DESCRIPTION

WASHING MACHINE

TECHNICAL FIELD

[0001] The present disclosure relates to a washing machine.

BACKGROUND ART

[0002] PTL 1 discloses a washing machine that uses a siphon phenomenon to dispense liquid detergent or softener into a washing and dewatering tank.

[0003] The washing machine according to PTL 1 includes a water tank and a detergent dispenser for dispensing liquid or liquid mixture into the water tank. The detergent dispenser includes a liquid housing, a housing lid plate, a first passage, a passage coupler, and a second passage. The liquid housing is capable of holding liquid or liquid mixture. The housing lid plate covers an upper part of the liquid housing partially or entirely. The first passage has a substantially cylindrical shape, and is provided inside the liquid housing. A bottom end of the first passage opens near the bottom of the liquid housing. The passage coupler is connected to an upper end of the first passage, and has an inverted U-shape. The second passage has a substantially cylindrical shape, and has one end connected to the passage coupler, has the other end that opens outwards from the bottom of the liquid housing, and is disposed outside of the first passage. A liquid dispense channel formed by the first passage, the passage coupler, and the second passage is continuous as one channel. A part of the liquid dispense channel is also formed by the housing lid plate.

Citation List

Patent Literature

[0004] PTL 1: Unexamined Japanese Patent Publication No. 2017-74284

SUMMARY OF THE INVENTION

[0005] The present disclosure provides a washing machine capable of suppressing interruptions of the siphon phenomenon, and capable of dispensing liquid into a washing and dewatering tank reliably.

[0006] In one aspect, the present disclosure refers to a washing machine comprising: a main body; an outer tank that is supported inside the main body in a manner isolated from

vibrations; a

washing and dewatering tank that is rotatably supported inside the outer tank and that holds laundry; a liquid agent case that has a substantially box shape and that is configured to supply a liquid agent dispensed inside to the outer tank or to the washing and dewatering tank; and a water filling device that is configured to fill the liquid agent case with water, wherein the washing machine further comprises a discharge channel being inside the liquid agent case, having a substantially inverted U shape, discharging an internal liquid to the outside using a siphon phenomenon, and a wall being inside the liquid agent case, being vertically elongated, and being provided between (i) a position where the water from the water filling device falls and (ii) a position of the discharge channel.

[0007] The washing machine according to the present disclosure suppresses entry of air bubbles into the discharge channel, the bubbles being formed when the water from the water filling device falls. Therefore, interruptions of the siphon phenomenon are suppressed, and the liquid can be dispensed into the washing and dewatering tank reliably.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] Fig. 1 is an external perspective view of a washing machine according to a first exemplary embodiment.

Fig. 2 is an external perspective view of the washing machine according to the first exemplary embodiment with a lid opened.

Fig. 3 is a side sectional view of relevant parts of the washing machine according to the first exemplary embodiment.

Fig. 4 is an exploded perspective view illustrating a structure of a top cover and an agent dispenser in the washing machine according to the first exemplary embodiment.

Fig. 5 is an exploded perspective view of a water filling and flowing portion of the agent dispenser, in the washing machine according to the first exemplary embodiment.

Fig. 6 is an external perspective view of a liquid agent case of the agent dispenser in the washing machine according to the first exemplary embodiment.

Fig. 7 is a top view of a water filling channel of the agent dispenser in the washing machine according to the first exemplary embodiment.

Fig. 8 is a top view of a liquid agent case of the agent dispenser in the washing machine according to the first exemplary embodiment.

Fig. 9 is a longitudinal sectional view of the liquid agent case of the agent dispenser, in the washing machine according to the first exemplary embodiment.