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(54) **REFRIGERATOR**

(57) This invention provides a refrigerator, relates to refrigerator technology. The refrigerator, comprising a cabinet and a door, wherein the door is rotatably connected to the cabinet, characterized in that: a first mounting part is provided at a target position of the inner liner of the cabinet, the target position is near the door on the side wall of the inner liner; the door liner of the door is provided with a second mounting part corresponding to the first mounting part, the second mounting part protrudes from the door liner towards the direction of the cabinet; the refrigerator also comprises a switch assembly, the switch assembly comprising a first component and a second component, the first component is positioned at the first mounting part and located inside the inner liner, the second component is positioned at the second mounting part and located inside the door liner; the first component cooperates with the second component when the door is closed to trigger the switch assembly. This ensures that the switch assembly does not protrude externally, remaining invisible to users when opening the door, thereby not impacting the refrigerator's appearance and improving user experience.

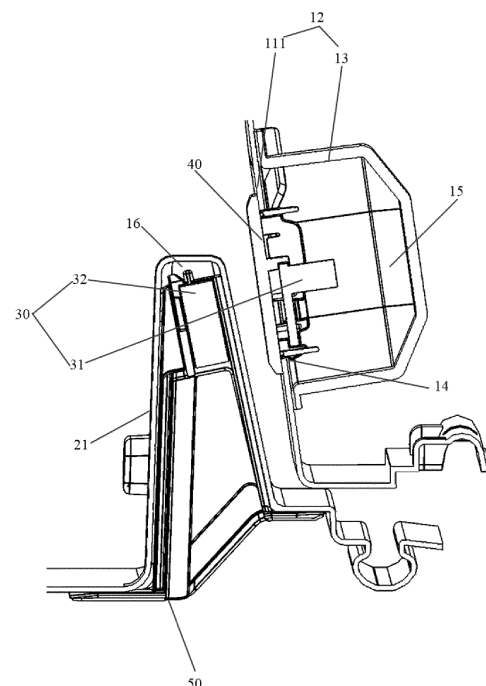


FIG.4

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Description

FIELD OF THE INVENTION

[0001] This invention relates to the field of refrigerator technology, especially concerning a type of refrigerator.

BACKGROUND OF THE INVENTION

[0002] In commonly used refrigerators, the light inside the refrigerator is usually activated when the refrigerator door is opened, allowing users to see the contents inside clearly. Due to the door liner typically protruding into the cabinet's interior area, sector switches are installed on the side of the cabinet using the door liner. These switches allow the light to be activated or deactivated in sync with the opening or closing of the door. However, the sector switches used in current refrigerators need to be pushed by the door liner, the sector switches are designed to protrude from the inner side wall of the cabinet. This protrusion is easily noticeable when the door is opened, impacting the aesthetic appearance and user experience. Although magnetic switches are present in current refrigerators, they are typically located on the upper front side of the cabinet and the inner side of the door. This design necessitates a restructuring of the door and cabinet for switch installation, leading to the need for new molds and increased costs.

BRIEF DESCRIPTION OF THE INVENTION

[0003] The objective of this invention is to provide a refrigerator that resolves the issue of unsightly protruding sector switches in existing technology.

[0004] Another objective is to solve the high-cost problem associated with the need for remolding the door and cabinet to install switch components in current technology.

[0005] The present invention provides a refrigerator, comprising a cabinet and a door, wherein the door is rotatably connected to the cabinet, characterized in that:

a first mounting part is provided at a target position of the inner liner of the cabinet, the target position is near the door on the side wall of the inner liner;
the door liner of the door is provided with a second mounting part corresponding to the first mounting part, the second mounting part protrudes from the door liner towards the direction of the cabinet;
the refrigerator also comprises a switch assembly, the switch assembly comprising a first component and a second component, the first component is positioned at the first mounting part and located inside the inner liner, the second component is positioned at the second mounting part and located inside the door liner;
the first component cooperates with the second component when the door is closed to trigger the switch

assembly.

[0006] As a further improvement of an embodiment of the present invention, wherein the target position of the first mounting part is set as the original mounting position of the sector switch assembly in the inner liner.

[0007] As a further improvement of an embodiment of the present invention, wherein the first mounting part comprises a target inner liner located at the target position and an embedded box connected to the target inner liner, the target inner liner is provided with a through hole, and the embedded box is located inside the target inner liner and forming an accommodation space with the target inner liner.

[0008] As a further improvement of an embodiment of the present invention, further comprising a first bracket, the first bracket is mounted at the through hole and the first bracket is connected to the first component to fix the first component within the accommodation space when the first bracket is set at the first mounting part.

[0009] As a further improvement of an embodiment of the present invention, wherein the first bracket comprises a connection plate and a first snap-fit structure and a second snap-fit structure located on one side of the connection plate facing the embedded box, the first snap-fit structure is for snapping the first component, and the second snap-fit structure is for snapping with the through hole to fix the first component at the first mounting part of the inner liner.

[0010] As a further improvement of an embodiment of the present invention, wherein the first snap-fit structure comprises multiple first protruding ribs set around the first component, opposite first protruding ribs each having a first snap for snapping the first component.

[0011] As a further improvement of an embodiment of the present invention, wherein the second snap-fit structure comprises multiple protruding second protruding ribs, opposite second protruding ribs each having a second snap for snapping the through hole;
the connection plate is located on the side of the target inner liner away from the embedded box and completely covers the through hole.

[0012] As a further improvement of an embodiment of the present invention, wherein a limiting slot is provided at the side of the door liner facing away from the cabinet, the limiting slot is used to form the second mounting part; the refrigerator further comprises a second bracket, the second bracket is set at the limiting slot and is connected to the second component to fix the second component at the second mounting part.

[0013] As a further improvement of an embodiment of the present invention, wherein the second bracket comprises:

a first connection part located at one end of the second bracket, the first connection part has a first slot, the second component is snapped at the second component;

a second connection part located at the other end of the second bracket, the second connection part is connected to the door liner of the door to fix the second component at the second mounting part of the door liner.

[0014] As a further improvement of an embodiment of the present invention, wherein the switch assembly is a magnetic switch assembly, the magnetic switch assembly comprising a magnetic switch and a magnet for cooperative use; the first component is the magnetic switch or the magnet, and the second component is the magnet or the magnetic switch cooperating with the first component; the second mounting part cooperates with the first mounting part when the door is closed, so that the magnetic switch and the magnet are attracted to each other; the magnetic switch is a Hall switch.

[0015] In this invention, the first mounting part is positioned at the cabinet's inner liner, and the second mounting part at the door liner. The first component of the switch assembly is placed in the first mounting part, located inside the inner liner, the second component is in the second mounting part, inside the door liner. This ensures that the switch assembly does not protrude externally, remaining invisible to users when opening the door, thereby not impacting the refrigerator's appearance and improving user experience.

[0016] The target position of the first mounting part in this invention is the original installation position of the sector switch assembly in the refrigerator. Thus, installing the switch assembly in this embodiment does not require redesigning the specific structure of the door and inner liner. Both the inner liner of the cabinet and the Door liner are common components, negating the need for remolding, thereby reducing costs, preventing production errors, and increasing production efficiency.

[0017] Based on the detailed description of the specific embodiments of this invention, combined with the accompanying drawings, those skilled in the art will better understand the above objectives, advantages, and features of this invention, as well as other aspects.

