



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**14.05.2014 Bulletin 2014/20**

(51) Int Cl.:  
**D01H 1/14 (2006.01)** **D01H 13/14 (2006.01)**  
**D01H 1/115 (2006.01)** **D01H 15/00 (2006.01)**  
**D01H 13/22 (2006.01)**

(43) Date of publication A2:  
**13.04.2011 Bulletin 2011/15**

(21) Application number: **10186883.4**

(22) Date of filing: **07.10.2010**

(84) Designated Contracting States:  
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR**  
Designated Extension States:  
**BA ME**

(72) Inventor: **Oka, Masaki**  
**Kyoto 612-8686 (JP)**

(74) Representative: **Stöckeler, Ferdinand et al**  
**Schoppe, Zimmermann, Stöckeler, Zinkler & Partner**  
**Patentanwälte**  
**Postfach 246**  
**82043 Pullach bei München (DE)**

(30) Priority: **07.10.2009 JP 2009233786**  
**12.03.2010 JP 2010056773**

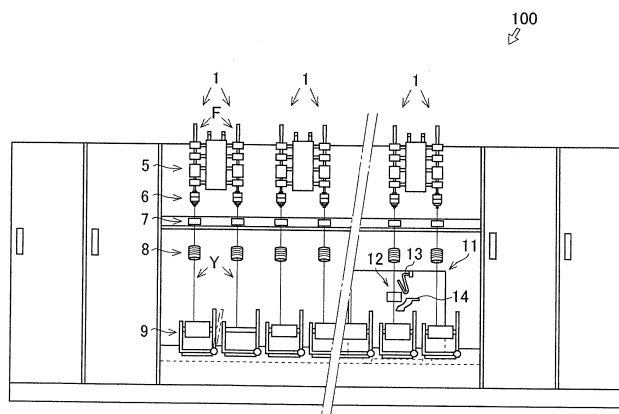
(71) Applicant: **Murata Machinery, Ltd.**  
**Kyoto-shi, Kyoto 601-8326 (JP)**

(54) **Spinning unit**

(57) A spinning unit 1 includes a draft device 5, a spinning device 6, a tension stabilizing device 8, a winding device 9, and a yarn defect detecting device 7. The draft device 5 drafts a fiber bundle F. The spinning device 6 produce a spun yarn Y from the fiber bundle F drafted by the draft device 5. The tension stabilizing device 8 stabilizes tension of the spun yarn Y produced by the

spinning device 6. The winding device 9 winds a package 91 of the spun yarn Y fed from the tension stabilizing device 8. The yarn defect detecting device 7 can detect a yarn defect in the spun yarn Y. The yarn defect detecting device 7 is arranged between the spinning device 6 and the tension stabilizing device 8.

**FIG. 1**





## EUROPEAN SEARCH REPORT

Application Number  
EP 10 18 6883

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	EP 1 889 956 A1 (MURATA MACHINERY LTD [JP]) 20 February 2008 (2008-02-20) * claim 1; figure 1 * -----	1-13	INV. D01H1/14 D01H13/14 D01H1/115 D01H15/00 D01H13/22
			TECHNICAL FIELDS SEARCHED (IPC)
			D01H
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 3 April 2014	Examiner Dupuis, Jean-Luc
<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>			

1  
EPO FORM 1503 03/02 (P04C01)

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

EP 10 18 6883

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.

03-04-2014

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
EP 1889956	A1	20-02-2008	CN 101175878 A	07-05-2008
			EP 1889956 A1	20-02-2008
			JP 4367647 B2	18-11-2009
			JP 2006348456 A	28-12-2006
			US 2009044510 A1	19-02-2009
			WO 2006123454 A1	23-11-2006
-----				

EPO FORM P0459

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