

Title (en)  
DOOR OPENING-CLOSING DEVICE

Title (de)  
TÜRÖFFNUNGS- UND SCHLIESSVORRICHTUNG

Title (fr)  
DISPOSITIF D'OUVERTURE-FERMETURE DE PORTE

Publication  
[EP 4067610 B1 20230830 \(EN\)](#)

Application  
[EP 22153174 A 20220125](#)

Priority  
JP 2021062965 A 20210401

Abstract (en)  
[origin: EP4067610A1] A door opening-closing device in one embodiment of the invention includes: a reducer (31) with an output shaft (30) that outputs a rotational force; a drive pulley (33) with a drive shaft 33a that receives the rotational force of the output shaft (30) to move a door to open and close; a rod (62) coupled to a latch for unlocking the door; and a transmission mechanism (100) transmitting the output of the output shaft (30) to the rod (62) and the drive pulley (33). The transmission mechanism (100) includes: a female screw (101) that is rotatable about the output shaft (30) and coupled to the output shaft (30) such that it is movable in an axial direction along the output shaft (30); a male screw (102) coupled to the drive shaft (33a) such that it is rotatable about the drive shaft (33a); and a transmission member (103) transmits, to the rod (62), a forward movement force of the female screw (101) that receives the rotational force of the output shaft (30) while meshing with the male screw (102) to operate the latch (9) when the door (2) is in a fully close position.

IPC 8 full level  
[E05B 83/06](#) (2014.01); [E05F 15/646](#) (2015.01); [E05F 15/652](#) (2015.01); [E05F 15/655](#) (2015.01); [E05F 15/662](#) (2015.01); [E05D 15/10](#) (2006.01)

CPC (source: CN EP)  
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[E05F 15/652](#) (2015.01 - EP); [E05F 15/655](#) (2015.01 - EP); [E05F 15/662](#) (2015.01 - EP); [E05D 15/1068](#) (2013.01 - EP);  
[E05Y 2201/22](#) (2013.01 - EP); [E05Y 2201/24](#) (2013.01 - EP); [E05Y 2201/42](#) (2013.01 - EP); [E05Y 2900/51](#) (2013.01 - EP)

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DOCDB simple family (publication)  
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[EP 22153174 A 20220125](#); CN 202210060147 A 20220119; JP 2021062965 A 20210401