BRIEF DESCRIPTION OF THE DRAWINGS

[0018] The specific embodiments of this invention are detailed below with reference to the accompanying drawings in an illustrative and non-limiting manner. The same reference numerals in the drawings denote the same or similar parts or sections. It should be understood by those skilled in the art that these drawings are not necessarily drawn to scale. The drawings comprise:

Fig. 1 is a schematic structural diagram of a refrigerator according to an embodiment of this invention. Fig. 1 is a schematic structural diagram showing the connection of the Door liner, inner liner, switch assembly, first bracket, and second bracket in a refrigerator according to an embodiment of this invention.

Fig. 3 is a sectional schematic diagram showing the connection of the Door liner, inner liner, switch assembly, first bracket, and second bracket in a refrigerator according to an embodiment of this invention. Fig. 4 is a partial enlarged sectional schematic diagram showing the connection of the Door liner, inner liner, switch assembly, first bracket, and second bracket in a refrigerator according to an embodiment of this invention.

Fig. 5 is a schematic structural diagram of the Magnetic switch assembly, first bracket, and second bracket connections according to an embodiment of this invention.

Fig. 6 is a schematic structural diagram showing the connection of the Magnetic switch with the first bracket according to an embodiment of this invention.

Fig. 7 is schematic structural diagram of the first bracket according to an embodiment of this invention.

Fig. 8 is a schematic structural diagram showing the connection of the magnet with the second bracket according to an embodiment of this invention.

Fig. 9 is a schematic structural diagram of the second bracket according to an embodiment of this invention.

DETAILED DESCRIPTION

[0019] FIG. 1 is a schematic structural diagram of a refrigerator 100 according to an embodiment of the present invention, FIG. 2 is a schematic structural diagram of a door liner, an inner liner, a switch assembly, a first bracket, and a second bracket of a refrigerator according to an embodiment of the present invention connected together; FIG. 3 is a schematic diagram of a cross-section of the door liner, the inner liner, the switch assembly, the first bracket, and the second bracket of the refrigerator according to an embodiment of the present invention connected together; and FIG. 4 is a partially enlarged cross-section of the door liner, the inner liner, the switch assembly, the first bracket, and the second bracket according to an embodiment of the present invention connected together. Figures 1 to 4 illustrate a specific embodiment of a refrigerator 100 according to this invention. Specifically, the refrigerator 100 may comprise a cabinet 10 and a door 20, the door 20 is rotatably connected to the cabinet 10. A first mounting part 12 is provided at a target position on the inner liner 11 of the cabinet 10, the target position is near the door 20 on the side wall of the inner liner 11. The door liner 21 of the door 20 has a second mounting part 22, the second mounting part 22 corresponds to the first mounting part 12, the second mounting part 22 protrudes towards the cabinet 10. This embodiment of the refrigerator 100 also comprises a switch assembly 30, the switch assembly 30 comprise a first component 31 and a second component 32. The first component 31 is positioned at the first mount-

ing part 12, and the first component 31 is positioned inside the inner liner 11, the second component 32 is positioned at the second mounting part 22, and the second component 32 is positioned inside the door liner 21. The first component 31 cooperates with the second component 32 when the door is closed to trigger the switch assembly 30.

[0020] In this embodiment, the first mounting part 12 is positioned at a target position, the target position is on the side wall of the inner liner 11 of the cabinet 10 of the refrigerator 100, and the target near the door 20. Specifically, the target position could be on either the left or right side wall of the inner liner 11 of the cabinet 10. For this embodiment, the right side of the door 20 of the refrigerator 100 and the right side wall of the inner liner 11 of the cabinet 10 are used for illustration.

[0021] The door liner 21 on the right side of the door 20 is provided with a second mounting part 22, the second mounting part 22 corresponds to the first mounting part 12. The first component 31 and the second part 32 provided in the first mounting part 12 and the second mounting part 22 can be located close to each other so as to be used in conjunction, causing the switch assembly 30 to turn on or off. The first mounting part 12 is located at the inner liner 11 of the cabinet 10, and the second mounting part 22 is at the door liner 21 of the door 20. The first component 31 of the switch assembly 30 is located at the first mounting part 12 and inside the inner liner 11, while the second component 32 is at the second mounting part 22 and in the inside of the door liner 21. Thus, the switch assembly 30 does not protrude outside the inner liner 11 or the door liner 21, remaining invisible to users when opening the door 20, ensuring that the switch assembly 30 does not affect the appearance of the refrigerator 100, thereby enhancing the user experience.

[0022] In this embodiment, the switch assembly 30 can be a magnetic switch assembly. The magnetic switch assembly may comprise a magnetic switch and a magnet for cooperative use. The first component 31 is either the magnetic switch or the magnet, and the second component 32 is the magnet or the Magnetic switch cooperating with the first component 31. The second mounting part 22 cooperates with the first mounting part 12 when the door 20 is closed, allowing the magnetic switch and the magnet to attract each other. The magnetic switch can be a Hall switch. The following description assumes that the switch assembly 30 is a magnetic switch assembly.

[0023] In this embodiment, the magnet can be positioned either at the first mounting part 12 or at the second mounting part 22. Correspondingly, when the magnet is positioned at the first mounting part 12, the magnetic switch is at the second mounting part 22; when the magnet is positioned at the second mounting part 22, the magnetic switch is at the first mounting part 12.

[0024] As a specific embodiment of this invention, the target position of the first mounting part 12 in this embodiment is configured as the original mounting position for the sector switch assembly in the inner liner 11.

[0025] That is, in this embodiment, the target position of the first mounting part 12 is the original installation position of the sector switch in the inner liner 11. Therefore, when installing the magnetic switch assembly in this embodiment, there is no need to redesign the specific structure of the door 20 and the inner liner 11. This not only meets the switch function requirements but also utilizes common components for the inner liner 11 of the cabinet 10 and the door liner 21 of the door 20. There is no need to remold the inner liner 11 of the cabinet 10 and the door liner 21 of the door 20, avoiding mold waste and reducing costs. This approach avoids wastage of molds, prevents production errors, and enhances production efficiency.

[0026] In this embodiment, the magnetic switch is installed at the original position of the sector switch. If needed, the magnetic switch and the sector switch can be interchanged during actual use.

[0027] As another specific embodiment of this invention, the first mounting part 12 comprises a target inner liner 111 located at the target position and an embedded box 13 connected to the target inner liner 111. The target inner liner 111 is provided with a through hole 14, and the embedded box 13 is located inside the target inner liner 111, forming an accommodation space 15 with the target inner liner 111. In this embodiment, the target inner liner 111 can be the inner liner 11 of the cabinet 10 set at the target position. The inner liner 11 at the target position is also provided with a through hole 14, and an embedded box 13 is provided on one side of the inner liner 11. The target inner liner 111, the through hole 14, and the embedded box 13 at the target position can be the components originally belonging to the sector switch, thus potentially reducing costs.

[0028] Figures 5 illustrate a schematic structural diagrams of the magnetic switch assembly, the first bracket, and the second bracket connected according to an embodiment of this invention. Figures 6 illustrate a schematic structural diagrams of the magnetic switch connected to the first bracket according to an embodiment of the present invention. Figures 7 illustrate a schematic structural diagrams of the first bracket according to an embodiment of the present invention. As shown in Figures 5 to 7, as a specific embodiment of this invention, the refrigerator 100 may also comprise a first bracket 40. The first bracket 40 is installed at the through hole 14 and the first bracket 40 is also connected to the magnetic switch or magnet to fix the magnetic switch or magnet inside the accommodation space 15 when the first bracket 40 is provided at the first mounting part 12.

