

Title (en)  
DOOR-LOCK FOR HOUSEHOLD APPLIANCES, IN PARTICULAR WASHING MACHINES AND THE LIKE, WITH IMPROVED FORCE-REDUCING MECHANISM

Title (de)  
TÜRSCHLOSS FÜR HAUSHALTSGERÄTE, INSBESONDERE WASCHMASCHINEN UND DERGLEICHEN, MIT VERBESSERTEM KRAFTREDUZIERENDEM MECHANISMUS

Title (fr)  
SYSTÈME DE VERROUILLAGE POUR APPAREILS MÉNAGERS, EN PARTICULIER MACHINES À LAVER ET SIMILAIRES, AYANT UN MÉCANISME DE RÉDUCTION DE FORCE AMÉLIORÉ

Publication  
**EP 3775351 B1 20230503 (EN)**

Application  
**EP 19714295 A 20190325**

Priority  
• IT 201800004000 A 20180327  
• US 2019023856 W 20190325

Abstract (en)  
[origin: WO2019190975A1] Door-lock for household appliances, comprising: - a housing (16) having an opening for the insertion of a hook (24) carried by the door of the appliance, - a cam (20) rotatable relative to the housing (16) about a first axis (A) between a retaining position and a release position, wherein in the retaining position the cam (20) is adapted to lock said hook (24) in a closed-door position, a main slider (40) cooperating with said cam (20) and movable between a release position and a locking position, wherein in the release position the cam (20) is free to rotate around said first axis (A) and wherein in the locking position the main slider (40) locks the cam (20) in the retaining position, - a locking pin (44) adapted to lock the main slider (40) in the locking position, and ~ a force-reducing mechanism (46) arranged between the main slider (40) and the locking pin (44) and operating to reduce the locking force transferred from the main slider (40) to the locking pin (44), wherein the force-reducing mechanism (46) comprises a locking wheel (56) connected to said main slider (40) through a chain of gear wheels (52, 54, 58), and wherein said locking pin (44) cooperates with said locking wheel (56).

IPC 8 full level  
**D06F 37/42** (2006.01); **D06F 39/14** (2006.01); **E05B 47/00** (2006.01)

CPC (source: EP US)  
**D06F 37/42** (2013.01 - EP US); **E05B 47/0012** (2013.01 - EP); **E05C 3/24** (2013.01 - EP); **D06F 34/20** (2020.02 - EP US); **D06F 39/14** (2013.01 - EP US); **E05B 2047/002** (2013.01 - EP)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2019190975 A1 20191003**; CN 112272719 A 20210126; CN 112272719 B 20230901; EP 3775351 A1 20210217; EP 3775351 B1 20230503; IT 201800004000 A1 20190927; PL 3775351 T3 20230821

DOCDB simple family (application)  
**US 2019023856 W 20190325**; CN 201980021438 A 20190325; EP 19714295 A 20190325; IT 201800004000 A 20180327; PL 19714295 T 20190325