Oct. 20, 1942. W. L. PERRY 2,299,344

WINDING MACHINE GUIDE

Filed July 18, 1940

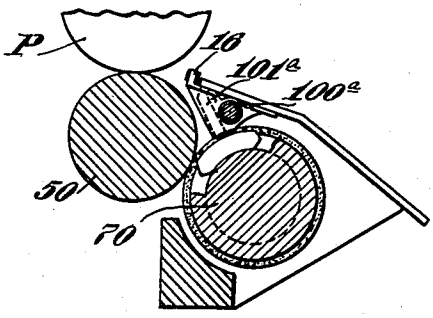


Fig. 1

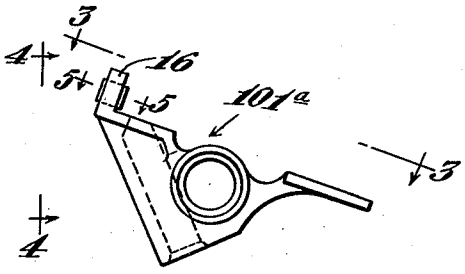


Fig. 2

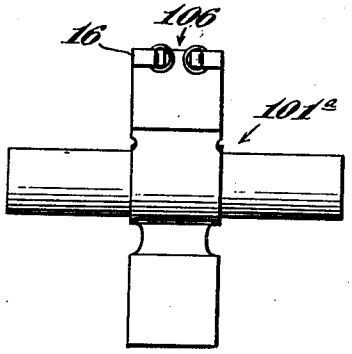


Fig. 3

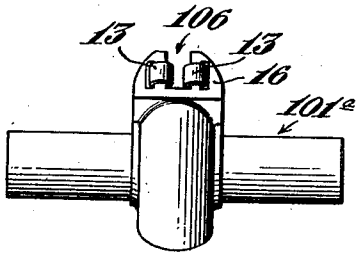


Fig. 4

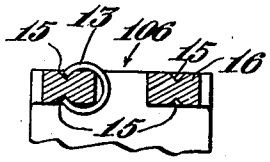


Fig. 5

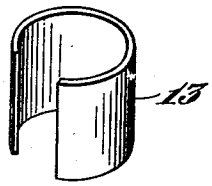


Fig. 6

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WINDING MACHINE GUIDE

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Application July 18, 1940, Serial No. 346,164

4 Claims. (Cl. 242—157)

This invention relates to traverse devices for winding machines and has for its object to provide improved removable wear-resisting inserts for thread guides.

On many yarns, such as jute, worsted and particularly mohair, even the hardest steel will be cut into by the running yarn inside of a few weeks. This problem has been dealt with in many ways, for example by employing wear-resisting inserts of different materials such as porcelain, special steel or carboloy and even of hard carbide such as are used for grinding wheels. None of these inserts for thread guides have been entirely successful. The porcelain inserts cracked, and no satisfactory means could be devised for keeping the inserts made of the other materials mentioned in place, although cementing, soldering, riveting and clamping them in innumerable ways have all been tried.

The difficulty of keeping the inserts in place has been overcome by the present invention in which resilient steel inserts are sprung in place and held by their edges engaging in notches in the traverse guide. Other objects of invention are to provide inserts which may be made cheaply and which may be easily replaced after they have been worn out by the running yarns.

Other objects of invention and features of advantage and utility will be apparent from this specification and its drawing wherein the invention is explained by way of example.

In the drawing:

Fig. 1 is a vertical sectional view through the head of a winding unit, showing the cam-actuated slider carrying the yarn-engaging traverse eye;

Fig. 2 is a side elevation of the slider of Fig. 1 on a larger scale;

Fig. 3 is a view of the slider taken on the line 3—3 of Fig. 2;

Fig. 4 is a view of the slider taken on the line 4—4 of Fig. 2;

Fig. 5 is a fragmentary sectional view on a larger scale taken on the line 5—5 of Fig. 2 showing the traverse eye with one wear-resisting insert thereon and with one removed; and

Fig. 6 is a perspective view on a larger scale showing one of the wear-resisting inserts.

Although the invention is not limited to the exact construction of insert shown, the preferred inserts illustrated are intended to be used two on each thread guide, one insert being placed on each side of the traverse eye.

The inserts of the present invention may be applied to thread guides of any type, for example such as are shown in the application of Edward J. Abbott, Serial No. 506,530, filed January 5, 1931, wherein the general arrangement of package drive roll 50, traverse cam 70, slider 101a and the rod 100a on which the slider slides is shown.

The upturned end of the thread guide 101a includes a pair of posts 16 defining a slot or eye 106 indicated in Figs. 3, 4 and 5, in which the thread is received. The inserts 13, made of hardened steel and each shaped like a portion of a longitudinal split tube, are sprung into place on the posts 16, one on each side of the slot or eye 106. When in place, each insert is slightly expanded so that it will cling tightly to a post 16 of the slider 101a. The edges of the inserts when sprung into place interfit with and resiliently grip notches 15 on the posts of the slider. The yarn thus runs in a channel between the two wear-resisting inserts, which substantially enclose the eye-defining portions of the posts.

The invention has the advantage that when the inserts are worn out, which may be within a few weeks time, they can easily be kicked out with a screw driver, and new resilient inserts can easily be sprung into their place by hand.

I claim:

1. A winding machine guide comprising an upstanding end having a pair of posts which define the eye through which the yarn passes, and an insert removably mounted on each post to define the side walls of a channel in the eye through which the yarn passes out of contact with the posts whereby such posts are protected from wear, each insert being tubular in form and split longitudinally and having the edges of the split in engagement with a post so that portions of the posts defining the eye are enclosed by the inserts.

2. A winding machine guide comprising an upstanding end having a pair of posts which define the eye through which the yarn passes, and an insert removably mounted on each post to define the side walls of a channel in the eye through which the yarn passes out of contact with the posts whereby such posts are protected from wear, the posts having notches spaced from the eye defining portions thereof and the inserts being tubular in form and split longitudinally with the edges of the split in the notches of the posts and eye-defining portions thereof enclosed within the inserts.

3. In a winding machine guide having an upstanding end having a pair of posts which define the eye through which the yarn passes, resilient

inserts of hardened steel on the posts clinging tightly but resiliently to the posts of the guide in fixed relation thereto and shaped and arranged to define a channel in the eye through which channel the yarn runs out of contact with the posts whereby such posts are protected from wear.

4. In a winding machine guide having an upstanding end having a pair of posts which define the eye through which the yarn passes, resilient inserts of hardened steel on the posts clinging tightly but resiliently to the posts of the guide in fixed relation thereto and shaped and arranged to define a channel in the eye through which channel the yarn runs out of contact with the posts whereby such posts are protected from wear, said inserts being readily removable from the posts so that they can be quickly replaced when worn by the passing yarn.

WINTHROP L. PERRY.