



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
04.06.2014 Bulletin 2014/23

(51) Int Cl.:
B65H 54/52 (2006.01) B65H 54/70 (2006.01)

(43) Date of publication A2:
13.11.2013 Bulletin 2013/46

(21) Application number: **13166617.4**

(22) Date of filing: **06.05.2013**

(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

- **Kitayama, Futoshi**
Kyoto, 612-8686 (JP)
- **Kishine, Akinori**
Kyoto, 612-8686 (JP)
- **Sugiyama, Kenji**
Kyoto, 612-8686 (JP)

(30) Priority: **09.05.2012 JP 2012107902**

(74) Representative: **HOFFMANN EITLE**
Patent- und Rechtsanwälte
Arabellastrasse 4
81925 München (DE)

(71) Applicant: **TMT Machinery, Inc.**
Osaka-shi, Osaka 541-0041 (JP)

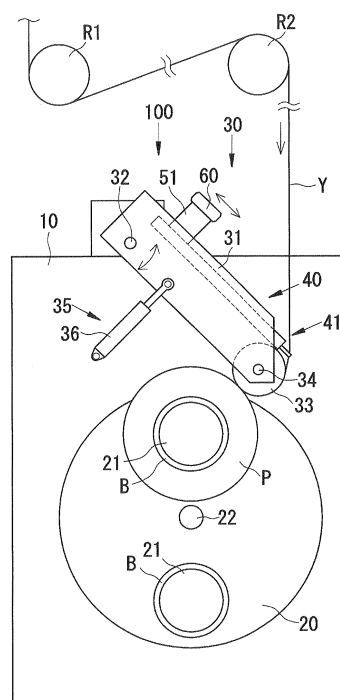
(72) Inventors:
• **Hashimoto, Kinzo**
Kyoto, 612-8686 (JP)

(54) **Yarn winding apparatus**

(57) [Problem to be Solved] An object is to provide a yarn winding apparatus in which a contact roller is supported so as to be swingable about a body, wherein vibration of a swing arm is suppressed without spoiling function of the contact roller to add contact pressure.

[Solution] A swing arm 31 supported on a body 10 by a swing shaft 32 and swingable around the swing shaft 32, a contact roller 33 supported by the swing arm 31 and contacting a package P formed on winding bobbins B with which a bobbin holder 21 is equipped, and a vibration suppression device 60 which has a mass object 61 and a restriction member 63 supporting the mass object 61 with flexibility and is provided in the swing arm 31 so that the mass object 61 and the restriction member 63 collides each other by vibration of the swing arm 31 are provided. A component of the flexibility of the mass object 61 is provided at least within a plane perpendicular to the swing shaft 32 of the swing arm 31 and in circular direction centering on the swing shaft 31.

Fig. 1





EUROPEAN SEARCH REPORT

Application Number
EP 13 16 6617

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	DE 100 46 603 A1 (BARMAG BARMER MASCHF [DE]) 29 March 2001 (2001-03-29)	1	INV. B65H54/52 B65H54/70
A	* claim 1; figure 1 *	2,3	
Y,D	JP 3 346352 B (MURATA MACHINERY LTD) 18 November 2002 (2002-11-18)	1	
A	* claim 1; figures 1,6 *	2,3	
A	DE 36 10 368 A1 (BARMAG BARMER MASCHF [DE]) 23 October 1986 (1986-10-23) * claims 1-4; figure 1 *	1-3	
			TECHNICAL FIELDS SEARCHED (IPC)
			B65H
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 23 April 2014	Examiner Pussemier, Bart
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			

3
EPO FORM 1503 03.82 (P04C01)

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

EP 13 16 6617

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.

23-04-2014

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 10046603	A1	29-03-2001	NONE
JP 3346352	B	18-11-2002	-----
DE 3610368	A1	23-10-1986	NONE
