



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
04.06.2008 Bulletin 2008/23

(51) Int Cl.:
A47L 9/16 (2006.01) A47L 9/10 (2006.01)

(43) Date of publication A2:
15.09.2004 Bulletin 2004/38

(21) Application number: **04005919.8**

(22) Date of filing: **12.03.2004**

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

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(30) Priority: **12.03.2003 JP 2003066465**
26.03.2003 JP 2003085054

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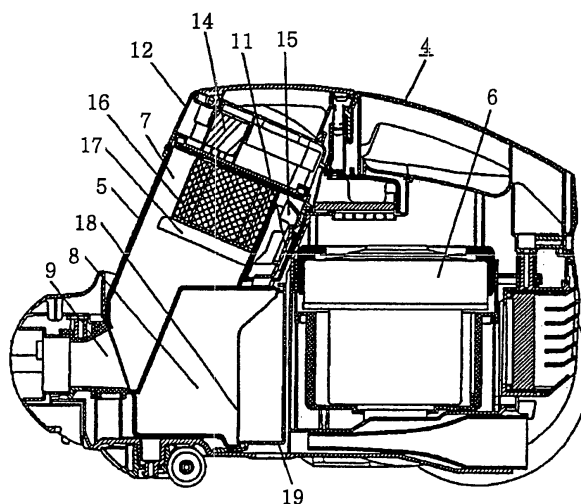
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(54) **Vacuum cleaner**

(57) A vacuum cleaner of the present invention includes an electric blower for generating a suction air stream; a plurality of centrifugal separation parts for separating dirt particles from the suction air stream; and an air inlet installed upstream of the centrifugal separation parts. The suction air stream suctioned in the air inlet is

divided in plural streams to flow into the respective centrifugal separation parts. By installing the multiple centrifugal separation parts, dirt collecting capability can be improved and, at the same time, a size of the vacuum cleaner can be scaled down in comparison with a case where a single large centrifugal separation part having equal dirt collecting capability is installed.

FIG. 1





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EUROPEAN SEARCH REPORT

Application Number
EP 04 00 5919

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	WO 00/49933 A (LG ELECTRONICS INC [KR]; AN HYEOK SEONG [KR]; LIM KYEONG SEOK [KR]; KW) 31 August 2000 (2000-08-31) * page 14, line 7 - page 15, line 6; figures 5,6,12,13 * * page 6, line 14 - page 10, line 6 *	1-3	INV. A47L9/16 A47L9/10
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A	GB 2 368 005 A (SAMSUNG KWANGJU ELECTRONICS CO [KR]) 24 April 2002 (2002-04-24) * claim 1; figure 2 *	3-6	
A	US 2002/011050 A1 (HANSEN SAMUEL N [US] ET AL) 31 January 2002 (2002-01-31) * claim 1; figure 13a *	3,4,6	
A	EP 1 181 886 A (LG ELECTRONICS INC [KR]) 27 February 2002 (2002-02-27) * claim 1; figure 7 *	3-6	TECHNICAL FIELDS SEARCHED (IPC) A47L
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 8 February 2008	Examiner Bichi, Marco
CATEGORY OF CITED DOCUMENTS 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 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			

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EPO FORM 1503 03.82 (P04C01)



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Application Number

EP 04 00 5919

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-6

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-6

A vacuum cleaner comprising:

an electric blower for generating a suction air stream;
a plurality of centrifugal separation parts for separating dirt particles from the suction air stream; and
an air inlet installed upstream of the centrifugal separation parts, wherein the suction air stream suctioned in the air inlet is divided in plural streams to flow into the respective centrifugal separation parts.

2. claims: 7-14

A vacuum cleaner comprising:

an electric blower for generating a suction air stream;
a centrifugal separation part for separating dirt particles from the suction air stream; and a dirt accumulation part for accumulating therein dirt particles separated from the suction air stream by the centrifugal separation part, wherein the dirt accumulation part is installed slanted at an angle with respect to the centrifugal separation part.

3. claims: 15-19

A vacuum cleaner comprising:

a main body including therein an electric blower for generating a suction air stream;
a dirt collection unit detachably installed in the main body, for collecting suctioned dirt particles;
a grip unit rotatably installed at the dirt collection unit; and
a buckle for connecting the dirt collection unit with the main body, wherein connecting and disconnecting operations of the buckle are performed by a rotational movement of the grip unit.

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

EP 04 00 5919

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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08-02-2008

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