

Title (en)

DOOR SUSPENSION APPARATUS AND DOOR APPARATUS EQUIPPED WITH THE SAME

Title (de)

TÜRAUFHÄNGUNG UND DAMIT AUSGERÜSTETE TÜRVORRICHTUNG

Title (fr)

APPAREIL DE SUSPENSION ET APPAREIL DE PORTE ÉQUIPÉ D'UN TEL APPAREIL DE SUSPENSION

Publication

**EP 2476848 A1 20120718 (EN)**

Application

**EP 10815263 A 20100825**

Priority

- JP 2009209591 A 20090910
- JP 2010064326 W 20100825

Abstract (en)

Disclosed is a door suspension apparatus that is capable of adjusting the position of a door in the opening and closing direction thereof without adjusting the positions of a locking portion and a locked portion of a locking device. A drive connection portion (21) is provided with one of a locking portion (17) and a locked portion (18) of a locking device (13) for locking a door (11) to a structure in a fully closed position through locking between the locking portion (17) and the locked portion (18), and is connected to an open-close drive mechanism (12). A door roller portion (22) is connected to the door (11) and provided with door rollers (36a, 36b, 36c) that travel on a rail (19) fixed in the structure, and that supports the door (11) in a state in which the door (11) is suspended to the rail (19) so as to be slidably moved. A variable connection portion (23) connects the drive connection portion (21) to the door roller portion (22) such that the relative position between the drive connection portion (21) and the door roller portion (22) along the lengthwise direction of the rail (19) can be changed

IPC 8 full level

**B61D 19/00** (2006.01); **E05B 83/04** (2014.01); **E05B 83/36** (2014.01); **E05D 15/06** (2006.01); **E05F 11/54** (2006.01)

CPC (source: EP US)

**B61D 19/02** (2013.01 - EP US); **E05B 65/0829** (2013.01 - EP US); **E05B 83/40** (2013.01 - EP US); **E05F 15/635** (2015.01 - EP); **E05F 15/643** (2015.01 - EP US); **E05F 15/652** (2015.01 - EP US); **E05B 77/00** (2013.01 - EP); **E05F 17/004** (2013.01 - EP); **E05Y 2201/22** (2013.01 - EP); **E05Y 2201/64** (2013.01 - EP); **E05Y 2201/654** (2013.01 - EP); **E05Y 2800/205** (2013.01 - EP); **E05Y 2900/51** (2013.01 - EP)

Cited by

US10035522B2; US9249609B2

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 SE SI SK SM TR

DOCDB simple family (publication)

**EP 2476848 A1 20120718**; **EP 2476848 A4 20170104**; **EP 2476848 B1 20181010**; CN 102482910 A 20120530; CN 102482910 B 20141210; JP 5373090 B2 20131218; JP WO2011030666 A1 20130207; TW 201115007 A 20110501; TW I418697 B 20131211; WO 2011030666 A1 20110317

DOCDB simple family (application)

**EP 10815263 A 20100825**; CN 201080039727 A 20100825; JP 2010064326 W 20100825; JP 2011530799 A 20100825; TW 99128416 A 20100825