

H. H. ANGELL.
 INKING DEVICE FOR TYPE WRITING MACHINES.
 APPLICATION FILED AUG. 26, 1908.

952,091.

Patented Mar. 15, 1910.

Fig. 1.

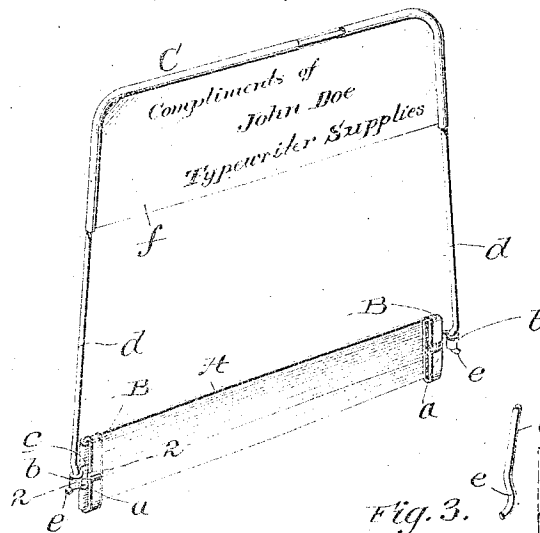


Fig. 2.



Fig. 3.

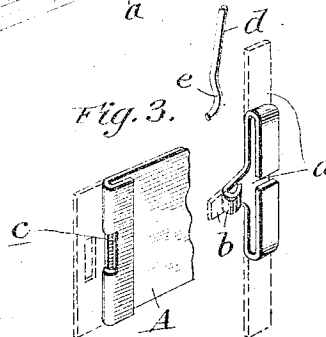
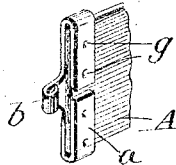


Fig. 4.



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UNITED STATES PATENT OFFICE.

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INKING DEVICE FOR TYPE-WRITING MACHINES.

952,091.

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To all whom it may concern:

Be it known that I, HENRY H. ANGELL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Inking Devices for Type-Writing Machines, of which the following is a specification.

My invention pertains to inking devices for type-writing machines, designed to permit the ready substitution of a distinctive or different color for that normally used in the type-writing machine.

A further purpose is to utilize the device as an advertising medium.

In the accompanying drawings: Figure 1 is a perspective view of the device in complete form; Fig. 2, a sectional view on the line 2-2 of Fig. 1; Fig. 3, a perspective view of one of the ribbon clamps, an end of the ribbon and one arm of the spreader, separated one from another better to show their construction, the form of the parts before folding being indicated in dotted lines; and Fig. 4, a perspective view showing a modification.

For certain classes of type-writing work it is often desirable to be able to print portions of the work in a distinctive color, or one different from that in which the body of the work is printed. This is especially true in tabulated work, bills, accounts, etc., where the totals are commonly printed in red, while the body of the work is in black, blue, purple, or other usual color for general work. To meet this end special ribbon shifting devices have been provided, and separate ribbons of different colors, or ribbons having two or more different color strips or zones, have been employed. It is found that for general office work the added complication incident to the ribbon shift, and the loss by reason of reducing the ribbon surface of the more generally used color in order to make room for the less frequently used one, render such construction undesirable.

My invention aims to provide means whereby the operator may readily print in the desired color those relatively small portions of the work which require to be in a distinctive ink, while yet avoiding the complication and expense of the multicolor ribbon mechanism built in, and constituting a part of, the type-writing machine.

