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(57) **ABSTRACT**

A refrigerator including an auxiliary receiving chamber is disclosed. The refrigerator includes a main body having a storage chamber, and a door which opens or closes the storage chamber and has a receiving space formed at a back side of the door. The door includes an auxiliary storage area having an opening to store goods, an auxiliary receiving chamber disposed in the auxiliary storage area to move back and forth, an auxiliary door to open or close the opening, and an opening/closing member to extract or retract the auxiliary receiving chamber.

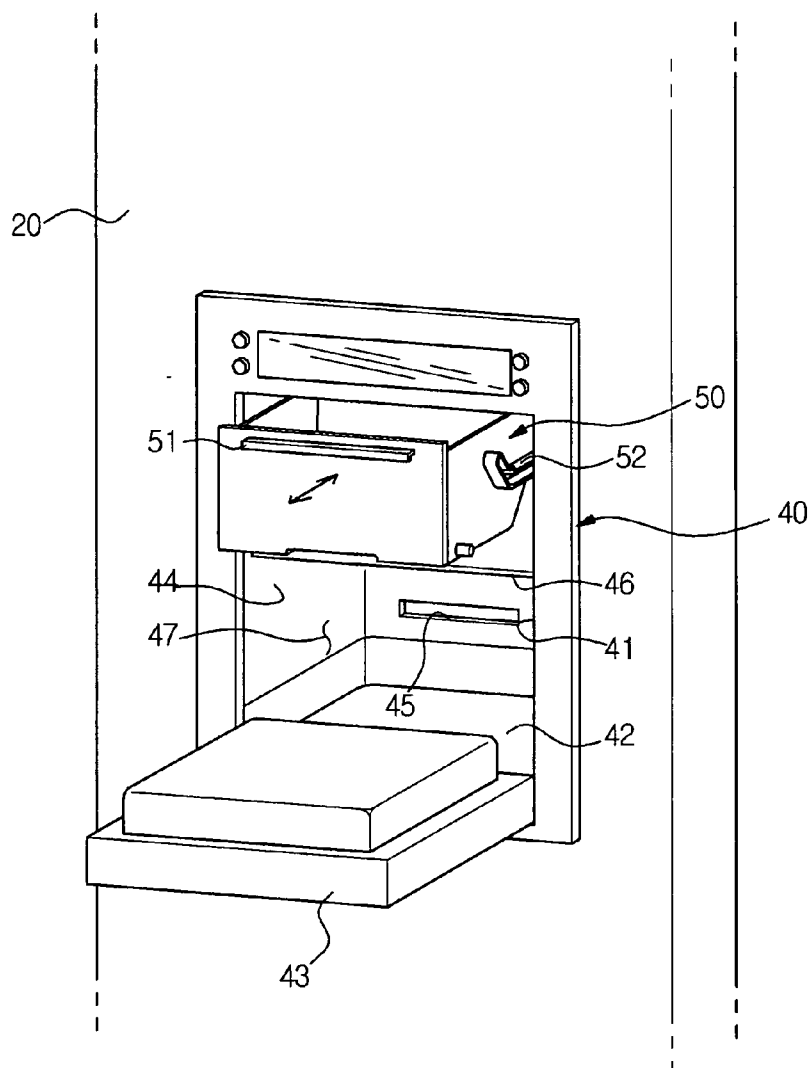


Fig. 1

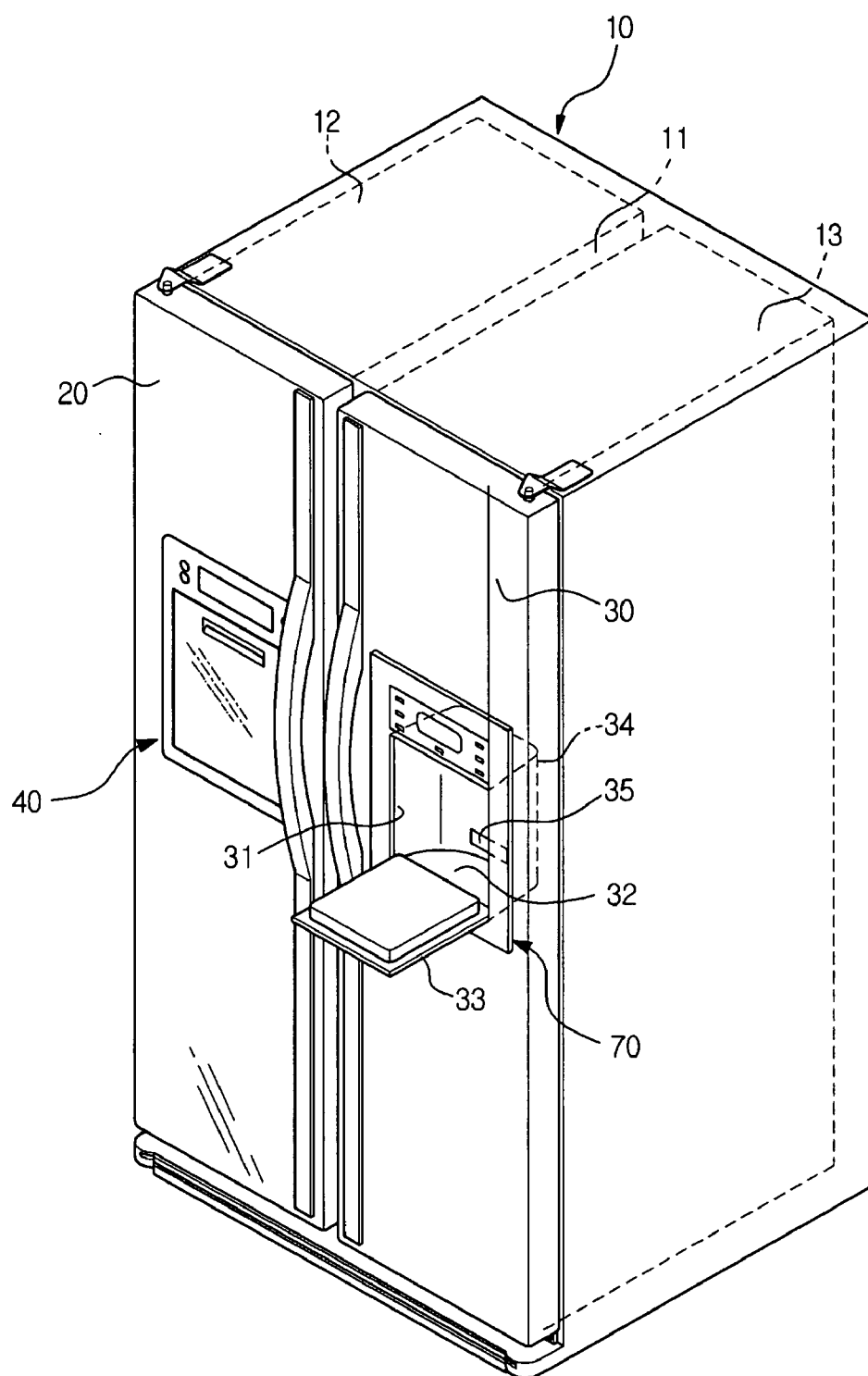


Fig. 2

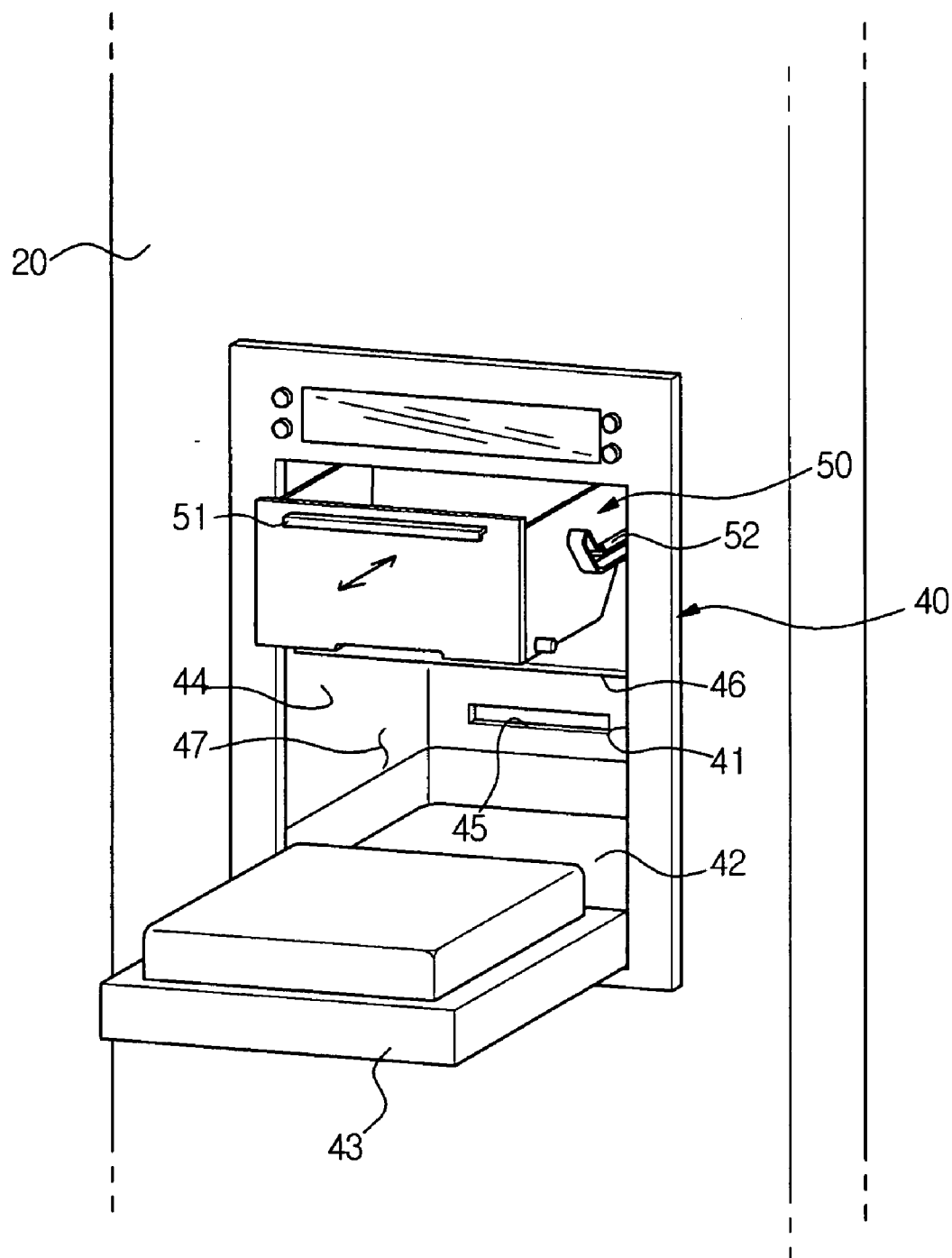


Fig. 3

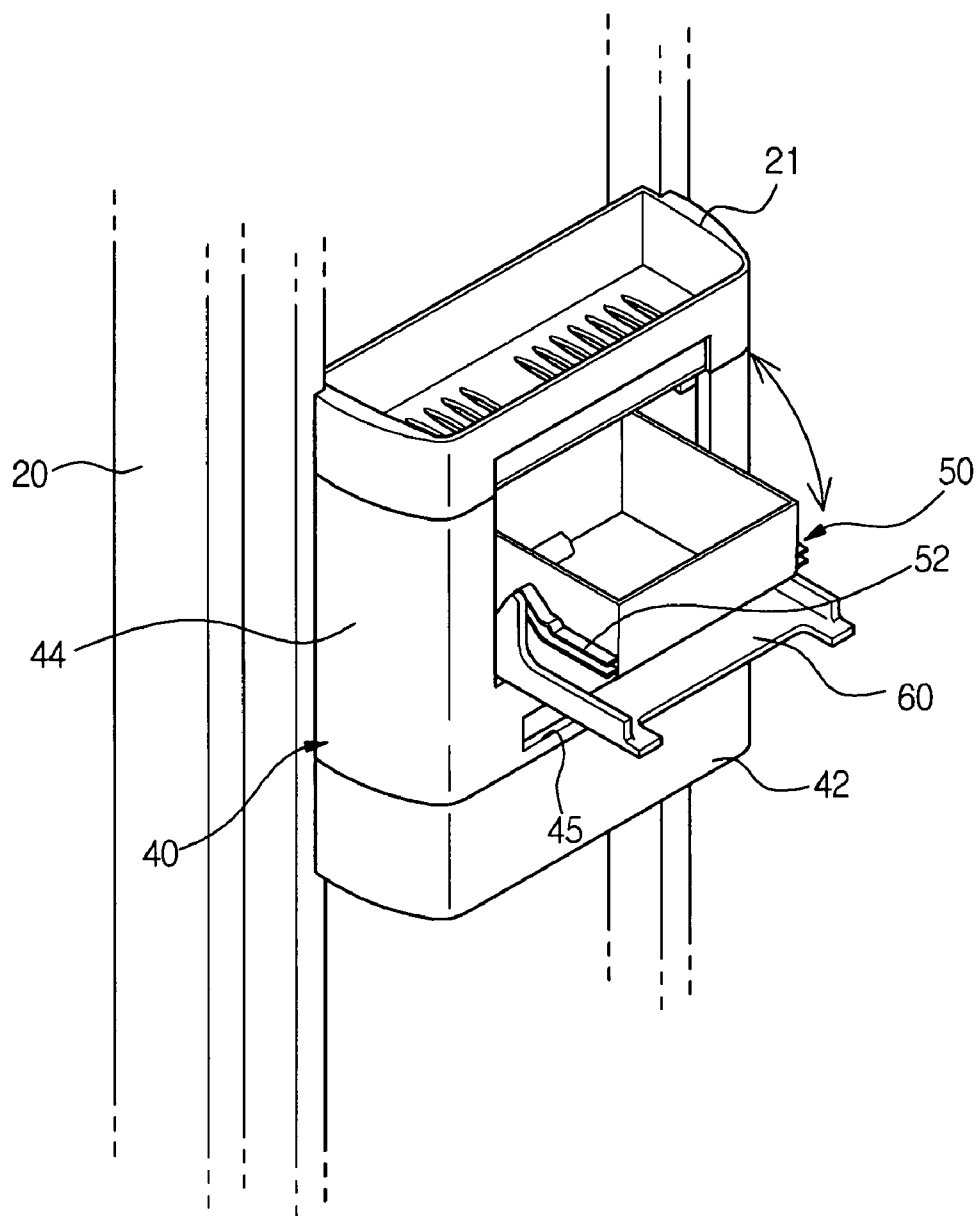


Fig. 4

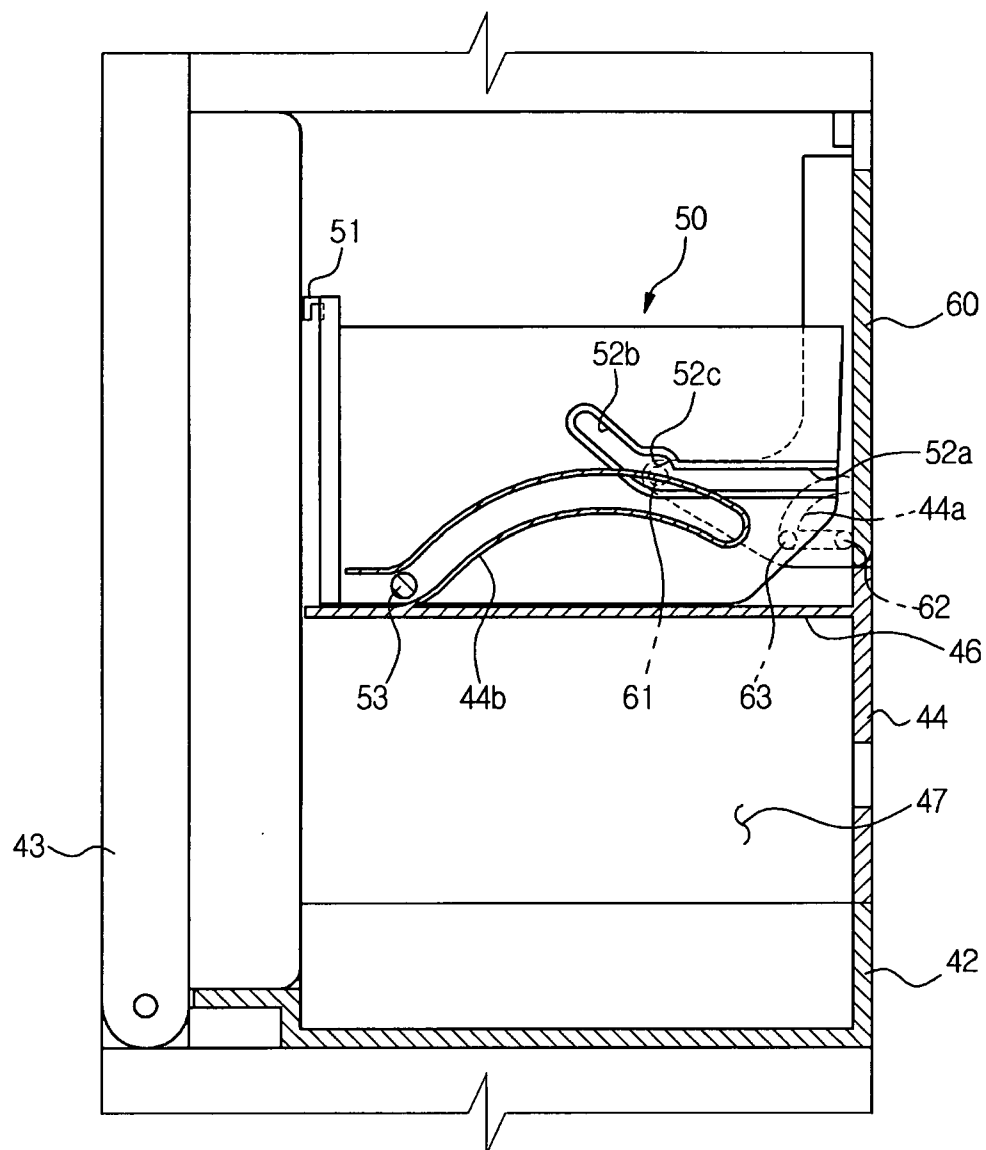


Fig. 5

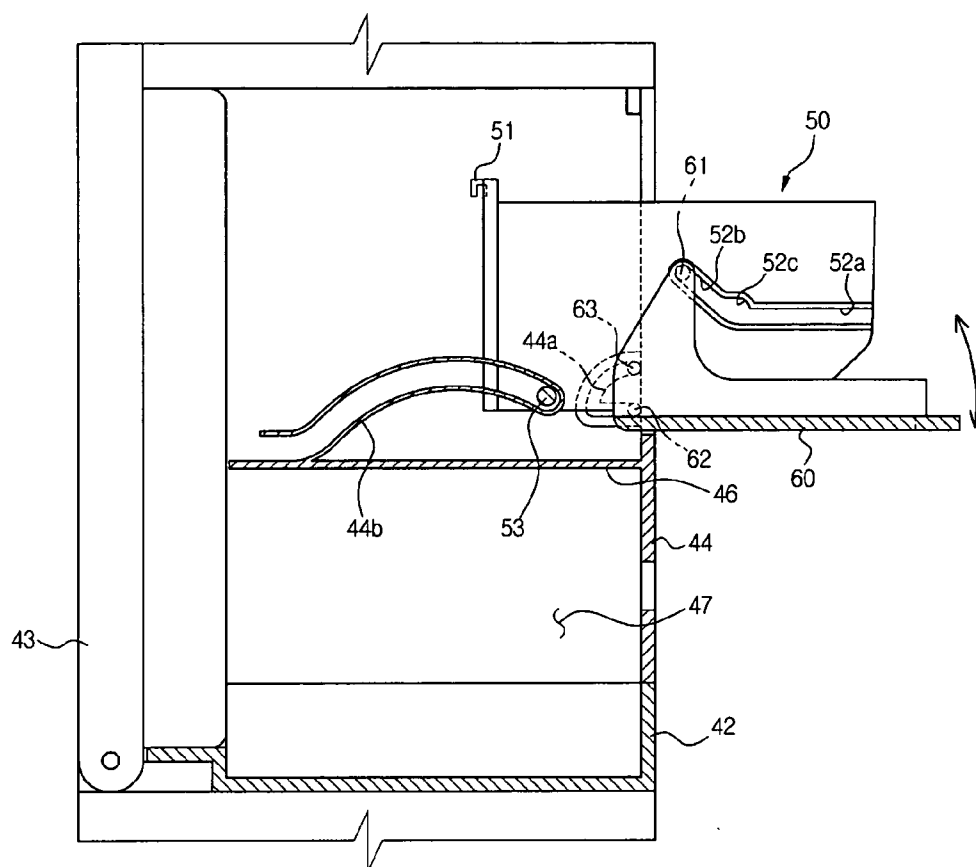


Fig. 6

