

Title (en)  
HAND-HELD CLEANING AND CARE DEVICE

Title (de)  
HANDGEFÜHRTES REINIGUNGS- UND PFLEGEGERÄT

Title (fr)  
APPAREIL DE SOINS ET DE NETTOYAGE MANUEL

Publication  
**EP 3287061 A3 20180808 (DE)**

Application  
**EP 17184472 A 20170802**

Priority  
DE 102016215954 A 20160825

Abstract (en)  
[origin: CN107569191A] The invention relates to a handheld cleaning and maintaining device, which is used for floor surface and preferably used for ceramic floor or wooden floor surface. The device comprises a motor housing which accommodates at least one motor and at least one driving shaft driven by the motor. The cleaning and maintaining device comprises a roller driven by the driving shaft, and the roller is a roller brush having a roller surface. The invention is characterized in that the roller brush is set at a single side; the motor housing is provided with a support rod along the axis (A) for manually guiding, wherein the support rod is designed to rotate around the axis (A). Preferably speaking, when rotating the support rod, the rotation direction of the motor can be changed.

IPC 8 full level  
**A47L 13/10** (2006.01); **A46B 13/00** (2006.01); **A47L 11/282** (2006.01); **A47L 11/40** (2006.01); **A47L 13/12** (2006.01)

CPC (source: CN EP)  
**A46B 13/001** (2013.01 - CN EP); **A47L 11/282** (2013.01 - CN EP); **A47L 11/4002** (2013.01 - CN EP); **A47L 11/4041** (2013.01 - CN EP); **A47L 11/4063** (2013.01 - CN EP); **A47L 13/10** (2013.01 - CN EP); **A47L 13/12** (2013.01 - CN EP)

Citation (search report)  
• [XDA] US 8122554 B2 20120228 - SCHEMMEL RYAN A [US], et al  
• [A] US 1973915 A 19340918 - STANLEY STINSMAN EDGAR  
• [A] US 8347443 B1 20130108 - CONRAD FRED E [US]  
• [A] WO 2013106762 A2 20130718 - KENT RES CORP [US]  
• [XDA] DE 102014010692 A1 20160121 - KRESS MARKUS [DE]  
• [XA] WO 2016008763 A2 20160121 - KRESS MARKUS [DE]

Cited by  
CN112587051A; CN114343472A; CN108577695A; CN112353316A; US2022087496A1; US11730330B2; US11345010B2

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)  
**DE 102016215954 B3 20180104**; CN 107569191 A 20180112; CN 107569191 B 20181002; CN 109077437 A 20181225; CN 109077437 B 20201106; DE 202017005976 U1 20171212; EP 3287061 A2 20180228; EP 3287061 A3 20180808; EP 3287061 B1 20200401

DOCDB simple family (application)  
**DE 102016215954 A 20160825**; CN 201710741417 A 20170825; CN 201810972733 A 20170825; DE 202017005976 U 20170802; EP 17184472 A 20170802