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㉓ Web reel mounting.

㉔ A rewind device includes resilient fingers (84) supported around a shaft (80) and a frusto-conical member (92) operative axially to expand the fingers (84) to engage the internal periphery of a reel.



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TITLE MODIFIED
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LABEL OVERPRINTERS

This invention relates to label overprinters and label overprinting applicators, in particular certain aspects of a mounting for a label web reel.

5 In label web overprinters of the kind which are generally bench mounted, it is desirable that the individual features of the overprinter should facilitate use by unskilled operatives, that adjustments can be readily made and that the setting up of the overprinter prior to a
10 production run should require the minimum of operator time.

Broadly, overprinters include a mounting reel holder for unused label web, means defining a guide path between the reel mounting and a take-up reel mounting for the
15 spent backing strip of the web and indexing drive means which intermittently draw the label web through the overprinter. The overprinter will normally also incorporate means for applying printed labels to articles.

20 The label web will normally comprise a series of pressure-sensitive adhesive coated labels mounted on a backing strip of release-agent coated paper.

In Swiss patent 422,621 a core or bobbin is disclosed
25 which serves to control the tension developed in yarn when wound on a bobbin and the thread is subjected to various

processes. For example if the tension is reduced so that the yarn becomes slack and is thus liable to become unwound, the resilient construction of the reel or bobbin takes up the slack and thereby maintains the desired tension.

5 The construction of the reel is fairly complex to accommodate the varying requirements of yarn treatment.

The problem to be solved by the invention is therefore to provide a simple device which enables a web to be wound

10 and subsequently for the resultant reel to be detached without any difficulty or for a reel to be mounted initially.

According to the present invention there is provided a web reel mounting device comprising a shaft mounting 15 fingers extending substantially parallel to but inwardly towards the shaft and secured thereto at one end of each finger, each finger being resiliently deflectable relative to the shaft and a member operative to deflect the fingers outwardly to parallel relationships to the shaft.

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A web reel mounting device embodying the invention will now be described, by way of example only, with reference to the accompanying drawing, in which the sole Figure is a longitudinal side elevation of the reel mounting device.

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The web-rewind device includes a friction-driven shaft or spindle 80 carrying a hub 82 extending transversely to the spindle and carrying a plurality of longitudinally-extending resilient fingers 84 which in their relaxed 5 condition are inclined inwardly towards the spindle as shown in the Figure. The resilience is provided in each finger by a recess 86. The remaining portion of the finger is rigid under the forces normally encountered. The spindle also carries a sleeve 88 having a cylindrical portion 90 10 of smaller diameter, a frusto-conical portion 92, and a cylindrical portion 93 of large diameter, the sleeve being slidable within limits on the spindle. The sleeve has a slot 94 (broken lines) co-operating with a pin 96 to define the outer travel limit. The sleeve also carried a knob 98 15 which enables manual movement of the sleeve.

In use, an end portion of a spent backing strip of a label web is threaded between one of the fingers 84 and the portion 90 of the sleeve. When the knob 98 is pushed in, 20 the end portion is clamped between one or more of the fingers and the larger diameter portion 93. The device then defines a cylinder and the spent backing strip can be re-wound. To remove the wound web it is a simple matter to withdraw the knob so that the fingers 84 deflect inwards and the reel can 25 be readily removed. The clamping action of the fingers and portion 93 on the web end portion is automatically released. The web-rewind device can also be used to mount a reel in .

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form already wound or a reel having a core. The manner of operation remains the same.

CLAIMS

1. A web reel mounting device comprising a shaft (80) mounting fingers (84) extending substantially parallel to but inwardly toward the shaft, characterized in that each finger is mounted to the shaft, each finger is resiliently deflectable relative to the shaft, and a member (88) is manually operative to deflect simultaneously the fingers outwardly to parallel relationships with the shaft.
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2. A device according to claim 1, characterised in that the resilience of each finger is provided by a portion (86) of reduced cross-section adjacent to the mounting point of the shaft.
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3. A device according to claim 1 or claim 2 characterised in that the fingers are mounted to the shaft through the intermediary of a hub (82).
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4. A device according to claim 1, 2 or 3 characterised in that the deflecting member (88) comprises a sleeve with a first cylindrical portion (90) of smaller diameter, a frusto-conical portion (92) and a second cylindrical portion (93) of larger diameter, the sleeve being slidable within limits axially of the shaft so that the sleeve at an inner limit position the fingers (84) are deflected inwardly
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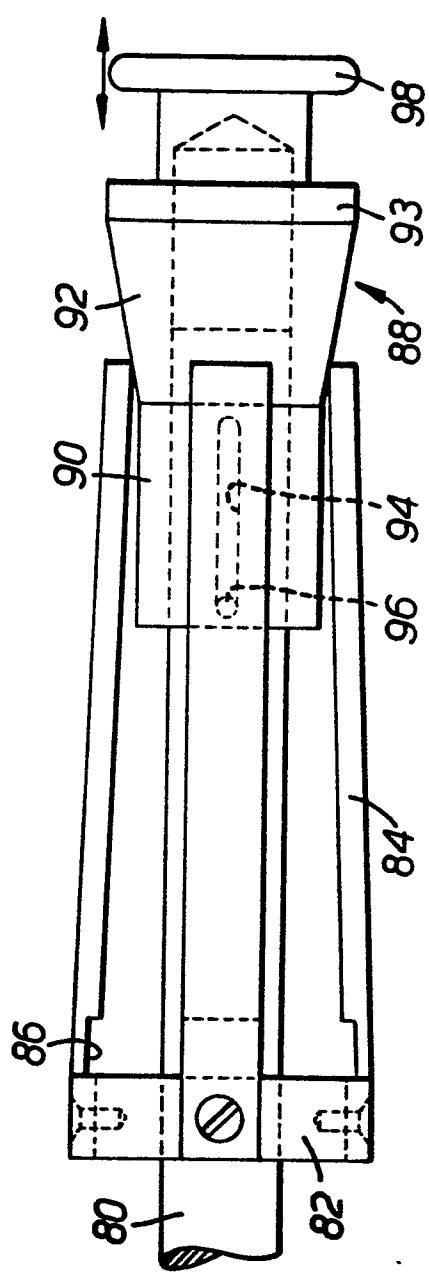
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towards the shaft and at an outer limit position the second cylindrical portion supports the free ends of the fingers so that the latter are in said parallel relationship with the shaft.

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DOCUMENTS CONSIDERED TO BE RELEVANT			EP 85106091.3
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl 4)
Y	<p><u>US - A - 3 704 837</u> (H. HEINZ et al.)</p> <p>* Fig. 1,2; abstract *</p> <p>--</p> <p><u>AT - B - 43 068</u> (E. ZIPPER)</p> <p>* Totality *</p> <p>-----</p>	1,3	<p>B 65 H 19/28</p> <p>B 65 H 16/02</p> <p>B 65 H 18/04</p>
TECHNICAL FIELDS SEARCHED (Int. Cl 4)			
B 65 H			
The present search report has been drawn up for all claims			
Place of search VIENNA	Date of completion of the search 30-07-1985	Examiner SÜNDERMANN	
CATEGORY OF CITED DOCUMENTS		<p>T : theory or principle underlying the invention</p> <p>E : earlier patent document, but published on, or after the filing date</p> <p>D : document cited in the application</p> <p>L : document cited for other reasons</p> <p>& : member of the same patent family, corresponding document</p>	
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A : technological background			
O : non-written disclosure			
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