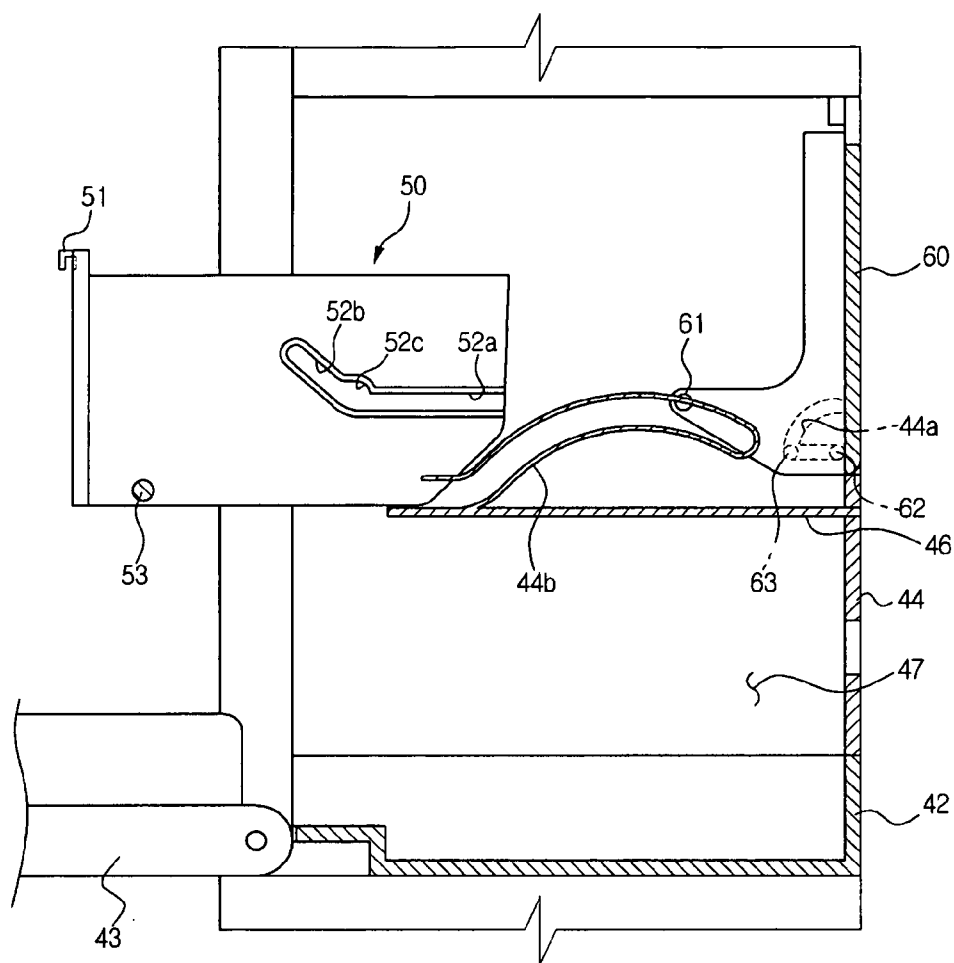
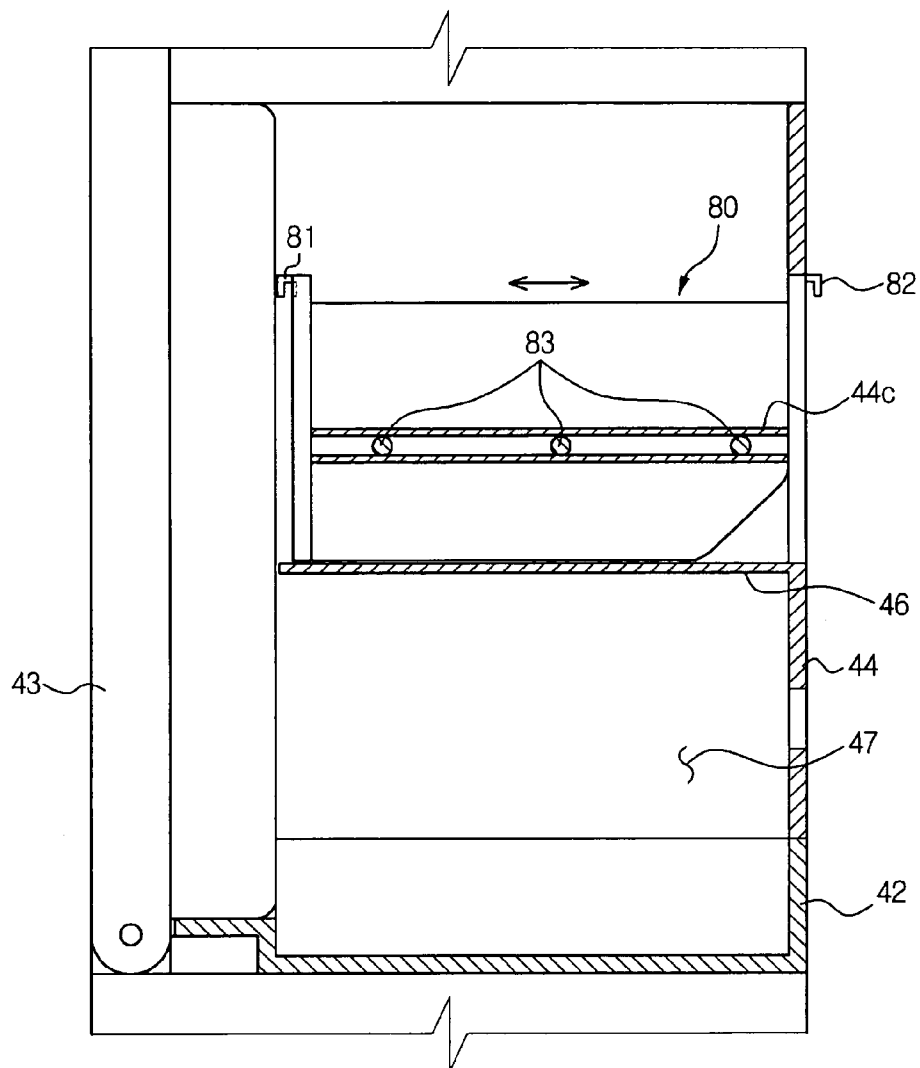


Fig. 7



REFRIGERATOR

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of Korean Patent Application No. 2007-0004641, filed on Jan. 16, 2007 in the Korean Intellectual Property Office, the disclosure of which is incorporated herein by reference.

