

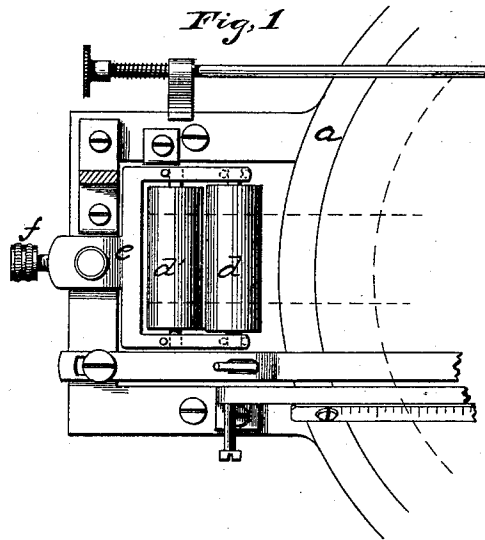
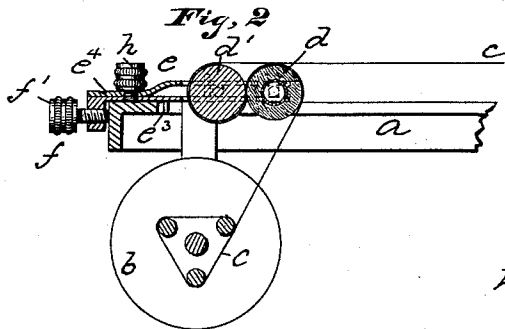
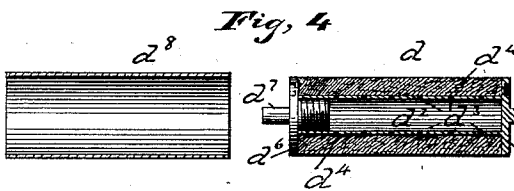
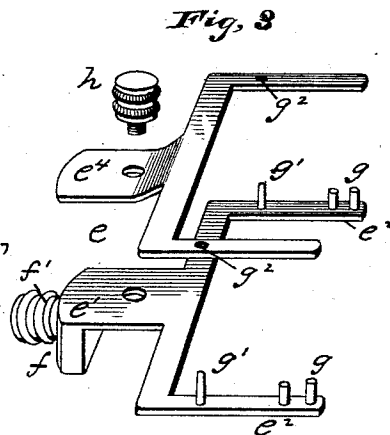
(No Model.)

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RIBBON INKING ATTACHMENT FOR TYPE WRITING MACHINES.

No. 341,630

Patented May 11, 1886.



Witnesses,

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RIBBON-INKING ATTACHMENT FOR TYPE-WRITING MACHINES.

SPECIFICATION forming part of Letters Patent No. 341,630, dated May 11, 1886.

Application filed August 3, 1885. Serial No. 173,327. (No model.)

To all whom it may concern:

Be it known that I, LEONARD BAILEY, of Hartford, county of Hartford, State of Connecticut, have invented certain new and useful Improvements in Ribbon-Inking Attachments for Type-Writers, of which the following is a description, reference being had to the accompanying drawings, where—

Figure 1 is a plan or top view of part of a type-writing machine of the kind known as the "Caligraph," with my improved device attached in position for inking the ribbon. Fig. 2 is a view in central vertical section through the reel, the type-writer frame, and the inking attachment. Fig. 3 is a detail perspective view, on enlarged scale, of the frame used to hold the rolls. Fig. 4 is a detail sectional view of the inking-roller and its cover, the latter being removed.

The object of my invention is to provide means for inking the ribbon of a type-writing machine without removing the ribbon from the reels on the machine; and to this end my invention consists in the novel construction of parts and their combination, as will be hereinafter fully described, and specifically pointed out in the claims made thereto.

In the accompanying drawings, the letter *a* denotes the frame of one of the class of type-writing machines known as "caligraphs," so much only of the frame and the operating parts of the machine being shown as is necessary to illustrate my invention.

The letter *b* denotes one of the ribbon-reels appurtenant to the machine, and *c* the ribbon, which is of usual form and material and is stretched across the machine between the two ribbon-reels on its opposite sides, in the usual manner.