Referring to the annexed drawings, A in-

dicates a piece of inking ribbon, which is preferably made of the extreme width of the ribbons used on the ordinary under-stroke machine; that is to say, a width, approximately, of an inch, though it may be wider or narrower as desired. This ribbon will be of usual character, and may be of any color desired. Its length is advisably about equal to the length of the platen of the machine with which it is to be used, but this again may vary within reasonable limits. Each end of the ribbon A is held in a suitable clasp B, which may conveniently be made in the form illustrated in Figs. 1, 2 and 3. As best shown in the last named figure, this clasp consists of a piece of sheet metal having a body *a* of a length approximately twice the width of the ribbon, and having a lateral arm or extension *b* at or about its midlength. The ribbon is preferably provided with a slit or opening *c* through which is passed the arm *b* of the clasp B, the end of the ribbon being then folded upon itself as indicated in Fig. 3, and the ends of the body portion *a* being folded down and pressed firmly upon the folded end of the ribbon, as best shown in Fig. 2, thus firmly clamping the ribbon from edge to edge and holding it stretched widthwise, so as to avoid wrinkling or creasing. The arm *b* is bent into the form of an eye, as shown in the several figures, to receive the end of one arm *d* of a spreader C, it being understood, of course, that both ends of the ribbon are provided with the clasps B as shown in Fig. 1. The spreader C consists merely of a piece of spring wire, or like resilient material, bent to a substantially U form, the ends of the arms *d* being preferably bent into the form of shallow hooks *e*, Figs. 1 and 3, to better insure their retention in the eyes formed by the folding of the arms *b* of the clasps. The eyes may be first formed and the hooks *e* inserted into them, or the arms *b* may be folded about the hooks to produce the eyes, as found convenient.

Secured to or forming a part of the spreader C, is a stiffening plate *f* preferably made of sheet metal, and having its outer edge turned over or flanged about the wire spreader across its inner portion between the arms *d*, *d*, and for a suitable distance downward on each of said arms. This plate not only gives stiffness and support to the

arms *d*, but it maintains them in plane with the portion connecting them, affords a good finger hold, and, incidentally, provides a surface upon which may be placed any suitable advertising matter, or instructions for the use of the device.

The spring arms *d*, *d*, are so formed, and at such distance apart at their free ends, as to exert upon the clasp B, and consequently upon the ribbon A, a tension sufficient to maintain the same taut and in smooth, flat condition, free from wrinkles and creases.

As an obvious modification of the construction above described, I may omit the slit or opening *c* in the ribbon, and simply lay its ends, folded or unfolded, upon the respective clasp bodies *a*, and thereafter bend down the ends or arms thereof upon the ribbon as shown in Fig. 4, making suitable indentations or spurs, *g*, to better hold the ribbon.

The device constructed in this form is held by the type-writer operator in the fingers of one hand in such position that the ribbon A shall be directly in the path of the type, and close to the platen or paper thereon. This may and ordinarily will be done without removing or in any manner disturbing the permanent ribbon of the machine.

If desired the ribbon A may be provided with a paper or other backing to prevent transmission of ink from either ribbon to the other, though practical use of the device has demonstrated that this is not essential.

A single holder or spreader may serve for a series of ribbons of different colors or characters, but owing to the extreme cheapness of the device it is perhaps preferable to provide each ribbon with its own holder.

The term "ribbon" is here used in a comprehensive sense, and to include any thin fabric, woven, fibrous, or other, capable of being impregnated or coated with ink or pigment, and of properly giving off the same

under the blows of the type of a type-writing machine.

The device is designed primarily for use with visible or front or top stroke machines, though not necessarily confined thereto.

By moving the ribbon slightly widthwise different portions thereof may be brought to printing position, and the entire surface of the ribbon thus utilized; hence the ribbon may be used for a considerable time without change. Owing to the relatively short length of the ribbon it may, however, be renewed frequently at nominal expense.

Though I have described the spreader as of resilient material, and have proposed the use of clasps for the ends of the ribbon, and prefer to follow such construction in practice, neither of these features is essential, but the arms of the spreader may be rigid and the ends of the ribbon may be directly applied or secured thereto in any convenient way.

The stiffening plate may in some cases be omitted.

Having thus described my invention, what I claim is:

1. An inking device for type-writing machines, comprising a section A of ink-charged material provided at its ends with clasps B; and a spreader C having resilient arms *d* connected with the respective clasps, substantially as set forth.

2. In combination with ribbon A, clasps B having the portions *a* folded down upon the ends of the ribbon and provided with eyes *b*; and spreader C having resilient arms *d* provided with hooks *e* to enter the eyes *b* and stiffening plate *f* secured upon the wire, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY H. ANGELL.

Witnesses:

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