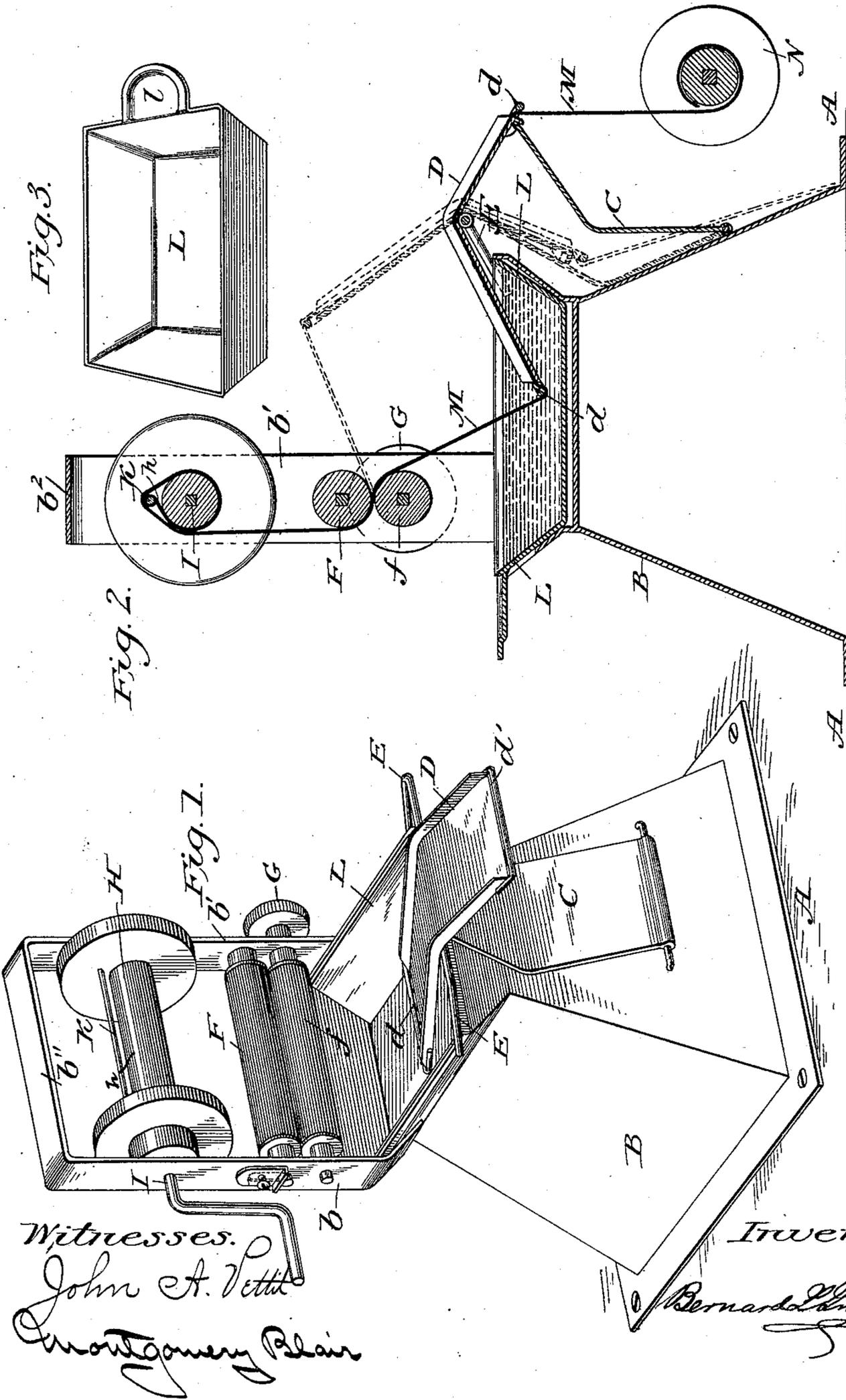


(No Model.)

B. L. LIVINGSTON.
MACHINE FOR INKING RIBBONS.

No. 540,554.

Patented June 4, 1895.



Witnesses:
John A. Pettit
Montgomery Blair

Inventor:
Bernard Livingston

UNITED STATES PATENT OFFICE.

BERNARD L. LIVINGSTON, OF BALTIMORE, MARYLAND.

MACHINE FOR INKING RIBBONS.

SPECIFICATION forming part of Letters Patent No. 540,554, dated June 4, 1895.

Application filed March 30, 1895. Serial No. 543,799. (No model.)

To all whom it may concern:

Be it known that I, BERNARD L. LIVINGSTON, residing at the city of Baltimore, in the State of Maryland, have invented a new and useful Improvement in Machines for Inking Ribbons for Use in Connection with Type-Writing Machines, of which improvement the following is a specification.

