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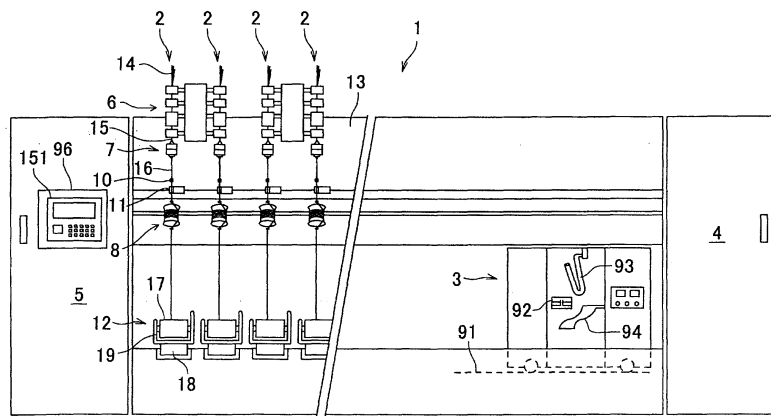
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(54) **Yarn winding machine**

(57) A spinning machine (1) includes a winding device (12), a yarn clearer (11), a cutter (10), a slack eliminating device (8), a yarn splicing device (92), and a main control section (21). The slack eliminating device (8) includes a slack eliminating roller (30) and a yarn detecting sensor (34) for detecting a yarn on the surface of the

slack eliminating roller (30). If a yarn defect is detected by the yarn clearer (11) and a yarn is cut by the cutter (10), the main control section (21) determines whether or not to control the yarn splicing device (92) to carry out yarn splicing in accordance with a detection result of the yarn detecting sensor (34).

FIG. 1





EUROPEAN SEARCH REPORT

Application Number
EP 11 15 5209

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
E	EP 2 298 971 A1 (MURATA MACHINERY LTD [JP]) 23 March 2011 (2011-03-23) * paragraphs [0054] - [0081]; figures 2,6,9,11 *	1,7	INV. B65H51/22 B65H63/06 B65H54/26 D01H4/48 D01H15/00
A	GB 2 181 754 A (REINERS VERWALTUNGS GMBH) 29 April 1987 (1987-04-29) * page 3, lines 60-81 * * page 5, lines 41-46; figures *	1,2,7	
A,D	JP 2009 242041 A (MURATA MACHINERY LTD) 22 October 2009 (2009-10-22) * abstract; figures *	1	
A	EP 0 108 195 A1 (SCHUBERT & SALZER MASCHINEN [DE]) 16 May 1984 (1984-05-16) * page 16, lines 1-7 * * page 22, lines 17-19; figures *	1	
			TECHNICAL FIELDS SEARCHED (IPC)
			B65H D01H
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 22 March 2012	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			

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

EP 11 15 5209

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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22-03-2012

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 2298971	A1	23-03-2011	CN 101994174 A	30-03-2011
			EP 2298971 A1	23-03-2011
			JP 2011037572 A	24-02-2011

GB 2181754	A	29-04-1987	CH 671587 A5	15-09-1989
			DE 3536910 A1	14-05-1987
			GB 2181754 A	29-04-1987
			IT 1198043 B	21-12-1988
			JP 62090340 A	24-04-1987
			US 4693070 A	15-09-1987

JP 2009242041	A	22-10-2009	NONE	

EP 0108195	A1	16-05-1984	CS 8306264 A2	16-09-1988
			DE 3238376 A1	26-04-1984
			EP 0108195 A1	16-05-1984
			GB 2128213 A	26-04-1984
			HK 30187 A	24-04-1987
			IN 161751 A1	30-01-1988
			JP 1725573 C	19-01-1993
			JP 4013272 B	09-03-1992
			JP 59138563 A	09-08-1984
			MY 8700359 A	31-12-1987
			SE 454876 B	06-06-1988
			SE 8305087 A	17-04-1984
