J. F. O'CONNOR.

TYPE WRITER RIBBON SPOOL.

APPLICATION FILED FEB. 27, 1909.

928,001. Patented July 13, 1909

Fig. 1.

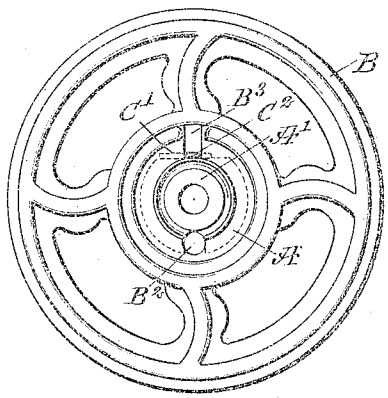


Fig. 2.

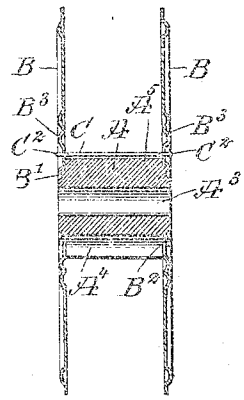


Fig. 3.

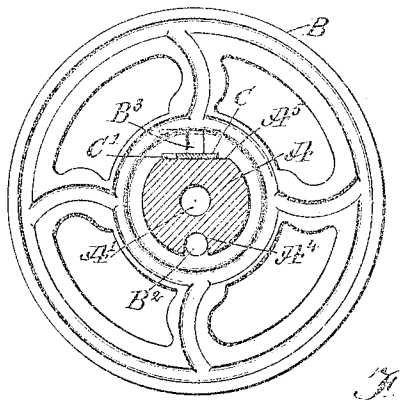


Fig. 5.

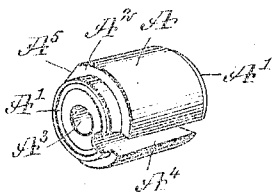
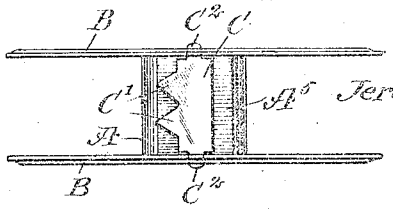


Fig. 4.



WITNESSES

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JEROME FRANCIS O'CONNOR, OF NEW YORK, N. Y.

TYPE-WRITER RIBBON-SPOOL.

No. 928,001. Specification of Letters Patent. Patented July 13, 1909.

Application filed February 27, 1909. Serial No. 480,333.

To all whom it may concern:

Be it known that I, JEROME FRANCIS O'CONNOR, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Type-Writer Ribbon-Spool, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved typewriter ribbon spool provided with a cast hub to which the flanges are riveted, thus permitting quick, convenient and accurate assembling of the parts without the aid of highly skilled labor, and thereby reducing the cost of manufacturing to a minimum.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claim.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improved spool; Fig. 2 is a cross section of the same; Fig. 3 is a sectional side elevation of the same; Fig. 4 is a plan view of the same, and Fig. 5 is a perspective view of the hub.

The typewriter ribbon spool consists of a hub A, the flanges B, B and the ribbon retainer C for holding the end of the ribbon wound around the hub A between the flanges B, B.

The hub A is cast of lead or other suitable material, and terminates in the reduced ends A′ forming shoulders A^2 with the hub A, and the said ends A′ engage central apertures in the flanges B, which latter abut with their inner faces against the said shoulders A^2, to hold the flanges B, B, spaced the desired distance apart, according to the width of the ribbon. The terminals of the ends A′ are riveted against the outer faces of the flanges B, B, so that the rivet heads securely hold the flanges B, B, in position on the ends A′ of the hub A and against the shoulders A^2. The cast hub A is provided with a central bore A^3, for engagement with a shaft on which the spool is mounted to turn, the said shaft forming a usual part of the typewriting machine on which the spool is used.

The flanges B, B, are preferably stamped or otherwise formed out of sheet metal, and the flanges are provided with openings B^2 registering with a groove A^4 extending lengthwise in the peripheral face of the hub A, to permit the insertion of a pin to hold the spool from turning. This pin forms a usual part of the typewriting machine and hence it is not deemed necessary to further describe or illustrate the same.

The retainer C is in the form of a plate provided along one edge with teeth C′ (see Fig. 4) for engagement with the end of the ribbon, to hold the same, the end of the plate terminating in lugs C^2 extending loosely into radially-elongated slots or guideways B^3, formed in the flanges B. The retainer C overlies a flat portion A^5 formed on the peripheral face of the hub A, and the lugs C^2 slightly project beyond the outer faces of the flanges B (see Figs. 2 and 4), to allow the operator to take hold of the projecting ends of the lugs C^2, with a view to raising the retainer C sufficiently above the flattened portion A^5, to permit the operator to readily pass the end of the ribbon between the retainer C and the said flattened portion A^5 whenever a new ribbon is to be placed on the spool. The end of the ribbon is then engaged with the teeth C′, after which the spool is turned to wind up the ribbon around the hub A and between the flanges, the succeeding layers pressing the retainer C down to securely clamp the ribbon onto the flattened portion A^5 of the hub.

By the arrangement described, the parts of the holder can be readily arranged without the use of skilled labor, thereby reducing the cost of manufacturing the spool to a minimum.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

A spool for the purpose specified, comprising a hub having at each end a reduced portion, and upon one side a longitudinal groove and upon the other a longitudinally extending flattened surface, and flanges hav-

ing openings for receiving the reduced portion of the hub, and openings registering with the groove and with the flattened surface respectively, and a retaining device having end lugs received in the openings registering with the flattened surface.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JEROME FRANCIS O'CONNOR.

Witnesses:
A. L. FOSTER,
S. C. HALPERIN.