[0029] In this embodiment, the primary function of the first bracket 40 is to position the magnetic switch or magnet which is connected to the first bracket 40, at the first mounting part 12. Specifically, the first bracket 40 is first connected to the magnetic switch, and then snapped together with the magnetic switch at the first mounting part 12, positioning the magnetic switch within the accommodation space 15. When the door 20 of the refrigerator

100 is opened, the magnetic switch, which is set inside the inner liner 11, is not visible, thereby ensuring the aesthetic appearance of the refrigerator 100.

[0030] Specifically, the first bracket 40 may comprise a connection plate 41 and a first snap-fit structure 42 and a second snap-fit structure 43 located on the side of the connection plate 41 facing the embedded box 13. The first snap-fit structure 42 is used for snapping the magnetic switch or magnet, the second snap-fit structure 43 is used for snapping with the through hole 14 to fix the magnetic switch or magnet at the first mounting part 12 of the inner liner 11.

[0031] As a specific embodiment of this invention, the first snap-fit structure 42 may comprise multiple first protruding ribs 421 set around the magnetic switch or magnet. Opposite first protruding ribs 421 each have a first snap 422 for snapping the magnetic switch or magnet.

[0032] Specifically, the first protruding ribs 421 in this embodiment form a frame-like structure surrounding the magnetic switch or magnet. The cross-sectional shape of this frame-like structure can form various shapes matching the magnetic switch or magnet. The cross-section of the first protruding ribs 421 in this embodiment forms a rectangular structure. At least one pair of first snaps 422 are formed on the opposite side edges, and these snaps are designed to face the magnetic switch or magnet. The number of snaps can be designed as needed. Preferably, there are more than two first snaps 422, which are reasonably and evenly arranged on the inside of the first protruding ribs 421.

[0033] As a specific embodiment of this invention, the second snap-fit structure 43 may comprise multiple protruding second protruding ribs 4, opposite second protruding ribs 4 each has a second snap 4 for snapping the through hole 14. Specifically, the second protruding ribs 4 and the first protruding ribs 421 are located on the same side of the connection part. The shape of the cross-section of the second protruding ribs 4 is adapted to the shape of the through hole 14. When the first bracket 40 is snapped at the through hole 14, the through hole 14 envelops the second protruding ribs 4 on the inside. Multiple second snaps 4 are designed at the second protruding ribs 4, the second snaps 4 protrude outwardly to snap at the through hole 14 after the ribs pass through the through hole 14. The number of second snaps 4 is at least two, with four being the preferred number in this embodiment. If the through hole 14 is rectangular, then the four second snaps 4 respectively snap at the four edges of the through hole 14.

[0034] As a specific embodiment of this invention, the connection plate 41 of this embodiment is located on the side of the target inner liner 111 away from the embedded box 13 and the connection plate 41 completely covers the through hole 14. Since the connection plate 41 completely covers the through hole 14, only the connection plate 41 of the first bracket 40 is visible during the use of the refrigerator 100, concealing other structures comprise and the magnetic switch or magnet. Therefore, the

internal structure of the refrigerator 100 appears more aesthetically pleasing.

[0035] Figures 8 illustrate the schematic structural diagrams of the connection between the magnet and the second bracket; Figure 9 illustrate the schematic structural diagrams of the structure of the second bracket, according to an embodiment of this invention. As shown in figures 8 and 9, as a specific embodiment of this invention, the door liner 21 of the refrigerator 100 is equipped with a limiting slot 16 on the side facing away from the cabinet 10. The limiting slot 16 is used to form the second mounting part 22. The refrigerator 100 may also comprise a second bracket 50, the second bracket 50 is positioned at the limiting slot 16. The second bracket 50 is also connected to the magnet or magnetic switch, fixing the magnet or magnetic switch at the second mounting part 22.

[0036] In this embodiment, the limiting slot 16 can be an original structure of the door liner 21. The cross-section of this structure forms an opening that is wide at the top and narrow at the bottom. By using the second bracket 50, the magnet or magnetic switch is positioned at the second mounting part 22. Since the second mounting part 22 extends towards the inside of the cabinet 10, the magnet or magnetic switch extends to a position matching the second mounting part 22, allowing the magnetic switch to successfully attract the magnet.

[0037] As a specific embodiment of this invention, the second bracket 50 may comprise a first connection part 51 and a second connection part 52. The first connection part 51 is located at one end of the second bracket 50. The first connection part 51 is equipped with a first slot 511, the magnet or magnetic switch is snapped into the first slot 511. The second connection part 52 is located at the other end of the second bracket 50 and the second connection part 52 is connected to the door liner 21 of the door 20, fixing the magnet or magnetic switch at the second mounting part 22 of the door liner 21.

[0038] Specifically, the cross-sectional shape of the entire second bracket 50 corresponds to the cross-sectional shape of the second mounting part 22. The width of the first connection part 51 is smaller than that of the second connection part 52. The shape of the first slot 511 matches the shape of the magnet or magnetic switch, and the magnet or magnetic switch is snapped into position at the first slot 511. When the second bracket 50 is positioned at the second mounting part 22, the first slot 511 and the magnet or magnetic switch snapped into the first slot 511 extend to the bottom of the second mounting part 22.

[0039] Specifically, the second connection part 52 forms two thin plates 521 and a central reinforcement part 522. The two thin plates 521 extend in opposite directions and are connected to the door liner 21 when the second bracket 50 is positioned at the second mounting part 22. The first connection part 51 extends to the bottom of the limiting slot 16. The reinforcement part is used to prevent deformation of the two thin plates 521 under ex-

ternal force, enhancing the overall strength of the second bracket 50.

[0040] As a specific embodiment of this invention, the material of the second bracket 50 can be either foam or plastic.

[0041] As a specific embodiment of this invention, the process of installing the first bracket 40 and the second bracket 50 to the first mounting part 12 and the second mounting part 22 in this embodiment can comprise:

- Pre-manufacturing the first bracket 40 and the second bracket 50 with a predetermined structure.
- Fixing the magnet in the second bracket 50 through the structure inside the first slot 511.
- Placing the second bracket 50 into the limiting slot 16 and adhering the second bracket 50 with tape.
- Setting the embedded box 13 on the inside of the inner liner 11, and hiding the plug terminals of the magnetic switch inside the embedded box 13, the embedded box 13 is foamed together with the cabinet 10.
- Snapping the magnetic switch into the first bracket 40.
- Snapping the first bracket 40 into the through hole 14 of the foamed inner liner 11.
- Rotatably connecting the door 20 to the cabinet 10.

[0042] This embodiment results in a refrigerator 100 with an overall more aesthetically pleasing appearance, high product versatility, reduced costs, avoidance of on-site production errors, high production efficiency, and accurate and reliable positioning of the magnet.

[0043] This completes the detailed description of several exemplary embodiments of this invention. Those skilled in the art should recognize that, while this document has thoroughly demonstrated and described multiple exemplary embodiments of this invention, many other variations or modifications can be directly determined or derived from the content disclosed by this invention without departing from the spirit and scope of the invention. Therefore, the scope of the invention should be understood and acknowledged to cover all such other variations or modifications.

Claims

1. A refrigerator, comprising a cabinet and a door, wherein the door is rotatably connected to the cabinet, **characterized in that:**

a first mounting part is provided at a target position of the inner liner of the cabinet, the target position is near the door on the side wall of the inner liner;

the door liner of the door is provided with a second mounting part corresponding to the first mounting part, the second mounting part pro-

trudes from the door liner towards the direction of the cabinet;

the refrigerator also comprises a switch assembly, the switch assembly comprising a first component and a second component, the first component is positioned at the first mounting part and located inside the inner liner, the second component is positioned at the second mounting part and located inside the door liner; the first component cooperates with the second component when the door is closed to trigger the switch assembly.

