Claims

[Claim 1]

A motion reduction device, comprising:

a board-like portion that, when in an operating state, is disposed at a corner portion where a side surface and a bottom surface of a floating body meet with a gap formed between a base end of the board-like portion and the corner portion, a leading end of the board-like portion protruding in a direction outward from the side surface of the floating body; and

a support portion joined to the floating body that supports the board-like portion;

an upward facing surface of the board-like portion functioning as a guiding surface to converge a flow of water from an advancing wave advancing toward the side surface from outside of the side surface and guide the flow of water toward the gap;

a downward facing surface of the board-like portion functioning as a resistance surface to block the flow of water from a retreating wave retreating to the outside from the bottom surface;

the support portion comprising a movement mechanism that moves the board-like portion between an operating position and a housing position where the board-like portion is housed in a recess formed near the corner portion of the floating body;

the board-like portion comprising an outer surface with a shape that conforms to a shape of an outer surface of the floating body around a housing region where the recess is formed when the board-like portion is in the housing position; and

the recess being formed in the bottom surface of the floating body.

[Claim 2]

The motion reduction device according to claim 1, wherein

the movement mechanism comprises a link member disposed between the board-like portion and a wall portion of the recess in a manner that allows the link member to swing freely, and a telescopic actuator disposed next to the link member between the board-like portion and the wall portion of the recess.

[Claim 3]

The motion reduction device according to claim 1 or 2, wherein

the board-like portion has a flat board-like shape and, in an operating state, has a horizontal orientation when in the operating position, and the housing region of the board-like portion is a planar region formed in the outer surface of the floating body.

[Claim 4]

The motion reduction device according to claim 1 or 2, wherein

the board-like portion has a flat board-like shape and, in an operating state, has an inclined orientation with the leading end extending in a direction outward from the side surface of the floating body and downward when in the operating position, and the housing region of the board-like portion is a planar region formed in the outer surface of the floating body.

[Claim 5]

The motion reduction device according to any one of claims 1 to 4, wherein

the gap between a base portion of the board-like portion and the corner portion is set to a size so that the flow of water guided through the gap by the upward facing surface of the board-like portion and advancing under the bottom surface is formed into a laminar flow while increasing the speed at a region near the corner portion of the bottom surface.

[Claim 6]

The motion reduction device according to any one of claim 1 to 5, wherein

the board-like portion is disposed extending the entire length of the side surface of the floating body.

[Claim 7]

A floating body, comprising:

a corner portion where a side surface and a bottom surface meet;

the motion reduction device according to any one of claims 1 to 6 mounted near the corner portion.

[Claim 8]

The floating body according to claim 7, wherein

the motion reduction device is mounted on the side surfaces on both sides of the floating body.