

Title (en)  
A DAMPER MECHANISM

Title (de)  
DÄMPFERMECHANISMUS

Title (fr)  
MECANISME AMORTISSEUR

Publication  
**EP 1317599 A1 20030611 (EN)**

Application  
**EP 01970762 A 20010910**

Priority  
• JP 2000275249 A 20000911  
• US 0128307 W 20010910

Abstract (en)  
[origin: WO0223001A1] A damper mechanism installed on an opening and closing device that has an arcuate plunger with the same radius of curvature of the cylinder it slidably mates with. A torsion coil spring causes the sliding action of the plunger into the cylinder in one direction.

IPC 1-7  
**E05F 5/10**; **E05F 1/12**; **E05F 3/10**

IPC 8 full level  
**F16F 9/02** (2006.01); **E05F 1/12** (2006.01); **E05F 5/10** (2006.01); **F16F 9/32** (2006.01); **F16F 9/34** (2006.01); **E05D 11/06** (2006.01); **E05F 1/10** (2006.01); **E05F 3/10** (2006.01)

CPC (source: EP KR)  
**E05F 1/1215** (2013.01 - EP); **E05F 5/10** (2013.01 - EP KR); **E05D 11/06** (2013.01 - EP); **E05F 1/1016** (2013.01 - EP); **E05F 3/108** (2013.01 - EP)

Citation (search report)  
See references of WO 0223001A1

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**WO 0223001 A1 20020321**; AU 9073401 A 20020326; CN 1250859 C 20060412; CN 1455841 A 20031112; DE 60111547 D1 20050721; DE 60111547 T2 20060511; EP 1317599 A1 20030611; EP 1317599 B1 20050615; HK 1060167 A1 20040730; JP 2002106623 A 20020410; JP 4633901 B2 20110216; KR 100767564 B1 20071017; KR 20030033052 A 20030426

DOCDB simple family (application)  
**US 0128307 W 20010910**; AU 9073401 A 20010910; CN 01815476 A 20010910; DE 60111547 T 20010910; EP 01970762 A 20010910; HK 04103156 A 20040505; JP 2000275249 A 20000911; KR 20037003485 A 20030310