SUMMARY OF THE DISCLOSURE

The present invention provides a washing machine that can prevent a liquid agent inside a tank from flowing back to a water supply faucet.

The washing machine according to an aspect of the present disclosure includes a housing, a water tub supported in the housing, a washing tub rotatably disposed in the water tub, and a water supply valve provided in the housing and configured to control supply of tap water. The washing machine further includes a tank storage case provided above the water tub and having a storage portion, a tank mounted in the storage portion of the tank storage case and configured to store a liquid agent, and an automatic liquid agent injection device (liquid supply device) provided at an upper portion of the housing and configured to automatically supply the liquid agent inside the tank into the washing tub. The automatic liquid agent injection device includes a switching section communicating with the water supply valve and the tank and a pump unit communicating with a discharge water channel of the switching section. The switching section causes the tap water inflowing from the water supply valve or the liquid agent inflowing from the tank to flow to the pump unit. The pump unit sucks the tap water or the liquid agent inflowing from the switching section and discharges the tap water or the liquid agent to the water tub. The washing machine is configured to dispose a back-flow prevention device in a water channel that causes the water supply valve to communicate with the switching section.

According to an aspect of the present disclosure, there is provided a washing machine comprising:

a housing;

a water tub supported in the housing;

a washing tub rotatably disposed in the water tub;

a water supply valve provided in the housing and configured to control supply of tap water;

a tank storage case provided above the water tub and having a storage portion;

a tank disposed in the storage portion of the tank storage case and configured to store a liquid agent; and

an automatic liquid agent injection device provided at an upper portion of the housing and configured to automatically supply the liquid agent inside the tank into the washing tub,

wherein the automatic liquid agent injection device includes a switching section communicating with the water supply valve and the tank, and

a pump unit communicating with a discharge water channel of the switching section,

the switching section causes tap water inflowing from the water supply valve or the liquid agent inflowing from the switching section and discharge the tap water or the liquid agent to the water tub, and

a bypass water channel branches from a water channel causing the water supply valve to communicate with the switching section.

According to this configuration, even when negative pressure is generated in a water supply route due to power outage or water outage, the back-flow prevention device can prevent a liquid agent inside the tank or contaminated water inside the water tub from flowing back to a water supply