BACKGROUND

[0002] 1. Field

[0003] The present invention relates to a refrigerator, and more particularly, to a refrigerator including an auxiliary receiving chamber.

[0004] 2. Description of the Related Art

[0005] Generally, a refrigerator comprises a housing including a cooling chamber and a freezing chamber respectively disposed in an upper portion and a lower portion of the housing. Recently, a so-called side-by-side refrigerator including a housing divided into left and right compartments is commercially available.

[0006] The side-by-side refrigerator includes a cooling chamber and a freezing chamber respectively disposed in the left and right compartments separated by a partition. The side-by-side refrigerator further includes a cooling chamber door and a freezing chamber door rotatably disposed on the front surfaces of the cooling chamber and the freezing chamber to open or close the cooling chamber and the freezing chamber, respectively.

[0007] Korean Patent Laid-open Publication No. 10-2005-72617 discloses an example of the side-by-side refrigerator.

[0008] The refrigerator disclosed in Korean Patent Laid-open Publication No. 10-2005-72617 includes a main body including a freezing chamber and a cooling chamber, which are separated by a partition and respectively have front door openings. The refrigerator further includes a freezing chamber door and a cooling chamber door rotatably disposed at the main body to open or close the front door openings of the freezing chamber and the cooling chamber.

[0009] Further, an auxiliary freezing storage area having a front opening is provided in the freezing chamber door. The auxiliary freezing storage area allows a certain portion of the freezing chamber to communicate with the outside of the freezing chamber, thereby storing goods in the freezing chamber without opening the freezing chamber door. The auxiliary freezing storage area includes a freezing chamber home-bar door for opening or closing the front opening of the auxiliary freezing storage area.

[0010] Further, an auxiliary cooling storage area having a front opening is provided in the cooling chamber door. The auxiliary cooling storage area allows a certain portion of the cooling chamber to communicate with an outside of the cooling chamber, thereby storing goods in the cooling chamber without opening the cooling chamber door. The auxiliary cooling storage area includes a cooling chamber home-bar door for opening or closing the front opening of the auxiliary cooling storage area.

[0011] However, the auxiliary freezing storage area of the freezing chamber door and the auxiliary cooling storage area of the cooling chamber door provide storage spaces for simply storing goods. Since each auxiliary storage area has a large height, when goods are stored in the auxiliary storage area, a void is generated in an upper portion of the auxiliary storage area, thereby reducing space efficiency.

[0012] Particularly, the auxiliary freezing storage area of the freezing chamber door is mainly used to store frequently-used frozen food having a small height, such as ice cream, thereby enlarging the void.

[0013] Further, the refrigerator disclosed in Korean Patent Laid-open Publication No. 10-2005-72617 includes an ice tray for making ice (e.g., ice cubes) and an ice storage area for storing the ice cubes. That is, when the ice cubes are made in the ice tray, a user separates the ice cubes from the ice tray. The ice cubes are stored in the ice storage area and the user takes the ice cubes out of the ice storage area when necessary. In this case, the ice storage area is disposed on a receiving shelf of the freezing chamber. Accordingly, when the ice cubes are taken out of the ice storage area, the user has to open the freezing chamber door and then take the ice cubes out of the ice storage area disposed on the receiving shelf. Otherwise, the user has to take the ice storage area out of the freezing chamber to take the ice cubes and put the ice storage area back on the receiving shelf, causing inconvenience to the user. Particularly, since the ice cubes are frequently taken out of the freezing chamber, the freezing chamber door should be opened when taking the ice cubes out of the freezing chamber, thereby reducing power consumption.

SUMMARY

[0014] The present invention has been made in order to solve the above problems. It is an aspect of the invention to provide a refrigerator having a structure capable of improving space efficiency of a cooling chamber or a freezing chamber.

[0015] It is another aspect of the present invention to provide a refrigerator having a structure capable of facilitating the loading and unloading of goods.

[0016] It is yet another aspect of the present invention to provide a refrigerator having a structure capable of loading/unloading ice into/from a freezing chamber without opening a freezing chamber door, thereby reducing power consumption.

[0017] Additional aspects and/or advantages will be set forth in part in the description which follows and, in part, will be apparent from the description, or may be learned by practice of the invention.

[0018] The foregoing and other aspects of the invention are achieved by providing a refrigerator comprising a main body defining a storage chamber; a door which opens or closes the storage chamber and defines a receiving space formed at a back side of the door, comprising: an auxiliary receiving chamber defined in the receiving space, and an opening/closing member to open or close the receiving space, wherein the auxiliary receiving chamber is extracted from or retracted into the receiving space in association with movement of the opening/closing member.

[0019] The refrigerator further comprises an auxiliary storage area defined in the receiving space to include an opening formed on a front surface of the door. The auxiliary receiving chamber is defined in the auxiliary storage area and further includes an auxiliary door to open or close the opening.

[0020] The refrigerator further comprises a first guiding part formed in the auxiliary receiving chamber such that the auxiliary receiving chamber is extracted or retracted through the opening.

[0021] The refrigerator further comprises a third guiding part formed in the opening/closing member and connected with the first guiding part to guide extraction and retraction of the auxiliary receiving chamber.

[0022] The refrigerator further comprises a rotation axis portion and a stopper disposed in the opening/closing member. The stopper is configured to prevent over-rotation of the opening/closing member.

[0023] The refrigerator further comprises a second guiding part formed in the auxiliary receiving chamber to guide extraction and retraction of the auxiliary receiving chamber in association with rotation of the opening/closing member.

[0024] The refrigerator further comprises a guide rail disposed in the auxiliary storage area such that the auxiliary receiving chamber is moved while maintaining a horizontal state; and a guide protrusion disposed in the auxiliary receiving chamber to correspond to the guide rail.

[0025] The refrigerator further comprises a supporting member disposed in the auxiliary storage area to support the auxiliary receiving chamber.

[0026] The storage chamber is divided into a cooling chamber and a freezing chamber, and the door comprises a cooling chamber door and a freezing chamber door to open or close the cooling chamber and the freezing chamber, respectively. The auxiliary receiving chamber is disposed in the freezing chamber door.

[0027] The foregoing and/or other aspects of the present invention are achieved by providing a refrigerator comprising: a main body having a storage chamber; and a door to open or close the storage chamber, wherein the door includes: an auxiliary storage area having an opening to store goods; an auxiliary receiving chamber disposed in the auxiliary storage area to move back and forth; and an auxiliary door to open or close the opening.

[0028] The refrigerator further comprises a first guiding part formed in the auxiliary receiving chamber to guide extraction and retraction of the auxiliary receiving chamber; and a guide formed in the auxiliary storage area to correspond to the first guiding part.

[0029] The auxiliary receiving chamber moves in forward and backward directions of the door such that goods are loaded or unloaded at front and back sides of the door.

[0030] The refrigerator further comprises an opening/closing member to open or close the auxiliary receiving chamber.

[0031] The refrigerator further comprises a second guiding part formed in the auxiliary receiving chamber to guide extraction and retraction of the auxiliary receiving chamber in association with rotation of the opening/closing member.

