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(54) **Refrigerator door with door basket**

Kühlschranktür mit Türkorb

Porte du réfrigérateur avec balconnet de porte

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Description**BACKGROUND**

[0001] The present disclosure relates to a refrigerator.

[0002] Refrigerators are home appliances for storing goods in a frozen or refrigerated state. Such a refrigerator includes a storage space, i.e., a cabinet provided with a freezing compartment or/and a refrigerating compartment, and a door for selectively opening or closing the freezing compartment or the refrigerating compartment.

[0003] In general, a plurality of door baskets are provided on a back surface of the door. The door baskets provide spaces for receiving goods to be frozen or refrigerated. In general, the door baskets are fixed to the back surface of the door at preset heights, respectively.

[0004] However, the door baskets according to a related art have the following limitations.

[0005] First, the door baskets are fixed to the back surface of the door only at preset heights, respectively. Thus, it is difficult to change positions of the door baskets according to heights of goods to be stored in the door baskets.

[0006] Also, since the door baskets are fixed to the back surface of the door, it is difficult to attach or detach the door baskets. Thus, to take out a plurality of goods received in each of the door baskets at a time, there is inconvenience that the goods received in the door basket should be taken out one by one.

[0007] WO 2009/115134 A1 relates to a refrigerator comprising a carcass that delimits an interior, a door, on the internal side of which detent means are arranged, said internal side facing the interior, a door bin that has an opposite detent means, a detent arrangement that corresponds to the detent means and the opposite detent means and is used for vertically adjusting the door bin in steps of several engaged positions, and an unlocking means for releasing the door bin from a current engaged position.

SUMMARY

[0008] The present invention is defined by the features of independent claim 1. The dependent claims relate to further embodiments of the invention.

[0009] The details of one or more embodiments are set forth in the accompanying drawings and the description below. Other features will be apparent from the description and drawings, and from the claims.

BRIEF DESCRIPTION OF THE DRAWINGS**[0010]**

Fig. 1 is a perspective view of a door basket according to an embodiment.

Fig. 2 is an exploded perspective view of the door basket according to an embodiment.

Fig. 3 is a perspective view illustrating a back surface of a door on which the door basket is installed according to an embodiment.

Fig. 4 is a cross-sectional view illustrating a main part of the door according to an embodiment.

Figs. 5 to 8 are views illustrating a moving process of the door basket according to an embodiment.

DETAILED DESCRIPTION OF THE EMBODIMENTS

[0011] Hereinafter, a door basket according to an embodiment will be described in detail with reference to the accompanying drawings.

[0012] Fig. 1 is a perspective view of a door basket according to an embodiment, and Fig. 2 is an exploded perspective view of the door basket according to an embodiment.

[0013] Referring to Figs. 1 and 2, a door basket 100 according to an embodiment includes a basket body 110 and a basket support 120. The basket body 110 provides a space for receiving goods. Also, the door basket 100 is detached from the basket support 120. The basket support 120 is movably disposed on the door 10 (see Fig. 3).

[0014] In more detail, a receiving space 111 is defined inside the basket body 110. The receiving space 111 is a space for receiving goods. The basket body 110 has an opened top surface with a polyhedral shape. For example, in the current embodiment, the basket body 110 may have an opened top surface with a hexahedral shape. At least one portion of the basket body 110 may be formed of a transparent or translucent material to easily identify goods received therein.

[0015] A hook 113 is disposed on a circumference surface of the basket body 110. The hook 113 is defined by an outwardly stepped portion between an upper portion of the circumference surface of the basket body 110 and a lower portion of the circumference surface. The hook 113 is closely attached to an upper end of the circumference surface of the basket support 120 in a state where the basket body 110 is mounted on the basket support 120.

[0016] A seat space 121 is defined in the basket support 120. The seat space 121 provides a space in which the basket body 110 detachably disposed on the basket support is seated. The basket support 120 has an opened top surface with a polyhedral shape. Also, the seat space 121 is defined in the basket support 120. Here, a circumference surface of the basket support 120 may have a height relatively higher than that of the basket body 110. The circumference and bottom surfaces of the basket support 120 are closely attached to those of the basket body 110 seated in the seat space 121, respectively. As described above, an upper end of the circumference of the basket support 120 is closely attached to the hook 113.

[0017] An installation bracket 123 is disposed on a rear end of each of both circumference surfaces of the basket

support 120. The installation bracket 123 is lengthily vertically disposed on each of both circumference surfaces of the basket support 120. Here, the installation bracket 123 may have a height less than that of the basket body 110.

[0018] The installation bracket 123 includes first and second stoppers 124A and 124B. The first and second stoppers 124A and 124B delimit a range of the rotation of a stopping lever 130. The first stopper 124A is disposed above the second stopper 124B. The stopping lever 130 is rotated along a predetermined trace within a region corresponding between the first and second stoppers 124A and 124B.

[0019] The installation bracket 123 includes a guide protrusion 125. The guide protrusion 125 protrudes backward from a rear end of the installation bracket 123. The guide protrusion 125 is moved along a guide slot 11 (see Fig. 3) that will be described later in a state where the guide protrusion 125 is inserted into the guide slot 11. The guide protrusion 125 has a diameter (a left/right width in case where the guide protrusion does not have a circular shape) less than a left/right width of the guide slot 11.

[0020] A hook rib 126 is disposed on a rear end of the guide protrusion 125. The hook rib 126 prevents the guide protrusion 125 from being arbitrarily separated from the guide slot 11 in the state where the guide protrusion 125 is inserted into the guide slot 11. For this, the hook rib 126 radially extends from the rear end of the guide protrusion 125. Here, the hook rib 126 may have a diameter greater than the left/right width of the guide slot 11.

[0021] Also, the installation bracket 123 includes first and second protrusions 127 and 128. The first and second protrusions 127 and 128 are spaced apart from each other. Also, the first and second protrusions 127 and 128 protrude outward from one surface of the installation bracket 123. The stopping lever 130 and an elastic member 140 are disposed on the first and second protrusions 127 and 128, respectively.

[0022] A cover member 129 is fixed to the installation bracket 123. The cover member 129 is fixed to the installation bracket 123 so that one surface of the cover member 129 is closely attached to front ends of the first and second protrusions 127 and 128. Thus, the cover member 129 prevents the stopping lever 130 and the elastic member 140 from being separated from the first and second protrusions 127 and 128.

[0023] The stopping lever 130 is disposed on the installation bracket 123. Here, the stopping lever 130 is rotatably disposed with respect to the first protrusion 127. As described above, a rotation range of the stopping lever 130 rotated with respect to the first protrusion 127 is delimited by the first and second stoppers 124A and 124B. The stopping lever 130 includes a lever body 131, a fixing part 133, and a manipulation part 135.

