CLAIMS

1. An opening/closing device comprising:

a gate that receives a flow of fluid, and is able to fall down toward a downstream direction of the flow;

a fall prevention unit that supports the gate, thereby preventing the gate from falling down;

a support release unit that releases the support for the gate by the fall prevention unit;

a first float that is arranged on an upstream side of the gate, is arranged on one of the left side and the right side of the gate viewed from upstream, and is less in the specific gravity than the fluid;

a floating prevention unit that prevents the first float from floating;

a second float that is arranged on the upstream side of the gate, is arranged on the other one of the left side and the right side of the gate viewed from upstream, and is less in the specific gravity than the fluid;

a floating prevention release unit that releases the prevention of the first float from the floating by the floating prevention unit as the second float floats;

a suspension member that suspends the first float, and includes a portion that ascends as the first float floats; and

an ascending member that is positioned above the second float, and has a portion that ascends as the ascending portion of the suspension member ascends,

wherein the support release unit is activated as the first float floats,

and wherein the floating prevention unit includes:

an abutting portion that is positioned above the ascending member, and abuts against the ascending member when the ascending portion of the ascending member ascends; and

a fixing portion that rotatably fixes the abutting portion to a portion that is stationary with respect to the flow.

2. The opening/closing device according to claim 1, wherein the fall prevention unit supports a surface on a downstream side of the gate.

3. The opening/closing device according to claim 1, wherein the support release unit pulls the fall prevention unit toward an outside of the flow, thereby releasing the support for the gate.

4. The opening/closing device according to claim 1, wherein the ascending member and the suspension member are coupled to each other via a rotation shaft extending in the same direction as a rotation center of the gate.

5. The opening/closing device according to claim 1 or 4, wherein:

the floating prevention unit includes a rotatable portion that is able to rotate about the fixing portion;

moreover, the abutting portion rotates by an angle by which the rotatable portion rotates; and

the floating prevention release unit includes a drive unit that moves the rotatable portion as the second float floats.

6. The opening/closing device according to claim 1 or 4, comprising a descending portion that is coupled to the suspension member, and descends as the ascending portion of the suspension member ascends, wherein:

the support release unit pulls the fall prevention unit toward an outside of the flow, thereby releasing the support for the gate; and

further, the support release unit is coupled to the descending portion, and pulls the fall prevention unit toward the outside of the flow in response to a descent of the descending portion.