

Title (en)  
Hinge for household appliance door

Title (de)  
Scharnier für Haushaltsgeräte

Title (fr)  
Charnière pour appareils ménagers

Publication  
**EP 2011941 A1 20090107 (EN)**

Application  
**EP 07425408 A 20070705**

Priority  
EP 07425408 A 20070705

Abstract (en)  
A hinge for household appliance door includes a rotating plate (3) secured to the appliance structure through a rotation fulcrum (4), a door mounting bracket (5) connected to the plate (3) through an articulated lever system, and a spring (1) connected to the plate (3) so as to apply thereto a door closing torque, the connection between the spring (1) and the plate (3) being achieved through a connecting plate (16) provided with a first shaped slot (17) suitable to slidably receive a rear hooking pin (18) integral with the rotating plate (3), as well as a second shaped slot (19) suitable to slidably receive a forward hooking pin (2) integral with the rotating plate (3) at a position more to the front with respect to said rear hooking pin (18), the shape, size and position of said slots (17, 19) being such that in the initial door opening phase the rear hooking pin (18) abuts against the bottom of the first slot (17) and acts as connecting pin to transmit the force of the spring (1) to the plate (3) with a reduced arm (L'), and then the function of transmitting the force of the spring (1) is transferred from the rear hooking pin (18) to the forward hooking pin (2) that abuts against the bottom of the second slot (19) and acts with a much longer arm (L). In this way, the hinge is able to provide the required hold to the door at any opening angle without the need for a high strength spring (1), whereby the reliability of the hinge is increased and also the spring (1) mounting step is easier.

IPC 8 full level  
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CPC (source: EP)  
**E05D 3/16** (2013.01); **E05F 1/1276** (2013.01); **F24C 15/023** (2013.01); **E05Y 2201/626** (2013.01); **E05Y 2900/304** (2013.01); **E05Y 2900/308** (2013.01)

Citation (search report)  
• [A] EP 0859197 A2 19980819 - CMI SRL [IT]  
• [A] US 3712287 A 19730123 - SUMMERS F

Cited by  
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Designated extension state (EPC)  
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