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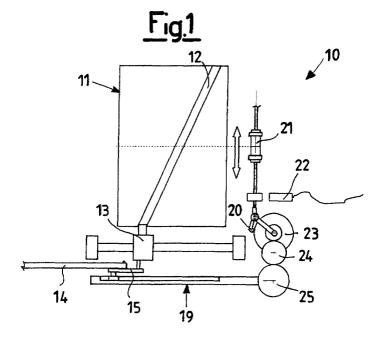
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(54) Device for the tapering of yarn-gathering bobbins on a twisting frame

(57) A device for the tapering of yarn-gathering bobbins on a twisting frame comprises a traversing roller (11) which is actuated by the main motor of the twisting frame by means of appropriate mechanisms and is provided with a Z-shaped profile (12) generating a reciprocating motion in a connecting road (14) and where the law governing tapering of the bobbins is controlled by an inclinable tapering guide (19), which is kinematically

connected to the aforesaid connecting road (14) and is able to vary the stroke of the reciprocating motion of the connecting road (14). If the said device, the inclination of the tapering guide (19) is adjusted by means of the operation of a pneumatic actuator (21), where each stroke of the pneumatic actuator (21) enables practically instantaneous variations in tapering having a pre-set value to be obtained.





EUROPEAN SEARCH REPORT

Application Number EP 00 20 2191

·		ERED TO BE RELEVANT ndication, where appropriate,	Relevant	OLABORIOATION OF THE
Category	Citation of document with it of relevant pass		to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)
A	AG) 20 January 1993	ÄRER SCHWEITER METTLER (1993-01-20) - line 33; claim 1;	1	D01H1/36 B65H54/32
A	DE 23 50 350 B (PAL G.M.B.H.) 3 April 1 * figures *	1		
A	US 3 797 768 A (A. 19 March 1974 (1974 * column 2, line 29	-03-19)	1	
A	US 2 858 993 A (W. 4 November 1958 (19			
				TECHNICAL FIELDS SEARCHED (Int.Cl.7)
				B65H D01H
	The present search report has	been drawn up for all claims		
	Place of search	Date of completion of the search		Examiner
	THE HAGUE	22 January 2002	D'H	ulster, E
X : part Y : part docu A : tech O : non	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with anotument of the same category inological background —written disclosure rmediate document	E : earlier patent of after the filing her D : document cite L : document cite	iple underlying the document, but publi date d in the application d for other reasons a same patent family	shed on, or

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EP 00 20 2191

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.

22-01-2002

Patent document cited in search report		Publication date		Patent family member(s)	Publication date	
EP 5	24140	Α	20-01-1993	EP JP	0524140 A 5209344 A	
DE 2	350350	В	03-04-1975	DE	2350350 B	1 03-04-1975
US 3	797768	A	19-03-1974	CH DE FR GB IT	525148 A 2163133 A 2119351 A 1327367 A 945310 B	1 13-07-1972 5 04-08-1972 22-08-1973
US 2	858993	A	04-11-1958	BE CH FR GB NL NL	534473 A 321060 A 1116662 A 767778 A 83918 C 184740 B	30-04-1957 09-05-1956 06-02-1957

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