[0032] The refrigerator further comprises a guide rail disposed in the auxiliary storage area such that the auxiliary receiving chamber is moved while maintaining a horizontal state.

[0033] The foregoing and/or other aspects are also achieved by providing a refrigerator comprising: a main body having a storage chamber; and a door to open or close the storage chamber, comprising: an auxiliary receiving chamber disposed in the door, a guiding part to guide movement of the auxiliary receiving chamber, and an opening/closing member to open or close the auxiliary receiving chamber.

[0034] The guiding part includes a first guiding part to guide extraction and retraction of the auxiliary receiving chamber, and a second guiding part to guide movement of the auxiliary receiving chamber in association with rotation of the opening/closing member.

[0035] The second guiding part is bent at one end of the first guiding part to be inclined.

[0036] The door includes an auxiliary storage area having an opening and an auxiliary door to open or close the opening, and the auxiliary receiving chamber is disposed in the auxiliary storage area. The auxiliary storage area includes a guide

rail to guide the auxiliary receiving chamber to move while maintaining its horizontal state.

[0037] The opening/closing member is provided with a rotation axis portion to enable rotation of the opening/closing member and a stopper to prevent over-rotation of the opening/closing member, and a cover of the auxiliary receiving chamber is provided with a stopper guide formed over a predetermined region to guide movement of the stopper.

BRIEF DESCRIPTION OF THE DRAWINGS

[0038] These and/or other aspects and advantages will become apparent and more readily appreciated from the following description of the embodiments, taken in conjunction with the accompanying drawings of which:

[0039] FIG. 1 shows a perspective view of a refrigerator according to one embodiment of the present invention;

[0040] FIG. 2 shows a perspective view of an auxiliary storage area when an auxiliary door of a freezing chamber of the refrigerator shown in FIG. 1 is opened;

[0041] FIG. 3 shows a perspective view of the auxiliary storage area when an opening/closing member of the freezing chamber of the refrigerator shown in FIG. 1 is opened;

[0042] FIG. 4 shows a cross-sectional view of essential parts of the refrigerator according to the embodiment of the present invention;

[0043] FIG. 5 shows a cross-sectional view of the auxiliary storage area shown in FIG. 3;

[0044] FIG. 6 shows a cross-sectional view of the auxiliary storage area shown in FIG. 2; and

[0045] FIG. 7 shows a cross-sectional view of essential parts of a refrigerator according to another embodiment of the present invention.

DETAILED DESCRIPTION OF THE EMBODIMENTS

[0046] Reference will now be made in detail to the embodiments, examples of which are illustrated in the accompanying drawings, wherein like reference numerals refer to the like elements throughout. The embodiments are described below to explain the present invention by referring to the figures.

[0047] Although the present invention can be applied to a general refrigerator including a cooling chamber and a freezing chamber respectively disposed in the upper and lower compartments, a side-by-side refrigerator including a cooling chamber and a freezing chamber respectively disposed in the left and right compartments will be described as an example in the embodiments of the present invention.

[0048] As shown in FIG. 1, a refrigerator according to one embodiment of the present invention comprises a main body 10 including storage chambers 12 and 13, i.e., a freezing chamber 12 and a cooling chamber 13, separated by an intermediate partition 11 and doors 20 and 30 disposed at the front side of the main body 10 to open or close the freezing chamber 12 and the cooling chamber 13.

[0049] Although not shown in drawings, a freezing cycle device is implemented using known elements in the main body 10 to cool the freezing chamber 12 and the cooling chamber 13 to a low temperature.

[0050] The doors 20 and 30 include a freezing chamber door 20 connected to the main body 10 to open or close the freezing chamber 12 and a cooling chamber door 30 connected to the main body 10 to open or close the cooling chamber 13.

[0051] Auxiliary storage areas 40 and 70 are respectively provided in the doors 20 and 30 to easily insert or remove

goods such as beverages in or out of the freezing chamber 12 and cooling chamber 13 without opening the doors 20 and 30.

[0052] Also, an auxiliary storage area may be disposed in only one of the freezing chamber door 20 and the cooling chamber door 30. The refrigerator including the auxiliary storage areas 40 and 70 respectively disposed in the freezing chamber door 20 and the cooling chamber door 30 will be described in this embodiment.

[0053] The auxiliary storage area 70 disposed in the cooling chamber door 30 includes an opening 31 formed in the cooling chamber door 30 to load or unload goods to be stored, a basket 32 fixed and mounted on the rear surface of the cooling chamber door 30, an auxiliary door 33 opening or closing the opening 31, and a cover 34 mounted on the basket 32.

[0054] The auxiliary storage area 70 provides an extra storage space defined by the cover 34 and the basket 32 and separated from the cooling chamber 13. A cool air introduction hole 35 is formed on the cover 34 to allow cool air to flow between the auxiliary storage area 70 and the cooling chamber 13.

[0055] As shown in FIGS. 2 and 3, a receiving space is formed on the rear surface of the freezing chamber door 20. At least one receiving guard 21 keeping relatively small goods is provided in the receiving space. An auxiliary storage area 40 of the freezing chamber 12 is disposed below the receiving guard 21 in the receiving space.

[0056] The auxiliary storage area 40 disposed in the freezing chamber door 20 includes an opening 41 formed in the freezing chamber door 20 to load or unload goods to be stored, a basket 42 fixed and mounted on the rear surface of the freezing chamber door 20, an auxiliary door 43 opening or closing the opening 41 and a cover 44 mounted on the basket 42.

[0057] The auxiliary storage area 40 provides an extra storage space defined by the cover 44 and the basket 42 and separated from the freezing chamber 12. A cool air introduction hole 45 is formed at the lower back side of the cover 44 to allow cool air to flow between the auxiliary storage area 40 and the freezing chamber 12.

[0058] The auxiliary door 43 is provided at the opening 41 to load or unload goods into or from the auxiliary storage area 40. The auxiliary door 43 is hinge-connected to the lower opposite sides of the opening 41. The opening 41 is opened by rotating the auxiliary door 43 downward and closed by rotating the auxiliary door 43 upward.

[0059] An auxiliary receiving chamber 50 is disposed in an upper portion of the auxiliary storage area 40 to reduce the void of the auxiliary storage area 40.

[0060] The auxiliary receiving chamber 50 is separated from a lower storage space 47 by a supporting member 46. The auxiliary receiving chamber 50 includes an opening/closing member 60, so that the auxiliary receiving chamber 50 can be extracted or retracted while opening or closing the auxiliary receiving chamber 50.

[0061] The auxiliary receiving chamber 50 is generally formed as a drawer, i.e., a box with an open top. A handle 51 is outwardly formed on the front surface of the freezing chamber door 20 such that the user can easily extract or retract the auxiliary receiving chamber 50. The opening/closing member 60 is coupled to the back side of the auxiliary receiving chamber 50 such that the auxiliary receiving chamber 50 can be extracted or retracted while opening or closing the auxiliary receiving chamber 50.

