CLAIMS

[Claim 1]

A refrigerator comprising:

a refrigerator body including an inner case;

a partition element configured to separate a first storage compartment and a second storage compartment, the first storage compartment being provided in the inner case, the second storage compartment being provided in the inner case and located below the first storage compartment;

a door configured to open and close the first storage compartment;

a first movable rail attached to the door;

a storage container provided on the first movable rail;

a first rotary element attached to the first movable rail, the first rotary element being rotatable;

a first support element provided at the first storage compartment to support the first movable rail; and

a first stationary rail provided below the first support element and on an upper surface of the partition element; and

a fixing element configured to fix the first stationary rail to the inner case,

wherein the first stationary rail is inserted in the partition element such that the first stationary rail and the partition element are provided as a single body,

wherein the partition element includes a first recess,

wherein the first stationary rail includes a first supporting surface, a first lower portion, and a first upper portion, the first supporting surface supporting the first rotary element, the first lower portion being located at a lower position than the first supporting surface and inserted in the first recess of the partition element, the first upper portion being located above the first supporting surface and the first lower portion and in contact with the inner case, and

wherein the fixing element is connected to the first upper portion.

[Claim 2]

The refrigerator of claim 1, further comprising:

a vacuum heat insulator provided at the partition element,

wherein the partition element includes a first surface portion that includes the first recess and the upper surface,

wherein the first storage compartment is a freezer compartment,

wherein a temperature zone of the second storage compartment is higher than a temperature zone of the first storage compartment,

wherein the vacuum heat insulator is in contact with the first surface portion,

wherein the first surface portion includes a contact portion and a peripheral portion, the contact portion being part of the first surface portion that contacts the vacuum heat insulator, the peripheral portion being part of the first surface portion that is located at a periphery of the contact portion and not in contact with the vacuum heat insulator, and

wherein the first recess is located in the peripheral portion.

[Claim 3]

The refrigerator of claim 1 or 2,

wherein the first stationary rail further includes a contact surface portion and a bottom portion, the contact surface portion being in contact with the inner case, the bottom portion including a bottom surface and the first supporting surface, the bottom surface being in contact with the upper surface of the partition element, the first supporting surface supporting the first rotary element,

wherein the first lower portion connects to a lower end of the contact surface portion and is located at a lower position than the bottom portion, and

wherein the first upper portion connects to an upper end of the contact surface portion.

[Claim 4]

The refrigerator of any one of claims 1 to 3, further comprising:

a second movable rail on which the storage container is provided, the second movable rail being attached to the door and parallel to the first movable rail;

a second rotary element attached to the second movable rail, the second rotary element being rotatable;

a second support element provided at the first storage compartment to support the second movable rail; and

a second stationary rail located below the second support element, the second stationary rail being provided on the upper surface of the partition element and parallel to the first stationary rail,

wherein the partition element includes a second recess provided parallel to the second stationary rail, and

wherein the second stationary rail includes a second supporting surface and a second lower portion, the second supporting surface supporting the second rotary element, the second lower portion being located at a lower position than the second supporting surface and inserted in the second recess of the partition element.

[Claim 5]

The refrigerator of claim 4, further comprising:

a first reinforcing element formed in a shape of a plate, the first reinforcing element having ends one of which is provided at the first movable rail and the other of which is provided at the second movable rail.

[Claim 6]

The refrigerator of claim 5, further comprising:

a second reinforcing element formed in a shape of a plate and having ends one of which is provided at the first movable rail and the other of which is provided at the second movable rail, the second reinforcing element being located closer to the door than the first reinforcing element; and

a third reinforcing element formed in a shape of a plate, the third reinforcing element having ends one of which is provided at the first reinforcing element and the other of which is provided at the second reinforcing element.