[0024] In more detail, an insertion hole 132 is defined in the lever body 131. The first protrusion 127 is inserted into the insertion hole 132. Thus, the lever body 131 is

rotated with respect to the first protrusion 127 inserted into the insertion hole 132. In the current embodiment, the lever body 131 has an approximately ring shape.

[0025] Also, the fixing part 133 extends backward from a side of the lever body 131. Here, a front end of the fixing part 133 protrudes toward a rear side of the basket support 120. The front end of the fixing part 133 protruding in a rear direction of the basket support 120 is substantially disposed directly under the guide protrusion 125. The fixing part 133 is substantially inserted into a fixing groove 15 (see Fig. 4) defined inside the guide slot 11. The fixing part 133 may be rotated between a position at which the fixing part 133 protrudes toward the rear side of the basket support 120 and a position at which the fixing part 133 is disposed within the installation bracket 123 by the rotation of the lever body 131. Substantially, the fixing part 133 is rotated between a position at which a top surface of the fixing part 133 is closely attached to the first stopper 124A and a position at which a bottom surface of the fixing part 133 is closely attached to the second stopper 124B.

[0026] An inclined guide surface 134 is disposed on the top surface of the fixing part 133. The top surface of the fixing part 133 is inclined downward toward the front end of the fixing part 133 to define the inclined guide surface 134. The inclined guide surface 134 prevents the fixing part 133 and the fixing groove 15 from interfering with respect to each other when the door basket 100, substantially, the basket support 120 is moved upward along the guide slot 11.

[0027] The manipulation part 135 extends from a side of the lever body 131. Here, a front end of the manipulation part 135 protrudes toward a lower side of the basket support 120. The manipulation part 135 may be a portion which is pulled by a user to rotate the stopping lever 130. In more detail, when the manipulation part 135 is pulled, the stopping lever 130 is rotated with respect to the first protrusion 127 by overcoming an elastic force of the elastic member 140.

[0028] The elastic member 140 applies an elastic force to the stopping lever 130. In more detail, the elastic member 140 applies an elastic force to the stopping lever 130 so that the fixing part 133 extends in a rear direction of the basket support 120 and is inserted into the fixing groove 15. In current embodiment, a torsion spring of which both ends are respectively supported by a side of the installation bracket 123 and the stopping lever 130, substantially, the manipulation part 135 in a state where the torsion spring is inserted into the second protrusion 128 may be used as the elastic member 140. The torsion spring applies an elastic force to the stopping lever 130 so that the fixing part 133 protrudes in the rear direction of the basket support 120, i.e., the fixing part 133 is inserted into the fixing groove 15.

[0029] Hereinafter, a door on which the door basket is disposed according to an embodiment will be described in detail with reference to the accompanying drawings.

[0030] Fig. 3 is a perspective view illustrating a back

surface of a door on which the door basket is installed according to an embodiment. Fig. 4 is a cross-sectional view illustrating a main part of the door according to an embodiment.

[0031] Referring to Figs. 3 and 4, two guide slots 11 are defined in a back surface of a door 10 for selectively opening or closing a storage space. Portions of both side ends of the back surface of the door 10 are lengthily cut in a vertical direction to define the guide slots 11, respectively. Here, a distance between the guide slots 11 may be equal to that between the guide protrusions 125 and that between the fixing parts 133. The guide slot 11 substantially guides a vertical movement of the door basket 100. Substantially, a portion of the back surface of the door 10 is recessed into the inside of the door 10 to define the guide slot 11.

[0032] A fixing member 13 is disposed within the door 10. The fixing member 13 is disposed on each of both inner side ends of the door 10 corresponding to the guide slot 11. The plurality of fixing grooves 15 are defined in the fixing member 13. Each of the fixing grooves 15 is defined by cutting a portion of the fixing member 13. The fixing grooves 15 are vertically disposed spaced a predetermined distance from each other. The fixing part 133 is selectively inserted into the fixing groove 15. Also, the fixing groove 15 may have a vertical height at least greater than a height of the fixing part 133.

[0033] When the door basket 100 is mounted on the back surface of the door 10, the guide protrusion 125 and the fixing part 133 are inserted into the guide slot 11. Also, in the state where the guide protrusion 125 is inserted into the guide slot 11, the hook rib 126 is hooked on the back surface of the door 10 adjacent to the guide slot 11. Thus, it may prevent the guide protrusion 125 from being arbitrarily separated from the guide slot 11. Also, the fixing part 133 is inserted into one of the fixing grooves 15. Also, the fixing part 133 is not arbitrarily separated from the fixing groove 15 by the elastic force applied into the stopping lever 130 from the elastic member 140 in the state where the fixing part 133 is inserted into the fixing groove 15.

[0034] Hereinafter, effects of the door basket according to an embodiment will be described in detail with reference to the accompanying drawings.

[0035] Figs. 5 to 8 are views illustrating a moving process of the door basket according to an embodiment.

[0036] First, in the state where the door basket 100 is mounted on the back surface of the door 10, substantially, in the state where the basket support 120 is mounted on the back surface of the door 10 (see Fig. 4), the guide protrusion 125 is inserted into the guide slot 11. Here, the guide protrusion 125 is not arbitrarily separated from the guide slot 11 by the hook rib 126 hooked on the inside of the back surface of the door 10 adjacent to the guide slot 11.

[0037] Here, the fixing part 133 is inserted into one (hereinafter, for convenience of description, referred to as the "first fixing groove 15A") of the fixing grooves 15.

The elastic member 140 applies an elastic force into the stopping lever 130 so that the fixing part 133 protrudes in the rear direction of the basket support 120 to maintain a state in which the fixing part 133 is inserted into the first fixing groove 15A. Here, since the top surface of the fixing part 133 is closely attached to the first stopper 124A, the stopping lever 130 is not rotated ever by the elastic force applied from the elastic member 140. When the fixing part 133 is inserted into the first fixing groove 15A, the door basket 100 is maintained in the state where the door basket 100 is mounted on the back surface of the door 10 at a height corresponding to the first fixing groove 15A.

[0038] Referring to Fig. 5, to move the door basket 100 downward, a user pulls the manipulation part 135. When the user pulls the manipulation part 135, the stopping lever 130 is rotated with respect to the first protrusion 127 by overcoming an elastic force of the elastic member 140. Thus, the fixing part 133 is separated from the first fixing groove 15A and disposed inside the installation bracket 123. Here, the rotation of the stopping lever 130 may be performed until the fixing part 133 is closely attached to the second stopper 124B.

