What is claimed is:

1. A rail vehicle comprising:

a stage frame constituted by a hollow extruded material that is extrusion molded along a longitudinal direction of the rail vehicle, the stage frame constituting a floor surface and including:

a vehicle inner side surface panel;

a vehicle outer side surface panel, and

a connecting member connecting the vehicle inner side surface panel and the vehicle outer side surface panel, wherein the vehicle outer side surface panel has a plurality of curtain rail structures each including:

vertical pieces whose first ends in a height direction are each connected to the vehicle outer side surface panel; and

horizontal pieces each extending horizontally in one direction from a second end of one of the vertical pieces; and

a heat insulating unit configured on a vehicle outer side of the stage frame, the heat insulating unit including:

a heat insulating material provided, between the curtain rail structures, on a vehicle outer side surface of the vehicle outer side surface panel;

a heat insulating panel that holds the heat insulating material between the heat insulating panel and the vehicle outer side surface panel;

an insulator provided between an entire length of the horizontal pieces of each of the curtain rail structures and the heat insulating panel; and

a mechanical fastening portion that fixes the heat insulating panel to the curtain rail structures.

2. The rail vehicle according to claim 1, wherein the heat insulating material in a free state has a thickness dimension larger than a dimension from a first end to a second end of the vertical pieces in a height direction, and

the heat insulating material is compressed by fastening of the mechanical fastening portion that fixes the heat insulating panel to the curtain rail structures in a height direction.

3. The rail vehicle according to claim 2, wherein the heat insulating panel includes:

a plurality of protective plates each having an approximately L-shaped cross-section intersecting the longitudinal direction, each of the protective plates including:

a horizontal portion; and

a vertical portion vertically provided at an end, of

the horizontal portion, in a width direction of the horizontal portion,

an interval between the vertical portions of a pair of the protective plates whose horizontal portions are directed toward each other is set larger than an interval between the vertical portion of a pair of the protective plates whose horizontal portions are directed in opposite directions, and

the curtain rail structures are disposed between the vertical portions of respective ones of the pairs of the protective plates whose horizontal portions are directed in opposite directions.

4. The rail vehicle according to claim 3, wherein front edges of the vertical portions of the protective plates are in contact with the vehicle outer side surface panel.

5. A method for manufacturing the rail vehicle according to claim 1, comprising:

disposing, between the curtain rail structures, the heat insulating material on the vehicle outer side surface panel;

disposing the insulators across an entire length of the horizontal pieces of respective ones of the curtain rail structures; and

fixing the heat insulating panel to the curtain rail

structures while compressing the heat insulating material by using the mechanical fastening portion.

6. The method for manufacturing a rail vehicle according to claim 5, further comprising:

fixing protective plates to the heat insulating panel, each of the protective plates having an approximately L-shaped cross-section intersecting the longitudinal direction and including:

a horizontal portion; and

a vertical portion vertically provided at an end, of the horizontal portion, in a width direction of the horizontal portion;

disposing the heat insulating material between the vertical portions of the protective plates whose horizontal portions are directed toward each other;

disposing the insulator between the vertical portions of the protective plates whose horizontal portions are directed in opposite directions; and

fixing the heat insulating panel to the curtain rail structures while causing the vertical portions of the protective plates whose horizontal portions are directed in opposite directions to be guided to the curtain rail structures and compressing the heat insulating material by using the mechanical fastening portion.