

Title (en)

UPRIGHT TYPE FLOOR TREATMENT DEVICE

Title (de)

SENKRECHTE BODENBEARBEITUNGSVORRICHTUNG

Title (fr)

DISPOSITIF DE TRAITEMENT DE SOL DE TYPE VERTICAL

Publication

**EP 2581016 A4 20170906 (EN)**

Application

**EP 11795362 A 20110601**

Priority

- JP 2010134741 A 20100614
- JP 2011003088 W 20110601

Abstract (en)

[origin: EP2581016A1] In a vacuum cleaner (10A) which is an example of an upright floor surface treating apparatus, a suction nozzle (13) is provided forward relative to a lower portion of a body section such that an angle of a lower surface (Su) is changed, and a handle (14) is attached to an upper portion of the body section. A steering wheel (15) which determines a movement direction (M) is provided relative to the lower portion of the body section, and the handle (14) and the steering wheel (15) are coupled together by means of a steering coupling section including a handle shaft (16), a steering wheel adjustment shaft (161) and a rotation transmission section. In this configuration, without using a complicated configuration, a direction of the suction nozzle (13) can be easily changed without moving the entire body section.

IPC 8 full level

**A47L 9/00** (2006.01); **A47L 5/28** (2006.01); **A47L 5/36** (2006.01); **A47L 9/28** (2006.01); **A47L 9/32** (2006.01)

CPC (source: EP US)

**A47L 5/00** (2013.01 - US); **A47L 5/28** (2013.01 - EP US); **A47L 5/30** (2013.01 - EP US); **A47L 5/32** (2013.01 - EP US);  
**A47L 5/365** (2013.01 - EP); **A47L 9/009** (2013.01 - EP US); **A47L 9/2852** (2013.01 - EP); **A47L 9/325** (2013.01 - EP US)

Citation (search report)

- [A] US 2009056065 A1 20090305 - FINKE CHRISTIAN [DE]
- [A] JP S569345 U 19810127
- [A] JP S62151834 U 19870926
- See references of WO 2011158454A1

Cited by

CN110438924A; EP3056127A1; EP2995233A1; CN105411485A

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 2581016 A1 20130417; EP 2581016 A4 20170906;** CA 2802508 A1 20111222; CN 102939037 A 20130220; JP 2012000121 A 20120105;  
US 2013086768 A1 20130411; WO 2011158454 A1 20111222

DOCDB simple family (application)

**EP 11795362 A 20110601;** CA 2802508 A 20110601; CN 201180029597 A 20110601; JP 2010134741 A 20100614;  
JP 2011003088 W 20110601; US 201113703305 A 20110601