[0039] Referring to Fig. 6, in the state where the user pulls the manipulation part 135, the door basket 100 is moved downward so that the door basket 100 is disposed at a predetermined position. Here, as described above, since the fixing part 133 is disposed within the installation bracket 123, the door basket 100 does not interfere with the fixing part 133 and the fixing groove 15 or/and the fixing member 13 during the movement thereof.

[0040] Also, in the state where the door basket 100 is disposed at the predetermined position, when the user removes a force for pulling the manipulation part 135, the stopping lever 130 is rotated by the elastic force by the elastic member 140 to allow the fixing part 133 to protrude in the rear direction of the basket support 120, thereby inserting the fixing part 133 into the other fixing groove (hereinafter, for convenience of description, referred to as the "second fixing groove 15B") of the fixing grooves 15. Thus, the door basket 100 may be maintained in the state where the door basket 100 is mounted on the back surface of the door 10 at a height corresponding to the second fixing groove 15B.

[0041] Referring to Fig. 7, to move the door basket 100 upward, it is unnecessary to pull the manipulation part 135. In more detail, when the user moves the door basket 100 upward, the door basket 100 is guided by the inclined guide surface 134, and thus, the fixing part 133 overstrides the first fixing groove 15A. That is to say, the fixing part 133 is guided by the inclined guide surface 134 and thus is pushed by the fixing member 13 while being separated from the first fixing groove 15A. Thus, when the door basket 100 is moved upward, the door basket 100 does not interfere by the fixing part 133 and the fixing groove 15 or the fixing member 13. Here, the stopping lever 130 is rotated with respect to the first protrusion 127 by overcoming the elastic force of the elastic member

140.

[0042] Referring to Fig. 8, when the door basket 100 is continuously moved upward, and thus the fixing part 133 is disposed at a height corresponding to the other fixing groove (hereinafter, for convenience of description, referred to as a "third fixing groove 15C") disposed above the first fixing groove 15A, an external force pushing the fixing part 133 is substantially removed. Thus, the stopping lever 130 is rotated by the elastic force of the elastic member 140. Also, since the stopping lever 130 is rotated to insert the fixing part 133 into the third fixing groove 15C, the door basket 100 may be maintained in a state where the door basket 100 is mounted on the basket surface of the door 100 at the height corresponding to the third fixing groove 15C.

[0043] In the state where the door basket 100 is mounted on the basket surface of the door 10 at a height corresponding to one of the first to third fixing grooves 15A to 15C, the user may separate the basket body 110 from the basket support 120. Thus, goods may be more easily received into the basket body 110, i.e., the receiving space 111.

[0044] It should be understood that numerous other modifications and embodiments can be devised by those skilled in the art that will fall within the scope of the claims of this disclosure. More particularly, various variations and modifications are possible in the component parts and/or arrangements of the subject combination arrangement within the scope of the appended claims.

[0045] In the foregoing embodiment, although the torsion spring is described as an example of the elastic member, different types of springs or members may be used as the elastic member. For example, a coil spring of which both ends are respectively fixed to a side of the installation bracket and a side of the stopping lever may be used as the elastic member.

[0046] In the door basket and the refrigerator including the door basket according to the embodiment, the door basket can be easily varied in position according to heights of goods received in the door basket. Also, since the door basket can be easily detached from the door, the user may more easily take in or out the goods received in the door basket.

Claims

1. A refrigerator door (10) comprising a door basket (100) disposed on a back surface of the door (10), for selectively opening or closing a storage space, and movably mounted to the back surface of the door (10) having a pair of guide slots (11) to adjust the height of a mounting position, wherein the door basket (100) comprises:

a basket body (110) receiving goods;
a basket support (120) having an open top surface with polyhedral shape to define a seat

space (121) providing a space in which the basket body (110) is detachably disposed on the basket support (120);

a hook (113) defined by an outwardly stepped portion between an upper portion of a circumference surface of the basket body (110) and a lower portion of a circumference surface of the basket body (110);

an installation bracket (123) disposed on a rear end of each of both circumference surfaces of the basket support (120);

a stopping lever (130) rotatably disposed on the installation bracket (123) to a position corresponding to one of a plurality of fixing grooves (15) vertically spaced apart from each other in the back surface of the door (10);

a guide protrusion (125) protruding from the installation bracket (123) and being configured to move along the pair of guide slots (11) lengthily cut in a vertical direction at the same position as the fixing grooves (15); and

an elastic member (140) applying an elastic force to the stopping lever (130) so that the stopping lever (130) is maintained in a state where the stopping lever (130) is inserted into one of the fixing grooves (15),

wherein a distance between the pair guide slots (11) is equal to that between the guide protrusion (125) and that between the fixing grooves (15), and

wherein the hook (113) is closely attached to an upper end of the circumference surface of the basket support (120) in a state where the basket body (110) is mounted on the basket support.

2. The refrigerator door (10) according to claim 1, wherein the stopping lever (130) comprises:

a lever body (131) rotatably disposed with respect to a protrude disposed on the basket support (120);

a fixing part (133) extending from the lever body (131), the fixing part (133) being selectively inserted into the fixing grooves (15); and

a manipulation part (135) manipulated by a user to rotate the lever body (131).

3. The refrigerator door (10) according to claim 2, wherein an inclined guide surface (134) for preventing the fixing part (133) and the fixing grooves (15) from interfering with each other when the basket support (120) is moved upward along the guide slots (11) is disposed on a top surface of the fixing part (133).

4. The refrigerator door (10) according to claim 1, wherein a stopper for delimiting a rotation range of the stopping lever (130) is disposed on the installa-

tion bracket.

5. The refrigerator door (10) according to claim 4, wherein the stopper comprises:

a first stopper (124A) for delimiting a maximum rotation range of the stopping lever (130) in a direction in which the stopping lever (130) is inserted into one of the fixing grooves (15); and a second stopper (124B) for delimiting the maximum rotation range of the stopping lever (130) in a direction in which the stopping lever (130) is separated from one of the fixing grooves (15).

6. The refrigerator door (10) according to claim 1, wherein the elastic member (140) comprises a torsion spring disposed on the installation bracket (123), and of which both ends are closely attached to a side of the installation bracket (123) and a side of the stopping lever (130), respectively.

7. The refrigerator door (10) according to claim 6, further comprising a cover member (129) for covering the installation bracket (123) to prevent the stopping lever (130) and the elastic member (140) from being arbitrarily separated in a state where the stopping lever (130) and the elastic member (140) are mounted on the installation bracket (123).

8. The refrigerator door (10) according to claim 1, wherein at least a portion of the guide protrusion (125) disposed on the basket support (120) overlaps with one of the plurality of fixing grooves (15), thereby being moved along the guide slots (11).

