

(19)



(11)

EP 2 196 423 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
25.05.2011 Bulletin 2011/21

(51) Int Cl.:
B65H 54/28 (2006.01)

(43) Date of publication A2:
16.06.2010 Bulletin 2010/24

(21) Application number: **09013723.3**

(22) Date of filing: **30.10.2009**

(84) Designated Contracting States:
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 SE SI SK SM TR
Designated Extension States:
AL BA RS

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(30) Priority: **10.12.2008 JP 2008315093**

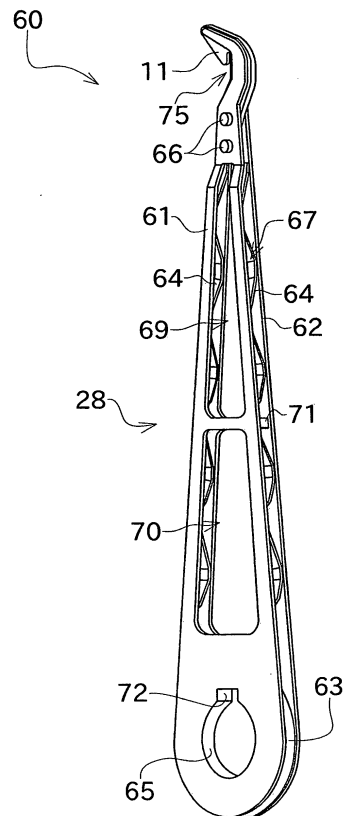
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(54) **Traverse arm and yarn winding machine including the same**

(57) A traverse arm 28 includes a first plate 61, a second plate 62, which are arranged to face one another in a direction orthogonal to a traverse direction of the traverse arm 28, and a beam 64, which connects the first plate 61 and the second plate 62 to form a truss structure. Space arranged between the beams 64, which form the truss structure, functions as space 67 (penetration hole) for having air pass through in the traverse direction of the traverse arm 28.

FIG. 2



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EUROPEAN SEARCH REPORT

Application Number
EP 09 01 3723

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	US 2 955 772 A (CASE MORRIS A) 11 October 1960 (1960-10-11) * column 3, lines 9-47; figures 1,2 *	1-4	INV. B65H54/28
X	FR 2 181 202 A5 (TELEMECANIQUE ELECTRIQUE [FR]) 30 November 1973 (1973-11-30) * page 4, line 38 - page 5, line 2; figures 1,2, *	1,3,4	
A	CH 693 337 A5 (RIETER AG MASCHF [CH]) 13 June 2003 (2003-06-13) * figures *	1-4	
A	WO 99/65810 A1 (RIETER AG MASCHF [CH]; KUPRAT HEIKE [CH]; SCHAAD MARC [CH]) 23 December 1999 (1999-12-23) * figures 6,7,8 *	1-4	
A	FR 2 888 226 A1 (RIETER TEXTILE MACHINERY FR [FR]) 12 January 2007 (2007-01-12) * figures *	1-4	
			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 13 April 2011	Examiner Lemmen, René
<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 & : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03.02 (P04C01)

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

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The members are as contained in the European Patent Office EDP file on
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13-04-2011

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2955772	A	11-10-1960	NONE	

FR 2181202	A5	30-11-1973	NONE	

CH 693337	A5	13-06-2003	NONE	

WO 9965810	A1	23-12-1999	AU 4028699 A	05-01-2000
			DE 59907306 D1	13-11-2003
			EP 1089933 A1	11-04-2001
			JP 2002518276 T	25-06-2002
			US 6505791 B1	14-01-2003

FR 2888226	A1	12-01-2007	EP 1901985 A2	26-03-2008
			WO 2007007004 A2	18-01-2007

EPO FORM P/0459

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