

Title (en)

CLEANING DEVICE AND METHOD FOR CLEANING ITEMS

Title (de)

REINIGUNGSVORRICHTUNG UND VERFAHREN ZUM REINIGEN VON REINIGUNGSGUT

Title (fr)

DISPOSITIF DE NETTOYAGE ET PROCÉDÉ DE NETTOYAGE DES PRODUITS À NETTOYER

Publication

**EP 3753468 B1 20220119 (DE)**

Application

**EP 20173746 A 20170330**

Priority

- DE 102016205367 A 20160331
- EP 17714452 A 20170330
- EP 2017057540 W 20170330

Abstract (en)

[origin: WO2017167874A1] The invention relates to a cleaning apparatus (110) for cleaning articles (124). The cleaning apparatus (110) comprises at least one cleaning chamber (128) and at least one covering device (134), which encloses the cleaning chamber (128) at least in part. The covering device (134) can be moved by means of at least one electromechanical drive (186), via at least one gear mechanism (184), in an opening-movement direction (139) from a closed position (135) into an open position (137) or in a closing-movement direction (141) from an open position (137) into a closed position (135). The cleaning apparatus (110) also has a sensor (202), which is designed to detect manual force applied to the covering device (134) in the opening-movement direction (139) or in the closing-movement direction (141). The cleaning apparatus (110) is also designed to activate the electromechanical drive (186) in accordance with the detection of the manual force applied.

IPC 8 full level

**A47L 15/00** (2006.01); **A47L 15/16** (2006.01); **A47L 15/24** (2006.01); **A47L 15/42** (2006.01); **A47L 15/46** (2006.01)

CPC (source: EP US)

**A47L 15/0081** (2013.01 - EP US); **A47L 15/4259** (2013.01 - EP US); **A47L 15/4261** (2013.01 - EP US); **A47L 15/241** (2013.01 - EP US); **A47L 15/46** (2013.01 - EP US); **A47L 2401/26** (2013.01 - EP US); **A47L 2401/30** (2013.01 - EP US); **A47L 2401/32** (2013.01 - EP US); **A47L 2401/34** (2013.01 - EP US); **A47L 2501/22** (2013.01 - EP US); **A47L 2501/26** (2013.01 - EP US); **A47L 2501/28** (2013.01 - EP US)

Citation (opposition)

Opponent : Winterhalter Gastronom GmbH

- JP 2013027630 A 20130207 - HOSHIZAKI ELECTRIC CO LTD
- JP 2005124800 A 20050519 - TOSHIBA CORP, et al
- DE 102007003451 A1 20080814 - STIEFEL GMBH [DE]
- WO 2016156146 A1 20161006 - MEIKO MASCHINENBAU GMBH & CO [DE]
- WO 2007143998 A1 20071221 - LINAK AS [DK], et al
- EP 1125885 A2 20010822 - MEYERDIERKS HELMUT [DE]
- DE 102011002950 A1 20120726 - BSH BOSCH SIEMENS HAUSGERAETE [DE]
- EP 0078982 A1 19830518 - BOSCH GMBH ROBERT [DE]
- US 2014173988 A1 20140626 - BOCHEN MARIAN [DE], et al
- US 2006082188 A1 20060420 - MITCHELL STEPHEN A G [CA]
- EP 1767439 A2 20070328 - STABILUS GMBH [DE]
- US 2003030299 A1 20030213 - CLELAND TERRY P [CA], et al
- US 2005155289 A1 20050721 - OBERHEIDE G C [US]
- DE 19514303 A1 19961031 - MIELE & CIE [DE]
- DE 102014107544 A1 20151203 - MIELE & CIE [DE]

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)

**WO 2017167874 A1 20171005**; CN 107635449 A 20180126; CN 107635449 B 20211001; DE 102016205367 A1 20171005; EP 3324811 A1 20180530; EP 3324811 B1 20200527; EP 3753468 A1 20201223; EP 3753468 B1 20220119; ES 2812832 T3 20210318; ES 2909786 T3 20220510; HK 1245045 A1 20180824; PL 3324811 T3 20201116; PL 3753468 T3 20220523; US 10617277 B2 20200414; US 11253132 B2 20220222; US 2018055329 A1 20180301; US 2020196828 A1 20200625

DOCDB simple family (application)

**EP 2017057540 W 20170330**; CN 201780001589 A 20170330; DE 102016205367 A 20160331; EP 17714452 A 20170330; EP 20173746 A 20170330; ES 17714452 T 20170330; ES 20173746 T 20170330; HK 18104618 A 20180409; PL 17714452 T 20170330; PL 20173746 T 20170330; US 201715797785 A 20171030; US 202016808027 A 20200303