9. The refrigerator door (10) according to claim 8, wherein a hook rib (126) disposed on a rear end of the guide protrusion (125) having a diameter greater than the left/right width of the guide slots (11) for preventing the guide protrusion from being arbitrarily separated from the guide slots (11).

Patentansprüche

1. Kühlschranktür (10), die aufweist:

einen Türkorb (100), der auf einer Rückseite der Tür (10) zum selektiven Öffnen oder Schließen eines Aufbewahrungsraums angeordnet ist und beweglich an der Rückseite der Tür (10) angebracht ist, die ein Paar Führungsschlitze (11) aufweist, um die Höhe einer Befestigungsposition einzustellen, wobei der Türkorb (100) aufweist:

einen Korbkörper (110), der Waren aufnimmt;

einen Korbträger (120) mit einer offenen Oberseite mit einer polyedrischen Form, um einen Aufnahmeraum (121) zu definieren, der einen Raum bereitstellt, in dem der Korbkörper (110) abnehmbar am Korbträger (120) angeordnet ist;

einen Haken (113), der durch einen nach außen abgestuften Abschnitt zwischen einem oberen Abschnitt einer Umfangsfläche des Korbkörpers (110) und einem unteren Abschnitt einer Umfangsfläche des Korbkörpers (110) definiert ist;

eine Installationshalterung (123), die an einem hinteren Ende von jeweils beiden Umfangsflächen des Korbträgers (120) angeordnet ist;

einen Fixierhebel (130), der drehbar an der Installationshalterung (123) an einer Position angeordnet ist, die einer von mehreren Fixiernuten (15) entspricht, die in der Rückseite der Tür (10) vertikal voneinander beabstandet sind;

einen Führungsvorsprung (125), der aus der Installationshalterung (123) vorsteht und konfiguriert ist, sich längs des Paares der Führungsschlitze (11) zu bewegen, die in einer vertikalen Richtung an derselben Position wie die Fixiernuten (15) länglich eingeschnitten sind; und

ein elastisches Element (140), das eine Federkraft auf den Fixierhebel (130) ausübt, so dass der Fixierhebel (130) in einem Zustand gehalten wird, in dem der Fixierhebel (130) in eine der Fixiernuten (15) eingesetzt ist,

wobei ein Abstand zwischen dem Paar der Führungsschlitze (11) gleich dem zwischen dem Führungsvorsprung (125) und dem zwischen den Fixiernuten (15) ist, und wobei der Haken (113) in einem Zustand, in dem der Korbkörper (110) am Korbträger befestigt ist, eng an einem oberen Ende der Umfangsfläche des Korbträgers (120) angebracht ist.

2. Kühlschranktür (10) nach Anspruch 1, wobei der Fixierhebel (130) aufweist:

einen Hebelkörper (131), der in Bezug auf einen am Korbträger (120) angeordneten Vorsprung drehbar angeordnet ist;

einen Fixierteil (133), der sich vom Hebelkörper (131) erstreckt, wobei der Fixierteil (133) selektiv in die Fixiernuten (15) eingesetzt ist; und

einen Bedienungsteil (135), der durch einen Benutzer bedient wird, um den Hebelkörper (131) zu drehen.

3. Kühlschranktür (10) nach Anspruch 2, wobei eine geneigte Führungsfläche (134), um zu verhindern, dass sich der Fixierteil (133) und die Fixiernuten (15) gegenseitig stören, wenn der Korbträger (120) längs der Führungsschlitze (11) nach oben bewegt wird, an einer Oberseite des Fixierteils (133) angeordnet ist.
4. Kühlschranktür (10) nach Anspruch 1, wobei ein Stopper zum Begrenzen eines Drehbereichs des Fixierhebels (130) an der Installationshalterung angeordnet ist.
5. Kühlschranktür (10) nach Anspruch 4, wobei der Stopper aufweist:
- einen ersten Stopper (124A) zum Begrenzen eines maximalen Drehbereichs des Fixierhebels (130) in einer Richtung, in der der Fixierhebel (130) in eine der Fixiernuten (15) eingesetzt wird; und
- einen zweiten Stopper (124B) zum Begrenzen des maximalen Drehbereichs des Fixierhebels (130) in einer Richtung, in der der Fixierhebel (130) von einer der Fixiernuten (15) getrennt wird.
6. Kühlschranktür (10) nach Anspruch 1, wobei das elastische Element (140) eine Torsionsfeder aufweist, die an der Installationshalterung (123) angeordnet ist, und von der beide Enden eng an einer Seite der Installationshalterung (123) bzw. einer Seite des Fixierhebels (130) angebracht sind.
7. Kühlschranktür (10) nach Anspruch 6, die ferner ein Abdeckelement (129) zum Abdecken der Installationshalterung (123) aufweist, um zu verhindern, dass der Fixierhebel (130) und das elastische Element (140) in einem Zustand, in dem der Fixierhebel (130) und das elastische Element (140) an der Installationshalterung (123) befestigt sind, willkürlich getrennt werden.
8. Kühlschranktür (10) nach Anspruch 1, wobei sich mindestens ein Abschnitt des am Korbträger (120) angeordneten Führungsvorsprungs (125) mit einer der mehreren Fixiernuten (15) überlappt, wodurch er längs der Führungsschlitze (11) bewegt wird.
9. Kühlschranktür (10) nach Anspruch 8, wobei eine Hakenrippe (126) an einem hinteren Ende des Führungsvorsprungs (125) angeordnet ist, die einen Durchmesser aufweist, der größer als die linke/rechte Breite der Führungsschlitze (11) ist, um zu verhindern, dass der Führungsvorsprung willkürlich von den Führungsschlitzen (11) getrennt wird.

Revendications

1. Porte de réfrigérateur (10), comprenant un balconnet (100) disposé sur une surface arrière de la porte (10) pour l'ouverture ou la fermeture sélectives d'un espace de stockage, et monté de manière amovible sur la surface arrière de la porte (10) ayant une paire de fentes de guidage (11) pour régler la hauteur d'un emplacement de montage, ledit balconnet (100) comprenant :

un corps (110) de balconnet recevant des articles ;

un support (120) de balconnet ayant une surface supérieure ouverte de forme polyédrique pour définir un espace d'appui (121) procurant un espace où le corps (110) de balconnet est disposé de manière détachable sur le support (120) de balconnet ;

un crochet (113) défini par une partie étagée extérieurement entre une partie supérieure d'une surface périphérique du corps (110) de balconnet et une partie inférieure d'une surface périphérique du corps (110) de balconnet ;

un étrier de montage (123) disposé sur l'extrémité arrière de chacune des deux surfaces périphériques du support (120) de balconnet ;

un levier de fixation (130) disposé de manière pivotante sur l'étrier de montage (123) à un emplacement correspondant à une rainure d'une pluralité de rainures de fixation (15) espacées verticalement entre elles sur la surface arrière de la porte (10) ;

une saillie de guidage (125) s'étendant sur l'étrier de montage (123) et prévue pour se mouvoir le long des deux fentes de guidage (11) ménagées en longueur dans la direction verticale à l'emplacement des rainures de fixation (15) ; et un élément élastique (140) appliquant une force élastique au levier de fixation (130) de manière à maintenir le levier de fixation (130) dans un état où le levier de fixation (130) est engagé dans une des rainures de fixation (15),

où la distance entre les deux fentes de guidage (11) est égale à celle entre la saillie de guidage (125) et à celle entre les rainures de fixation (15), et

