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Winding devices.

A winding device (14) for retaining a bobbin tube (16) on which a package of yarn is to be wound, comprises at least one bobbin tube gripping element (27) in the form of a sleeve part (30) with a plurality of resilient fingers (31) extending in an axial direction therefrom. The or each element (27) is mounted on a hollow shaft (17) together with a respective deflecting member (28), at least one of which is slidable along the shaft (17) to cause radially outward deflection of the fingers (31) to grip the bobbin tube (16), due to relative movement between cooperating conical surfaces (29, 33) on the deflecting member (28) and the fingers (31). An actuating rod (22) within the hollow shaft (17) moves the slidable element (27) or deflecting member (28) being biased by a spring (23) in one direction and actuated by pneumatic means (24) in the opposite direction, the spring (23) actuating means (24), driving means (19) and braking means (21) for the shaft (17) all being located at a drive end of the shaft (17) which is mounted on a turret (12) rotatably mounted on a frame (11) of a winding mechanism (10).

cal surfaces (29, 33) on the deflecting member (28) and the fingers (31). An actuating rod (22) within the hollow shaft (17) moves the slidable element (27) or deflecting member (28) being biased by a spring (23) in one direction and actuated by pneumatic means (24) in the opposite direction, the spring (23) actuating means (24), driving means (19) and braking means (21) for the shaft (17) all being located at a drive end of the shaft (17) which is mounted on a turret (12) rotatably mounted on a frame (11) of a winding mechanism (10).

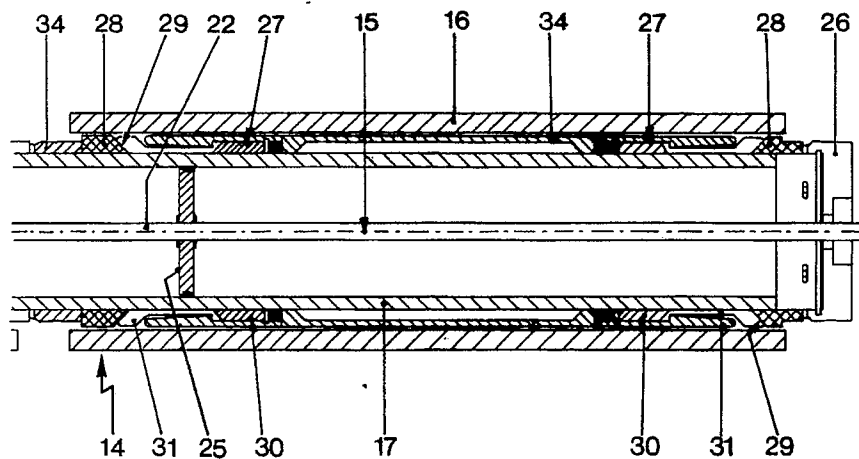


FIG. 2

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**EUROPEAN SEARCH
REPORT**

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	US-A-4 232 835 (J. BENIN) * column 2, line 14 - column 4, line 5 ** column 6, line 31 - line 53; claims; figures ** - - - -	1-8	B 65 H 54/54
X	CH-A-4 439 94 (RIETER) - - - -	1-7	
X	GB-A-1 152 961 (SYNCRO MACHINE) * page 2, line 3 - line 120; figures ** - - - -	1,3,4,6,7	
A	US-A-4 241 883 (J. BENIN) - - - -		
A	DE-A-3 044 315 (L. BRENNER) - - - - - - - -		
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B 65 H
The present search report has been drawn up for all claims			
Place of search		Date of completion of search	Examiner
The Hague		25 October 91	JAGUSIAK A.H.G.
<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 T: theory or principle underlying the invention</p> <p>E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons</p> <p>..... &: member of the same patent family, corresponding document</p>			