



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**08.12.2010 Bulletin 2010/49**

(51) Int Cl.:  
**B65H 18/14** <sup>(2006.01)</sup>

(43) Date of publication A2:  
**23.12.2009 Bulletin 2009/52**

(21) Application number: **09161640.9**

(22) Date of filing: **02.06.2009**

(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 TR**

(30) Priority: **18.06.2008 FI 20085602**

(71) Applicant: **Metso Paper, Inc.**  
**00130 Helsinki (FI)**

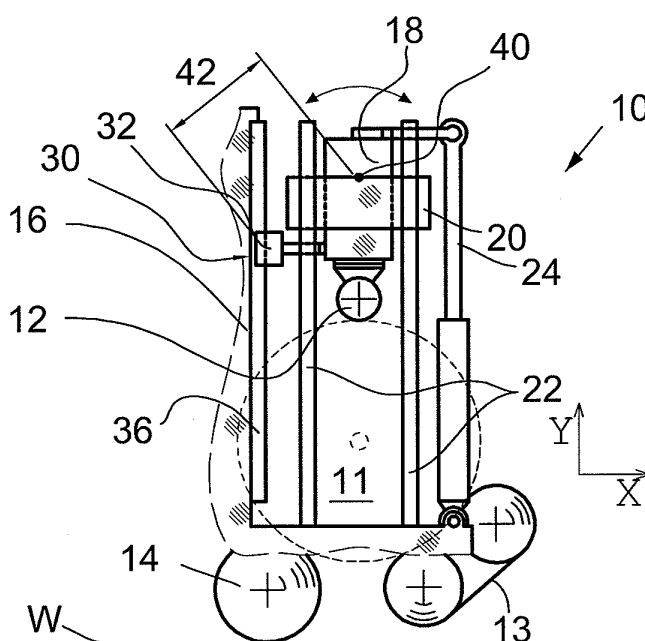
(72) Inventors:  
• **Åkerlund, Kenneth**  
**00890, Helsinki (FI)**  
• **Penttilä, Kimmo**  
**00920, Helsinki (FI)**  
• **Järvensivu, Markku**  
**37600, Valkeakoski (FI)**

(74) Representative: **TBK-Patent**  
**Bavariaring 4-6**  
**80336 München (DE)**

(54) **Winding apparatus of fibrous web and method for winding fibrous web**

(57) The present invention relates to a winding apparatus (10) of a fibrous web (W), which comprises at least one support element (13,14) supporting a reel (11) of its surface when winding which is movably supported to a support structure by control elements determining the path of the support element (13,14). The winding ap-

paratus (10) comprises an elastic and/or damping arrangement (30) which enables changing the elasticity and/or damping of the support element (13,14) in two different directions/degrees of freedom during the use of the winding apparatus (10) and/or the motion of the support element (13,14). The invention also relates to an equivalent method.



**FIG. 1**



## EUROPEAN SEARCH REPORT

Application Number  
EP 09 16 1640

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	DE 10 2006 043628 A1 (VOITH PATENT GMBH [DE]) 27 March 2008 (2008-03-27)	1,2,5,7,8,11	INV. B65H18/14
Y	* paragraph [0026] - paragraph [0030] *	9,10	
A	* abstract; figure 1 *	12-15	
	-----		
X	EP 1 683 749 A2 (VOITH PAPER PATENT GMBH [DE] VOITH PATENT GMBH [DE]) 26 July 2006 (2006-07-26)	1-3,7,8,11	
	* paragraph [0021] - paragraph [0023] *		
	* abstract; figures 1-4 *		
	-----		
X	EP 1 900 663 A2 (VOITH PATENT GMBH [DE]) 19 March 2008 (2008-03-19)	1,2,4-8,11	
	* abstract; figures 1,2 *		
	* paragraphs [0024], [0025] *		
	* paragraph [0030] - paragraph [0032] *		
	* paragraph [0035] *		
	-----		
Y	EP 0 410 093 A2 (JAGENBERG AG [DE]) 30 January 1991 (1991-01-30)	9,10	
	* abstract; figure 1 *		
	* column 2, line 14 - column 3, line 33 *		
	-----		
The present search report has been drawn up for all claims			
Place of search <b>The Hague</b>		Date of completion of the search <b>28 October 2010</b>	Examiner <b>Piekarski, Adam</b>
CATEGORY OF CITED DOCUMENTS		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	
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			

 2  
EPO FORM 1503 03.82 (P04C01)

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

EP 09 16 1640

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.

28-10-2010

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 102006043628 A1	27-03-2008	NONE	
EP 1683749 A2	26-07-2006	DE 102005000003 A1	20-07-2006
EP 1900663 A2	19-03-2008	DE 102006043639 A1	27-03-2008
EP 0410093 A2	30-01-1991	CA 2017017 A1	26-01-1991
		DE 3924612 A1	31-01-1991
		ES 2052094 T3	01-07-1994
		FI 96500 B	29-03-1996
		JP 3079545 A	04-04-1991