

Title (en)
Small dispensers.

Title (de)
Kleine Austragsvorrichtungen.

Title (fr)
Distributeurs miniatures.

Publication
EP 0408421 B1 19941005 (FR)

Application
EP 90401921 A 19900703

Priority
FR 8908941 A 19890704

Abstract (en)
[origin: EP0408421A1] The invention essentially relates to hand-held dispensers designed around miniature metering pumps of known type having a piston (3) carrying an axial spray nozzle together with a vent to the open air, and which are injection moulded. <??>The pump body (2) engages in a receptacle (1), its collar (2b), which rests on the upper edge of the latter and is immobilised beneath the internal flange (4b), forming a cover, of an outer sleeve (4) fitted tightly by radially gripping its lower skirt (4a) on an external bearing surface of the receptacle (1). <??>Assembly is carried out after filling and the vent then serves as a purge. <??>These devices are intended, for example, for dispensing medicaments used at very low doses or even for perfume samples in a form which is both convenient and very economical. <IMAGE>

IPC 1-7
B05B 11/00

IPC 8 full level
B05B 11/00 (2006.01)

CPC (source: EP US)
B05B 11/0097 (2013.01 - EP US); **B05B 11/1047** (2023.01 - EP US); **B05B 11/1001** (2023.01 - EP US)

Cited by
US2010199606A1; US8646245B2; FR2719292A1; US5845819A; US6240979B1; WO9529760A1; WO9915424A1; EP2170527B2

Designated contracting state (EPC)
AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)
EP 0408421 A1 19910116; EP 0408421 B1 19941005; AT E112510 T1 19941015; DE 69013085 D1 19941110; DE 69013085 T2 19950413; DK 0408421 T3 19950320; ES 2064685 T3 19950201; FR 2649382 A1 19910111; FR 2649382 B1 19911031; US 5102018 A 19920407

DOCDB simple family (application)
EP 90401921 A 19900703; AT 90401921 T 19900703; DE 69013085 T 19900703; DK 90401921 T 19900703; ES 90401921 T 19900703; FR 8908941 A 19890704; US 54772490 A 19900702