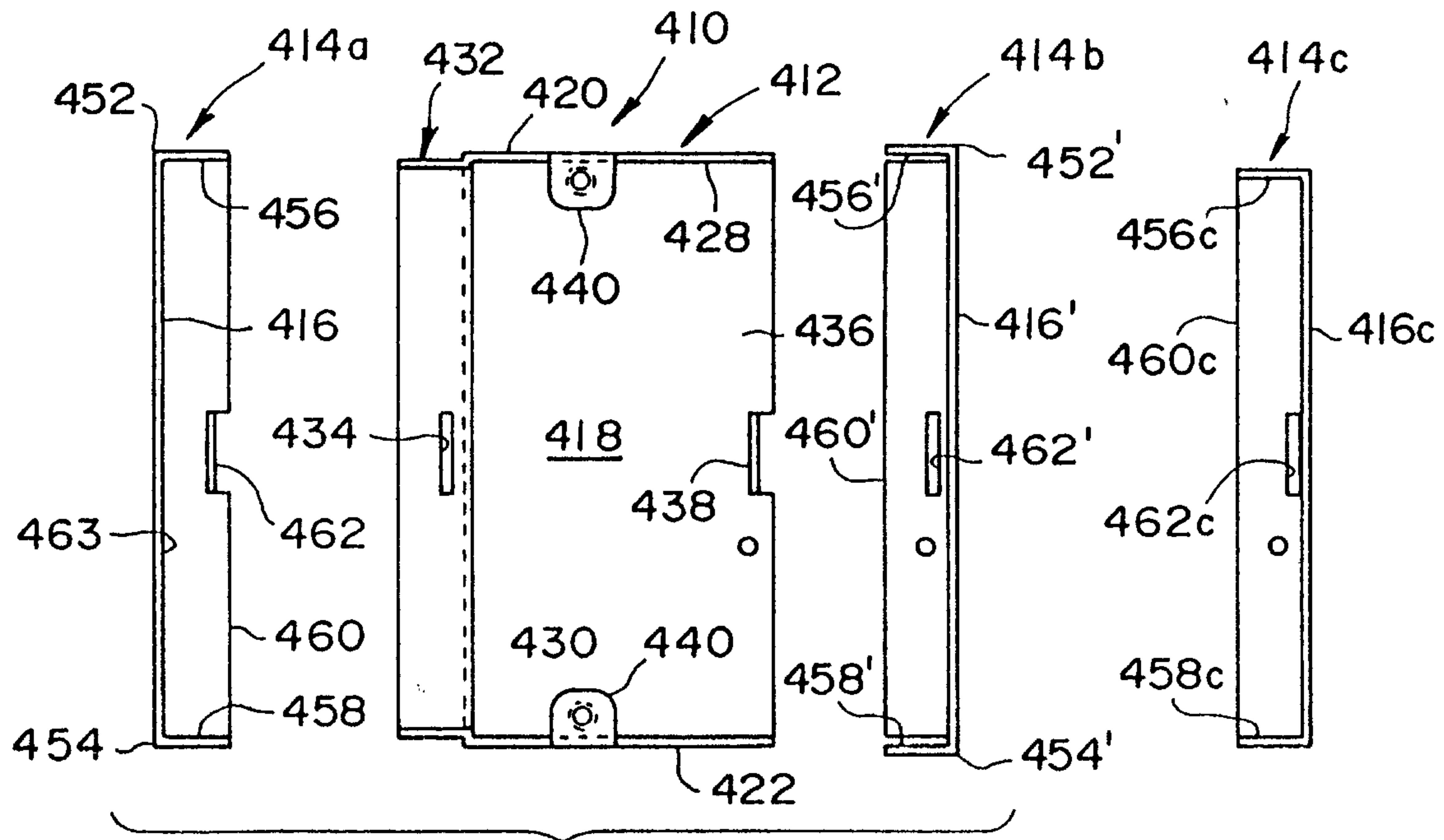


FIG. 20

FIG. 22

