

## Title (en)

A MANUALLY OPERATED TRIGGER TYPE DISPENSER, METHOD OF ASSEMBLING THE SAME, AND A SPINNER FOR USE IN THE DISPENSER

## Publication

**EP 0302994 B1 19920513 (EN)**

## Application

**EP 88104555 A 19880322**

## Priority

JP 20014987 A 19870811

## Abstract (en)

[origin: EP0302994A2] A dispenser body (12) comprises an upper portion (14) and a lower portion (16) vertically extending from the upper portion (14). A piston (24) is substantially L-shaped, comprising a horizontal nozzle (79) fixed to the upper body portion (14) and a piston body (72) located at the lower body portion (16). A cylinder (22) is coupled with a swingable trigger (26) and located at the lower body portion (16); it can reciprocate when the trigger (26) is squeezed and released. An inlet conduit (60) is formed within the cylinder (22), whereas an outlet conduit (80) is provided within the piston (24). A slit (28) is cut in the front section of the lower body portion (16). Thanks to this slit (28), the lower body portion (16) is resiliently fitted in a bottle cap (20) and, thus, connected thereto. The rear end of the trigger (26) and the nozzle (79) can pass through this slit (28). The piston (24) is engaged with the cylinder (22), and supports the cylinder (22) in its lower position.

## IPC 1-7

**B05B 1/34; B05B 11/00**

## IPC 8 full level

**H04N 11/22** (2006.01); **B05B 1/06** (2006.01); **B05B 1/12** (2006.01); **B05B 1/34** (2006.01); **B05B 7/00** (2006.01); **B05B 11/00** (2006.01); **B65D 47/34** (2006.01); **F04B 9/14** (2006.01); **H04N 9/66** (2006.01)

## CPC (source: EP KR)

**B05B 1/12** (2013.01 - EP KR); **B05B 1/3415** (2013.01 - EP KR); **B05B 7/0056** (2013.01 - EP KR); **B05B 11/1004** (2023.01 - EP KR); **B05B 11/1011** (2023.01 - EP KR); **B05B 11/1095** (2023.01 - EP KR)

## Cited by

EP0484616A1; ES2163980A1; CN107930888A; US5147075A; EP0849000A1; ES2143904A1; WO9503132A1; WO9637308A1; WO9003926A3

## Designated contracting state (EPC)

DE ES FR GB IT NL

## DOCDB simple family (publication)

**EP 0302994 A2 19890215; EP 0302994 A3 19900314; EP 0302994 B1 19920513;** AU 1469188 A 19890216; AU 5146790 A 19900719; AU 606009 B2 19910124; AU 610152 B2 19910516; AU 618693 B2 19920102; AU 6697990 A 19910131; CN 1010084 B 19901024; CN 1031210 A 19890222; DE 3871023 D1 19920617; ES 2031547 T3 19921216; JP H0685897 B2 19941102; JP S6443365 A 19890215; KR 890003445 A 19890414; KR 930000399 B1 19930118

## DOCDB simple family (application)

**EP 88104555 A 19880322;** AU 1469188 A 19880415; AU 5146790 A 19900319; AU 6697990 A 19901127; CN 88102444 A 19880423; DE 3871023 T 19880322; ES 88104555 T 19880322; JP 20014987 A 19870811; KR 880004198 A 19880413