CLAIMS

[Claim 1]

A refrigerator comprising:

a refrigerator body having a compartment inside; and

a refrigerator door with which the compartment of the refrigerator body is opened and closed,

the refrigerator door including a door frame, a rear plate, and a front plate,

the door frame including an upper cap, a lower cap, a right cap, and a left cap,

the lower cap including a cap body that is plate-shaped and forms a lower face of the refrigerator door, a front rib that is provided on an upper face of the cap body and extends upward, and a recess that is provided between the cap body and the front rib and where the front plate is nipped,

a front face of the front rib serving as a bonding surface to which the front plate is bonded,

the front rib being offset rearward from a front end of the cap body by a length over which the cap body is able to support the front plate,

a portion of the upper face of the cap body serving as a supporting surface, the portion being located further forward than the front rib,

when the front plate is made of a steel plate material, the front plate including an end portion that is located at a lower portion of the front plate and is folded rearward, the end portion being inserted in the recess,

when the front plate is made of a glass plate, a lower end face of the front plate being supported by the supporting surface, a rear face of the front plate being joined to the bonding surface.

[Claim 2]

The refrigerator of claim 1, wherein the front rib comprises two components.

[Claim 3]

The refrigerator of claim 1, wherein the front rib has an opening provided in the bonding surface and extending through to a back face of the front rib.

[Claim 4]

The refrigerator of any one of claims 1 to 3, wherein a shock-absorbing material is interposed between the lower end face of the front plate and the supporting surface.

[Claim 5]

The refrigerator of any one of claims 1 to 3, wherein a sealing material is interposed between the lower end face of the front plate and the supporting surface.

[Claim 6]

The refrigerator of any one of claims 1 to 5, wherein

the right cap includes a right-cap body, a corner portion, and a front rib, the right-cap body forming a right face of the door frame, the corner portion being continuous with the right-cap body and being located at a front of the right-cap body, the front rib extending leftward from a left face of the corner portion,

the front rib of the right cap is offset rearward from a front end of the corner portion by a length over which the right cap is able to support the glass plate,

a front face of the front rib of the right cap serves as a bonding surface of the right cap to which the front plate is bonded,

a recess of the right cap is formed at the corner portion and is provided further forward than the bonding surface of the right cap and is recessed rightward, and

when the front plate is made of the steel plate material, a right end portion of the front plate is inserted in the recess of the right cap.

[Claim 7]

A refrigerator comprising:

a refrigerator body having a compartment inside; and

a refrigerator door with which the compartment of the refrigerator body is opened and closed,

the refrigerator door including a door frame, a rear plate, and a front plate,

the door frame including an upper cap, a lower cap, a right cap, and a left cap,

the right cap including a right-cap body, a corner portion, and a front rib, the right-cap body forming a right face of the door frame, the corner portion being continuous with the right-cap body and being located at a front of the right-cap body, the front rib extending leftward from a left face of the corner portion,

the right cap including a recess that is provided between the corner portion and the front rib and where the front plate is nipped,

a front face of the front rib serving as a bonding surface to which the front plate is bonded,

the front rib being located rearward from a front face of the corner portion,

the corner portion having a supporting portion protecting the front plate, the supporting portion being located further forward than the front rib,

when the front plate is made of a steel plate material, the front plate including an end portion that is located at a right side of the front plate and is folded rearward, the end portion being inserted in the recess,

when the front plate is made of glass, the supporting portion covering a right end face of the front plate and a rear face of the front plate being joined to the bonding surface.

[Claim 8]

The refrigerator of any one of claims 1 to 7, wherein

when the front plate is made of a steel plate material, a space is left between the front plate and the bonding surface, and

the space is filled with urethane foam.