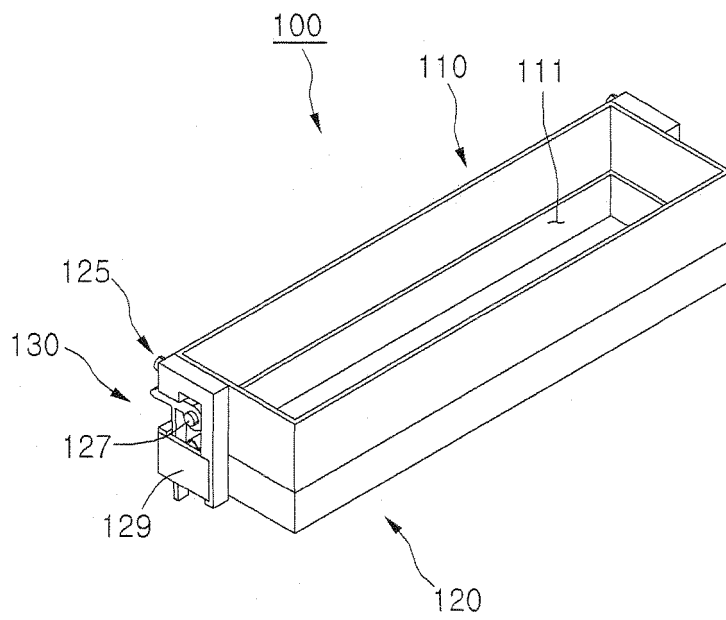
où le crochet (113) est fixement raccordé à une extrémité supérieure de la surface périphérique du support (120) de balconnet, dans un état où le corps (110) de balconnet est monté sur le support de balconnet.

2. Porte de réfrigérateur (10) selon la revendication 1, où le levier de fixation (130) comprend :

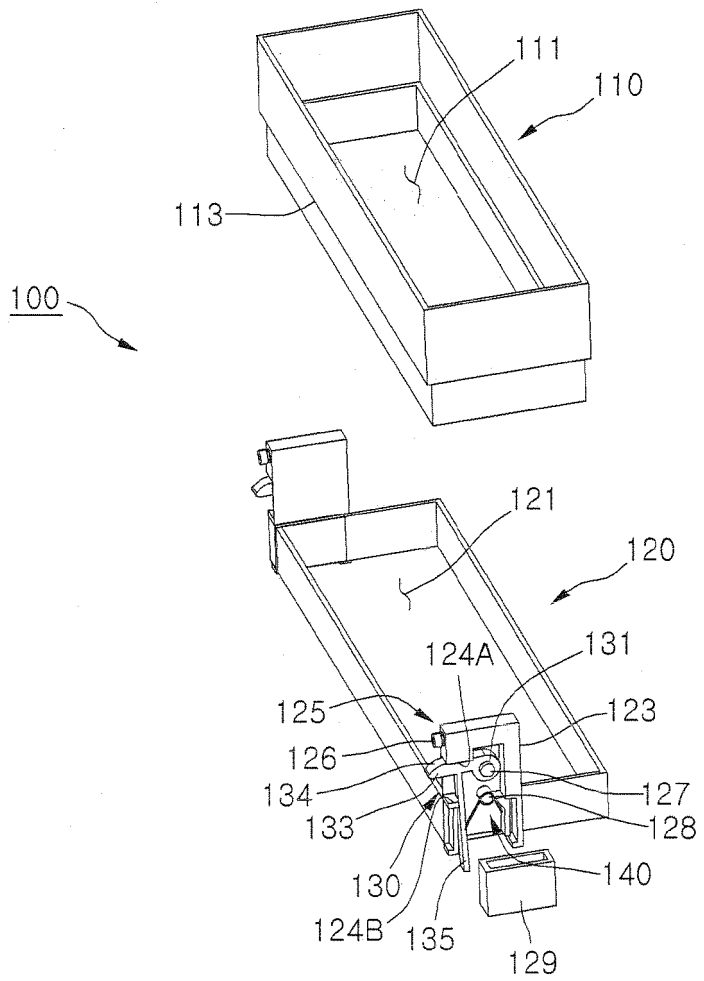
un corps (131) de levier disposé de manière pivotante par rapport à une saillie présentée sur

