

Title (en)

LOCKING STRUCTURE FOR EXTENSIONABLE LADDER

Title (de)

VERRIEGELUNGSSTRUKTUR FÜR EINE AUSZIEHBARE LEITER

Title (fr)

STRUCTURE DE VERROUILLAGE POUR UNE ÉCHELLE EXTENSIBLE

Publication

EP 2634360 A4 20141119 (EN)

Application

EP 11835433 A 20111011

Priority

- CN 201010524708 A 20101028
- CN 2011001700 W 20111011

Abstract (en)

[origin: EP2634360A1] A locking mechanism for an extending ladder, the extending ladder comprises a plurality of telescopically collapsible columns (1) and a plurality of rungs (2), the locking mechanism comprises: a connection sleeve (3) for connecting the column (1) with corresponding rung (2); a plug pin (4) disposed inside the connection sleeve (3); a push button (6) and an automatic unlocking switch (7). The automatic unlocking switch (7) is rotatably disposed, a plughole (31) is provided on the bottom surface of the connection sleeve (3), a pushing protrusion (32) is provided protruding upward on the top surface of the connection sleeve (3). The locking mechanism not only capable of unlocking the single column step by step, but also automatically unlocking the adjacent upper locking mechanism after a lower locking mechanism is unlocked.

IPC 8 full level

E06C 7/06 (2006.01); **E06C 1/12** (2006.01)

CPC (source: EP)

E06C 1/125 (2013.01); **E06C 7/06** (2013.01)

Citation (search report)

- [XY] GB 2436584 A 20071003 - NORMAN WILLIAM LIEFKE [CA], et al
- [Y] WO 2008064532 A1 20080605 - WANG WANXING [CN]
- [Y] US 2006283664 A1 20061221 - YAO KUO-CHING [TW]
- [Y] WO 2010034135 A1 20100401 - KUO CHINGYAO [CN], et al & EP 2343433 A1 20110713 - KUO CHINGYAO [CN]
- [Y] CN 201212352 Y 20090325 - JINGYAO GUO [CN]
- See references of WO 2012055159A1

Cited by

EP3211174A1; US2019055783A1; US10995547B2; WO2017151558A1; WO2016028147A2; US10161184B2; EP3581754A1

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

DOCDB simple family (publication)

EP 2634360 A1 20130904; EP 2634360 A4 20141119; CN 102003136 A 20110406; CN 102003136 B 20120912; WO 2012055159 A1 20120503

DOCDB simple family (application)

EP 11835433 A 20111011; CN 201010524708 A 20101028; CN 2011001700 W 20111011