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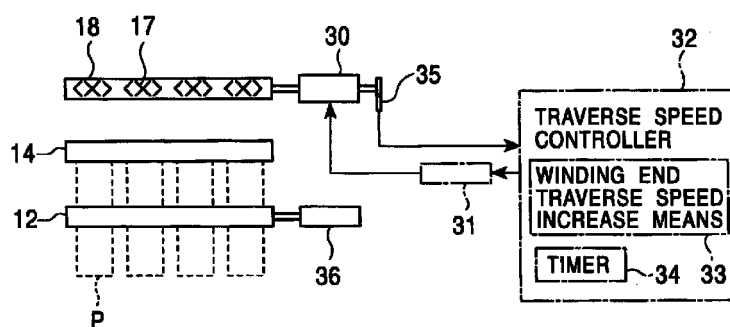
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(54) **Take-up winder**

(57) The present invention provides a take-up winder capable of preventing a yarn wound around an outer surface of a package from dropping from the end face of the package. According to the present invention,

the traverse width W of a yarn Y is reduced at a winding end period T_n for a package P .

FIG. 1



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EUROPEAN SEARCH REPORT

Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)
X	DE 37 40 264 A (W. SCHLAFHORST & CO.) 1 June 1989 (1989-06-01) * the whole document *	1,4	B65H54/38 B65H54/28
X	DE 37 34 445 A (GEORG SAHM GMBH & CO KG) 27 April 1989 (1989-04-27) * claims *	1,4	
A	PATENT ABSTRACTS OF JAPAN vol. 004, no. 167 (M-042), 19 November 1980 (1980-11-19) & JP 55 115551 A (TEIJIN LTD), 5 September 1980 (1980-09-05) * abstract *	4	
			TECHNICAL FIELDS SEARCHED (Int.CI.7)
			B65H
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 27 October 2000	Examiner D'Hulster, E
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			

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

EP 99 12 4575

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
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 3740264 A	01-06-1989	CH 676969 A	28-03-1991
		JP 1167184 A	30-06-1989
		US 5170952 A	15-12-1992
DE 3734445 A	27-04-1989	NONE	
JP 55115551 A	05-09-1980	NONE	