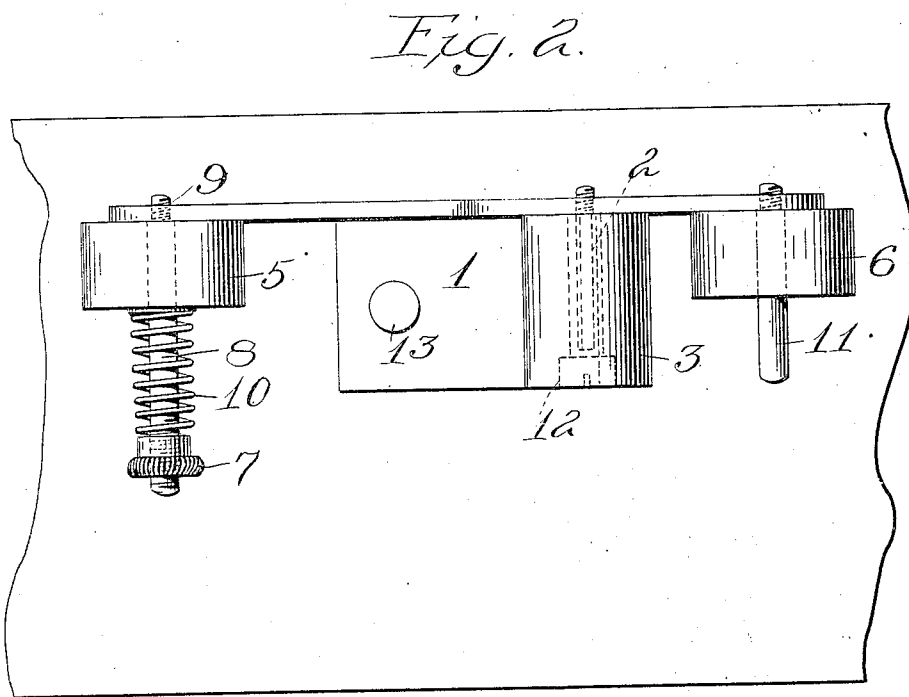
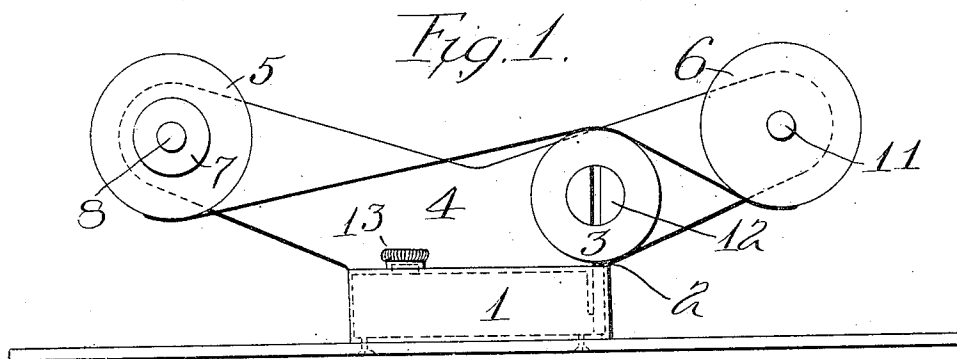


C. OWENS.
 MEANS FOR TREATING TYPE WRITER RIBBONS.
 APPLICATION FILED SEPT. 1, 1911.

1,049,139.

Patented Dec. 31, 1912.



Attest:
 Centon, Stahl
 E. W. Middleton

Inventor:
 Charles Owens.
 By Spear, Middleton, Donaldson & Spear

UNITED STATES PATENT OFFICE.

CHARLES OWENS, OF CHATTANOOGA, TENNESSEE.

MEANS FOR TREATING TYPE-WRITER RIBBONS.

1,049,139.

Specification of Letters Patent.

Patented Dec. 31, 1912.

Application filed September 1, 1911. Serial No. 647,259.

To all whom it may concern:

Be it known that I, CHARLES OWENS, citizen of the United States, residing at Chattanooga, Tennessee, have invented certain new and useful Improvements in Means for Treating Type-Writer Ribbons, of which the following is a specification.

