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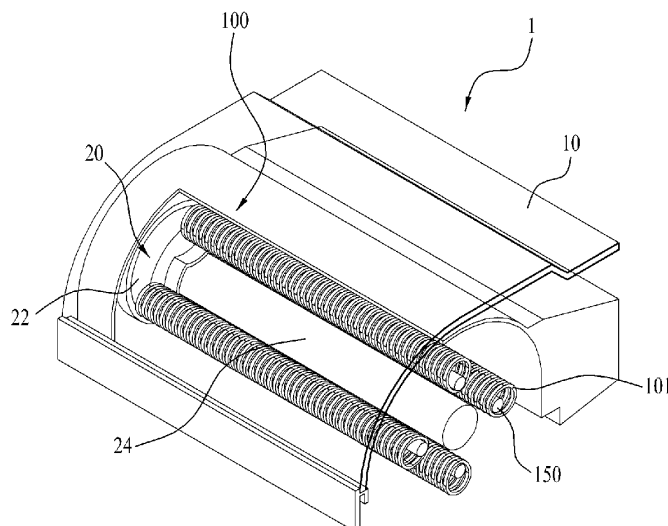
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(54) **Vacuum cleaner and suction nozzle for vacuum cleaner**

(57) Disclosed is a suction nozzle for a vacuum cleaner, which includes a hitting member to come into contact with a plane to be cleaned, enabling more efficient cleaning of the plane. The suction nozzle includes a suction nozzle housing (10), an agitator (20) rotatably

equipped in the suction nozzle housing, a motor connected to the agitator so as to rotate the agitator, and a hitting member (100) movably coupled to the agitator, the hitting member being adapted to come into contact with a plane (C) to be cleaned during operation of the agitator.

**FIG. 2**





## EUROPEAN SEARCH REPORT

Application Number  
EP 13 16 2000

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 491 699 C (DIPL.-ING. ERNST CLAASEN IN SCHWEDT A.O.) 14 February 1930 (1930-02-14) * the whole document *	1-5, 7-10,15	INV. A47L9/04
X	GB 326 734 A (HOOVER CO) 20 March 1930 (1930-03-20) * the whole document *	1-6,8, 10,15	
X	US 3 006 022 A (MAMONTOV VLADIMIR A) 31 October 1961 (1961-10-31) * the whole document *	1-6,15	
			TECHNICAL FIELDS SEARCHED (IPC)
			A47L
<p><del>The present search report has been drawn up for all claims</del></p>			
Place of search		Date of completion of the search	Examiner
Munich		21 October 2014	Masset, Markus
<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 &amp; : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03.82 (P04C01)



Application Number

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**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due 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 those claims for which no payment was due.

**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:

1-10(completely); 15(partially)

☐ 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).



**LACK OF UNITY OF INVENTION  
SHEET B**

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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: 1-10(completely); 15(partially)

hitting member

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2. claims: 11-14(completely); 15(partially)

brush

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

EP 13 16 2000

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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21-10-2014

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 491699	C	14-02-1930	NONE
GB 326734	A	20-03-1930	NONE
US 3006022	A	31-10-1961	NONE

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82