[0062] Further, guiding parts 52 are symmetrically disposed at the opposite sides of the auxiliary receiving chamber 50 to guide the extraction or retraction of the auxiliary receiving chamber 50.

[0063] As shown in FIG. 4, the guiding parts 52 include first guiding parts 52a for guiding the back and forth movement of the auxiliary receiving chamber 50 and second guiding parts 52b for guiding the extraction and retraction of the auxiliary receiving chamber 50 together with the rotation of the opening/closing member 60.

[0064] The first guiding parts 52a are formed as an approximately horizontal rail. Protrusion-shaped third guiding parts 61 of the opening/closing member 60 (to be described later) are inserted into the first guiding parts 52a to move back and forth, whereby the auxiliary receiving chamber 50 can be extracted from and retracted into the freezing chamber door 20 through the opening 41.

[0065] Further, the second guiding parts 52b are formed as a slant rail such that they are inclined upward from front end portions of the first guiding parts 52a.

[0066] Further, receiving grooves 52c are formed at the upper sides of contact portions between the first guiding parts 52a and the second guiding parts 52b to cover the one side of the third guiding parts 61. At an initial rotation of the opening/closing member 60, the auxiliary receiving chamber 50 is moved up due to the receiving grooves 52c. When the opening/closing member 60 is rotated by a specified angle or more, the third guiding parts 61 are separated from the receiving grooves 52c due to gravity to slide in the second guiding parts 52b. Thus, the receiving grooves 52c facilitate smooth opening and closing of the opening/closing member 60.

[0067] Further, rotation axis portions 62 are disposed at the lower inner surface of the opening/closing member 60 such that the opening/closing member 60 can be opened or closed while being vertically rotated. Stoppers 63 are disposed adjacent to the rotation axis portions 62 to prevent over-rotation of the opening/closing member 60.

[0068] Further, the protrusion-shaped third guiding parts 61 of the opening/closing member 60 are fitted in the receiving grooves 52c of the auxiliary receiving chamber 50 while being spaced at a specified distance from the rotation axis portions 62. When the auxiliary receiving chamber 50 is extracted forward from the freezing chamber door 20 through the opening 41, the third guiding parts 61 slide in the first guiding parts 52a. Further, when the auxiliary receiving chamber 50 is moved together with the opening/closing member 60, the third guiding parts 61 slide in the second guiding parts 52b.

[0069] By closing the opening/closing member 60, it is possible to maintain the relatively constant temperature in the auxiliary receiving chamber 50 and improve its appearance. Further, when the auxiliary receiving chamber 50 is used as an ice storage, it is possible to prevent rapid temperature change in the auxiliary receiving chamber 50. Thus, even though the freezing chamber door 20 is opened for a long period of time, it is possible to somewhat prevent ice from being stuck to the auxiliary receiving chamber 50 or stuck to each other by delaying melting of ice.

[0070] Further, the rotation axis portions 62 are connected to the lower opposite sides of the cover 44 disposed on the basket 42 such that the opening/closing member 60 can be rotatably moved. Stopper guides 44a are formed into an arc shape with a specified angle to guide the movement of the stoppers 63 provided in the opening/closing member 60. The stopper guides 44a are provided such that the opening/closing member 60 has a rotation angle of approximately 90 degrees. When the opening/closing member 60 is opened at the maxi-

mum angle, the stoppers **63** are moved to the end portions of the stopper guides **44a**, whereby the opening/closing member **60** is no longer rotated.

[0071] Further, guide rails **44b** having an arc shape are disposed at the front opposite sides of the cover **44**. Thus, when the auxiliary receiving chamber **50** is extracted or retracted by the opening/closing member **60**, it is possible to prevent the auxiliary receiving chamber **50** from being inclined due to the up and down movement of the front portion of the auxiliary receiving chamber **50**, thereby maintaining the auxiliary receiving chamber **50** to be horizontal. Further, guide protrusions **53** corresponding to the guide rails **44b** are disposed in the opening/closing member **60** such that the guide protrusions **53** slide along the guide rails **44b**.

[0072] Hereinafter, the operation of the auxiliary receiving chamber **50** of the refrigerator in accordance with the embodiment of the present invention will be described.

[0073] In case that the auxiliary receiving chamber **50** is extracted or retracted while the freezing chamber door **20** is closed, as shown in FIGS. 2 and 6, the auxiliary door **43** provided in the freezing chamber door **20** is opened and the auxiliary receiving chamber **50** disposed in the upper portion of the auxiliary storage area **40** is moved back and forth. In this case, the third guiding parts **61** of the opening/closing member **60** slide in the first guiding parts **52a** of the auxiliary receiving chamber **50**, thereby facilitating the extraction and retraction of the auxiliary receiving chamber **50**.

[0074] Further, in case that the auxiliary receiving chamber **50** is extracted or retracted at the back side of the freezing chamber door **20** while the freezing chamber door **20** is opened, as shown in FIGS. 3 and 5, when the opening/closing member **60** is rotated downward, the auxiliary receiving chamber **50** begins to move while the receiving grooves **52c** are pressed by the third guiding parts **61**. When the opening/closing member **60** is rotated by a specified angle or more, the third guiding parts **61** are separated from the receiving grooves **52c** due to gravity to slide in the second guiding parts **52b**. In this case, the guide protrusions **53** of the auxiliary receiving chamber **50** move back and forth along the guide rails **44b** of the auxiliary storage area **40**. Thus, the auxiliary receiving chamber **50** can be extracted or retracted while stably maintaining its horizontal state. Further, the stoppers **63** of the opening/closing member **60** are moved to the end portions of the stopper guides **44a**, thereby preventing the over-rotation of the opening/closing member **60**.

[0075] When the opening/closing member **60** is opened, the auxiliary receiving chamber **50** is disposed on the rear surface of the opening/closing member **60** so as to be movable out of the auxiliary storage area **40**. Thus, since the top portion of the auxiliary receiving chamber **50** is opened, the user can easily load or unload goods into or from the auxiliary receiving chamber **50**. Further, when the opening/closing member **60** is closed, the operation opposite to that performed in case of opening the opening/closing member **60** is carried out. Thus, it is possible to prevent cool air from rapidly flowing out of the auxiliary receiving chamber **50** and present a good appearance.

[0076] Although the auxiliary receiving chamber is disposed in the auxiliary storage area in this embodiment, the auxiliary receiving chamber can be disposed in a certain receiving space at the back side of the door independent of the auxiliary storage area. Further, the auxiliary receiving chamber can be mounted in the refrigerator without the auxiliary storage area.

[0077] Hereinafter, a refrigerator according to another embodiment of the present invention will be described.

[0078] In this embodiment, like reference numerals designate like parts having practically the same functions as in the previous embodiment to omit redundant description.