The object of the invention is to provide means that will enable a typewriter operator to re-ink old ribbons or re-distribute the ink on such ribbons.

In practice the central portion of the ribbon is mostly used, and the ink here becomes exhausted or reduced, while along the sides of the ribbon a larger quantity of ink remains. By my invention the operator will be enabled to distribute over the ribbon a fluid which will take up the larger quantity lying along the edges or side portions of the ribbon, and distribute it evenly across the full surface so that the central portion will be re-inked for further use.

The invention consists in the features and combination and arrangement of parts hereinafter described and particularly pointed out in the claim.

In the accompanying drawings Figure 1 is a side elevation of the device, and Fig. 2 a plan view.

In these drawings, 1 indicates a tank supported upon a suitable base to contain the fluid for acting upon the ink on the ribbon to take it up from the edges and flow it or distribute it over the middle portion of the ribbon. This tank contains a wick 2, upon which a roller 3 contacts, said roller being mounted in a bracket 4 attached to the tank or other suitable place, said bracket having arms extending away from each other and carrying rollers 5 and 6. The roller 5 is provided with a tension or retarding device consisting of a nut 7 on a screw-threaded rod 8 which passes through the roller and is screwed into the frame or supporting arm at 9, said rod acting as the shaft or bearing about which the roller 5 may turn, and a spring 10 being interposed between the nut and the side face of the roller so as to apply a retaining pressure thereto. The other roller 6 is simply mounted on a pin 11 which is carried by the frame or bracket arm 4, this roller being free to turn. The roller 3 is mounted on a shoulder screw 12 which is screwed into the frame or bracket 4.

At 13 is shown a suitable screw stopper which may be removed for filling the tank.

In the operation of the device, the ribbon is wound on the spool or roller 5, and is drawn over the distributing roller 3, and suitably attached to the roller 6, and upon winding the roller 6 the ribbon will be wound thereon, the retarding effect of the spring 10 being adjusted to give the desired tension to the ribbon, and as this passes over the roller 3, it will rotate the same so that this roller, being in contact with the wick, will take up the fluid held thereby, and carry it to the ribbon, so that the ink thereon will be converted into such a fluid state as will cause it to be distributed or to be flowed over the entire ribbon from edge to edge to thus supply the worn or dry central portion with the ink. Any suitable inking means may be employed for the roller 6. It is the intention to take the spools that are already on the typewriter and wind all of the ribbon on one spool, and then wind from this spool to the other spool, it being understood that most typewriter spools are provided with winding means.

It is important to note that the roller 5 is under tension and when the winding force is applied to the roller 6, in order to wind the ribbon thereon, the ribbon is drawn out at an angle over the roller 3 and from the roller 5, which is under restraint. Therefore the pull of the ribbon is frictionally upon the roller 3, but the wick 2 is in contact with the roller 3, and as shown in Fig. 2, extends across said roller in line parallel with its axis. This puts the roller 3 in frictional contact with the wick so that there is a drag upon said roller, causing rubbing between the wick and roller. It will be borne in mind that as above explained, the design is to distribute over the ribbon a fluid which will take up the larger quantity of ink along the edges or side portions of the ribbon and distribute it evenly over the entire surface which is necessary in order that the ribbon may be restored to its original condition as to the ink. The even distribution requires that there shall not be either an excess on the margin, or lack in the central portions of the ribbon. This could not be accomplished by drawing the ribbon through a tank, but it is perfectly effected by the rubbing action of the wick. At the same time the capillary function of the wick gives an even distribution in quality and quantity and together with the rubbing action restores the even impregnation of the ribbon.

I claim as my invention:

5 An apparatus for re-inking the ribbon of a typewriting machine, comprising an ink tank, a wick therein arranged to bear upon the face of an ink transferring roller in line parallel with the axis of said roller, an ink transferring roller mounted in fixed relation to said wick, and arranged to be pressed upon by the ribbon of a typewriting ma-

chine, whereby the said roller is revolved by 10 direct action of the ribbon, and the ink is spread by the tension of the ribbon.

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

CHARLES OWENS

Witnesses:

A. E. WILLIAMSON,
B. E. SIMON.