

Title (en)
CLEANER

Title (de)
REINIGUNGSVORRICHTUNG

Title (fr)
DISPOSITIF DE NETTOYAGE

Publication
EP 2277428 A4 20120905 (EN)

Application
EP 09728353 A 20090330

Priority
• JP 2009056518 W 20090330
• JP 2008090856 A 20080331

Abstract (en)
[origin: EP2277428A1] It is an object of the invention to provide an effective technique for enhancing a cleaning effect in a cleaning tool having a cleaning element for cleaning an object to be cleaned. According to a representative cleaning tool, a cleaning element 110 includes a plurality of elongate split cleaning parts 123, 123 having respective insert regions 115 for receiving the holding elements 142. In an inserted state of the holding elements 142 into the insert regions 115, the fiber assemblies 117 of the adjacent ones of the split cleaning parts 123, 123 overlap each other in the space in a direction transverse to the longitudinal direction.

IPC 8 full level
A47L 13/20 (2006.01); **A47L 13/16** (2006.01); **A47L 13/256** (2006.01)

CPC (source: EP US)
A47L 13/16 (2013.01 - EP US); **A47L 13/38** (2013.01 - EP US); **A47L 13/46** (2013.01 - EP US); **D04H 1/544** (2013.01 - EP US)

Citation (search report)
• [A] JP 2007209460 A 20070823 - UNI CHARM CORP
• [A] EP 1723885 A1 20061122 - YAMADA CHIYOE [JP]
• [A] JP H11298 A 19990106 - LION CORP
• See references of WO 2009123128A1

Designated contracting state (EPC)
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 SE SI SK TR

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
EP 2277428 A1 20110126; EP 2277428 A4 20120905; CN 101980648 A 20110223; CN 101980648 B 20130612; JP 2009240536 A 20091022; JP 5171347 B2 20130327; TW 201012428 A 20100401; US 2011119852 A1 20110526; WO 2009123128 A1 20091008

DOCDB simple family (application)
EP 09728353 A 20090330; CN 200980111202 A 20090330; JP 2008090856 A 20080331; JP 2009056518 W 20090330; TW 98110448 A 20090330; US 93501109 A 20090330