My invention relates to improvements in machines for inking ribbons to be used in conjunction with type-writing machines and devices for analogous purposes; and the object of my improvement is to provide an apparatus for the purposes mentioned, which combines great economy, simplicity, convenience and utility. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the entire machine. Fig. 2 is a vertical section of the machine as it appears when ready for use. Fig. 3 is the ink-pan.

Similar letters refer to similar parts throughout the several views.

"A" is the platform on which the machine is rigidly fixed. This platform is of suitable width to bring it within convenient distance from the type-writing or other machine in conjunction with which it is to be used.

"B" is the main stem or standard and b, b' , being the uprights and beam holding the mechanism in position.

"C" is the brace or support for holding gage "D" in proper position; and attached to "B" by means of a hinge, so that when necessary to remove it from "D" it can easily be so done by merely pushing it back to "B." "D" operates as a tension or gage, and also as a conductor or carrier of the band or ribbon to the ink-pan; and is constructed with side walls and wire attachments, which form a slot at each end of said gage where the ribbon or band passes through. The slot, d , at the outer end, helps to produce the tension, and to keep the band or ribbon in proper position. The other slot d at the inner end, while it performs the same office as the outer slot, yet helps to keep the band or ribbon in proper position in the ink-pan, so that it cannot slip out of its required position. This gage "D" is attached to "E," a supporting wire to "D" in such a manner as to allow it to move verti-

cally or laterally, as required to prevent the ruffling or creasing of the band or ribbon when undergoing the operation. Said gage "D" shown in dotted lines in Fig. 2, is in the position required when passing the ribbon through the slot d at the inner end, and also when desired to keep any part of the band or ribbon from being inked; or when necessary to remove the ink-pan from standard "B."

F, f , are a pair of compression rollers, the journals of which are adjusted in proper position by set-screws or other adaptable devices. "G" is a button or wheel attached to f for revolving the said rollers, when necessary in passing the band or ribbon through between them. These rollers are intended to remove by compression any surplus ink from the band or ribbon.

"H" is a spool to receive, retain, and convey the band or ribbon, and is detachably mounted on axle "I," a section of which is forced flat, one end of which axle "I" acts as a crank to work the whole apparatus, the journals of which axle pass through b and b' .

"K" is a rod rigidly affixed to spool "H," in such a manner as to form slot h , the purpose of which slot and rod is to cause a band or ribbon, or other thing, to be firmly held in position, without other aid.

"L" is the right-angled ink-pan, with a lip or handle, and having sharp corners which serve to empty the surplus ink, to be passed out for future use. This ink-pan is detachable for the purpose of emptying unused ink for future use.

"M" is the band or ribbon to be inked.

"N" is the spool of the type-writing machine or other apparatus, where bands or ribbons are used for printing or analogous purposes.

The mode of operation is as follows: My device is placed at either side of "N," and one end of the band or ribbon "M" is placed upward through outer slot d and conducted through the inner slot d and through and between the compressing rollers "F" and f by revolving button "G," and then is passed on through the slot h formed by "H" and "K." The band or ribbon is folded over the rod "K" and "H" is revolved in either direction sufficiently to tighten the band or ribbon. "D" is then forced downward into the ink-pan "L."

Then "C" is brought forward, which will cause "D" to carry the band or ribbon in proper position to receive the ink. The ink is then poured into the pan "L." The crank "I" is
 5 then turned to pull the band or ribbon from the ink-pan, and the operation continues until the band or ribbon "M" is expended. My apparatus is then reversed, and the band or ribbon "M" is attached again to spool "N"
 10 and re-wound, and again is ready for use.

I am aware that other means have been used to produce a similar result, and therefore do not broadly claim the inking of bands or ribbons; but

15 What I do claim as my invention, and desire to secure by Letters Patent, is—

1. In a machine for inking bands or ribbons, the mechanism composed of a combination of standard "B" having frames *b, b', b''*,

brace "C," gage "D" having tension slots *d, d'*, wire "E," compressing-rollers "F," *f*, the button or wheel "G" attached to *f*, spool "H" on axle "I," which spool is detachably mounted on it, rod "K" forming with "H" the slot *h*, and ink-pan "L," all constructed
 25 and operating as hereinbefore described.

2. In a machine for inking bands or ribbons, brace "C," gage and tension-plate "D" and wire "E" supporting "D," and which wire "E" is attached to standard "B," the
 30 upper part of said standard being so constructed as to retain and hold ink-pan "L," in proper position for use.

BERNARD L. LIVINGSTON.

Witnesses:

JOHN A. PETTIT,
 JAMES C. DEVINE.