



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
05.08.2009 Bulletin 2009/32

(51) Int Cl.:
A47L 9/16 (2006.01) B04C 5/26 (2006.01)

(43) Date of publication A2:
05.07.2006 Bulletin 2006/27

(21) Application number: **05110344.8**

(22) Date of filing: **04.11.2005**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR
Designated Extension States:
AL BA HR MK YU

(30) Priority: **04.01.2005 KR 2005000445**

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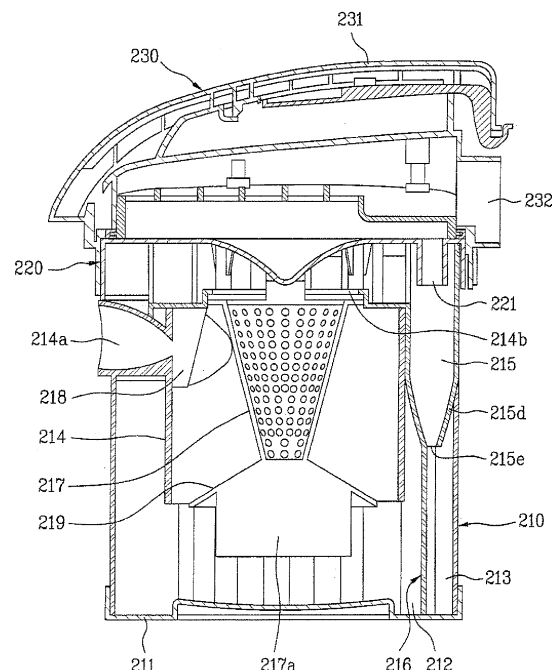
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(54) **Apparatus for collecting dust and vacuum cleaner having the same**

(57) An apparatus for collecting dust and vacuum cleaner having the same are disclosed, by which dust collecting performance is enhanced. The present invention includes a primary cyclone dust collecting part (212,214) performing centrifugal separation to collect the dust included in an air introduced via a first inlet (214a) provided to an outer circumference of the primary cyclone dust collecting part (212,214), an exhaust member (217) provided within the primary cyclone dust collecting part (212,214) wherein a multitude of perforated holes are provided to a lateral side of the exhaust member (217) to communicate with a first outlet (214b) of the primary cyclone dust collecting part (212,214), and a guide rib (218) provided to the primary cyclone dust collecting part (212,214) guiding the air introduced into the first inlet (214a) in a direction tangential to an inner wall of the primary cyclone dust collecting part (212,214) to prevent the air from being directly introduced into the exhaust member (217), the guide rib (218) making a prescribed angle with a tangential line at a point connected to the primary cyclone dust collecting part (212,214).

FIG. 4





EUROPEAN SEARCH REPORT

Application Number
EP 05 11 0344

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	DE 27 38 850 A1 (HILTI AG) 15 March 1979 (1979-03-15) * pages 5-6; figures * -----	1-3,5-8, 10	INV. A47L9/16 B04C5/26
X	WO 99/19045 A (MIRACLE MARKETING CORP [US]) 22 April 1999 (1999-04-22) * pages 7-11; figures 3-8 * -----	1,2,5-10	
X	DE 19 08 303 U (SIEMENS ELEKTROGERAETE GMBH [DE]) 14 January 1965 (1965-01-14) * pages 1-2; figures * -----	1,5-8,10	
X	GB 2 380 956 A (SAMSUNG KWANGJU ELECTRONICS CO [KR]) 23 April 2003 (2003-04-23) * page 4, last line - page 8, line 1; figures * -----	1-3,5-8, 10	
X	US 3 174 264 A (WILLIAM MCKNAB VAN) 23 March 1965 (1965-03-23) * column 3, line 50 - column 4, line 17 * -----	1,2,5-8, 10	TECHNICAL FIELDS SEARCHED (IPC)
X	JP 2003 180582 A (SANYO ELECTRIC CO) 2 July 2003 (2003-07-02) * abstract; claim 2; figures * -----	1,10	A47L B04C
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 17 June 2009	Examiner Lopez Vega, Javier
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 05 11 0344

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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17-06-2009

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DE 2738850	A1	15-03-1979	NONE	
WO 9919045	A	22-04-1999	NONE	
DE 1908303	U	14-01-1965	NONE	
GB 2380956	A	23-04-2003	AU 9744901 A	20-03-2003
			CA 2388144 A1	13-03-2003
			KR 20030023242 A	19-03-2003
			US 2003046910 A1	13-03-2003
US 3174264	A	23-03-1965	NONE	
JP 2003180582	A	02-07-2003	NONE	