CLAIMS

[Claim 1]

A refrigerator comprising:

a box having an opening at a front thereof and having therein a storage space; and

a door including a grip portion on a first side that is one side of the door in a lateral direction, attached to the box on a second side that is the opposite side of the first side, and configured to open and close the opening,

wherein the door further includes

a front outer plate,

a rear outer plate provided behind the front outer plate,

a connection component connecting the front outer plate and the rear outer plate in a front-back direction and forming at least part of the first side of the door, and

an upper cap provided on the front outer plate, the rear outer plate, and the connection component and forming a top of the door,

wherein the front outer plate includes

a front plate forming at least part of a front of the door,

a front folded portion located behind the front plate, and folded toward the second side, from an end portion of the front plate that is adjacent to the first side, and

a first flange provided at an upper end of the front folded portion and extending toward a region surrounded by the front folded portion and the front plate,

wherein the rear outer plate includes

a rear plate forming at least part of a rear of the door,

a rear folded portion located ahead of the rear plate, and folded toward the second side, from an end portion of the rear plate that is adjacent to the first side, and

a second flange provided at an upper end of the rear folded portion and extending toward a region surrounded by the rear folded portion and the rear plate,

wherein the upper cap includes

an upper wall,

an outer peripheral wall extending downward from an outer peripheral portion of the upper wall,

a first flange accommodating portion formed in the shape of a groove, provided at the outer peripheral wall, and accommodating the first flange, and

a second flange accommodating portion formed in the shape of a groove, provided at the outer peripheral wall, and accommodating the second flange, and

wherein the grip portion is defined by the front folded portion, part of the connection component, and the rear folded portion, and is recessed toward the second side.

[Claim 2]

The refrigerator of claim 1, wherein the connection component includes

a first fixing portion fixed to the front outer plate,

a second fixing portion fixed to the rear outer plate, and

a connection plate provided between the first fixing portion and the second fixing portion, extending in the front-back direction and an up-down direction of the door, and forming part of the grip portion.

[Claim 3]

The refrigerator of claim 2,

wherein the front folded portion of the front outer plate includes

a second front plate extending toward the rear, from the end portion of the front plate that is adjacent to the first side and forming part of the first side of the door, and

a third front plate extending from a rear end of the second front plate toward the second side,

wherein the rear folded portion of the rear outer plate includes

a second rear plate extending toward the front, from the end portion of the rear plate of the rear outer plate that is adjacent to the first side and forming part of the first side of the door, and

a third rear plate extending from a front end of the second rear plate of the rear outer plate toward the second side,

wherein the connection component further includes

a second connection plate extending from a front end of the connection plate toward the second side, and

a third connection plate extending from a rear end of the connection plate toward the second side,

wherein the first fixing portion of the connection component is provided at the second connection plate of the connection component and holds the third front plate between the first fixing portion and the second connection plate, and

wherein the second fixing portion of the connection component is provided at the third connection plate of the connection component and holds the third rear plate between the second fixing portion and the third connection plate.

[Claim 4]

The refrigerator of claim 3, wherein

the first fixing portion of the connection component is formed to be folded toward the first side, from an end portion of the second connection plate that is adjacent to the second side, and

the second fixing portion of the connection component is formed to be folded toward the first side, from an end portion of the third connection plate that is adjacent to the second side.

[Claim 5]

The refrigerator of any one of claims 1 to 4, wherein

the connection component is made of resin, and

an upper end face of the connection component is in surface contact with a lower end face of the upper cap.

[Claim 6]

The refrigerator of claim 2, wherein the front folded portion of the front outer plate includes

a second front plate extending toward the rear, from the end portion of the front plate that is adjacent to the first side and forming part of the first side of the door, and

a third front plate extending from a rear end of the second front plate toward the second side,

wherein the rear folded portion of the rear outer plate includes

a second rear plate extending toward the front, from the end portion of the rear plate of the rear outer plate that is adjacent to the first side and forming part of the first side of the door, and

a third rear plate extending from a front end of the second rear plate of the rear outer plate toward the second side,

wherein the connection component includes a main body including the connection plate, a second connection plate extending from a front end of the connection plate toward the second side, and a third connection plate extending from a rear end of the connection plate toward the second side,

wherein the first fixing portion and the second fixing portion are provided as components separate from the main body,

wherein the first fixing portion includes a holding portion that holds the second connection plate of the connection component and the third front plate of the front outer plate, with the second connection plate and the third front plate stacked together, and

wherein the second fixing portion includes a holding portion that holds the third connection plate of the connection component and the third rear plate of the rear outer plate, with the third connection plate and the third rear plate stacked together.

[Claim 7]

The refrigerator of claim 6, wherein the holding portion of the first fixing portion and the holding portion of the second fixing portion each include

a pair of holding pieces that hold a target object at distal ends thereof, and

a base portion connecting the pair of holding pieces, the base portion having a retaining portion that projects into a space defined between the pair of holding pieces and the base portion and comes into contact with the target object.

[Claim 8]

The refrigerator of claim 6 or 7, wherein

the connection component is made of a steel plate and further includes, at an upper end of the connection plate, a third flange extending toward the second side in a horizontal direction, and

the outer peripheral wall of the upper cap includes a third flange accommodating portion formed in the shape of a groove and accommodating the third flange of the connection component.

[Claim 9]

The refrigerator of any one of claims 3 to 8, wherein

the upper cap further includes

a first claw portion projecting downward, and

a second claw portion projecting downward,

the front outer plate has, at part of an upper end thereof where the first flange is not provided, a cutout into which the first claw portion is fitted, the cutout being formed in the shape of a recess, and

the rear outer plate has, at part of an upper end thereof where the second flange is not provided, a cutout into which the second claw portion is fitted, the cutout being formed in the shape of a recess.

[Claim 10]

The refrigerator of any one of claims 3, 4, and 6 to 9, wherein the first fixing portion and the second fixing portion of the connection component are embedded in a foam heat insulation material filled between the front outer plate and the rear outer plate.

[Claim 11]

The refrigerator of any one of claims 1 to 10, wherein

a second grip portion recessed downward and extending in the lateral direction is provided at the upper wall of the upper cap, and

the second grip portion is continuous with the grip portion at a position adjacent to the first side.

[Claim 12]

The refrigerator of any one of claims 1 to 11, further comprising

a hinge provided adjacent to the second side of the door,

wherein the hinge supports the door such that the door is rotatable.