At one side of the machine, about in line with the carriage and in the same vertical plane with the ribbon, is supported an inking-roll, *d*, preferably by securing it in bearings in the roller-frame *e*, that is detachably secured to the frame of the machine *a*. This roller-frame *e* is made, preferably, of metal, cut or cast to shape, with the base *e'*, the arms *e''*, extending from the base, and the clamp *f*. The latter in the form shown consists of the clamp-screw *f'*, that is seated in a threaded socket in the downturned flange on the base of the frame

and co-operates with the flange or pin *e'* in attaching the roller-frame to an object. On the arms *e''* are formed the bearings *g g'*, for the inking-roll *d* and the guide roll *d'*. The upper part, *e'*, of this roller-frame corresponds with the lower part in general outline, and is removably secured to it by means of the screw *h*, the several parts being clearly shown in Fig. 3.

The pins that form the bearings *g'* are long enough to project through the holes *g''* in the upper part of the frame when the latter is secured to the lower part, and thus the two parts are kept in proper relative position.

The inking-roll *d* is made up of the tubular central ink-receptacle, *d''*, having in its walls a number of perforations, *d'*, and this ink-receptacle has a porous cover, *d'*, completely inclosing it on the outside and extending between the end flanges, *d'' d'''*, of the roll. This porous cover *d'* of the roll is preferably made of felt, which is sufficiently porous and absorbent and retains in about the proper degree the ink which flows into it from the inside of the receptacle within the roll; but any material other than felt having such qualities may be used equally well in its place as a cover. The roll is provided with the central pivots, *d'*, one borne on the fixed end and the other on the removable end, which is held, preferably, by the screw-stem extending within the threaded socket in one end of the receptacle.

The ink-roll is preferably protected when not in use for inking purposes by means of a tubular cover, *d''*, that may be slipped upon the roll from either end, and is preferably of metal.

The guide roll *d'* is of any convenient material—as metal—has suitable pivot-bearings, is preferably of the same size as the inking-roller, and is mounted in the frame by the side of the inking-roll, as shown in the accompanying drawings. The office or function of the guide is to change the direction of the ribbon, so as to bring its upper surface in contact with the ink-roll. This guide-roll is not essential to the operation of my device, as the ribbon is usually absorbent enough to enable the ink that is applied on one side to pass through it and thoroughly permeate it, so that either side

of the ribbon may be used for inking purposes on the type writer.

In the practice of my invention the roller-frame in the form herein shown and described is taken apart, the rolls removed, and the lower part of the frame secured to the frame of the type-writing machine. A loop of the ribbon is then passed over the inking-roll, which is placed in the bearing *g* in the frame, and another loop under and over the guide-roll, which is then placed in its bearings in the frame. The cover-plate is then secured in position, as illustrated in Figs. 1 and 2, and by turning the reel the ribbon is drawn back and forth over the inking-roll, the cover of which was removed, of course, before placing it in position for use. By reversing this process the rolls may be removed from the frame, the cover of the inking-roll placed in position, and one or more of the rolls, replaced in the frame, to serve as supports or guides for the ribbon in place of the usual wire which holds it at the proper height for use in the machine.

I do not limit myself to the particular form of the roller-frame or to the particular construction of the ink-roll herein shown and described, as it is evident that the form of the frame and the relative arrangement of the rolls can be changed without, however, the exercise of invention to adapt the frame or rolls to different kinds or forms of type-writing machines.

By the term "ribbon-reel," as used in the following claims, I mean to be understood as claiming in the combination with the other elements the reel or any equivalent support for the ribbon in its passage through the machine.

I claim as my invention—

1. The combination, with the ribbon and ribbon-reels of a type-writing machine, of a removable frame bearing the inking-roll and the guide-roll, and a clamp whereby said frame is attached to the frame of the machine, all substantially as described.

2. In combination with the ribbon and ribbon-reel of a type-writing machine, the roller-frame with the clamp for attaching it to the machine, the removable upper part of the frame, and the ink-roll held in bearings between the parts of the frame, all substantially as described.

3. In combination, the roller-frame with the clamp device, the removable upper part of the frame, the guide-roll, and the ink-roll with the central perforated ink-receptacle with porous and absorbent cover, the rolls being supported in bearings between the parts of the frame, all substantially as described.

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