

Title (en)
OPENING AND CLOSING APPARATUS WITH LOCK

Title (de)
ÖFFNUNGS- UND VERSCHLUSSVORRICHTUNG MIT SPERRE

Title (fr)
APPAREIL D'OUVERTURE ET DE FERMETURE AVEC VERROU

Publication
EP 2079894 A1 20090722 (EN)

Application
EP 07831180 A 20071030

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Abstract (en)
[origin: WO2008056620A1] An object of the present invention is to provide an opening and closing apparatus with lock with a simple and compact arrangement that enables secure locking of slide- apart type sliding doors and enables opening and closing and closed locking of the sliding doors to be performed with a single actuator. An opening and closing apparatus with lock includes: a rack and pinion mechanism, for opening and closing a pair of slide-apart type sliding doors; an actuator, functioning as an opening/closing drive source; a locking mechanism enabling to lock the sliding doors in a fully closed position by constraining movements of locking members, fixed to the respective sliding doors; a switching mechanism for the locking mechanism; and a planetary gear mechanism, into which a driving force of the actuator is input and which is enabled to output the driving force to the pinion and to the switching mechanism. When the sliding doors are in the fully closed position, the driving force is output to the switching mechanism.

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Cited by
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