No. 673,091. Patented Apr. 30, 1901.

C. H. SHEPARD.

RIBBON WINDING DEVICE.

(Application filed Feb. 5, 1900.)

(No Model.)

FIG. 1.

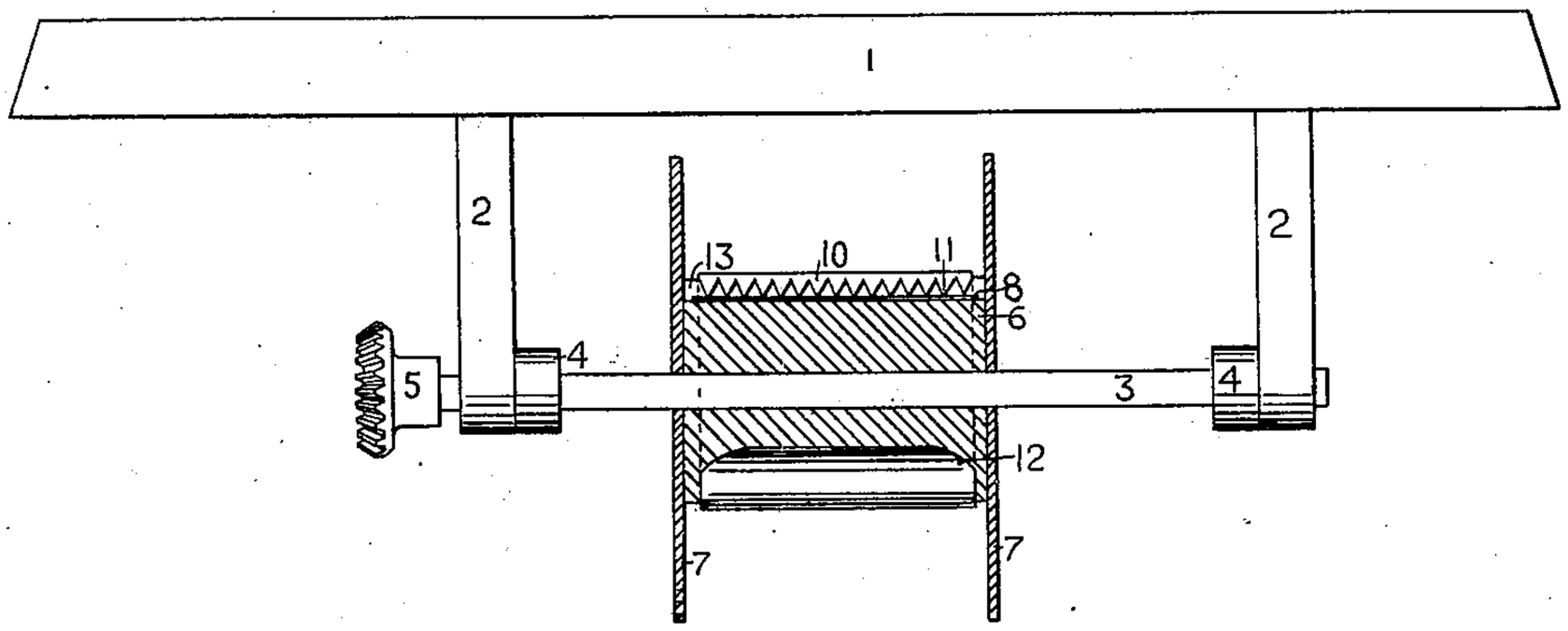


FIG. 2.

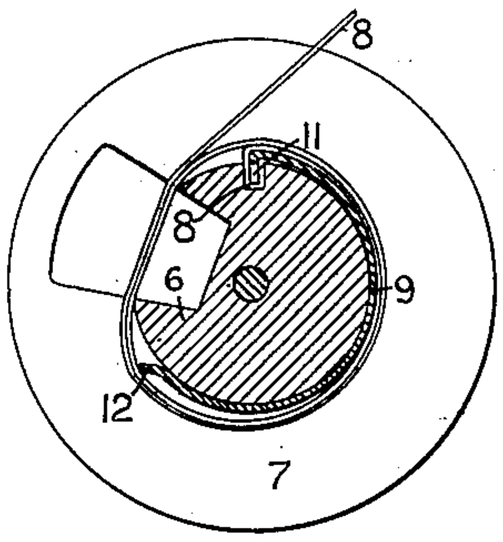


FIG. 3.

