J. A. RONCHETTI.

TYPE WRITING MACHINE.

APPLICATION FILED APR. 23, 1910.

1,175,995. Patented Mar. 21, 1916

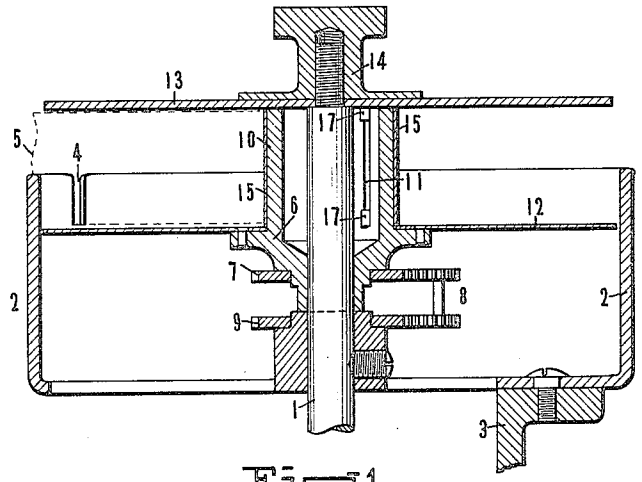


Fig. 1.

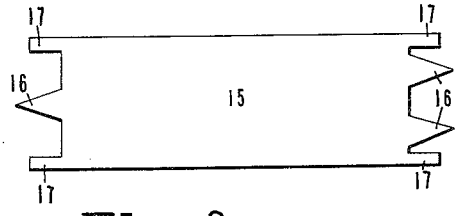


Fig. 2.

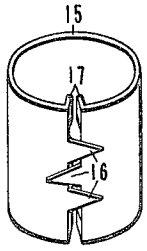


Fig. 3.

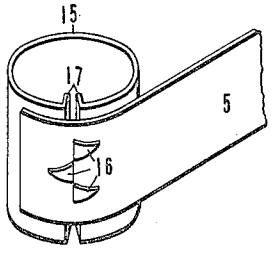


Fig. 4.

WITNESSES:

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UNITED STATES PATENT OFFICE.

JOSEPH ALBERT RONCHETTI, OF WOONSOCKET, RHODE ISLAND, ASSIGNOR TO THE NOISELESS TYPEWRITER COMPANY, OF MIDDLETOWN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

TYPE-WRITING MACHINE.

1,175,995. Specification of Letters Patent. Patented Mar. 21, 1916.

Application filed April 23, 1910. Serial No. 557,127.

To all whom it may concern:

Be it known that I, JOSEPH A. RONCHETTI, a subject of the King of Italy, residing at Woonsocket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to ribbon mechanism for typewriting machines, and with regard to the more specific features thereof, to means for mounting the ribbon.

One of the objects of the present invention is to provide a practical device of the above character which will be efficient in operation.

Another object is to provide a device of the above character which will be simple in construction and cheap to manufacture.

A further object is to provide an improved ribbon mounting for the ribbon as it is sold to the trade, enabling the same to be easily and quickly applied to a typewriting machine.

Other objects will be in part obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combinations of elements and arrangement of parts which will be exemplified in the construction hereinafter set forth, and the scope of the application of which will be indicated in the following claims.

In the accompanying drawing, wherein is shown one of many possible embodiments of my invention, Figure 1 is a sectional elevation showing a part of a typewriting machine with one embodiment of the present invention applied thereto; Fig. 2 is a plan view of the blank from which the article is made; Fig. 3 is a perspective view of the finished article; and Fig. 4 is a similar view showing the ribbon attached thereto.

Similar reference characters refer to similar parts throughout the several views of the drawings.

While the present invention is herein shown and described with reference to a construction adapted for narrow ribbons used on visible typewriting machines, and more particularly the ribbon reel used in the noiseless typewriting machine, it is to be understood that the invention may be applied to other forms of machines using either narrow or broad ribbons.

Referring now to these drawings in detail, 1 represents the ribbon driving spindle which is rotated by any suitable mechanism, not herein shown, passing through an opening in the underside of a ribbon cup 2 resting on the frame 3 of the machine. The cup 2 is provided with a slot 4 through which the ribbon 5 is adapted to pass and surrounds a ribbon spool or reel 6 loosely mounted on the spindle 1. This ribbon reel 6 is adapted to be driven through a chain of gearing 7, 8 and 9, the gear 8 being shiftable in and out of engagement with the gears 7 and 9 respectively loose and fast on the spindle 1 by suitable mechanism, not herein shown, as the same forms no part of the present invention, for the purpose of reversing the ribbon feed.

The ribbon reel 6 comprises a hollow cylindrical hub 10 having one or more openings or vertically disposed open ended slots 11 therein, rotatable with which is a flange 12 for supporting the ribbon as it is wound and unwound. A cover 13 secured at 14 to the spindle 1 prevents the ribbon from riding up over the edge of the cup 2 and also protects the same from dirt and injury.

