

Title (en)

METERING PUMP WITH PUMPING BELLOWS FOR BOTTLES OR SAME

Publication

EP 0318465 B1 19920102 (DE)

Application

EP 89100629 A 19860120

Priority

- EP 89100629 A 19860120
- DE 3509178 A 19850314
- DE 3521611 A 19850615
- DE 3600356 A 19860109

Abstract (en)

[origin: ES8705580A1] The invention relates to a metering pump which can be mounted in particular on bottles or the like, with pumping bellows (B) and two valves, one of which is assigned on the inlet side and the other is assigned to a mouthpiece (26), and proposes, in order to obtain a structural shape which is simple to manufacture and assemble and stable in use, that the movable pump upper part (9) possesses a collar (31) which is arranged concentrically to the connecting piece (29) and supports the end folds (30) of the pumping bellows (B).

IPC 1-7

B67D 5/02; B67D 5/42; B65D 47/34

IPC 8 full level

B05B 11/00 (2006.01); **B65D 47/34** (2006.01); **B67D 7/02** (2010.01); **B67D 7/60** (2010.01)

CPC (source: EP US)

B05B 11/0044 (2018.07 - EP); **B05B 11/1035** (2023.01 - EP US); **B05B 11/1059** (2023.01 - EP US); **B05B 11/1047** (2023.01 - EP)

Cited by

CN1071147C; DE4009397A1; US8528788B2; WO9501226A1; WO2008155232A1

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)

EP 0194417 A2 19860917; EP 0194417 A3 19870923; EP 0194417 B1 19891004; AT E46894 T1 19891015; AT E71057 T1 19920115; BR 8601068 A 19861125; CA 1302982 C 19920609; CN 1007445 B 19900404; CN 86101395 A 19870916; DE 3666030 D1 19891109; DE 3683299 D1 19920213; EP 0318465 A1 19890531; EP 0318465 B1 19920102; ES 552543 A0 19870516; ES 8705580 A1 19870516; PT 82157 A 19860401; PT 82157 B 19920529; US 4732549 A 19880322; US 4915601 A 19900410

DOCDB simple family (application)

EP 86100673 A 19860120; AT 86100673 T 19860120; AT 89100629 T 19860120; BR 8601068 A 19860313; CA 503341 A 19860305; CN 86101395 A 19860305; DE 3666030 T 19860120; DE 3683299 T 19860120; EP 89100629 A 19860120; ES 552543 A 19860228; PT 8215786 A 19860310; US 12846687 A 19871203; US 83693786 A 19860306