

No. 835,722.

PATENTED NOV. 13, 1906.

N. L. ANDERSON.
TYPE WRITER RIBBON THREADER.
APPLICATION FILED MAR. 26, 1906.

Fig. 1.

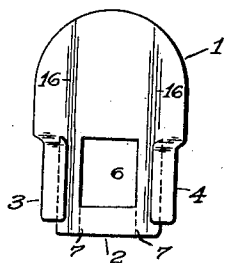


Fig. 2.

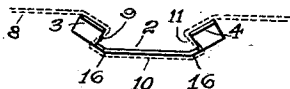
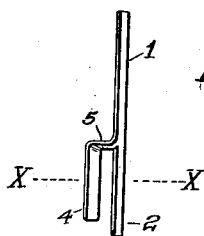


Fig. 3.

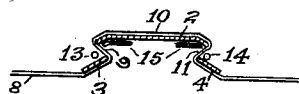


Fig. 4.

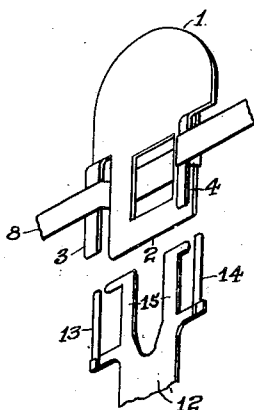


Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

NEAL L. ANDERSON, OF MONTGOMERY, ALABAMA, ASSIGNOR TO
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TYPE-WRITER-RIBBON THREADER.

No. 835,722.

Specification of Letters Patent.

Patented Nov. 13, 1906.

Application filed March 26, 1906. Serial No. 308,076.

To all whom it may concern:

Be it known that I, NEAL L. ANDERSON, a citizen of the United States, residing in Montgomery city, in the county of Montgomery and State of Alabama, have invented a certain new and useful Type-Writer-Ribbon Threader, of which the following is a specification.

This invention relates to means for facilitating the threading or introduction of ribbons into the usual vibratory ribbon-carriers of front-strike and other visible-writing machines. Said ribbon-carriers are usually made so that the ribbon can be inserted and withdrawn edgewise; but the openings for the ribbon are usually very constricted, and the ribbon must be caused to assume a tortuous form in order to enter the openings, of which two are usually provided—one at each side of the ribbon-vibrator. The vibrator, moreover, is usually placed in a narrow space between a type-guide and a platen, and by reason of all of these conditions it is found very difficult to thread the ribbon into the vibrator.

The object of my invention is to overcome this difficulty, and to that end I have provided a ribbon-threader which is given a form different from but corresponding to the form of the ribbon-vibrator. The ribbon may be easily inserted in or wound about the parts of the threader and presented thereby to the ribbon-vibrator and the ribbon easily slipped from the threader upon the vibrator. The threader in its preferred form comprises a handle portion and two side prongs with an intervening back. The ribbon is caught around the back and extends forwardly from the sides of said prongs, and these forwardly-extending portions of the ribbon, which are at sharp angles to the back portions, are in position to pass down readily into the narrow openings which are provided in the ribbon-vibrator, so that it is only necessary to place the ribbon properly upon the threader and then pass the latter down in proper relation until it fits upon the vibrator, whereby the ribbon is automatically threaded upon the latter, and the threader may be withdrawn.

In the accompanying drawings, Figure 1 is a front view, and Fig. 2 a side or edge view, of one form of ribbon-threader. Fig. 3 is an

inverted edge view of the ribbon-threader, the position of the ribbon upon said threader being indicated by dotted lines. Fig. 4 illustrates the threader in position upon the ribbon-vibrator, a top view of the latter being shown and the threader being shown in section from the line X X, Fig. 2. This figure also shows how the ribbon when upon the threader is enabled to pass readily down upon the ribbon-vibrator. At the lower part of Fig. 4 the ribbon is shown upon the vibrator after the withdrawal of the threader. Fig. 5 is a perspective view illustrating the manner of threading the vibrator.

The threader, which is illustrated as formed of a single piece of struck-up sheet metal, although it may be otherwise formed, preferably comprises a handle 1, a back plate or part 2, and front side prongs 3 4, the latter formed by slitting the metal and bending it forwardly to form short offsets 5 and then downwardly to form the prongs. The back may be formed with an aperture 6, through which the ribbon may be seen, and, if desired, this aperture may be extended along the dotted lines 7 to form an open slot, so that the back will consist of a pair of prongs. As seen in the inverted view at Fig. 3, the ribbon 8 is wound around prong 3 and back at 9 to traverse the space between said prong and the back portion 2 of the threader and then around said back portion, as at 10, to the other side thereof and forwardly at 11 and around the prong 4, the portion of the ribbon between the prongs forming a loop. The threader, with the ribbon thereon, is then thrust downwardly upon the ribbon-vibrator 12, Fig. 5, the back portion 2 passing behind the vibrator and the ears 3 4 passing in front of the ribbon-guiding pins 13 14, usually provided upon the vibrator. The ribbon, which is usually carried upon a pair of spools, placed one at each side of the vibrator, is sufficiently taut upon the threader so that the angularly-disposed portions 9 and 11 thereof pass readily down in the narrow openings one in each side of the vibrator between the arms 15 and the pins 13 14, while the broad portion 10 of the loop slips down behind the arms 15 of the vibrator, as clearly seen at Fig. 4. The ribbon and threader drop down together, so that the ribbon assumes its proper position upon the vibrator

without changing its position upon the threader. The ribbon is then held down while the threader is withdrawn, thus completing the operation with the ribbon in the position seen at the lower part of Fig. 4.

Preferably the prongs 3 4 overlap the side edges of the back 2, as seen at Fig. 1, so that the portions 9 11 of the ribbon may stand at the best angles for passing behind the pins 13 14. This overlapping relation may be secured by making slight forward bends at 16 in the plate.

Variations may be resorted to within the scope of the invention.

Having thus described my invention, I claim—

1. A ribbon-threader having a handle, a pair of prongs, and an intervening offset part coöperating with the prongs, to hold the ribbon in the form of a loop, so that it will slip readily from the threader upon the ribbon-carrier of a type-writing machine.

2. A ribbon-threader comprising a body

portion, and two prongs extending from each side of the body, the prongs extending all in the same general direction, and one prong at each side being in front of the other, so that a ribbon winding from the front prong to the back prong at one side of the threader and then crossing to the other back prong and passing around that to the front prong, would be in position to slip readily upon the prongs of a ribbon-vibrator.

3. A ribbon-threader formed of a single piece of sheet metal and comprising a handle, a rear support and two side prongs in front of said support and separated therefrom, so that the portions of the ribbon winding from the prongs to said support may stand at sharp angles to the portion of the ribbon which is wound over said support.

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Witnesses:

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