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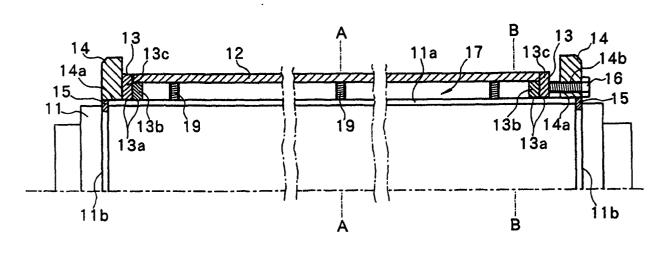
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(54) Rotary roll brush

(57) The present invention provides a rotary roll brush in which an expensive key-attached shaft for forming a disc type rotary roll brush can properly be utilized as a shaft for a channel type rotary roll brush, which is inexpensive and which can easily cope with difference in diameter between a shaft for the disc type rotary roll brush and a shaft for the channel type rotary roll brush.

The rotary roll brush includes a drum 12 having a larger diameter than the key-attached shaft 11 which drum 12 is externally inserted in the key-attached shaft 11 such that the drum 12 can be inserted in and removed from the key-attached shaft 11, and a channel type brush 7 wound around the outer peripheral surface of the drum 12.

FIG.3





EUROPEAN SEARCH REPORT

Application Number EP 02 25 5454

	DOCUMENTS CONSID	ERED TO BE RELEVANT		
Category	Citation of document with ir of relevant passa	dication, where appropriate, ges	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)
X	9 October 1962 (196	2-10-09) - column 5, line 34;	1-4	B24D13/10
A	GB 657 749 A (OSBOR 26 September 1951 (* page 5, line 14-5	1951-09-26)	4	
X	23 May 1944 (1944-0		1-3	
A	US 3 289 234 A (NEL 6 December 1966 (19	SON BROOKS E) 66-12-06)		
				TECHNICAL FIELDS SEARCHED (Int.Cl.7)
				B24D A46B
	The present search report has I	peen drawn up for all claims		
	Place of search	Date of completion of the search		Examiner
MUNICH		22 August 2003	Ko1	ler, S
X:part Y:part docu	ATEGORY OF CITED DOCUMENTS icularly relevant if taken atone icularly relevant if combined with anotherent of the same category inclogical background	T: theory or principle u E: earlier patent documenter the filing date in D: document cited for the country of t	underlying the iment, but public the application other reasons	nvention

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

EP 02 25 5454

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 The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

22-08-2003

Patent docu cited in searc	ment 1 report	Publication date		Patent family member(s)	Publication date
US 3056986	Α	09-10-1962	NONE		•
GB 657749	A	26-09-1951	NONE		
US 2349643	A	23-05-1944	NONE		
US 3289234	Α	06-12-1966	DE GB	1457040 A1 1035758 A	05-12-1968 13-07-1966

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