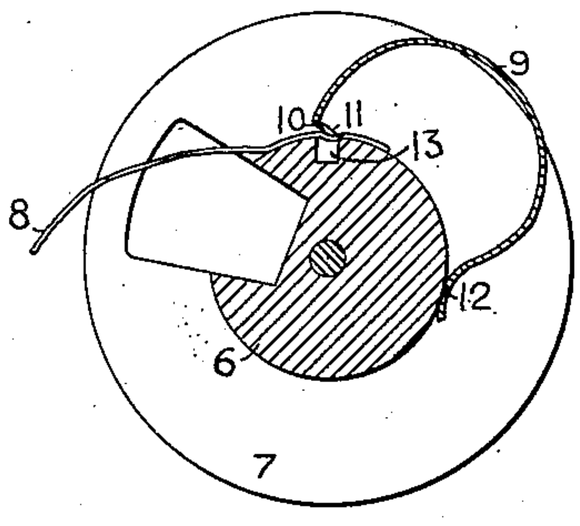


FIG. 4.

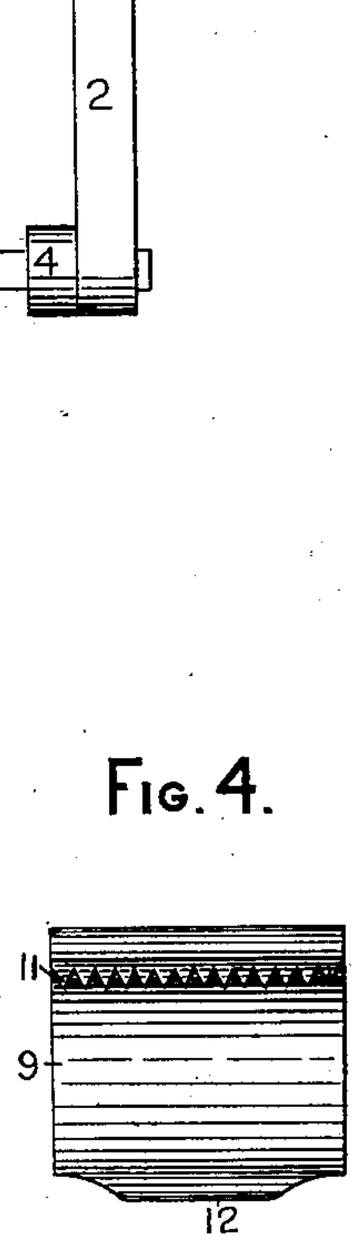
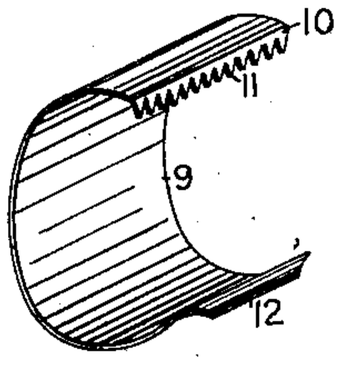


FIG. 5.



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RIBBON-WINDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 673,091, dated April 30, 1901.

Application filed February 5, 1900. Serial No. 3,924. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. SHEPARD, a citizen of the United States, and a resident of the borough of Brooklyn, city of New York, in the county of Kings and State of New York, have invented certain new and useful Improvements in Ribbon-Winding Devices, of which the following is a specification.

The present invention relates to ribbon-winding devices; and its object is to provide means for readily attaching the end of a ribbon to a ribbon-spool and for readily detaching the same.

The invention consists in certain combinations of devices and features of construction, as will be more fully hereinafter described, and particularly set forth in the appended claims.