A ribbon core 15, shown in the perspective, Fig. 3, is preferably stamped from a strip of slightly resilient sheet metal material into the form of a blank, as shown in Fig. 2. This blank is preferably provided at both ends with ribbon securing means in the form of sharply pointed teeth 16, which in the finished article project outwardly adapted to engage and pierce the end of the ribbon 5 and then be clamped down thereupon, as shown in Fig. 4. Near the outer edge of the blank and preferably at both ends thereof, are projecting keys or lugs 17 which are adapted to be bent inwardly to engage one of the vertically disposed slots 11 in the hub 10, as shown in Fig. 1, thereby to lock the core in operative relation thereto against rotation.

It is to be understood that this core may be manufactured as a separate article and

the ribbon wound thereon at the place where the ribbon is made, and sold to the trade in that form as a finished article.

In operation, after removing the cover 13, the ribbon wound on a core of this style, may be easily slipped over the driving hub 10 and locked in operative relation thereto without further trouble.

It is thus seen that this invention provides for a simple and practical device of the above character accomplishing, among others, the objects and advantages above set forth and allowing the ribbon to be quickly attached or detached from the machine with the least amount of inconvenience.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

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

1. A ribbon core comprising a hollow body portion having inwardly projecting key lugs forming a double thickness of metal, and means associated with said body portion adjacent said lugs adapted to pierce and hold any part of a ribbon.

2. A ribbon core comprising a hollow body portion having inwardly projecting key lugs forming a double thickness of metal, and oppositely extending flexible teeth adapted to pierce a ribbon at any point and be bent down thereupon to hold it in attached position.

3. A ribbon core comprising a hollow body having means forming an inwardly projecting key lug, and oppositely extending teeth adapted to hold a ribbon.

4. A ribbon core comprising a hollow body having means forming an inwardly projecting key lug, and oppositely and outwardly extending pointed teeth adapted to hold a ribbon.

5. A ribbon core comprising a strip of metal bent into a hollow resilient body an inwardly projecting key lug therefor formed by the adjacent ends of the strip, and means at each end adapted to penetrate and attach a ribbon thereto.

6. In ribbon mechanism, in combination, a ribbon, a support, a core on which said ribbon is wound adapted to surround said support, said support having a slot therein, a flange on said core adapted to engage said slot to lock the core against rotation, and means on said core for attaching any portion of a ribbon thereto.

7. In ribbon mechanism, in combination, a ribbon, a support, a core on which said ribbon is wound adapted to surround said support, said support having a slot therein, a flange on said core adapted to engage said slot to lock the core against rotation, and teeth projecting from said core whereby the ribbon may be connected therewith.

8. In ribbon mechanism in combination, a ribbon, a rotatable support having a slot therein, a ribbon core on which said ribbon is adapted to be wound, outwardly projecting teeth on said core adapted to secure a ribbon thereto, and means adapted to engage said slot to lock the same against rotation, said means being the inwardly bent ends of said core.

9. In ribbon mechanism, in combination, a ribbon, a rotatable support having a slot therein, a ribbon core comprising a resilient strip of material bent in the form of a cylinder and having one of its ends bent inwardly to engage said slot to lock the core in operative relation, and teeth projecting from said core whereby the ribbon may be detachably secured thereto.

10. In ribbon mechanism, in combination, a ribbon, a rotatable support having an opening therein, a ribbon core comprising a resilient strip of material bent in the form of a cylinder and having one of its ends bent inwardly to engage said opening to lock the core in operative relation, and oppositely disposed teeth projecting from said core whereby the ribbon may be detachably secured thereto.

11. In ribbon mechanism, in combination, a ribbon, a rotatable cylindrical support having an opening therein, a ribbon core on which the ribbon is adapted to be wound comprising a strip of resilient material bent into the form of a cylinder and having its ends turned in, adapted to engage said opening to lock the core in operative relation, and oppositely disposed intermeshing teeth projecting from said strip of resilient material adapted to pierce the end of said ribbon to secure the same thereto.

12. A blank for a ribbon core comprising a strip of resilient sheet metal adapted to be bent into cylindrical form, having teeth at both ends thereof whereby the ribbon may be secured thereto.

13. A blank for a ribbon core comprising a strip of resilient metal adapted to be bent into cylindrical form, having teeth projecting therefrom whereby the ribbon may be secured thereto, and lugs at one end thereof adapted to be bent inwardly whereby the finished article may be locked in operative position.

14. A blank for a ribbon core comprising a strip of resilient metal adapted to be bent into cylindrical form, having projecting teeth at both ends thereof whereby the ribbon may be secured thereto, and lugs at both

ends thereof adapted to be bent inwardly whereby the finished article may be locked in operative position.

15. A ribbon core, comprising a body portion having two inwardly extending lug portions, and ribbon piercing means adjacent said lug portions.

16. A ribbon core, comprising a body portion having two inwardly extending lug portions, and ribbon piercing means comprising inter-meshing flexible teeth adjacent said lug portions.

In testimony whereof I affix my signature, in the presence of two witnesses.

JOSEPH ALBERT RONCHETTI.

Witnesses:

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ROY J. SOULER.