

Title (en)  
LIQUID FILLING DEVICE

Title (de)  
FLÜSSIGKEITSFÜLLVORRICHTUNG

Title (fr)  
DISPOSITIF DE REMPLISSAGE DE LIQUIDE

Publication  
**EP 0972153 A4 20041006 (EN)**

Application  
**EP 97916009 A 19970313**

Priority  
US 9704159 W 19970313

Abstract (en)  
[origin: WO9840653A1] A liquid filling device (10) for watering batteries comprises a body having first and second water ports (18 and 44) that extend through the body and connect within it to first and second water passages (14 and 16) that are independent of one another. A trap (27) is disposed in the device at a position below the first and second water passages (14 and 16). A bell chamber (33) is disposed at an outlet of the trap (27) and includes an open end. Water passes through the device (10) via a one of the first and second passages (14 and 16), through the trap (27), through the bell chamber (33) and into the battery cell (12). The device (10) traps a volume of air therein and pressurizes the trapped air, as the electrolyte level in the cell (12) rises to a determined level, to an amount at least equal to the head pressure of the water in the device, thereby terminating further water flow into the cell (12).

IPC 1-7  
**F16K 49/00**; **H01M 2/36**

IPC 8 full level  
**F16K 49/00** (2006.01); **H01M 50/627** (2021.01)

CPC (source: EP KR US)  
**F16K 49/00** (2013.01 - KR); **H01M 50/627** (2021.01 - EP KR US); **Y02E 60/10** (2013.01 - EP)

Citation (search report)

- [XA] US 4544004 A 19851001 - FITTER JOHAN C [ZA], et al
- [A] FR 2259445 A1 19750822 - MAGNETI MARELLI SPA [IT]
- [A] US 4113925 A 19780912 - KOHLER WERNER, et al
- [A] US 3556175 A 19710119 - WOLF ALBY H, et al
- See references of WO 9840653A1

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

DOCDB simple family (publication)  
**WO 9840653 A1 19980917**; AU 2328997 A 19980929; AU 725492 B2 20001012; CA 2283205 A1 19980917; CA 2283205 C 20021119; EP 0972153 A1 20000119; EP 0972153 A4 20041006; JP 2001517356 A 20011002; KR 100450350 B1 20040930; KR 20000076235 A 20001226

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