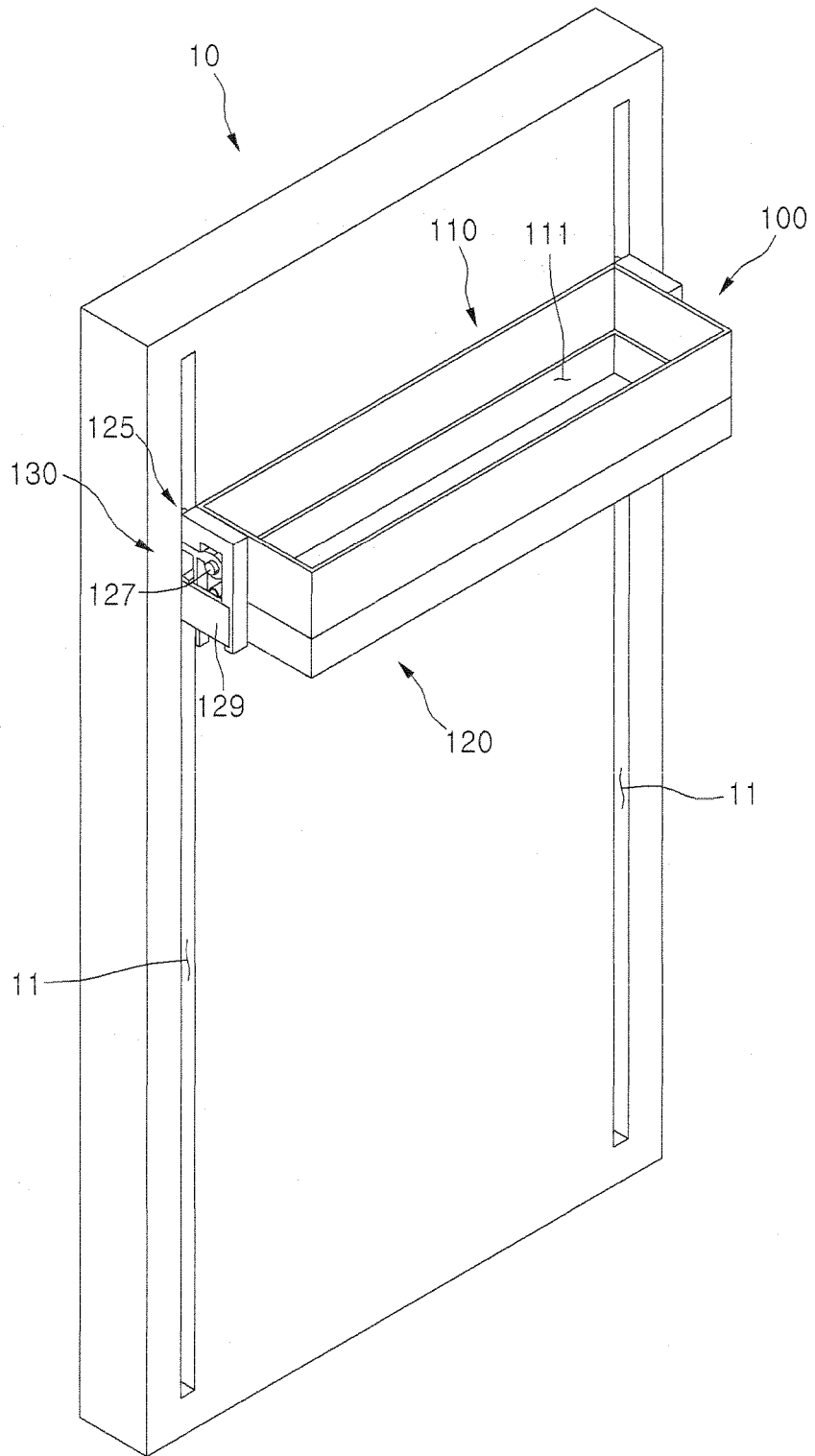
- le support (120) de balconnet ;
 une section de fixation (133) s'étendant depuis le corps (131) de levier, ladite section de fixation (133) étant engagée sélectivement dans les rainures de fixation (15) ; et
 une section de manipulation (135) actionnée par un utilisateur pour pivoter le corps (131) de levier.
3. Porte de réfrigérateur (10) selon la revendication 2, où une surface de guidage inclinée (134) empêchant une interférence entre la section de fixation (133) et les rainures de fixation (15) quand le support (120) de balconnet est déplacé vers le haut le long des fentes de guidage (11), est présentée sur une surface supérieure de la section de fixation (133).
4. Porte de réfrigérateur (10) selon la revendication 1, où une butée destinée à limiter une plage de pivotement du levier de fixation (130) est disposée sur l'étrier de montage.
5. Porte de réfrigérateur (10) selon la revendication 4, où la butée comprend :
- une première butée (124A) destinée à limiter une plage de pivotement maximal du levier de fixation (130) dans une direction où le levier de fixation (130) est engagé dans une des rainures de fixation (15) ; et
 une deuxième butée (124B) destinée à limiter la plage de pivotement maximal du levier de fixation (130) dans une direction où le levier de fixation (130) est dégagé d'une des rainures de fixation (15).
6. Porte de réfrigérateur (10) selon la revendication 1, où l'élément élastique (140) comprend un ressort de torsion disposé sur l'étrier de montage (123), et dont les deux extrémités sont fixement raccordées respectivement à un côté de l'étrier de montage (123) et à un côté du levier de fixation (130).
7. Porte de réfrigérateur (10) selon la revendication 6, comprenant en outre un élément de couverture destiné à recouvrir l'étrier de montage (123) pour empêcher le levier de fixation (130) et l'élément élastique (140) d'être accidentellement séparés dans un état où le levier de fixation (130) et l'élément élastique (140) sont montés sur l'étrier de montage (123).
8. Porte de réfrigérateur (10) selon la revendication 1, où au moins une partie de la saillie de guidage (125) disposée sur le support (120) de balconnet chevauche une rainure de la pluralité de rainures de fixation (15), en étant ainsi déplacée le long des fentes de guidage (11).
9. Porte de réfrigérateur (10) selon la revendication 8, où une nervure (126) de crochet présentée à une extrémité arrière de la saillie de guidage (125) a un diamètre supérieur à la largeur gauche/droite des fentes de guidage (11) pour empêcher la saillie de guidage d'être accidentellement séparée des fentes de guidage (11).

[Fig. 1]



[Fig. 2]





[Fig. 3]

