

Title (en)

RELEASABLE LOCKING MECHANISM

Title (de)

LÖSBARER VERRIEGELUNGSMECHANISMUS

Title (fr)

SYSTÈME DE FIXATION

Publication

EP 2313663 A2 20110427 (EN)

Application

EP 09741064 A 20090706

Priority

- US 2009049721 W 20090706
- US 16880908 A 20080707
- US 35866709 A 20090123

Abstract (en)

[origin: WO2010005911A2] Devices and methods based upon the concept of a split ring having certain multiple interior angles to engage a stem or post having annular ring(s) with angular geometries that are complimentary to those of the split ring. The disclosure provides designs for a wide range of insertion and desertion forces between latch engagement stems and latch engagement bodies. Changes to insertion contact angles and contact area on engagement stems and corresponding changes to insertion contact angles and engagement areas on engagement bodies can significantly modify insertion forces required to engage various devices. Similarly, changes in degrees of angle between desertion angles and contact areas on engagement stems with corresponding changes in desertion angles and contact areas on engagement bodies will significantly modify the total desertion forces required to disengage various devices. Accordingly, the instant latching mechanism provides insertion and desertion forces that can be controlled independently of each other.

IPC 8 full level

F16B 21/07 (2006.01); **A43C 15/16** (2006.01); **A44B 99/00** (2010.01); **B63B 35/79** (2006.01)

CPC (source: EP KR)

A43C 15/16 (2013.01 - KR); **A43C 15/161** (2013.01 - EP); **A63C 17/01** (2013.01 - EP); **A63C 17/017** (2013.01 - EP); **B63B 32/57** (2020.02 - EP);
B63B 32/66 (2020.02 - EP); **F16B 21/07** (2013.01 - KR)

Citation (search report)

See references of WO 2010005911A2

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 SM TR

DOCDB simple family (publication)

WO 2010005911 A2 20100114; **WO 2010005911 A3 20100826**; AU 2009268775 A1 20100114; BR PI0915658 A2 20170620;
CA 2729901 A1 20100114; CN 102144102 A 20110803; EP 2313663 A2 20110427; JP 2011527409 A 20111027; KR 20110048042 A 20110509

DOCDB simple family (application)

US 2009049721 W 20090706; AU 2009268775 A 20090706; BR PI0915658 A 20090706; CA 2729901 A 20090706;
CN 200980134603 A 20090706; EP 09741064 A 20090706; JP 2011517503 A 20090706; KR 20117002583 A 20090706