



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
06.07.2016 Bulletin 2016/27

(51) Int Cl.:
B65H 54/70 (2006.01) **D01H 11/00** (2006.01)
B65H 69/06 (2006.01)

(43) Date of publication A2:
27.03.2013 Bulletin 2013/13

(21) Application number: **12179435.8**

(22) Date of filing: **06.08.2012**

(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) Inventors:
• **Ueda, Kenichi**
Kyoto 612-8686 (JP)
• **Tsuji, Hiroshi**
Kyoto 612-8686 (JP)

(30) Priority: **21.09.2011 JP 2011206626**

(74) Representative: **Weickmann & Weickmann**
PartmbB
Postfach 860 820
81635 München (DE)

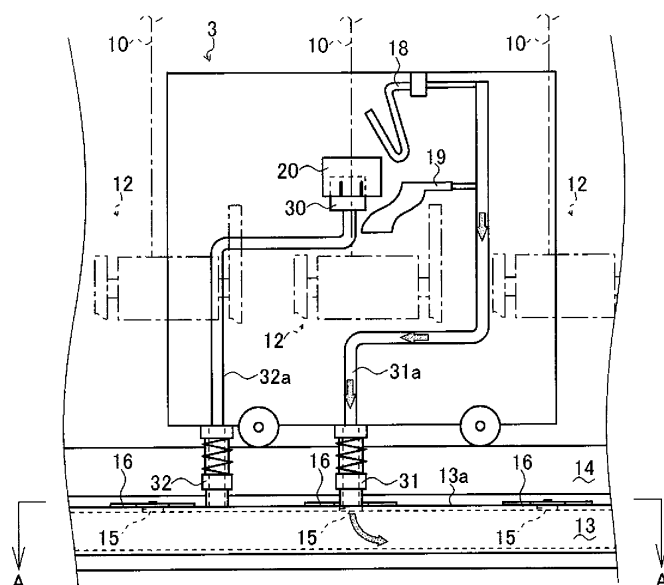
(71) Applicant: **Murata Machinery, Ltd.**
Minami-ku
Kyoto-shi
Kyoto 601-8326 (JP)

(54) **Spinning machine**

(57) A spinning machine (1) includes a yarn supplying device, a yarn slack eliminating device (11), a winding device (12), a yarn joining device (20), a first guiding device (18) that catches the yarn end (10a) and guides the yarn end (10a) to the yarn joining device (20), a second guiding device (19) that catches the yarn end (10b) and

guides the yarn end (10b) to the yarn joining device (20), and a waste collecting section (30) that accommodates fibers generated by the yarn joining operation. The waste collecting section (30) accommodates the fibers during a suction operation of the yarn end and discharges the fibers while the suction operation is stopped.

FIG. 3A





EUROPEAN SEARCH REPORT

Application Number
EP 12 17 9435

5

10

15

20

25

30

35

40

45

50

55

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	JP H11 181633 A (MURATA MACHINERY LTD) 6 July 1999 (1999-07-06)	1-3,7	INV. B65H54/70 D01H11/00 B65H69/06
Y	* paragraph [0004] * * paragraph [0015] * * figures 3,4 *	5	
X	JP H05 51828 A (MURATA MACHINERY LTD) 2 March 1993 (1993-03-02) * abstract * * figures 1-4 *	1	
X	JP 2001 288628 A (MURATA MACHINERY LTD) 19 October 2001 (2001-10-19) * paragraph [0015] - paragraph [0018] * * figures 1,3 *	1	
X	US 5 163 201 A (RAASCH HANS [DE] ET AL) 17 November 1992 (1992-11-17) * column 7, line 46 - line 58 * * figure 1 *	1,2	
X	DE 42 44 199 A1 (SCHLAFHORST & CO W [DE]) 30 June 1994 (1994-06-30) * column 5, line 59 - column 6, line 4 * * figures 1,2 *	1,2	TECHNICAL FIELDS SEARCHED (IPC)
Y	EP 0 787 674 A2 (MURATA MACHINERY LTD [JP]) 6 August 1997 (1997-08-06) * column 5, line 42 - line 50 * * figures 2c, 4 *	5	D01H B65H
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 31 May 2016	Examiner Humbert, Thomas
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			

EPO FORM 1503 03/82 (P04C01)

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

EP 12 17 9435

5

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.

31-05-2016

10

15

20

25

30

35

40

45

50

55

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP H11181633	A	06-07-1999	NONE	
JP H0551828	A	02-03-1993	NONE	
JP 2001288628	A	19-10-2001	NONE	
US 5163201	A	17-11-1992	DE 4001255 A1 US 5163201 A	25-07-1991 17-11-1992
DE 4244199	A1	30-06-1994	NONE	
EP 0787674	A2	06-08-1997	CN 1159419 A DE 69612953 D1 DE 69612953 T2 EP 0787674 A2 JP 3572782 B2 JP H09208130 A	17-09-1997 28-06-2001 28-03-2002 06-08-1997 06-10-2004 12-08-1997