2. The refrigerator according to claim 1, wherein the target position of the first mounting part is set as the original mounting position of the sector switch assembly in the inner liner.

3. The refrigerator according to claim 2, wherein the first mounting part comprises a target inner liner located at the target position and an embedded box connected to the target inner liner, the target inner liner is provided with a through hole, and the embedded box is located inside the target inner liner and forming an accommodation space with the target inner liner.

4. The refrigerator according to claim 3, further comprising a first bracket, the first bracket is mounted at the through hole and the first bracket is connected to the first component to fix the first component within the accommodation space when the first bracket is set at the first mounting part.

5. The refrigerator according to claim 4, wherein the first bracket comprises a connection plate and a first snap-fit structure and a second snap-fit structure located on one side of the connection plate facing the embedded box, the first snap-fit structure is for snapping the first component, and the second snap-fit structure is for snapping with the through hole to fix the first component at the first mounting part of the inner liner.

6. The refrigerator according to claim 5, wherein the first snap-fit structure comprises multiple first protruding ribs set around the first component, opposite first protruding ribs each having a first snap for snapping the first component.

7. The refrigerator according to claim 6, wherein the second snap-fit structure comprises multiple protruding second protruding ribs, opposite second protruding ribs each having a second snap for snapping the through hole; the connection plate is located on the side of the target inner liner away from the embedded box and completely covers the through hole.

8. The refrigerator according to any one of claims 3-7, wherein a limiting slot is provided at the side of the door liner facing away from the cabinet, the limiting slot is used to form the second mounting part; the refrigerator further comprises a second bracket, the second bracket is set at the limiting slot and is connected to the second component to fix the second component at the second mounting part. 5
9. The refrigerator according to claim 8, wherein the second bracket comprises: 10
- a first connection part located at one end of the second bracket, the first connection part has a first slot, the second component is snapped at the second component; 15
- a second connection part located at the other end of the second bracket, the second connection part is connected to the door liner of the door to fix the second component at the second mounting part of the door liner. 20
10. The refrigerator according to claim 1, wherein the switch assembly is a magnetic switch assembly, the magnetic switch assembly comprising a magnetic switch and a magnet for cooperative use; the first component is the magnetic switch or the magnet, and the second component is the magnet or the magnetic switch cooperating with the first component; the second mounting part cooperates with the first mounting part when the door is closed, so that the magnetic switch and the magnet are attracted to each other; 25
- the magnetic switch is a Hall switch. 30

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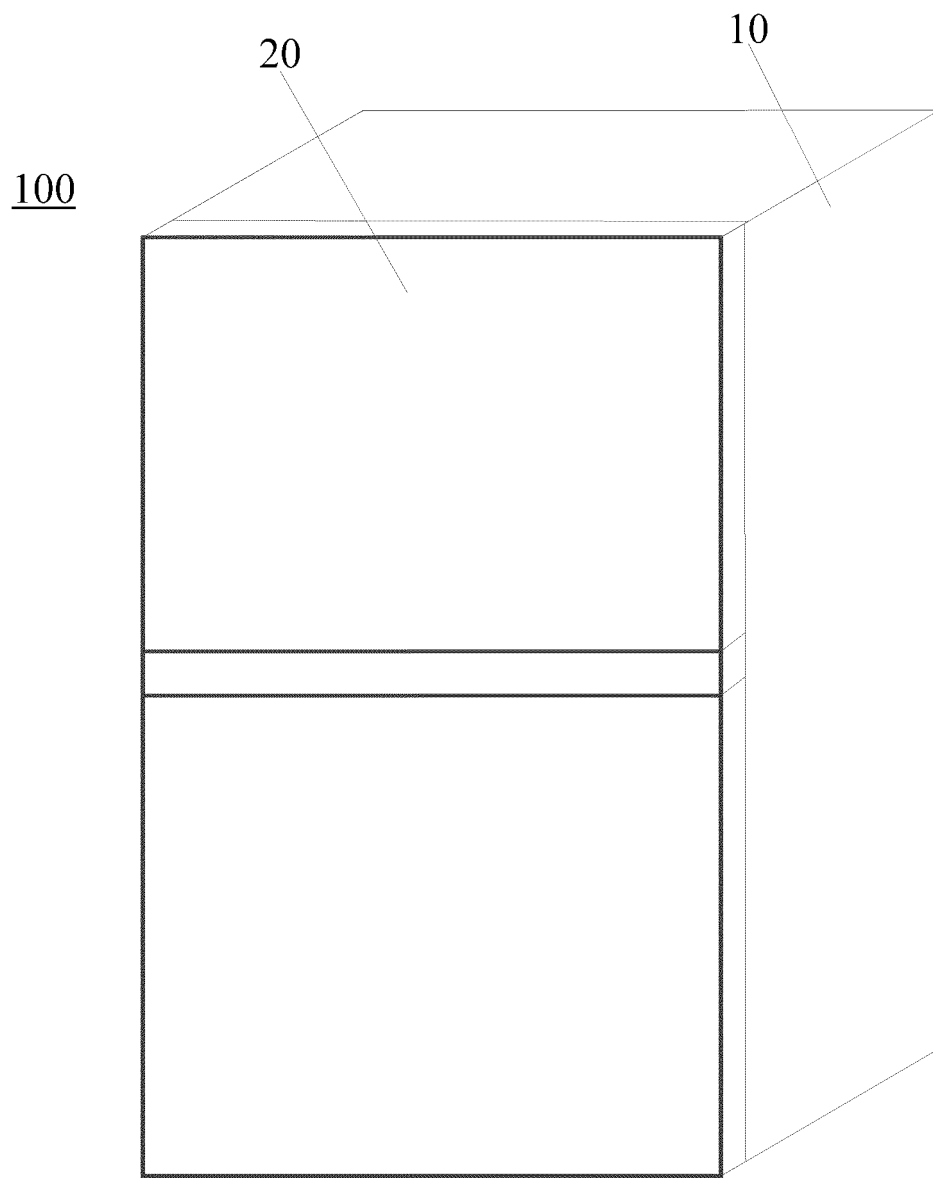