[0079] As shown in FIG. 7, an auxiliary receiving chamber **80** disposed in the refrigerator according to another embodiment of the present invention includes a plurality of fourth guiding parts **83** having a protrusion shape that are horizontally provided at the opposite sides of the auxiliary receiving chamber **80**. Further, handles **81** and **82** are respectively formed on the front and back surfaces of the auxiliary receiving chamber **80** to facilitate opening and closing of the auxiliary receiving chamber **80**.

[0080] Further, rail-shaped fifth guiding parts **44c** are disposed on the cover **44** of the auxiliary storage area **40** to correspond to the fourth guiding parts **83**. The fourth guiding parts **83** slide in the fifth guiding parts **44c**, whereby the auxiliary receiving chamber **80** can move back and forth in the auxiliary storage area **40**.

[0081] In this case, the fourth guiding parts **83** may be configured to have a protrusion shape and the fifth guiding parts **44c** may be configured to have a rail shape.

[0082] Further, an opening is provided on the rear surface of the cover **44** of the auxiliary storage area **40** such that the auxiliary receiving chamber **80** can be extracted from or retracted into the auxiliary storage area **40**. The opening is spaced at a specified distance from the outer surface of the auxiliary receiving chamber **80**, thereby facilitating the extraction and retraction of the auxiliary receiving chamber **80** and limiting the flow of cool air.

[0083] As described above, the embodiments of the present invention have an effect of minimizing the void by providing the auxiliary receiving chamber in the upper portion of the auxiliary storage area.

[0084] Further, according to the embodiments of the present invention, the auxiliary receiving chamber can move back and forth at the front and back sides of the freezing chamber door together with the rotation of the opening/closing member, thereby improving user convenience.

[0085] Further, according to the embodiments of the present invention, the opening/closing member is provided in the auxiliary receiving chamber, thereby preventing rapid temperature change in the auxiliary receiving chamber when the door is opened and presenting a good appearance.

[0086] Although a few embodiments have been shown and described, it would be appreciated by those skilled in the art that changes may be made in these embodiments without departing from the principles and spirit of the invention, the scope of which is defined in the claims and their equivalents.

What is claimed is:

1. A refrigerator comprising:

a main body defining a storage chamber;

a door which opens or closes the storage chamber and defines a receiving space formed at a back side of the door, comprising:

an auxiliary receiving chamber defined in the receiving space; and

an opening/closing member to open or close the receiving space,

wherein the auxiliary receiving chamber is extracted from or retracted into the receiving space in association with movement of the opening/closing member.

2. The refrigerator according to claim 1, further comprising:

an auxiliary storage area defined in the receiving space to include an opening formed on a front surface of the door, wherein the auxiliary receiving chamber is defined in the auxiliary storage area and further includes an auxiliary door to open or close the opening.

3. The refrigerator according to claim 2, further comprising:

a first guiding part formed in the auxiliary receiving chamber such that the auxiliary receiving chamber is extracted or retracted through the opening.

4. The refrigerator according to claim 3, further comprising:

a third guiding part formed in the opening/closing member and connected with the first guiding part to guide extraction and retraction of the auxiliary receiving chamber.

5. The refrigerator according to claim 1, further comprising:

a rotation axis portion and a stopper disposed in the opening/closing member, the stopper being configured to prevent over-rotation of the opening/closing member.

6. The refrigerator according to claim 1, further comprising:

a second guiding part formed in the auxiliary receiving chamber to guide extraction and retraction of the auxiliary receiving chamber in association with rotation of the opening/closing member.

7. The refrigerator according to claim 2, further comprising:

a guide rail disposed in the auxiliary storage area such that the auxiliary receiving chamber is moved while maintaining a horizontal state; and

a guide protrusion disposed in the auxiliary receiving chamber to correspond to the guide rail.

8. The refrigerator according to claim 2, further comprising:

a supporting member disposed in the auxiliary storage area to support the auxiliary receiving chamber.

9. The refrigerator according to claim 1, wherein the storage chamber is divided into a cooling chamber and a freezing chamber, and the door comprises a cooling chamber door and a freezing chamber door to open or close the cooling chamber and the freezing chamber, respectively,

and wherein the auxiliary receiving chamber is disposed in the freezing chamber door.

10. A refrigerator comprising:

a main body having a storage chamber; and
a door to open or close the storage chamber,

wherein the door includes:

an auxiliary storage area having an opening to store goods;

an auxiliary receiving chamber disposed in the auxiliary storage area to move back and forth; and

an auxiliary door to open or close the opening.

11. The refrigerator according to claim 10, further comprising:

a first guiding part formed in the auxiliary receiving chamber to guide extraction and retraction of the auxiliary receiving chamber; and

a guide formed in the auxiliary storage area to correspond to the first guiding part.

12. The refrigerator according to claim 10, wherein the auxiliary receiving chamber moves in forward and backward

directions of the door such that goods are loaded or unloaded at front and back sides of the door.

13. The refrigerator according to claim 10, further comprising:

an opening/closing member to open or close the auxiliary receiving chamber.

14. The refrigerator according to claim 13, further comprising:

a second guiding part formed in the auxiliary receiving chamber to guide extraction and retraction of the auxiliary receiving chamber in association with rotation of the opening/closing member.

15. The refrigerator according to claim 14, further comprising:

a guide rail disposed in the auxiliary storage area such that the auxiliary receiving chamber is moved while maintaining a horizontal state.

16. The refrigerator according to claim 10, wherein the storage chamber is divided into a cooling chamber and a freezing chamber, and the door comprises a cooling chamber door and a freezing chamber door to open or close the cooling chamber and the freezing chamber, respectively,

and wherein the auxiliary receiving chamber is disposed in the freezing chamber door.

17. A refrigerator comprising:

a main body having a storage chamber; and

a door to open or close the storage chamber, comprising:

an auxiliary receiving chamber disposed in the door,

a guiding part to guide movement of the auxiliary receiving chamber, and an opening/closing member to open or close the auxiliary receiving chamber.

18. The refrigerator according to claim 17, wherein the guiding part includes a first guiding part to guide extraction and retraction of the auxiliary receiving chamber, and a second guiding part to guide movement of the auxiliary receiving chamber in association with rotation of the opening/closing member.

19. The refrigerator according to claim 18, wherein the second guiding part is bent at one end of the first guiding part to be inclined.

20. The refrigerator according to claim 17, wherein the door includes an auxiliary storage area having an opening and an auxiliary door to open or close the opening, the auxiliary receiving chamber is disposed in the auxiliary storage area, and the auxiliary storage area includes a guide rail to guide the auxiliary receiving chamber to move while maintaining its horizontal state.

21. The refrigerator according to claim 17, wherein the opening/closing member is provided with a rotation axis portion to enable rotation of the opening/closing member and a stopper to prevent over-rotation of the opening/closing member, and a cover of the auxiliary receiving chamber is provided with a stopper guide formed over a predetermined region to guide movement of the stopper.

22. A refrigerator comprising:

a main storage area;

a door to open or close the main storage area;

an auxiliary receiving chamber disposed in the door at an upper portion of the main storage area; and

an opening/closing member to extract or retract the auxiliary receiving chamber.