

Title (en)

FLOOR SPRING

Title (de)

BODENTÜRSCHLIESSER

Title (fr)

FERME-PORTE AUTOMATIQUE INTEGRE DANS LE SOL

Publication

**EP 1658413 B1 20090527 (DE)**

Application

**EP 04763941 A 20040810**

Priority

- EP 2004008921 W 20040810
- DE 10339106 A 20030822

Abstract (en)

[origin: US2007186376A1] A floor-concealed door closer includes a housing for holding a door closing mechanism having an axle, and a housing cover for mounting on the housing and supporting the axle. The housing cover has transverse sides provided with lateral projections, each lateral projection having a stiffening flange.

IPC 8 full level

**E05F 3/00** (2006.01)

CPC (source: EP KR US)

**E05F 3/00** (2013.01 - KR); **E05F 3/225** (2013.01 - EP US); **E05Y 2201/11** (2013.01 - EP US); **E05Y 2600/41** (2013.01 - EP US); **E05Y 2600/452** (2013.01 - EP US); **E05Y 2900/132** (2013.01 - EP US)

Designated contracting state (EPC)

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DOCDB simple family (publication)

**US 2007186376 A1 20070816**; AT E432404 T1 20090615; BR PI0413636 A 20061017; CN 1839240 A 20060927; CN 1839240 B 20110810; DE 10339106 A1 20050317; DE 502004009534 D1 20090709; DK 1658413 T3 20090921; EP 1658413 A1 20060524; EP 1658413 B1 20090527; ES 2327236 T3 20091027; JP 2007503536 A 20070222; KR 20060058113 A 20060529; NO 20061108 L 20060308; RU 2006108862 A 20071020; WO 2005021912 A1 20050310

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**US 56905804 A 20040810**; AT 04763941 T 20040810; BR PI0413636 A 20040810; CN 200480024111 A 20040810; DE 10339106 A 20030822; DE 502004009534 T 20040810; DK 04763941 T 20040810; EP 04763941 A 20040810; EP 2004008921 W 20040810; ES 04763941 T 20040810; JP 2006523568 A 20040810; KR 20067003129 A 20060215; NO 20061108 A 20060308; RU 2006108862 A 20040810