FIG.1

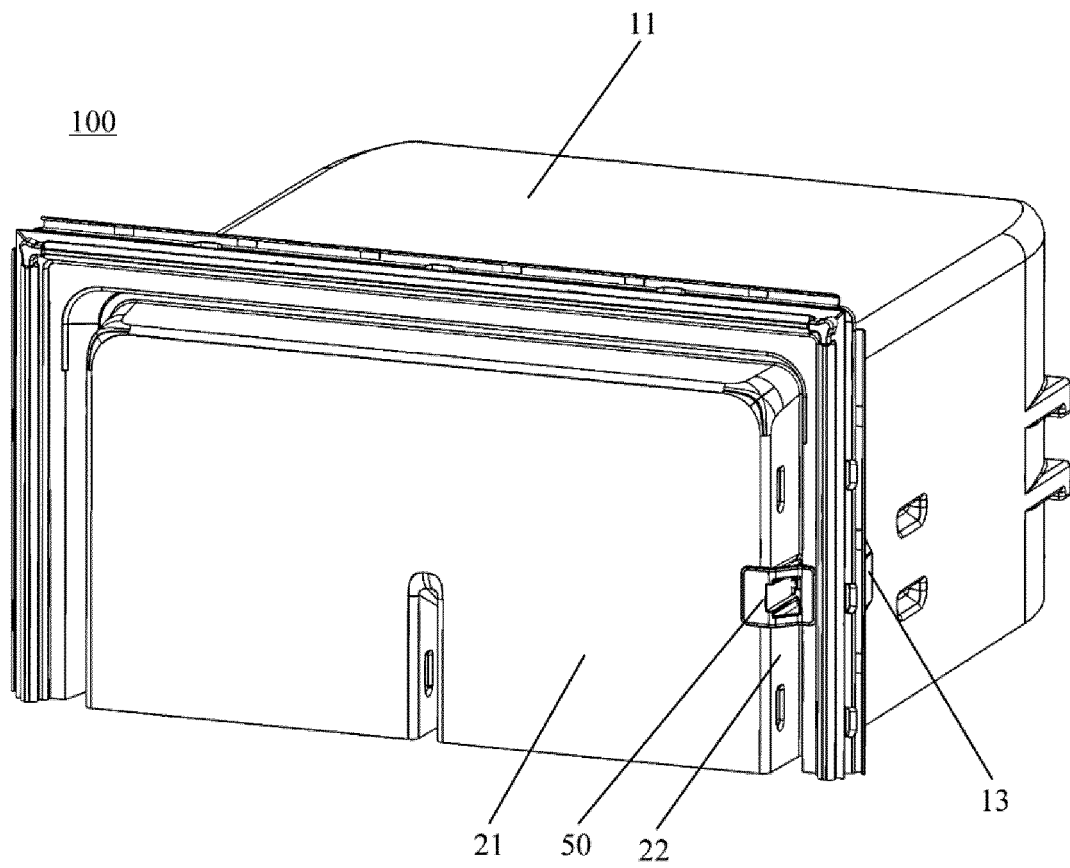


FIG.2

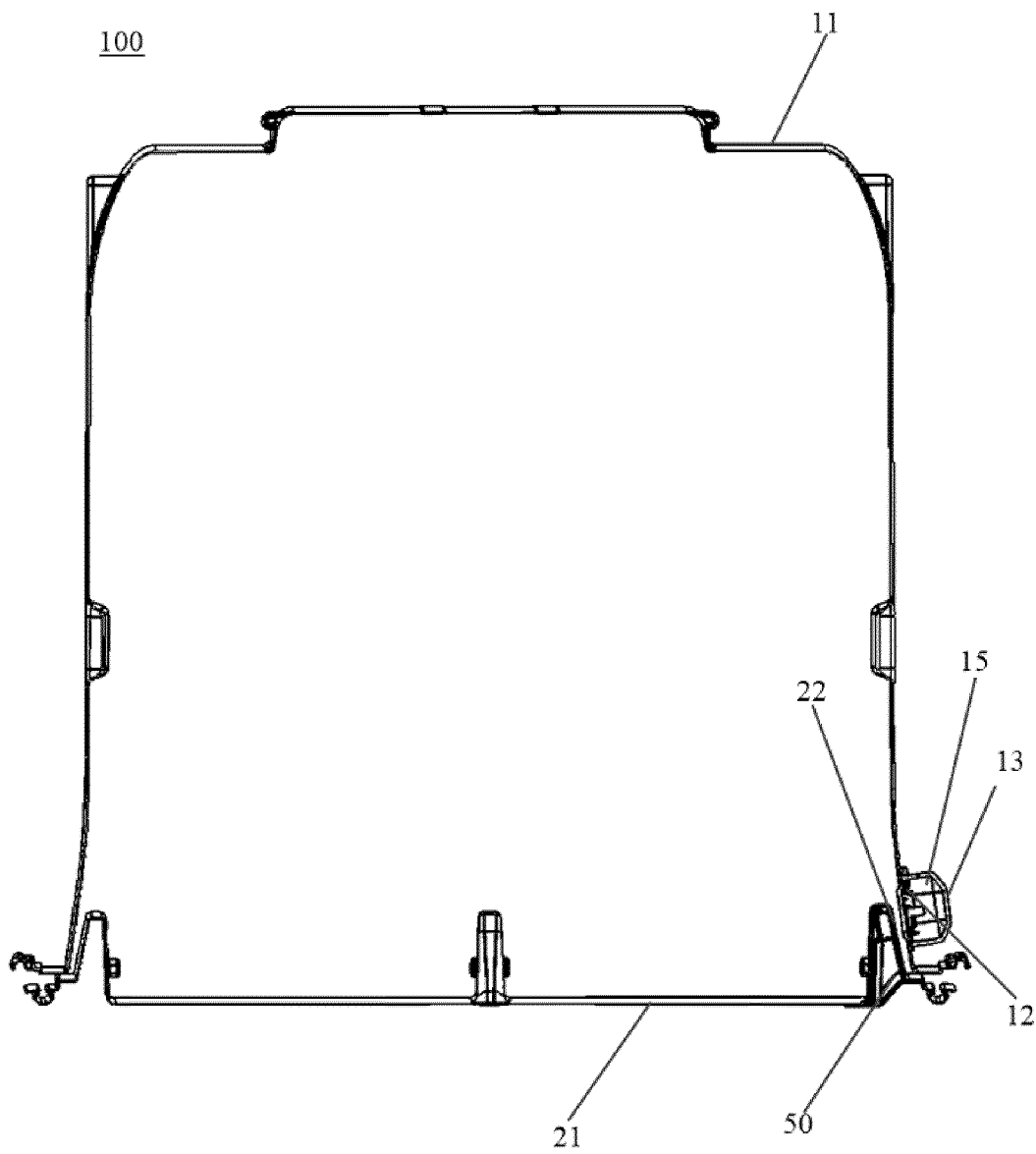


FIG.3

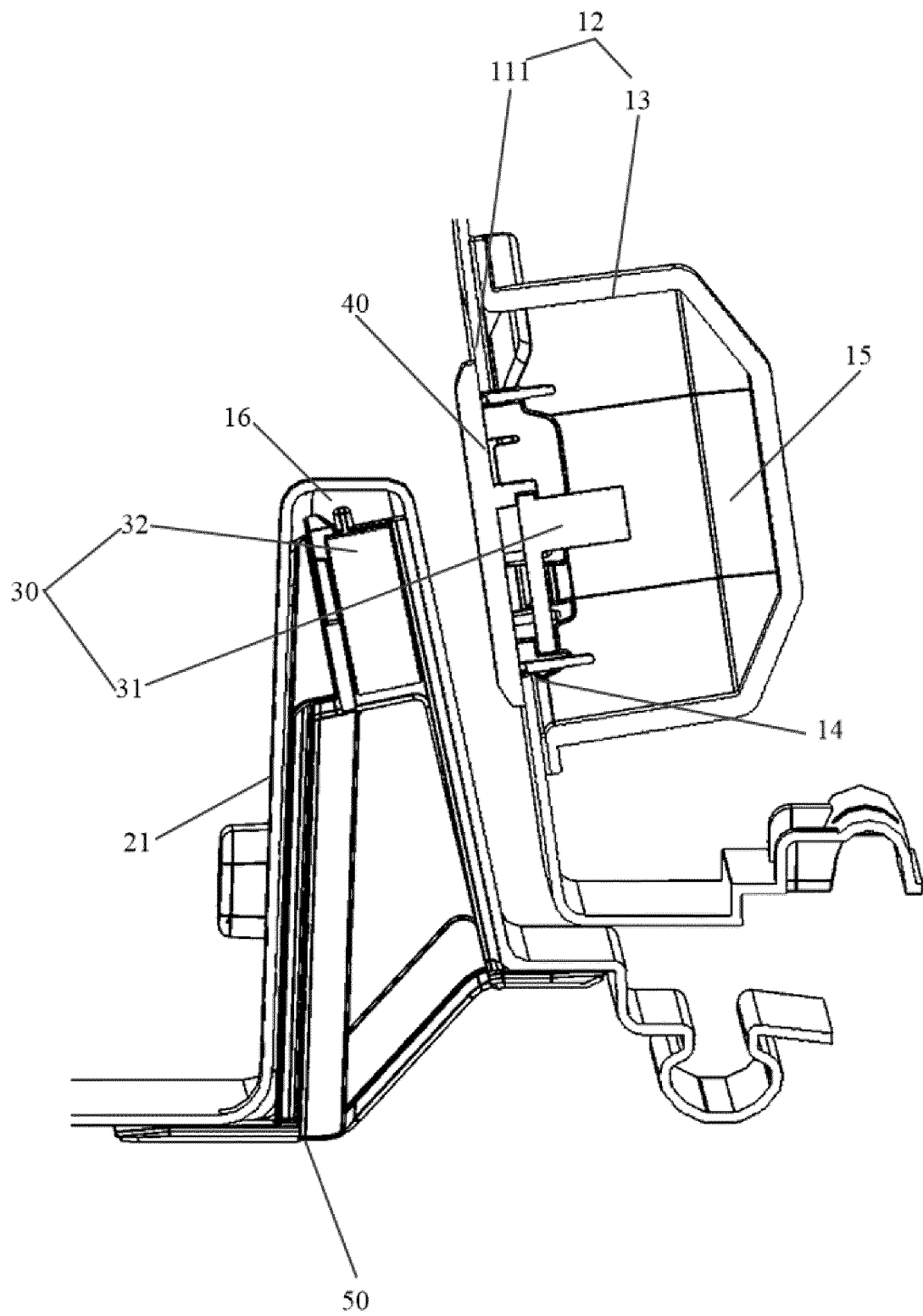


FIG.4

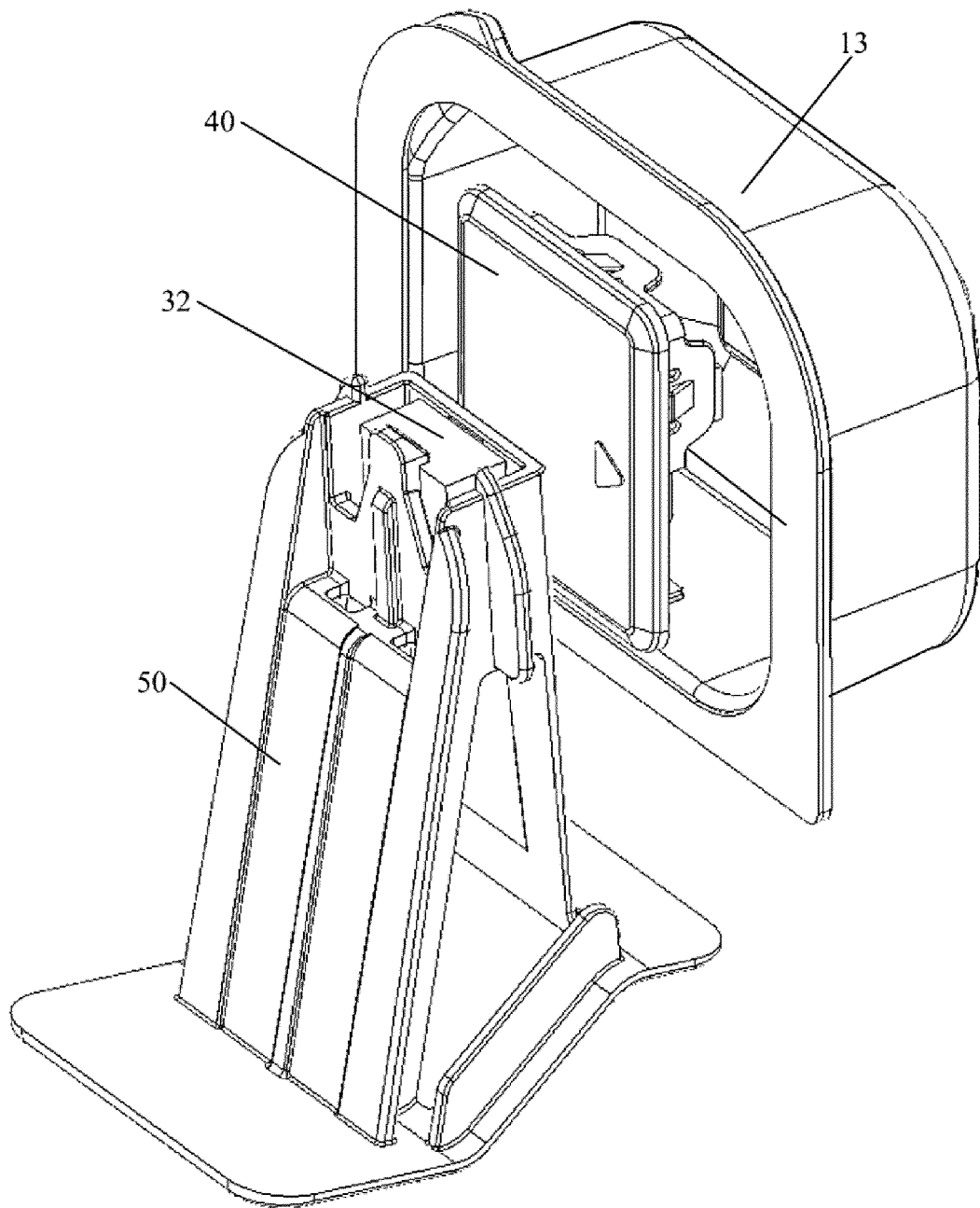


FIG.5

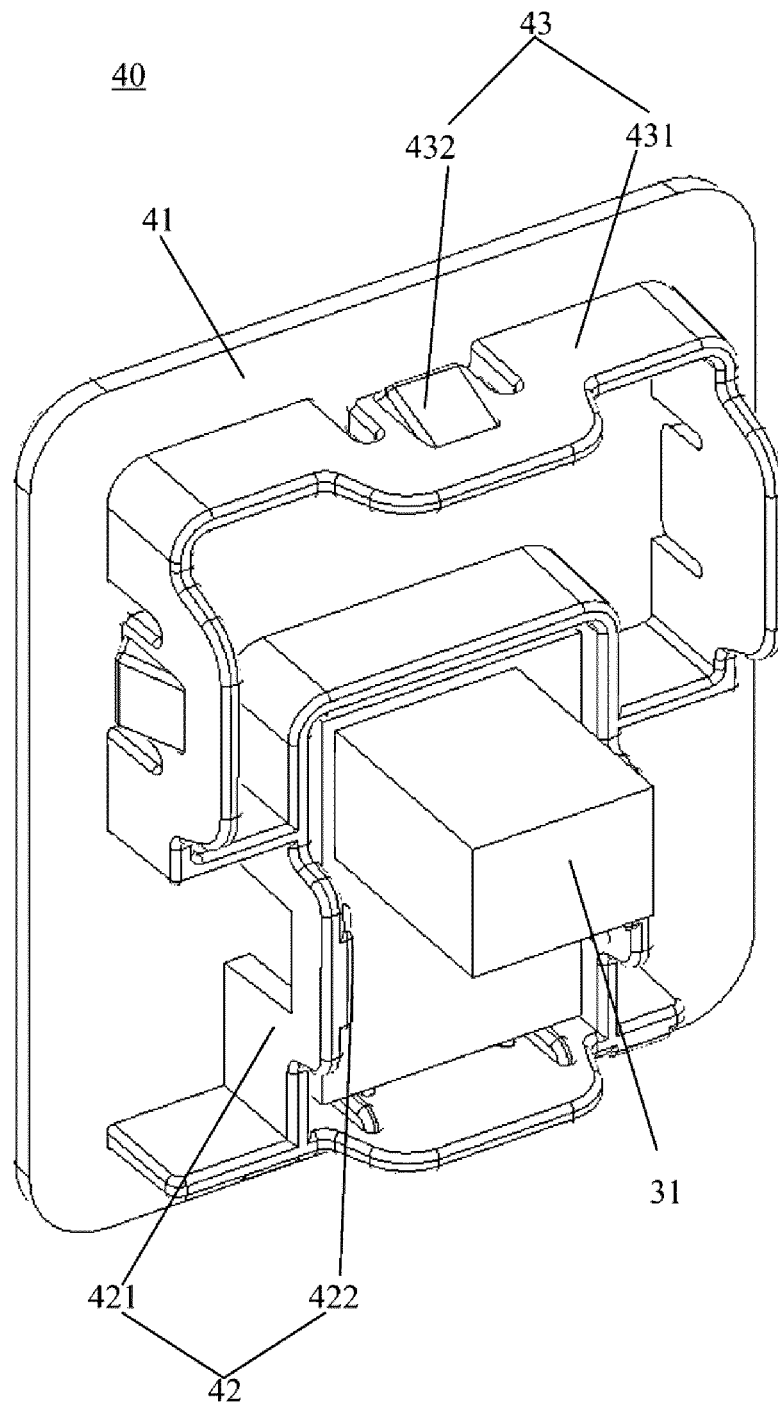


FIG.6

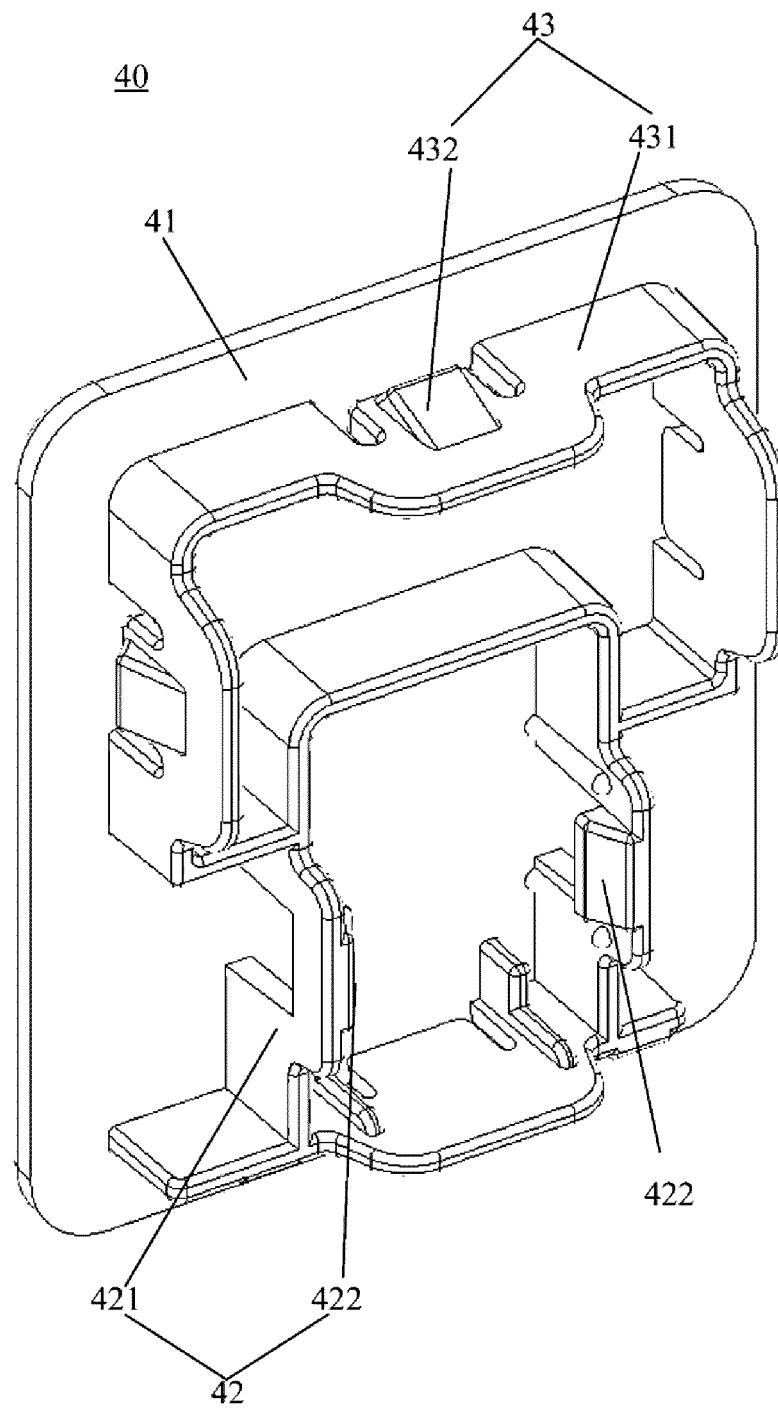


FIG.7

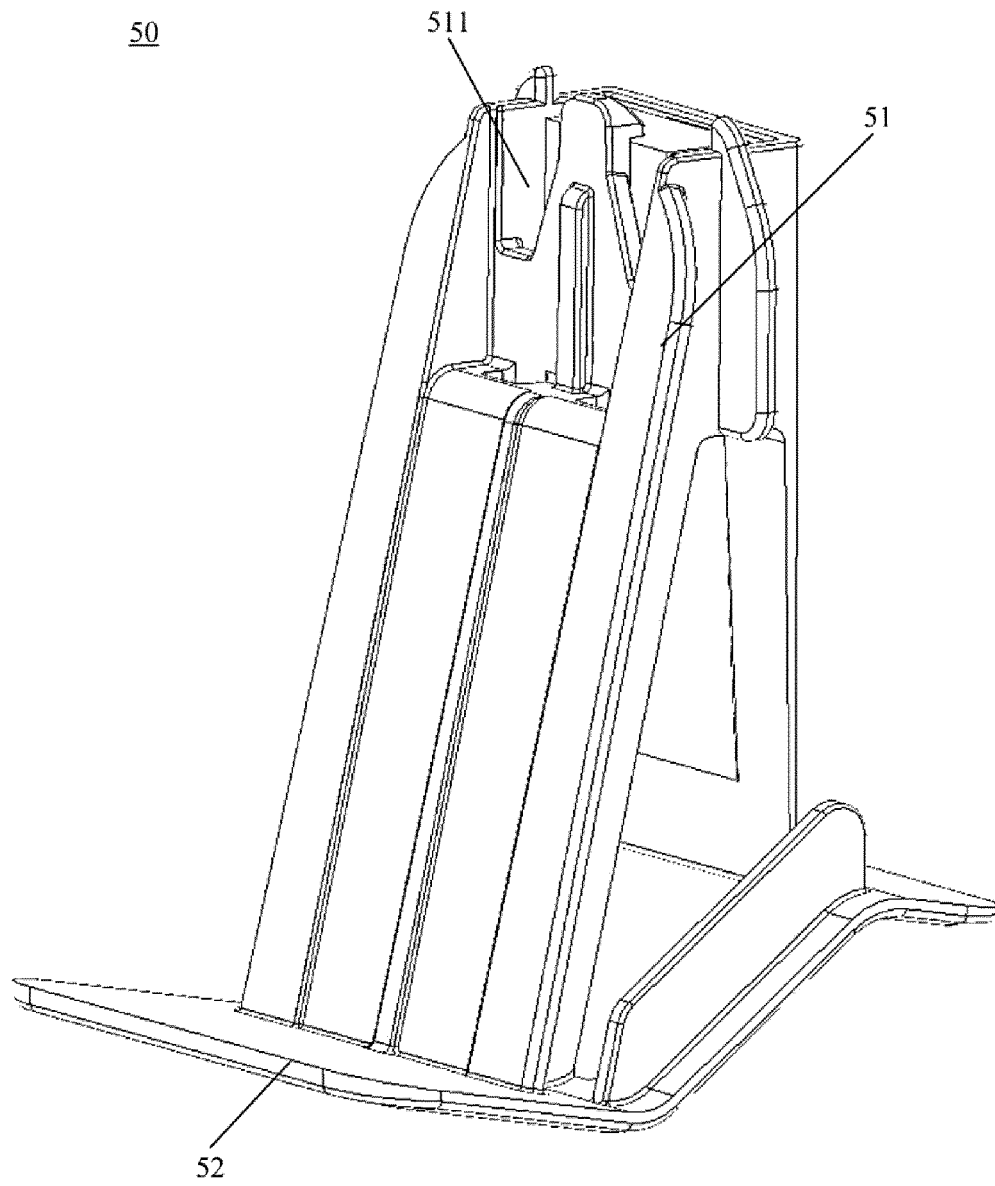


FIG. 8

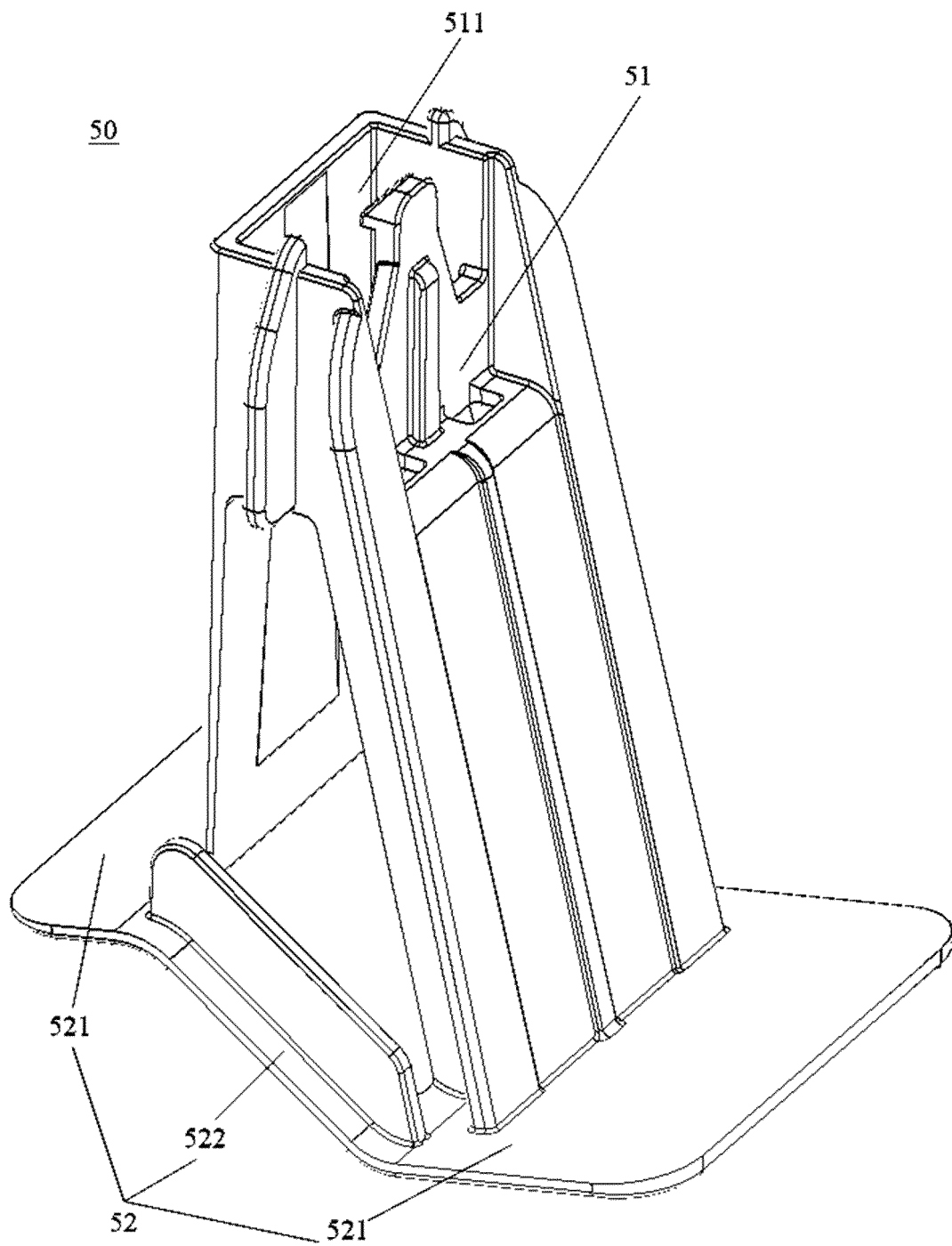


FIG.9

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2022/104413

