

Title (en)  
OPENING AND CLOSING SYSTEM HAVING AN EJECTION APPARATUS FOR AN ITEM OF FURNITURE, AND OPERATING METHOD FOR AN OPENING AND CLOSING SYSTEM

Title (de)  
ÖFFNUNGS- UND SCHLIESSSYSTEM MIT EINER AUSSTOSSVORRICHTUNG FÜR EIN MÖBEL UND BETRIEBSVERFAHREN FÜR EIN ÖFFNUNGS- UND SCHLIESSSYSTEM

Title (fr)  
SYSTÈME D'OUVERTURE ET DE FERMETURE COMPRENANT UN DISPOSITIF DE POUSSÉE POUR UN MEUBLE ET PROCÉDÉ DE FONCTIONNEMENT D'UN SYSTÈME D'OUVERTURE ET DE FERMETURE

Publication  
**EP 3532689 B1 20200708 (DE)**

Application  
**EP 17797554 A 20171026**

Priority  
• DE 102016120593 A 20161027  
• EP 2017077520 W 20171026

Abstract (en)  
[origin: WO2018078055A1] The invention relates to an opening and closing system for an item of furniture (1), which has at least one movable furniture part (4) and a movement fitting. The opening and closing system has an ejection apparatus (10) having a loadable mechanical force store and a loading device for loading the mechanical force store, wherein the loading device is supplied with energy from an electric energy store, and wherein the ejection apparatus (10) is configured to move the movable furniture part into a partly opened position when the mechanical force store is unlocked. The opening and closing system is characterized by the fact that the movement fitting has a retraction apparatus and a damping apparatus, which is provided to move the movable furniture part (4) from a further partly opened position, which lies within a predefined area of action, in a damped manner into a closed position, and in that the partly opened position of the movable furniture part (4) achieved by the ejection apparatus (10) lies within the predefined range of action of the retraction apparatus. The invention further relates to an operating method for such an opening and closing system.

IPC 8 full level  
**E05F 1/10** (2006.01); **E05F 1/12** (2006.01); **E05F 3/20** (2006.01); **E05F 15/79** (2015.01)

CPC (source: EP KR RU US)  
**E05F 1/105** (2013.01 - EP KR RU US); **E05F 3/108** (2013.01 - EP KR RU); **E05F 15/622** (2013.01 - EP KR RU US); **E05F 15/79** (2015.01 - EP KR RU US); **E05Y 2201/221** (2024.05 - EP); **E05Y 2201/426** (2013.01 - EP KR US); **E05Y 2201/686** (2013.01 - EP KR US); **E05Y 2400/612** (2013.01 - EP KR US); **E05Y 2900/20** (2013.01 - EP KR US)

Citation (opposition)  
Opponent : Dongtai Hardware Precision (Hong Kong) Limited  
• WO 2010009780 A1 20100128 - SALICE ARTURO SPA [IT], et al  
• WO 2008098267 A1 20080821 - BLUM GMBH JULIUS [AT], et al  
• EP 2186436 A1 20100519 - GRASS GMBH [AT]  
• DE 112007002274 T5 20091029 - THK CO LTD [JP]  
• WO 2008135315 A2 20081113 - HETTICH ONI GMBH & CO KG [DE], et al  
• AT 413933 B 20060715 - BLUM GMBH JULIUS [AT]  
• WO 2009021799 A1 20090219 - HETTICH ONI GMBH & CO KG [DE], et al  
• WO 2014118320 A1 20140807 - HETTICH ONI GMBH & CO KG [DE]  
• WO 03087512 A1 20031023 - BLUM GMBH JULIUS [AT], et al  
• WO 2015070267 A1 20150521 - BLUM GMBH JULIUS [AT]  
• WO 2004101919 A1 20041125 - BLUM GMBH JULIUS [AT], et al  
• EP 1989957 A1 20081112 - VAUTH SAGEL HOLDING GMBH & CO [DE]  
• WO 2014075882 A1 20140522 - LOGICDATA ELECT & SOFTWARE ENT [AT]  
• ANONYMOUS: "Vierquadrantensteller", WIKIPEDIA, 13 May 2016 (2016-05-13), pages 1 - 5, XP055802951

Cited by  
DE102021110323A1; WO2022157295A1

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 2018078055 A1 20180503**; AU 2017350490 A1 20190502; AU 2017350490 B2 20230615; BR 112019007841 A2 20191001; CA 3040591 A1 20180503; CN 109891043 A 20190614; CN 109891043 B 20220408; DE 102016120593 A1 20180503; EP 3532689 A1 20190904; EP 3532689 B1 20200708; ES 2820924 T3 20210422; JP 2019536924 A 20191219; KR 102494507 B1 20230131; KR 20190077024 A 20190702; PL 3532689 T3 20201228; RU 2019114864 A 20201127; RU 2019114864 A3 20201127; RU 2747256 C2 20210429; US 11085223 B2 20210810; US 2020056414 A1 20200220

DOCDB simple family (application)  
**EP 2017077520 W 20171026**; AU 2017350490 A 20171026; BR 112019007841 A 20171026; CA 3040591 A 20171026; CN 201780066534 A 20171026; DE 102016120593 A 20161027; EP 17797554 A 20171026; ES 17797554 T 20171026; JP 2019522791 A 20171026; KR 20197015151 A 20171026; PL 17797554 T 20171026; RU 2019114864 A 20171026; US 201716344438 A 20171026