

Title (en)  
SLIDE RAIL STRUCTURE

Title (de)  
GLEITSCHIENENSTRUKTUR

Title (fr)  
STRUCTURE DE GLISSIÈRE

Publication  
**EP 2233040 A1 20100929 (EN)**

Application  
**EP 09703286 A 20090116**

Priority  
• CN 2009000061 W 20090116  
• CN 200820003089 U 20080118

Abstract (en)  
A rail assembly includes an outer rail, a middle rail, an inner rail, and a restoring unit. The outer rail has an outer rail space, the middle rail slides in the outer rail space, the inner rail slides in a middle rail space, and a receiving space is disposed at a bottom of the middle rail. The restoring unit is assembled on one end of the outer rail space, and includes: a fixing part, disposed in the outer rail space, such that one end of the outer rail is made into a closed end; a sliding track, disposed on one end of the fixing part and located in the outer rail space; a buckling track, disposed on the sliding track; a buckling slot, disposed on the buckling track; a moving part, sliding along the sliding track; a buckling part, disposed on the moving part; a guiding part, disposed on the inner rail and temporarily snapped with the buckling part; and at least one elastic part, disposed between the fixing part and the moving part. When the inner rail slides in the outer rail space, one end of the buckling part passes through the moving part and slides along the buckling track, and the other end of the buckling part is snapped with the guiding part disposed on the inner rail, such that the moving part is temporarily fixed on the sliding track. The sliding track is pivoted in the receiving space at the bottom of the middle rail. In this manner, the inner rail is not obstructed by the sliding track when sliding in the outer rail space. Through the open-type sliding track, the moving part slides in the outer rail space, thereby increasing a restoring stroke of the moving part and a sliding scope of the middle rail. Therefore, a length of the middle rail is increased, and two receiving slots in the outer rail space are respectively disposed on two sides of the fixing part and the moving part. Thus, when sliding in the outer rail space, the inner rail spans across the receiving slot and reaches the closed end of the outer rail, such that the length of the inner rail is the same as that of the outer rail, thereby increasing an overall telescoped length and a loading force of the rail assembly.

IPC 8 full level  
**A47B 88/16** (2006.01); **A47B 88/04** (2006.01); **A47B 88/493** (2017.01)

CPC (source: EP KR)  
**A47B 88/467** (2016.12 - EP KR)

Cited by  
CN103653891A; EP2839760A4; CN105640091A; US2018295990A1; US10398228B2

Designated contracting state (EPC)  
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 TR

Designated extension state (EPC)  
AL BA RS

DOCDB simple family (publication)  
**EP 2233040 A1 20100929; EP 2233040 A4 20120516**; AU 2009207980 A1 20090730; CN 101873815 A 20101027; CN 101873815 B 20120711; CN 201200128 Y 20090304; CN 201360740 Y 20091216; JP 2011505183 A 20110224; JP 5140736 B2 20130213; KR 20100087773 A 20100805; RU 2440015 C1 20120120; TR 201005576 T2 20100823; WO 2009092290 A1 20090730

DOCDB simple family (application)  
**EP 09703286 A 20090116**; AU 2009207980 A 20090116; CN 200820003089 U 20080118; CN 2009000061 W 20090116; CN 200920001247 U 20090116; CN 200980100596 A 20090116; JP 2010535201 A 20090116; KR 20107014934 A 20090116; RU 2010129285 A 20090116; TR 201005576 T 20090116