

Title (en)

Stepped door stop

Title (de)

Gestuftes Türstopper

Title (fr)

Dispositif d'arrêt de porte échelonné

Publication

EP 2808473 A1 20141203 (EN)

Application

EP 14151586 A 20140117

Priority

RO 201300405 A 20130527

Abstract (en)

The stepped door stop, as claimed by the present invention, comprise a progressive indexing rod (1) provided with a hole (a) at one end for fixing with a rivet (3) and at the other end with a bumping section (t) that is T-shaped in a horizontal plane, the progressive indexing rod being provided on two opposite faces with a channel (c) having a recess (b) for positioning during mounting, recesses (d1, d2,...,dn) for indexing during operation, a slide (2) with a relatively parallelepipedic shape, provided with an opening (f1), slots (f2) placed symmetrically towards the edges, a longitudinal cylindrical channel perpendicular to the axis of the opening (f1), said slide (2) also incorporating two heads of screws (10a) and (10b) that are positioned symmetrically for fixing to the door, two balls (4a) and (4b) for indexing, two compression springs (6a) and (6b) with progressive stiffness, two caps (8a) and (8b) provided with slots (8f) and (8f''), two U-shaped safety locks (7a) and (7b) and a fastening part (9) with an ovalized hole (o) for fixing with screws on the pillar, the progressive indexing rod (1) having a symmetric design, with progressive steps towards the bumping section (t), on two opposite sides, defining plane-parallel surfaces (s1), (s2) and (s3) containing channel (c) common to the surfaces and wherein the positioning recess (b) and indexing recesses (d1, d2, ..., dn) having a spherical or conical shape are machined.

IPC 8 full level

E05C 17/22 (2006.01)

CPC (source: EP RU)

E05C 17/203 (2013.01 - EP RU)

Citation (applicant)

- EP 0643184 B1 19971126 - FINGSCHEIDT GMBH FRIEDR [DE]
- FR 2852994 B1 20070413 - OXFORD AUTOMOTIVE MECANISMES E [FR]
- DE 10251174 A1 20040519 - EDSCHA AG [DE]
- US 2004251696 A1 20041216 - MURAYAMA YUJI [JP], et al
- US 2012233813 A1 20120920 - SETTSU YOSHIHARU [JP], et al
- US 7793387 B2 20100914 - CLARK STUART MALCOLM [AU]

Citation (search report)

- [YA] US 2004111832 A1 20040617 - MURAYAMA YUJI [JP], et al
- [YA] WO 2012131187 A1 20121004 - COUTIER MOULAGE GEN IND [FR], et al
- [AD] DE 10251174 A1 20040519 - EDSCHA AG [DE]
- [A] US 5173991 A 19921229 - CARSWELL DAVID [CA]
- [A] WO 2013057916 A1 20130425 - GESTAMP EDSCHA JAPAN CO LTD [JP]

Cited by

DE102019110910A1; DE102019110911A1; CN105840019A; CN110094124A; CN109577766A; CN106121407A; CN106703568A; CN110388146A; JP2019190085A; CN110094125A; CN110541636A; CN109209080A; CN109972940A; DE102019110911B4; DE102019110910B4; DE202016104014U1; TWI642836B; DE202019100594U1; WO2020156614A2

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 RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2808473 A1 20141203; EP 2808473 B1 20190717; RO 129003 A0 20131129; RO 129003 B1 20150828; RU 2014101706 A 20150727; RU 2671761 C2 20181106

DOCDB simple family (application)

EP 14151586 A 20140117; RO 201300405 A 20130527; RU 2014101706 A 20140122