

Title (en)  
Vacuum cleaner with a connection element

Title (de)  
Staubsauger mit einem Verbindungselement

Title (fr)  
Aspirateur doté d'un élément de liaison

Publication  
**EP 2233054 A3 20130515 (DE)**

Application  
**EP 10154610 A 20100225**

Priority  
DE 102009001881 A 20090326

Abstract (en)  
[origin: EP2233054A2] The cleaner has a connection element (2) comprising two pipe sections (3, 4), which are connected together by pivoted joints and an air guide i.e. hose (8). The element comprises a return device i.e. flexibly deformable element, which exerts return force on the joints in a position outside a preferred position of the joints. The joints consist of two joint parts (5, 6), and a universal joint section (7) connects the joint parts. One of the pipe sections is connected with one of the joint parts, and another one of the pipe sections is connected with another one of the joint parts.

IPC 8 full level  
**A47L 9/24** (2006.01)

CPC (source: EP)  
**A47L 9/242** (2013.01)

Citation (search report)

- [X] DE 202008011853 U1 20090205 - JANSEN THOMAS [DE]
- [X] SE 104383 C1 19420428 - FISKER & NIELSEN AS
- [X] NL 60085 C 19470815
- [AD] DE 19907051 A1 20000824 - BSH BOSCH SIEMENS HAUSGERAETE [DE]
- [AD] DE 10017705 C2 20020314 - WESSEL WERK GMBH [DE]

Cited by  
CN107456155A; CN105690200A; FR3039055A1; CN107847092A; KR20180033246A; WO2017017365A1

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 SM TR

Designated extension state (EPC)  
AL BA RS

DOCDB simple family (publication)  
**EP 2233054 A2 20100929; EP 2233054 A3 20130515; EP 2233054 B1 20150429**; DE 102009001881 A1 20100930

DOCDB simple family (application)  
**EP 10154610 A 20100225**; DE 102009001881 A 20090326