

Title (en)

EXTERNAL SPRING PUMP HAVING LEFT AND RIGHT LOCK STRUCTURE

Title (de)

EXTERNE FEDERPUMPE MIT LINKER UND RECHTER VERRIEGELUNGSSTRUKTUR

Title (fr)

POMPE À RESSORT EXTERNE AYANT UNE STRUCTURE DE VERROUILLAGE GAUCHE ET DROITE

Publication

**EP 3909885 A4 20220420 (EN)**

Application

**EP 20845371 A 20200402**

Priority

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Abstract (en)

[origin: US2021291212A1] The invention discloses a pump with a left and right locking structure and an external spring, which includes a pump body extending into a bottle body, a pump chamber is arranged on the pump body, a locking bottle cover is connected to the pump body, a pumping member is arranged in the pump chamber, a locking cover is provided at an inner wall of the pump chamber, a one-way valve is provided at a lower end of the pump chamber, a bent nozzle is provided at an upper end of the pumping member, a liquid guiding pipe capable of extending into the bottle body is arranged on the pump body and located below the one-way valve, the pumping member includes a pump rod, a liquid inlet hole is formed below the pump rod, a piston is sleeved on the pump rod, an air inlet hole is formed in the pump body, a pushing part is arranged on the pump rod, the locking cover is further provided with a limiting protruding block, and a reset spring is arranged between the locking cover and the bent nozzle; and a limiting member capable of preventing the bent nozzle from being pressed downward when the pump rod is rotated by a certain angle is arranged between the pump rod and the locking cover. According to the invention, the bent nozzle can be prevented from being mistakenly pressed in a transportation process by arranging the limiting member, leakage is avoided, meanwhile, the air inlet hole is sealed through cooperation of the piston and the locking cover, and a sealing effect is enhanced.

IPC 8 full level

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Citation (search report)

- [X] US 10335816 B1 20190702 - ARMINAK ARMIN [US]
- [X] US 2018304291 A1 20181025 - KNIGHT SIMON CHRISTOPHER [GB]
- [X] CN 105292728 B 20170412
- [X] CN 104609018 A 20150513 - ZHONGSHAN MEIJIESHI PACKAGING PRODUCT CO LTD
- See references of WO 2021184428A1

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