In the accompanying drawings, Figure 1 is a side elevation of so much of a Remington No. 6 type-writing machine as is necessary to illustrate my invention. Fig. 2 is a cross-sectional elevation of a ribbon-spool, showing the ribbon secured thereto. Fig. 3 is a similar view to Fig. 2, showing the method of securing the end of the ribbon. Fig. 4 is an elevation, and Fig. 5 is a perspective view, of a ribbon-clasp.

Throughout the several views the same part is designated by the same numeral of reference.

1 represents the top plate of a Remington type-writing machine; 2, brackets depending therefrom; 3, a spool-carrying shaft having bearings in the lower ends of said brackets; 4, collars on said shaft; 5, a beveled pinion secured to one end of said shaft for the purpose of rotating the latter. The ribbon-spool comprises a core 6 and a pair of heads or flanges 7. The ribbon is designated as 8.

The ribbon-clasp may be made in a variety of ways within the spirit of the invention; but I preferably make it of sheet metal bent into C shape, the curved body of the clasp being designated as 9. At one end the metal of the clasp is bent inwardly at right angles to the body portion to form a lip or projection 10, which is provided with a serrated edge 11. At its opposite end the ribbon-clasp is reversely curved to form a lip at 12, which facilitates the application of the clasp to the core and also its removal therefrom. In the body of the ribbon-core is provided a recess 13, extending longitudinally of the core or in a direction parallel with the spool-axis, the depth of the recess being sufficient to receive the serrated lip 10.

The end of the ribbon is placed loosely upon the core of the spool, so as to cover the recess 13. The serrated edge 11 of the ribbon-clasp is then placed against the ribbon, so as to fold the latter down into said recess at the same time that the clasp is slipped over the body of the core. The distance across the clasp between the angle 10 and the reversely-curved lip 12 is somewhat less than the diameter of the core, while the length of the clasp is such as to embrace more than half of the periphery of the core, and as the clasp is pressed against the core, Fig. 3, the former opens sufficiently to allow the lip 12 to pass beyond the point in the periphery of the core which is opposite the recess 13. The clasp is then forced still farther on and clamps itself upon the core. The extreme end of the ribbon rests upon the periphery of the spool and passes thence down one side of the recess 13, then across the bottom of said recess and in contact with the teeth 11, and then up the opposite side of the recess. Any attempt to pull the ribbon off the spool causes the former to be caught more tightly by the teeth 11. The ribbon being thus positively secured to the core may be wound in either direction thereon. In removing the ribbon it is only necessary to slip off the clasp, when the ribbon drops from the spool.

Heretofore it has been customary to provide each ribbon-spool with a short tab or length of tape, which is secured to the core by means of small tacks, the end of the ribbon being pinned to the free end of the tab. By means of the present invention the tab is dispensed with, and the end of the ribbon may be secured to the spool and detached therefrom by a very simple operation and without liability of soiling the fingers.

The clasp is an inexpensive article of manufacture and not subject to wear or liable to get out of order.

While I have shown my improvements as adapted to a Remington machine, they are

obviously adapted also to any other machine in which a ribbon is used.

Many changes may be made without departing from the spirit of the invention. It is not essential that the clasp be formed of a solid piece of sheet metal.

What I claim as new, and desire to secure by Letters Patent, is as follows:

1. In an inking-ribbon-winding device, the combination of a ribbon-spool core having a longitudinal recess, and a detachable self-clamping spring-clasp, one end of which is serrated and bent inwardly to coact with said recess to hold the end of the ribbon therein, the distance across the clasp between the inwardly-bent portion and the opposite end of the clasp being less than the diameter of the core when the clasp is detached, and the length of the clasp being such that when sprung upon the core it will embrace more than half of the periphery thereof.

2. In an inking-ribbon-winding device, the combination of a ribbon-spool core having a longitudinal recess and a self-clamping spring-clasp comprising the body portion 9, the inwardly-bent serrated end 10 11 and the outwardly-curved lip 12.

Signed in the borough of Manhattan, city of New York, in the county of New York and State of New York, this 2d day of February, A. D. 1900.

CHARLES H. SHEPARD.

Witnesses:
ETHEL M. WELLS,
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