Fig.4

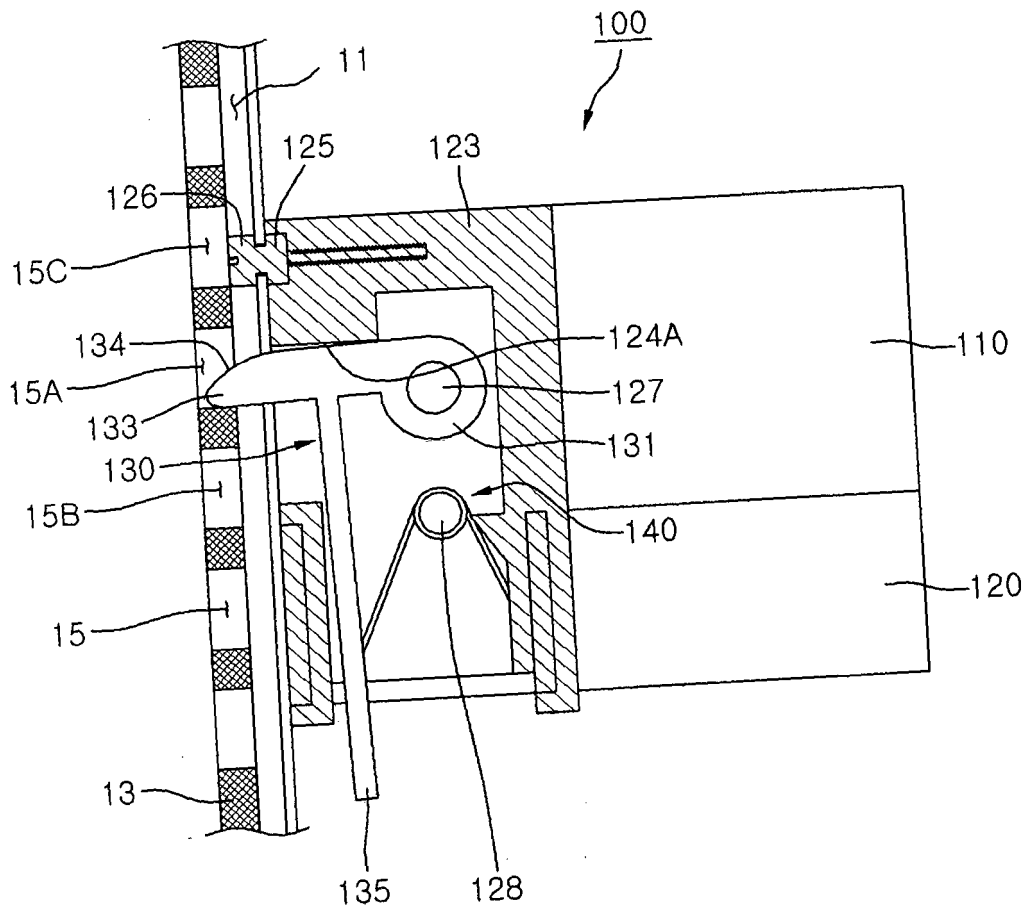


Fig.5

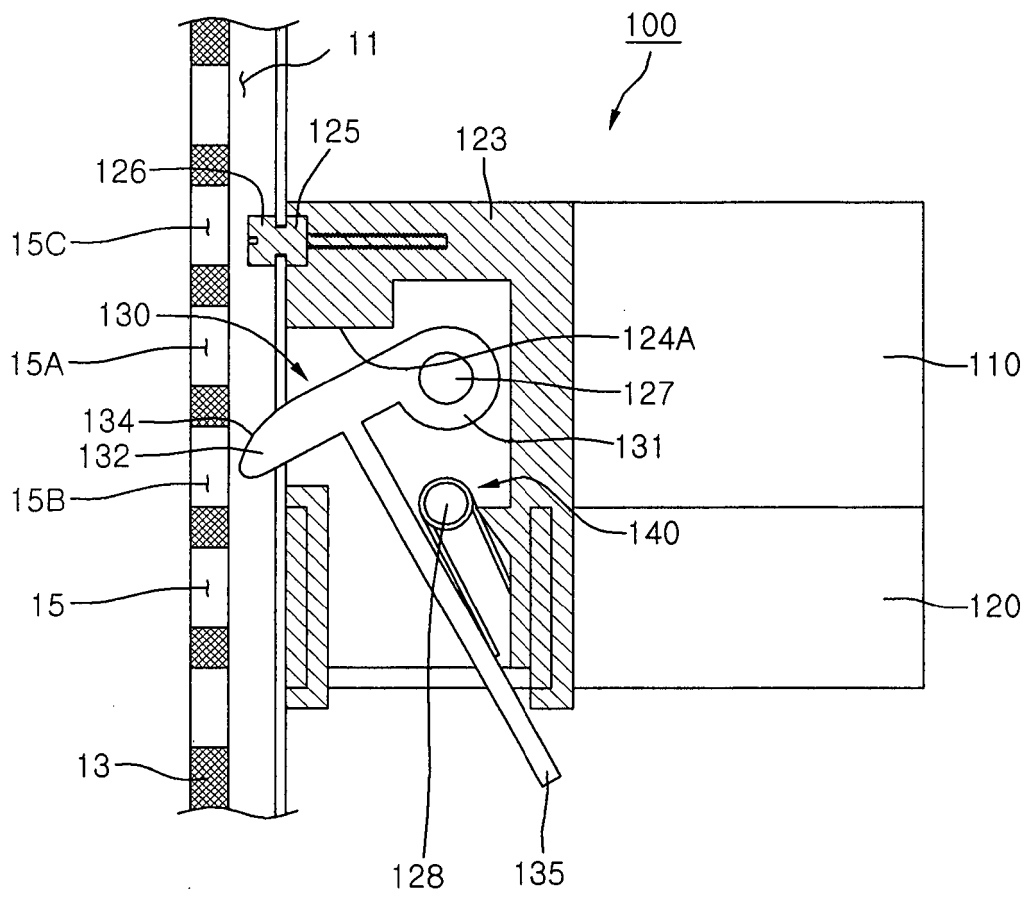


Fig.6

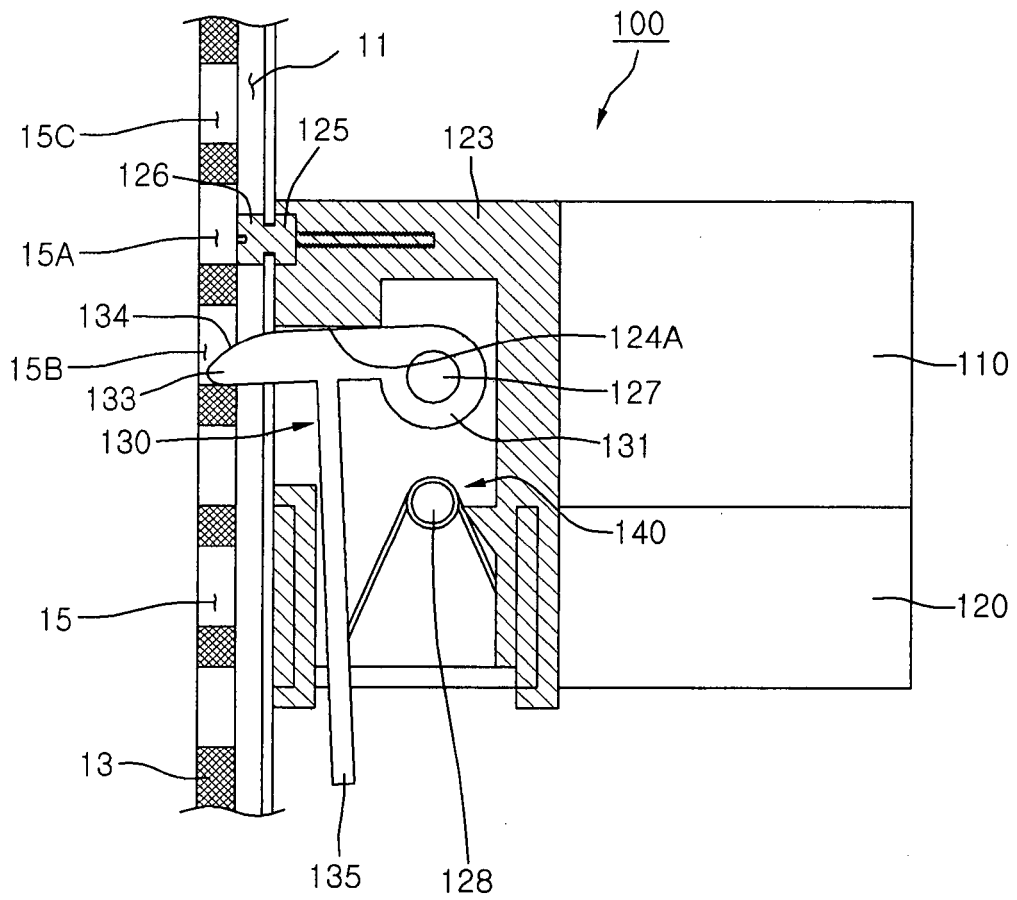


Fig.7