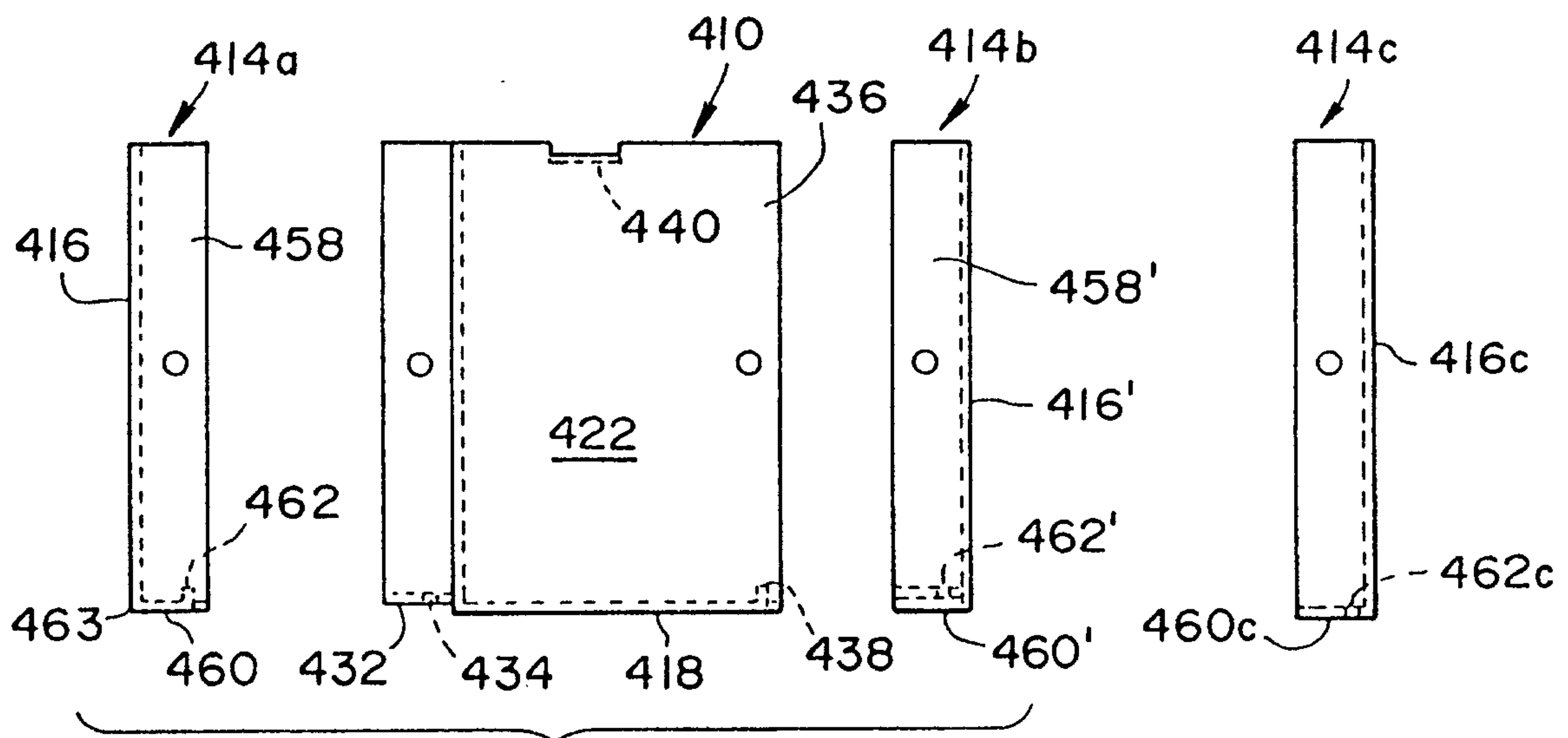


FIG. 21

FIG. 23

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