May 11, 1937. W. REINERS ET AL 2,079,966

COP AND TUBE THEREFOR

Original Filed Nov. 7, 1933

Fig. 2.



Fig. 1.

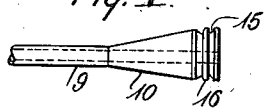
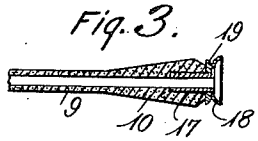


Fig. 4.



Fig. 3.



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By

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2,079,966

COP AND TUBE THEREFOR

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Original application November 7, 1933, Serial No. 697,056, now Patent No. 2,035,721, dated March 31, 1936. Divided and this application December 16, 1935, Serial No. 54,762. In Germany November 22, 1932

1 Claim. (Cl. 242—125)

This invention relates to a cop tube specially adapted to retain the end of a yarn wound thereon. In our co-pending application, Serial No. 697,056, filed November 7, 1933, now Patent No. 2,035,721, issued March 31, 1936, for improvements in and relating to Winding cops, we have described and claimed a method of and apparatus for winding cops. The present application is a division of the said co-pending application and claims the cop tubes.

The principal object of the invention is to provide cops which have their yarn secured against unwinding, and it is particularly advantageous for such slippery yarns as artificial silk.

The invention will be described in greater detail with reference to the accompanying drawing, wherein:

Fig. 1 is a fragmentary side elevation of one form of cop tube in accordance with the invention;

Fig. 2 is an end elevation of the cop tube looking toward the base; and

Figs. 3 and 4 are respectively similar views of a modified form of tube.

As shown in Figs. 1 and 2 the cop tube comprises a tubular body 9 having a conical base 10 in the periphery of which is formed an annular notch 15. Within the notch 15 is placed a ring 16, preferably of rubber. The ring coacts with the sides of the notch 15 to form sufficiently acute clamping surfaces to hold the yarn end positively.

Figs. 3 and 4 show a modification wherein the base 10 of the tube has fixed to its butt a tubular element 17 provided with an outwardly curving plate-shaped flange 18. Between the flange 18 and the butt of the tube base is a ring 19, which serves to clamp the yarn end securely.

It will be noted that with each of the cop tubes described the yarn will be clamped to the base of the tube in the process of guiding it over onto the spindle, as described in the co-pending application referred to above. The clamping means being in the form of a complete annular groove, the yarn falls naturally into place in the clamping means as the tube continues to spin with the spindle. When the cop is doffed from the spindle the yarn breaks without unravelling from the cop.

We claim:

A cop tube comprising a tubular body having at one end a radially opening annular notch formed by the butt of the tube and a plate-shaped member attached thereto, and an elastic ring between said butt and said plate-shaped member.

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