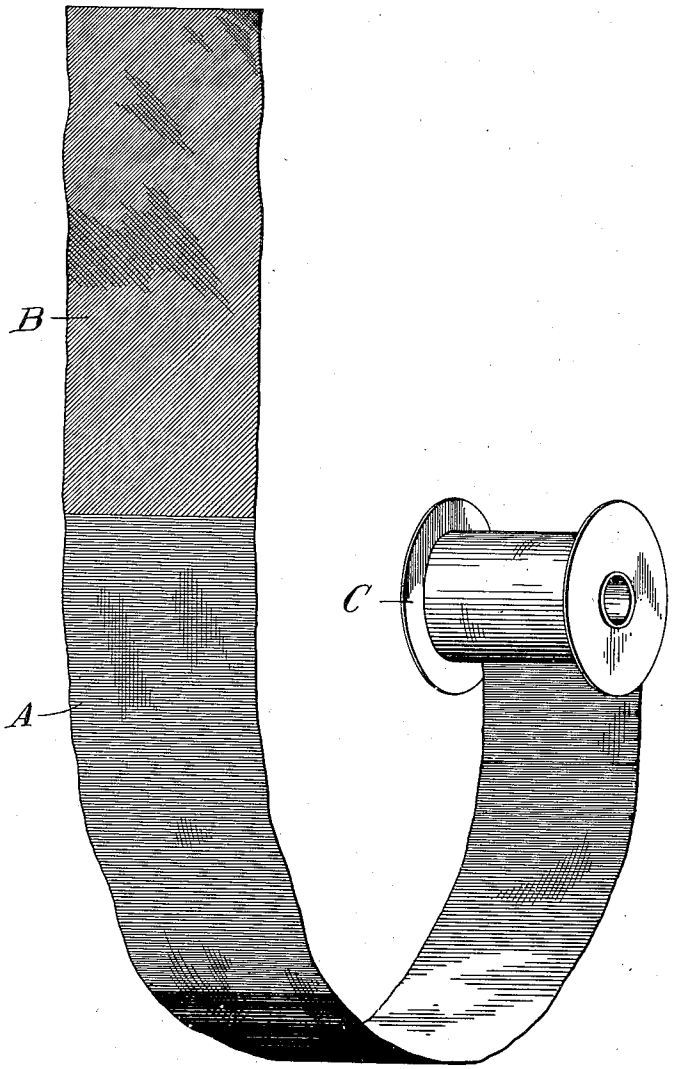
G. T. NEWTON.

INKING RIBBON.

APPLICATION FILED OCT. 21, 1907.

960,036. Patented May 31, 1910.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE T. NEWTON, OF DOVER BAY, OHIO, ASSIGNOR TO THE AMERICAN MULTIGRAPH COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

INKING-RIBBON.

960,036. Specification of Letters Patent. Patented May 31, 1910.

Application filed October 21, 1907. Serial No. 398,304.

To all whom it may concern:

Be it known that I, GEORGE T. NEWTON, a citizen of the United States, residing at Dover Bay, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Inking-Ribbons, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

In typewriting machines, printing machines, dating machines, and other places where an inking ribbon is used, the soiling of the operator's fingers in securing the ribbon to its spool has always been an objectionable feature. To obviate this, it has been proposed to provide the ribbon with an uninked fabric extension. This not only increases the expense, but is unsatisfactory by reason of the ribbon pulling unevenly on such extension, and the extension itself is very liable to become so soiled as to ink the fingers. Owing to the method of manufacture of ribbons in continuous lengths, it is not feasible to leave a portion of the original fabric uninked adjacent to the ends.

I have discovered that the desired result of preventing soiling the operator's hands may be accomplished by providing the inked ribbon near its ends with a suitable coating or protection which is impervious to ink. This coating has the additional feature of forming a protection for the wound-up spool on the outside, preventing its drying out and obviating the necessity of a tin-foil wrapping. The present invention comprises broadly as a new article of manufacture an inked ribbon provided near its end with a protection outside of the ink. More specifically, the invention includes an inked ribbon having a chemical glazing or surface outside of the ink. The further feature of the glazing being impervious to moisture to protect the wound-up spool is also a feature of this invention. The protection desired can be very satisfactorily provided by a coating of gelatin and formaldehyde. This may be applied by dipping the ribbon in such mixture. A satisfactory mixture may be made by soaking gelatin in cold water for twenty minutes in the proportion of 30 grains of gelatin to each ounce of water, then heating the same in a suitable double boiler to melt the gelatin, then just before using adding to each ounce of the solution 15 drops of formaldehyde, and then immersing the end of the ribbon in the hot solution. The formaldehyde hardens the gelatin and the same makes a coating over the end of the ribbon which, while giving the protection desired, is so flexible as to be of no interference whatever in winding the ribbon or securing the end. The coating described protects the ribbon, so that it is impossible for the operator's fingers to receive ink through the coating. The coating is water-proof and it is provided on the ends for a sufficient distance preferably to make one complete turn about the wound-up spool, thus making an absolute water-proof covering for the spool and doing away with the necessity of external coverings.

The drawing is a perspective view of a spool and a ribbon partially unwound therefrom.

In this view A represents the main inked portion, B the protected portion, and C a suitable spool. The drawing shows the ribbon having substantially the proportions suitable for a standard typewriter, but it is to be understood that the invention is equally adaptable for wide ribbons such as used on the Multigraph, or, indeed, any size or shape of ribbon. The coated portion naturally has a somewhat different appearance from the rest of the ribbon, thus apprising the operator of the portion he may finger. This difference in appearance may be heightened by putting a pigment in the coating solution, as, for example, a suitable anilin color.

I claim:

1. As a new article of manufacture, an impression ribbon inked throughout its length, and means impregnating and covering portions of said ribbon adjacent to its extremities, whereby the ribbon may be handled without soiling the operator's hands.

2. An inked impression ribbon protected by a chemical impregnating the ribbon and covering a portion of the ink.

3. An inked impression fabric having means impregnating an inked portion thereof, such impregnant being adjacent to the end of the fabric and extending for a sufficient distance to enable it to cover the fabric when wound up.

4. As a new article of manufacture, an inked impression ribbon having a chemical impervious to ink impregnating a portion of the inked surface and thereby protecting

the operator's hands from being soiled by contact with such portion of the surface.

5. An inked ribbon having near its ends over the ink a chemical impervious to ink and water-proof, said chemical impregnating the ribbon and protecting the operator's hands from soiling and adapted to protect the wound-up ribbon from moisture.

6. An inking ribbon having near its end a protecting chemical coating, such coated portion having a different appearance from the uncoated portion sufficient for detection, but without preventing observance at the coated portion of the general color of the ribbon.

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

GEORGE T. NEWTON.

Witnesses:
W. DUNLAP,
ALBERT H. BATES.