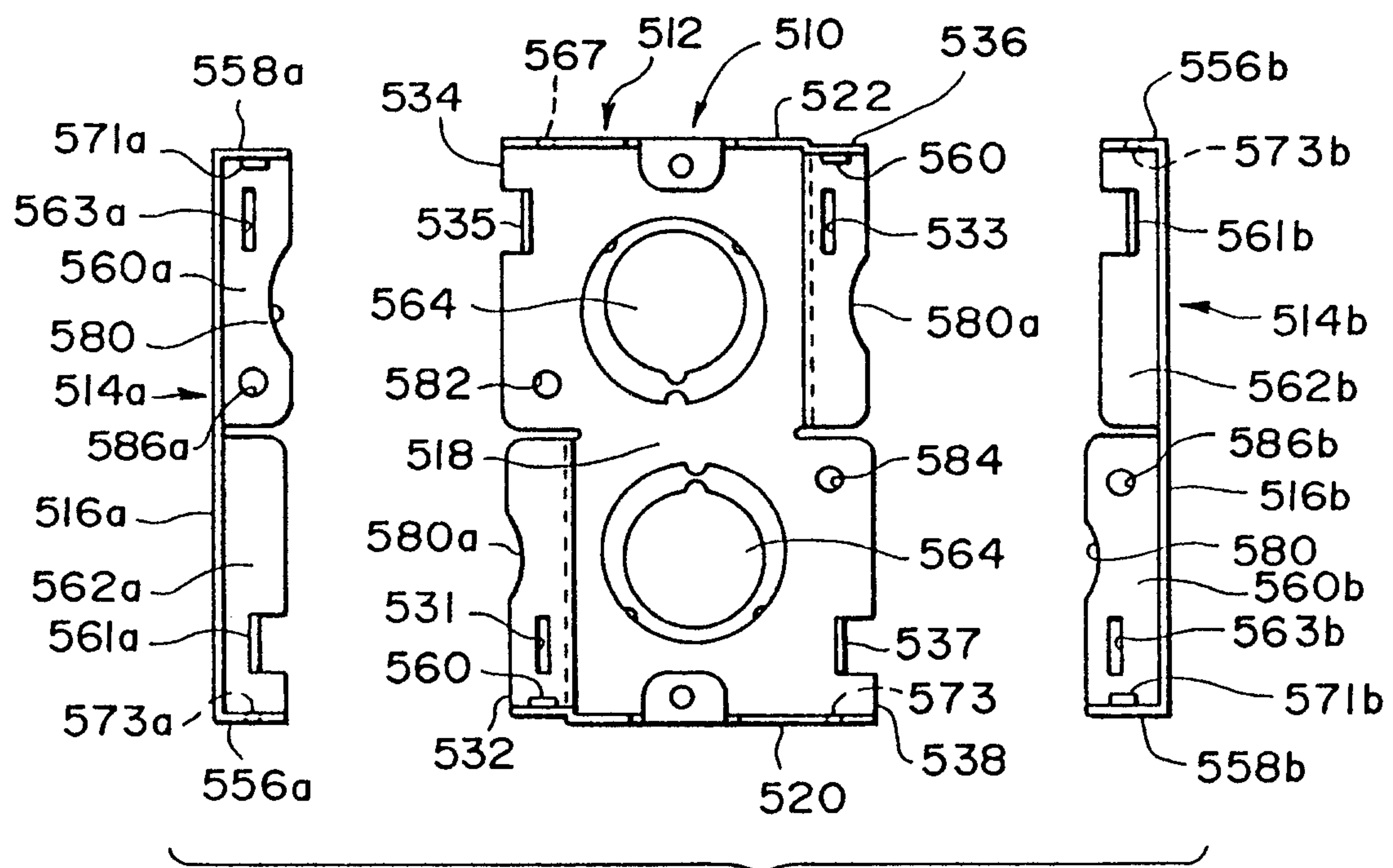


FIG. 24