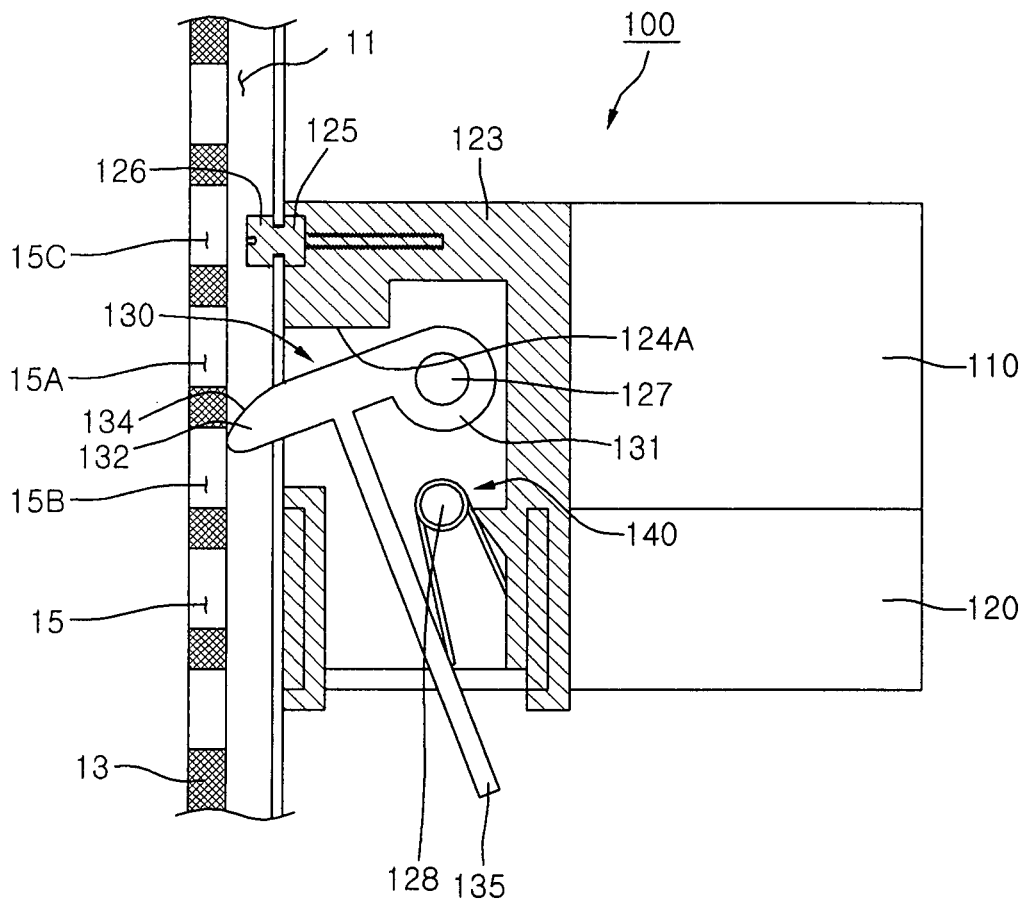
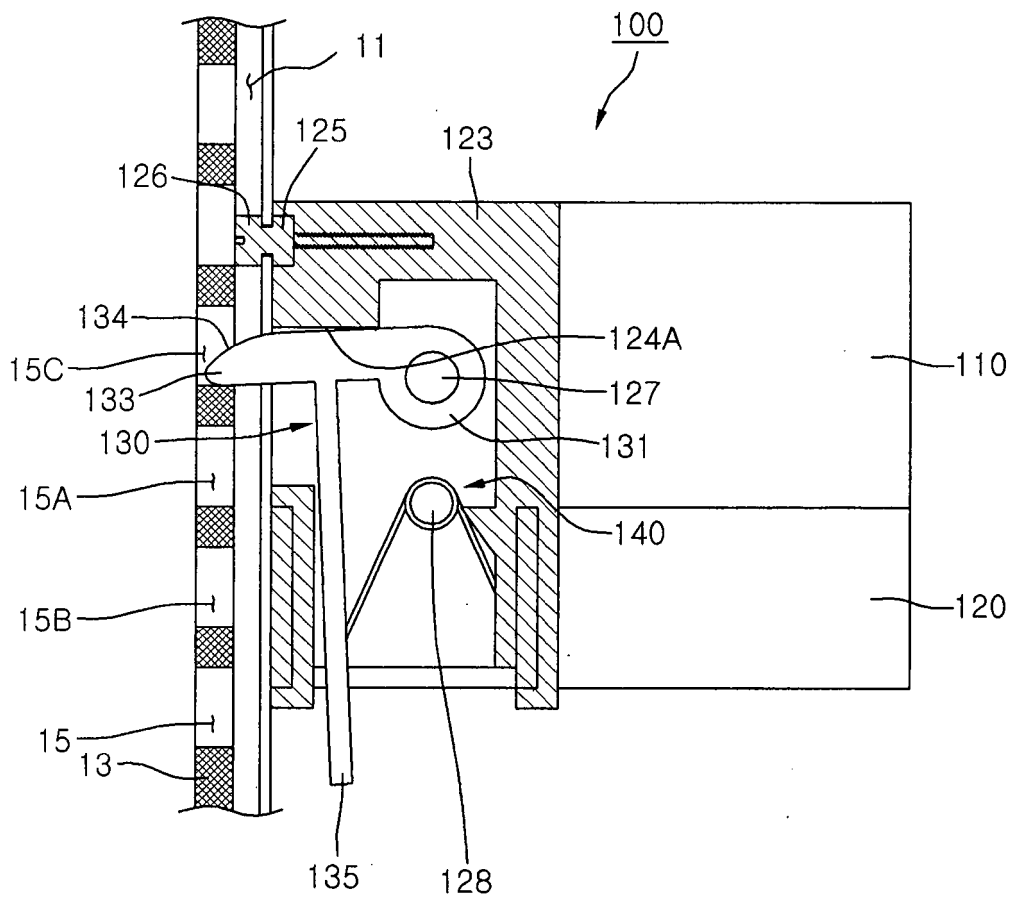


Fig.8



REFERENCES CITED IN THE DESCRIPTION

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