

Title (en)
Automatic dispenser device for liquids or gels in toilet bowls

Title (de)
Automatischer Spender für Flüssigkeiten oder Gele in Toilettenschüsseln

Title (fr)
Distributeur automatique pour liquides ou gels pour cuvettes de W.C

Publication
EP 1408164 A3 20050126 (EN)

Application
EP 02080447 A 20021219

Priority
IT MI20022155 A 20021011

Abstract (en)
[origin: EP1408164A2] A dispenser device comprising at least one cartridge (4, 48, 480) containing at least one liquid or gel (8) and a support body (1, 110) for the cartridge (4, 48, 480) which is provided with a bottom mouth (9, 56, 62) for the outflow of liquid or gel (8), at least one first valve (17, 170, 65) urged to close a first section (18, 256, 162) of the mouth (9, 56, 62) from the outside and control means (3, 39, 60) responsive to each water flow (19) to open said first valve (17, 170, 65). The dispenser device comprises at least one second valve (25, 250, 55, 65) for closing a second section (29, 156, 262) of said mouth (9, 56, 62) during each water flow (19). The at least one second valve (25, 250, 55, 65) is spaced from said at least one first valve (17, 170, 65) so as define between said first (18, 256, 162) and second (29, 156, 262) sections of the mouth (9, 56, 62) a quantity of said liquid or gel (8) which is delivered by the dispenser device upon each water flow (19). There are provided valve connecting means (26, 47, 54) for causing said at least one second valve (25, 250, 55, 65) to open said second section (29, 156, 262) of the mouth (9, 56, 62) when said at least one first valve (17, 170, 65) is closed and to close said second section (29, 156, 262) of the mouth (9, 56, 62) when at least one first valve (17, 170, 65) is open. <IMAGE>

IPC 1-7
E03D 9/03

IPC 8 full level
E03D 9/03 (2006.01)

CPC (source: EP)
E03D 9/032 (2013.01)

Citation (search report)
• [XA] DE 10025972 A1 20011206 - HENKEL KGAA [DE]
• [Y] US 3946448 A 19760330 - SIOUFY TAMIM EL
• [Y] WO 0104428 A1 20010118 - DEOFLOR SPA [IT], et al
• [A] DE 10205299 A1 20020912 - ALPLA WERKE [AT]
• [A] WO 0240787 A1 20020523 - HENKEL KGAA [DE], et al

Cited by
CN110730846A; CN111764480A; ES2540304A1; EP3078781A4; US10214888B2; US11124954B2; WO2015082748A1; WO2018224818A1; EP3635186B1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SI SK TR

DOCDB simple family (publication)
EP 1408164 A2 20040414; EP 1408164 A3 20050126; IT MI20022155 A1 20040412

DOCDB simple family (application)
EP 02080447 A 20021219; IT MI20022155 A 20021011