

Title (en)
LIQUID DISPENSER

Title (de)
FLÜSSIGKEITSSPENDER

Title (fr)
DISTRIBUTEUR DE LIQUIDE

Publication
EP 3427840 B1 20201202 (DE)

Application
EP 17181288 A 20170713

Priority
EP 17181288 A 20170713

Abstract (en)
[origin: WO2019011622A1] Discharge heads (10) for liquids dispensers (100) for discharging pharmaceutical or cosmetic liquids are known. Such discharge heads (10) have a base (20) and an actuation handle (40) which can be pressed down relative to the base (20). A liquid inlet (22) for connecting to a liquid store and a discharge opening (44) for dispensing liquid are provided. Furthermore, such a discharge head has a pump device (60) which comprises a pump chamber (64) and by means of which liquid can be pumped from the liquid store to the discharge opening (44). In order to control the liquid to be discharged and/or the air flowing back, such a discharge head (10) has an outlet valve (70) which opens depending on the pressure, an inlet valve (80) which opens depending on the pressure, and/or a ventilation valve (90) which opens depending on the pressure. Such a valve (70, 80, 90) has a valve flap (72, 82, 92) which closes a valve channel in a closed position and which can be converted into an open position by positive pressure which exceeds a threshold pressure. The discharge head (10) has an actuator (50) which rests against the actuation handle (40) and the base (20) so as to deform when the actuation handle (40) is pressed down. The valve flap (72, 82, 92) is designed and attached to the actuator (50) such that the deformation of the actuator (50) acts on the valve flap such that the threshold pressure, beyond which the valve flap (72, 82, 92) leaves its closed position, is at least 10% lower in the actuated final position than in the non-actuated final position. The invention also relates to a use for a dispenser which can be produced in an inexpensive manner in particular and which has a particular degree of discharge reliability and a particular discharge characteristic.

IPC 8 full level

B05B 11/00 (2006.01)

CPC (source: EP KR US)

A45D 34/00 (2013.01 - KR US); **B05B 11/0044** (2018.07 - EP KR US); **B05B 11/1033** (2023.01 - EP KR US);
B05B 11/1035 (2023.01 - EP KR US); **B05B 11/1069** (2023.01 - KR US); **A45D 2200/054** (2013.01 - KR); **A45D 2200/057** (2013.01 - US);
B05B 11/1047 (2023.01 - EP); **B05B 11/1069** (2023.01 - EP)

Cited by

EP3736049A1; EP4151317A1; WO2020225223A1; EP3919181A1; US11938495B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 3427840 A1 20190116; **EP 3427840 B1 20201202**; BR 112019027936 A2 20200714; BR 112019027936 B1 20221220;
CN 110831704 A 20200221; CN 110831704 B 20220218; KR 102503350 B1 20230223; KR 20200032085 A 20200325;
US 11179739 B2 20211123; US 2021121904 A1 20210429; WO 2019011622 A1 20190117

DOCDB simple family (application)

EP 17181288 A 20170713; BR 112019027936 A 20180621; CN 201880046766 A 20180621; EP 2018066686 W 20180621;
KR 20207000013 A 20180621; US 201816625411 A 20180621