

Title (en)
DEVICE FOR THE AUTOMATIC CLEANING OF THE SEAT OF A CLOSET BOWL

Publication
EP 0221017 B1 19900404 (DE)

Application
EP 86810442 A 19861007

Priority
• CH 442785 A 19851014
• CH 444685 A 19851014

Abstract (en)
[origin: ES2002845A6] A toilet seat (27) is provided with a slide housing (26) comprising nozzles for spraying and/or applying water and/or disinfecting liquid. It comprises at least one wiper for drying the surface of the seat (27). The slide housing (26) is placed over a segment of the seat (27), which then, while being sprayed by the nozzles, is driven in the circumferential direction by at least one electric motor. The entire operation is started up manually by actuating the lever (2) of the flushing water cistern (1), and subsequently is controlled by the control electronics (27) until the cleaning of the seat (27) has been completed. The energy is obtained by a turbine (11), which is mechanically connected to a low-voltage direct-current generator (13), and is driven by the water filling the flushing water cistern (11). The actual flushing water, therefore, flows at the normal kinetic energy into the toilet the hydraulic resistance of the turbine (11) is not switched on while the flushing water flows into the toilet bowl. The device is extremely reliable, does not carry any dangerous electric voltages, and in addition contains safety measures which prevent possible injuries, in particular of children. It is suitable for use with new installations, as well as for adaptation to already existing toilets.

IPC 1-7
A47K 13/30

IPC 8 full level
A47K 11/10 (2006.01); **A47K 13/30** (2006.01); **E03D 9/00** (2006.01)

CPC (source: EP KR US)
A47K 13/302 (2013.01 - EP US); **E03D 5/10** (2013.01 - KR)

Cited by
US4873728A; DE10064903A1; FR2761253A1; US10299641B2

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

DOCDB simple family (publication)
EP 0221017 A1 19870506; EP 0221017 B1 19900404; AR 244069 A1 19931029; AU 590007 B2 19891026; AU 6381186 A 19870416; BR 8604997 A 19870714; CA 1268904 A 19900515; CN 1017774 B 19920812; CN 86107199 A 19870513; CS 257293 B2 19880415; DE 3669989 D1 19900510; DK 167374 B1 19931025; DK 491486 A 19870415; DK 491486 D0 19861014; ES 2002845 A6 19881001; GE P19970779 B 19970117; HK 19793 A 19930319; IE 58641 B1 19931020; IE 862465 L 19870414; IL 80273 A0 19870130; JP 2544357 B2 19961016; JP S6294124 A 19870430; KR 870004201 A 19870508; KR 960001237 B1 19960124; MX 170510 B 19930827; NO 165427 B 19901105; NO 165427 C 19910213; NO 864067 D0 19861013; NO 864067 L 19870415; PT 83529 A 19861101; PT 83529 B 19920930; SG 103792 G 19930129; SU 1574205 A1 19900630; UA 7006 A1 19950331; US 4790036 A 19881213; YU 175386 A 19880430; YU 43289 B 19890630

DOCDB simple family (application)
EP 86810442 A 19861007; AR 30554986 A 19861010; AU 6381186 A 19861010; BR 8604997 A 19861013; CA 520321 A 19861010; CN 86107199 A 19861013; CS 687986 A 19860924; DE 3669989 T 19861007; DK 491486 A 19861014; ES 8602580 A 19861014; GE AP1994002247 A 19941011; HK 19793 A 19930311; IE 246586 A 19860915; IL 8027386 A 19861010; JP 24220186 A 19861014; KR 860008572 A 19861013; MX 400386 A 19861010; NO 864067 A 19861013; PT 8352986 A 19861013; SG 103792 A 19921009; SU 4028286 A 19861013; UA 4028286 A 19861013; US 92344586 A 19861007; YU 175386 A 19861013