

Title (en)  
DEVICE FOR DETERMINING THE FRICTION LEVEL BETWEEN A BROOMSTICK OF A VACUUM CLEANER AND THE SURFACE TO BE CLEANED

Title (de)  
VORRICHTUNG ZUR MESSUNG DES REIBUNGSNIVEAUS ZWISCHEN EINER SAUGDÜSE EINES STAUBSAUGERS UND DER REINIGUNGSFLÄCHE

Title (fr)  
DISPOSITIF POUR DÉTERMINER FROTTEMENT ENTRE UN SUCEUR D'ASPIRATEUR ET LA SURFACE À NETTOYER

Publication  
**EP 3622869 A1 20200318 (EN)**

Application  
**EP 18193993 A 20180912**

Priority  
EP 18193993 A 20180912

Abstract (en)  
An arrangement (1) for a vacuum cleaner (19) comprising a broomstick (20), the arrangement (1) comprising a friction detection unit (2) adapted to sense at least one of a friction force (3) between the broomstick (20) and a cleaning surface (21) to be cleaned using broomstick (20), or a pressure value (4) to detect pressure applied due to at least one contact between the cleaning surface (21) and the broomstick (20), or due to a movement of the broomstick (20) onto the cleaning surface (21), or a combination thereof, or a heat value (5) representative of heat generated while the broomstick (20) is in contact with the cleaning surface (21), or a temperature value (6) representative of temperature around an environment of the broomstick (20) and the cleaning surface (21) to be cleaned using broomstick (20), or a combination thereof. The arrangement (1) further comprising a primary processing unit (7) adapted to receive and process the friction force (3) or the heat value (5), or the temperature value (6), or the pressure value (4), or a combination thereof, and to identify a friction level (8) of the cleaning surface (21).

IPC 8 full level  
**A47L 5/36** (2006.01); **A47L 9/02** (2006.01); **A47L 9/28** (2006.01)

CPC (source: EP)  
**A47L 5/36** (2013.01); **A47L 9/02** (2013.01); **A47L 9/2805** (2013.01); **A47L 9/2821** (2013.01); **A47L 9/2826** (2013.01); **A47L 9/2842** (2013.01)

Citation (applicant)  
• JP 2015188490 A 20151102 - MITSUBISHI ELECTRIC CORP, et al  
• JP H06169872 A 19940621 - SHARP KK  
• JP S648941 A 19890112 - TOSHIBA CORP, et al

Citation (search report)  
• [X] DE 102004014252 A1 20050630 - VORWERK CO INTERHOLDING [DE]  
• [X] DE 102007057589 A1 20090604 - BSH BOSCH SIEMENS HAUSGERÄTE [DE], et al  
• [X] DE 102014116978 A1 20160525 - VORWERK & CO INTERHOLDING GES MIT BESCHRÄNKTER HAFTUNG [DE]  
• [X] DE 102016118248 A1 20170504 - VORWERK CO INTERHOLDING [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

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3622869 A1 20200318; EP 3622869 B1 20230816**

DOCDB simple family (application)  
**EP 18193993 A 20180912**