

Title (en)  
CLEANING TOOL

Title (de)  
REINIGUNGSWERKZEUG

Title (fr)  
OUTIL DE NETTOYAGE

Publication  
**EP 3127465 A4 20180228 (EN)**

Application  
**EP 14836992 A 20140404**

Priority  
JP 2014060038 W 20140404

Abstract (en)

[origin: EP3127465A1] In a cleaner, a first end portion of a core member is supported by a first end support portion of a body member such that the core member is movable relative to the body member with the first end portion serving as an operating point. A recessed portion is provided in one of a second end portion of the core member and a second end support portion of the body member, and a protruding portion that fits into the recessed portion is provided on the other portion. The motion of the core member is restricted by protrusion/recess fit between the recessed portion and the protruding portion and is allowed in a state in which the protrusion/recess fit is released. At least one of the core member and the body member includes a converting portion that converts, when the core member is moved against the restriction to release the protrusion/recess fit, at least part of a force that produces the motion into a force that moves at least one of the recessed portion and the protruding portion in such a way that at least the one of the recessed portion and the protruding portion separates from the other to release the protrusion/recess fit.

IPC 8 full level  
**A47L 25/00** (2006.01)

CPC (source: EP KR)  
**A47L 13/10** (2013.01 - KR); **A47L 25/005** (2013.01 - EP KR); **B08B 7/0028** (2013.01 - KR)

Citation (search report)

- [A] KR 20120115008 A 20121017 - LIVINGHUE CO LTD [KR], et al
- [A] US 2004052570 A1 20040318 - MCKAY WILLIAM D [US]
- [A] JP 2013078483 A 20130502 - KEY TRANDING CO LTD
- See references of WO 2015151295A1

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 3127465 A1 20170208**; **EP 3127465 A4 20180228**; CN 105283113 A 20160127; CN 105283113 B 20191015;  
JP WO2015151295 A1 20170413; KR 20160140335 A 20161207; WO 2015151295 A1 20151008

DOCDB simple family (application)

**EP 14836992 A 20140404**; CN 201480002071 A 20140404; JP 2014060038 W 20140404; JP 2014557271 A 20140404;  
KR 20157028830 A 20140404