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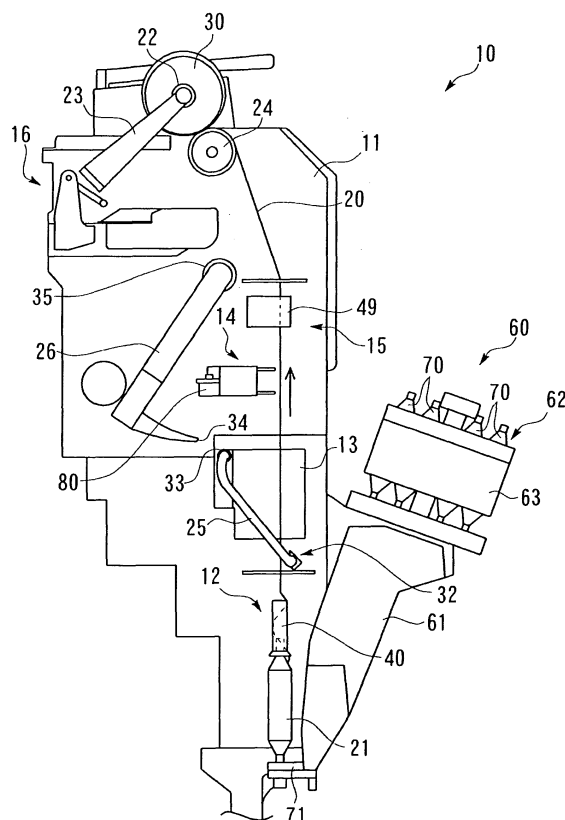
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(54) **Splicer unit and yarn winding machine**

(57) A splicer device (14) includes a dedicated dust collector (80) in which yarn waste is collected. The dust collector (80) includes a dust collecting chamber (81) shaped like a substantial cylinder. The yarn waste (75) is collected by generating a whirling air stream (74) inside the dust collecting chamber (81), that is, on the basis of what is called a cyclone scheme. The splicer device (14) includes an untwisting pipe (82) into which during yarn splicing, a yarn end is introduced and untwisted by compressed air. The dust collector (80) includes a yarn waste introduction port (83) through which the yarn waste is introduced into the dust collecting chamber (81) in a substantially tangential direction thereof. An air stream from the untwisting pipe (82) generated by ejection of the compressed air is blown into the yarn waste introduction port (83) to generate the whirling air stream (74) (Fig 1).

**FIGURE 1**





## EUROPEAN SEARCH REPORT

Application Number  
EP 08 02 0584

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 2007/142311 A1 (SHIMA SEIKI MFG [JP]; MURATA MACHINERY LTD [JP]; NAKAI KENJI [JP]; HAT) 13 December 2007 (2007-12-13)	1	INV. B65H54/70 B65H69/06
Y	* abstract; figures * & EP 2 042 624 A1 (SHIMA SEIKI MFG [JP]; MURATA MACHINERY LTD [JP]) 1 April 2009 (2009-04-01) * paragraphs [0006], [0015], [0016], [0018], [0049] *	2	
Y	----- US 4 193 779 A (HENCKE DIETMAR [DE]) 18 March 1980 (1980-03-18) * abstract; figures *	2	
A	----- DE 42 29 552 A1 (SCHLAFHORST & CO W [DE]) 10 March 1994 (1994-03-10) * column 3, lines 56-60 * * column 5, line 1; figures *	2	
A	----- EP 1 057 909 A1 (LUWA AG ZELLWEGGER [CH]) 6 December 2000 (2000-12-06) * abstract; figures *	2	
A	----- JP 2001 199637 A (MURATA MACHINERY LTD) 24 July 2001 (2001-07-24) * abstract; figures *	1	
A	----- EP 1 380 529 A2 (SAURER GMBH & CO KG [DE]) 14 January 2004 (2004-01-14) * paragraphs [0006], [0018], [0029], [0034], [0045]; figures *	1	B65H D01H
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 6 November 2009	Examiner Lemmen, René
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			

 1  
EPO FORM 1503 03.82 (P04C01)

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

EP 08 02 0584

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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06-11-2009

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2007142311 A1	13-12-2007	CN 101466882 A	24-06-2009
		EP 2042624 A1	01-04-2009
		KR 20090032048 A	31-03-2009
-----			
EP 2042624 A1	01-04-2009	CN 101466882 A	24-06-2009
		WO 2007142311 A1	13-12-2007
		KR 20090032048 A	31-03-2009
-----			
US 4193779 A	18-03-1980	CH 636533 A5	15-06-1983
		DE 2802369 A1	26-07-1979
		FR 2414943 A1	17-08-1979
		GB 2012627 A	01-08-1979
		IT 1111962 B	13-01-1986
-----			
DE 4229552 A1	10-03-1994	IT 1272547 B	23-06-1997
		JP 3393683 B2	07-04-2003
		JP 6173128 A	21-06-1994
		US 5336285 A	09-08-1994
-----			
EP 1057909 A1	06-12-2000	NONE	
-----			
JP 2001199637 A	24-07-2001	DE 60009437 D1	06-05-2004
		DE 60009437 T2	30-12-2004
		EP 1118570 A2	25-07-2001
		JP 3575367 B2	13-10-2004
		TW 509220 Y	01-11-2002
-----			
EP 1380529 A2	14-01-2004	CN 1470692 A	28-01-2004
		DE 10230760 A1	22-01-2004
		JP 2004043184 A	12-02-2004
-----			