

Title (en)  
Improved dispensing device.

Title (de)  
Spender.

Title (fr)  
Appareil distributeur.

Publication  
**EP 0338825 A1 19891025 (EN)**

Application  
**EP 89303921 A 19890420**

Priority  
GB 8809470 A 19880421

Abstract (en)  
A dispensing device for adding environment-improving liquid additive from a reservoir (34) to water in a flush pipe (14) leading to a urine-receiving vessel comprises a peristaltic pump (33) powered by an electric motor (32), the motor being used to dispense a precise volume of additive on each actuation.

IPC 1-7  
**E03D 9/03; F04B 43/12**

IPC 8 full level  
**E03D 9/02** (2006.01); **E03D 9/03** (2006.01); **F04B 43/12** (2006.01)

CPC (source: EP KR)  
**E03D 9/02** (2013.01 - KR); **E03D 9/031** (2013.01 - EP); **F04B 43/1215** (2013.01 - EP)

Citation (search report)  
• [X] FR 1561583 A 19690328  
• [A] DE 1915100 A1 19701203 - ZIMMER UND KELLERMANN FA, et al  
• [A] GB 2106993 A 19830420 - PFRIMMER PHARMA  
• [A] GB 521368 A 19400520 - CLAUDE RAILTON

Cited by  
EP1055782A1; EP0719234A4; ES2153246A1; EP0579581A1; EP1780343A3; US5251340A; US5377363A; EP2152978A4; US5680879A; US5584079A; AT411177B; FR2655325A1; US6588026B2; EP1780343A2; WO0073597A1; WO2009154743A3

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DOCDB simple family (publication)  
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