5	A. CLASSIFICATION OF SUBJECT MATTER		
	F25D 23/00(2006.01)i		
	According to International Patent Classification (IPC) or to both national classification and IPC		
	B. FIELDS SEARCHED		
10	Minimum documentation searched (classification system followed by classification symbols)		
	F25D		
	Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
15	Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
	CNTXT; ENTXT; VEN; PATENTICS: 海尔, 开门, 门, 开关, 磁敏, 磁感应, 照明, 灯, 内胆, 箱体, 门胆, 门衬, HAIER, DOOR?, SWITCH?, MAGNET+, LIGHT+, ILLUMINAT+, LINER		
	C. DOCUMENTS CONSIDERED TO BE RELEVANT		
20	Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	PX	CN 216114942 U (QINGDAO HAIER REFRIGERATOR CO., LTD. et al.) 22 March 2022 (2022-03-22) description, specific embodiments, and figures 1-9	1-10
25	X	CN 106403489 A (HEFEI HUALING CO., LTD. et al.) 15 February 2017 (2017-02-15) description, paragraphs 40-68, and figures 1-4	1-10
	Y	CN 104296491 A (HEFEI MIDEA REFRIGERATOR CO., LTD.) 21 January 2015 (2015-01-21) description, paragraphs 28-40, and figures 1-6	1-2, 10
30	Y	CN 215002463 U (HISENSE (SHANDONG) REFRIGERATOR CO., LTD.) 03 December 2021 (2021-12-03) description, paragraphs 45-96, and figures 1-22	1-2, 10
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50	Date of the actual completion of the international search		Date of mailing of the international search report
	21 September 2022		09 October 2022
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