

No. 622,361.

Patented Apr. 4, 1899.

R. G. HOPKINS.
TYPE WRITER RIBBON.
(Application filed Nov. 12, 1897.)

(No Model.)

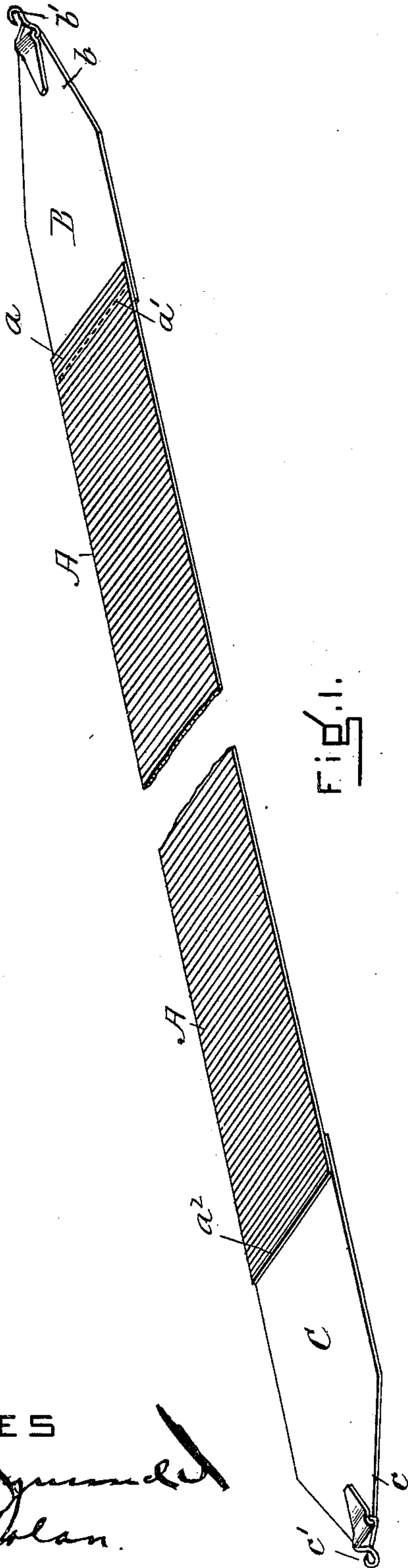


Fig. 1.

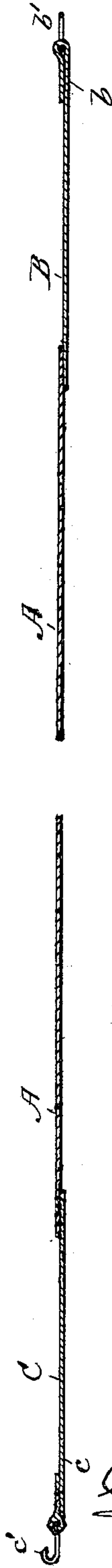


Fig. 2.

WITNESSES
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TYPE-WRITER RIBBON.

SPECIFICATION forming part of Letters Patent No. 622,361, dated April 4, 1899.

Application filed November 12, 1897. Serial No. 658,274. (No model.)

To all whom it may concern:

Be it known that I, ROBERT G. HOPKINS, a citizen of the United States, residing at Somerville, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Type-Writer Ribbons, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

This invention relates to a type-writer ribbon which is provided with uninked attaching ends or tabs during the process of manufacture, one of these ends being secured to the forward end of the ribbon by sewing, and the other of which is attached to the opposite end of the ribbon by adhesive material, the advantage of this construction being that as the front end of the ribbon comes out from the inking-machine the tab can be quickly sewed on without interfering with the usual operation of the inking-machine and while that operation is taking place, the rear tab being applied after the determined length has been cut off. A complete ribbon is thus provided with clean ends, so that it may be handled in and about the type-writing machine without soiling the fingers or the machine, and the making of such a ribbon can be carried on without unduly lengthening the process of manufacture or increasing the cost.

In the manufacture of type-writer ribbons the cloth composing the ribbons is fed through an inking-machine or device at considerable speed, and in order that the ribbon may be wound on a reel as rapidly as it is inked it is desirable that the union between the forward end of the inked ribbon and the rear of the clean end or tab should be made as quickly as possible. I have ascertained that this quick union may best be obtained by causing the forward end of the inked ribbon to lap slightly upon the rear of the forward clean end or tab and by then sewing them together by a seam extending across the two from one edge to the other. A seam of this character can be very readily and quickly placed. This provides the advanced end of the ribbon with the clean end, which may immediately be attached to the reel and the winding of the ribbon begun and the operation of the inking

machine or devices continued. The ribbon having been inked, its rear end is wound upon the reel and is not then in a position to have readily attached to it by sewing the rear clean end or tab, and as time is not then of so much value I prefer to unite the said rear end of the ribbon to the rear clean end by an adhesive material. The rear clean end is caused to lap slightly upon the rear end of the inked ribbon, and an adhesive material previously interposed between the two unites them.

It will be understood that each clean end or tab is also provided at its outer end with an attaching device, which preferably is in the shape of a hook.

In the drawings, Figure 1 is a view in perspective of both ends of a type-writer ribbon having the features of my invention. Fig. 2 is a view of these ends in vertical central section.

A represents the inked ribbon.

B is the forward clean end or tab, and C the rear clean end or tab. The ribbon may be of any of the usual cloths or fabrics and may be inked in any desirable way. I prefer that the ends B C be made of paper, that each be for a short distance of the width of the ribbon, and that each have a tapering tongue or outer end gradually and regularly decreasing in width; and *b* represents the tapering section of the clean end B, and *c* the tapering section of the clean end C. Each of these tapering parts or tongues has attached to it the hook or attaching device, the clean end B having the hook *b'* and the clean end C having the hook *c'*. Each hook is preferably made of wire and is formed at its rear end into a loop, providing a cross-bar over which the pointed end of the tongue is passed and returned upon itself and fastened to itself by adhesive material.

Each clean end is preferably made of paper, and the clean end B is united to the forward end *a* of the ribbon by a seam *a'*, sewed across the end of the ribbon and the rear of the clean end, the ribbon lapping upon the clean end and the seam extending from one edge to the other through both. The rear end *a''* of the ribbon is united to the rear of the clean end C by adhesive material interposed between the rear end of the ribbon and

the clean end. There is thus afforded means by which the type-writer ribbons may be more quickly and economically made and also a ribbon provided with means by which it
5 may be handled and attached both to the reel of the inking-machine and to the shipping and sales reel and to the reels of the type-writing machine without soiling the fingers of the person handling or using the same
10 and without requiring the use of other and separate devices for attaching it to said reels.

I prefer to use for the clean ends paper which has been treated with a non-absorbent filling, whereby it is made non-absorbent and
15 impervious to the ink, and I also prefer to employ but one thickness of this paper in forming the end.

By making the part to which the hook is attached of paper or some other like material the tab will retain its shape and can be
20 easily wound and packed with the ribbon when it is put up for sale and will not become entangled in the mechanism of the type-

writing machine, as it might if made, for example, of cord or the like.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. As an improved article of manufacture, a type-writer ribbon having the inked section A, the clean end or tab B united to the end a by the stitches a' , and the clean end or tab C united to the end a^2 by an adhesive substance.

2. The type-writer ribbon above described consisting of an inked section having at each end a clean tab of paper or the like, the rear section of which is of the width of the ribbon, said tab having a tapering tongue and carrying at its extremity a hook, as and for the purposes set forth.

ROBERT G. HOPKINS.

Witnesses:

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