

Title (en)

DEVICE FOR TWO-WAY TRANSFER OF A LIQUID BETWEEN A BOTTLE AND A CARTRIDGE

Title (de)

VORRICHTUNG ZUM BIDIREKTIONALEN ÜBERTRAGEN EINER IN EINEM FLACON ENTHALTENEN FLÜSSIGKEIT IN EINE AMPULLE

Title (fr)

DISPOSITIF DE TRANSFERT BIDIRECTIONNEL D'UN LIQUIDE ENTRE UN FLACON ET UNE CARPULE

Publication

**EP 1161217 B1 20040908 (FR)**

Application

**EP 00910990 A 20000317**

Priority

- FR 0000671 W 20000317
- FR 9903392 A 19990318

Abstract (en)

[origin: US6746438B1] The invention concerns a device for the two-way transfer of a liquid (38) between a bottle (14) provided with a cap (44) capable of being perforated at a cartridge (12) comprising a cylindrical reservoir (26) wherein slides a piston (34) capable of being perforated. It comprises: a body (16) including means to be fixed on the bottle (14); a member (24) linking the piston (34) capable of being perforated to the body (16); a shuttle (20) relative to the body (16) and said linking member (24), the shuttle bearing a hollow needle (22) whereof one first end (112) is adapted to pierce the piston (34) and whereof the second end (114) is adapted to pierce the cap (44). The shuttle (20) is mobile between a piston wherein the needle ends (112, 114) are spaced apart from the piston (34) capable of being perforated and the cap (44) capable of being perforated and an end-of-stroke transferring position wherein the needle ends (112, 114) are received in the cartridge (12) and the bottle (14).

IPC 1-7

**A61J 1/06**; **A61J 1/20**

IPC 8 full level

**A61J 1/00** (2006.01); **A61J 1/05** (2006.01); **A61J 1/06** (2006.01); **A61J 1/20** (2006.01)

CPC (source: EP US)

**A61J 1/062** (2013.01 - EP US); **A61J 1/2089** (2013.01 - EP US); **A61J 1/201** (2015.05 - EP US); **A61J 1/2013** (2015.05 - EP US); **A61J 1/2051** (2015.05 - EP US); **A61J 1/2065** (2015.05 - EP US); **Y10S 604/905** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**US 6746438 B1 20040608**; AT E275374 T1 20040915; AU 3300300 A 20001004; DE 60013565 D1 20041014; DE 60013565 T2 20051006; EP 1161217 A1 20011212; EP 1161217 B1 20040908; ES 2228475 T3 20050416; FR 2790948 A1 20000922; FR 2790948 B1 20010622; JP 2002538893 A 20021119; JP 4430244 B2 20100310; WO 0054723 A1 20000921

DOCDB simple family (application)

**US 91353701 A 20010815**; AT 00910990 T 20000317; AU 3300300 A 20000317; DE 60013565 T 20000317; EP 00910990 A 20000317; ES 00910990 T 20000317; FR 0000671 W 20000317; FR 9903392 A 19990318; JP 2000604803 A 20000317