

No. 670,576.

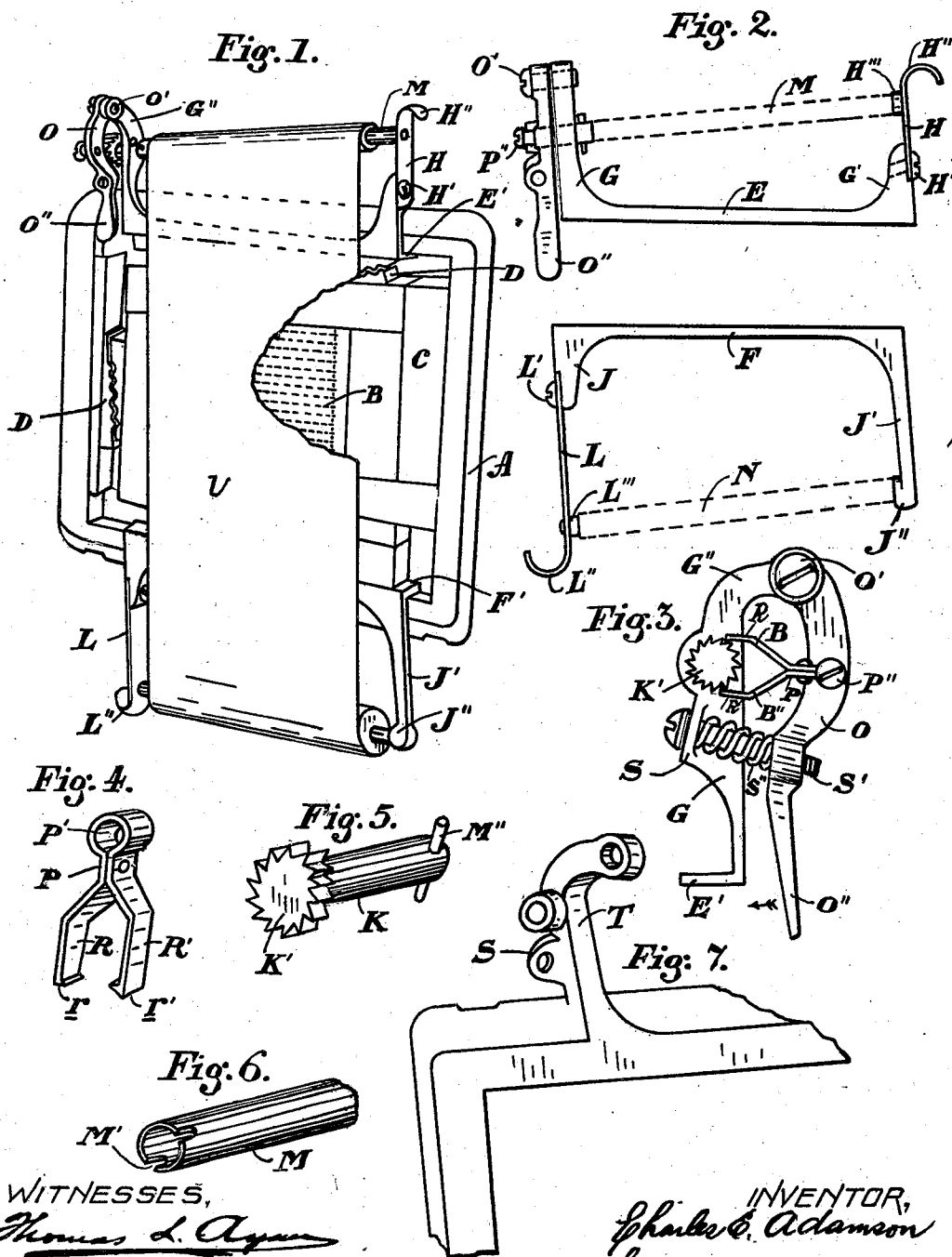
Patented Mar. 26, 1901.

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PRINTING PRESS ATTACHMENT FOR PRINTING FROM INKED RIBBONS.

(Application filed Dec. 13, 1900.)

(No Model.)



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PRINTING-PRESS ATTACHMENT FOR PRINTING FROM INKED RIBBONS.

SPECIFICATION forming part of Letters Patent No. 670,576, dated March 26, 1901.

Application filed December 13, 1900. Serial No. 39,671. (No model.)

To all whom it may concern:

Be it known that I, CHARLES ELLSWORTH ADAMSON, a citizen of the United States, residing at Muncie, in the county of Delaware and State of Indiana, have invented a new and useful Printing-Press Attachment for Printing from Inked Ribbons, of which the following is a specification.

This invention relates to an attachment for printing from an inked ribbon in imitation of type-writing. This inked ribbon has its opposite ends secured to rollers, the rollers being journaled in frames which are attached to the chase of a printing-press, the plan of the invention being to provide an attachment which can be secured to the chase of any ordinary job-printing press and the ribbon-moving mechanism be actuated by the movement of the platen of the press. These and other objects not hereinbefore mentioned are accomplished by the construction illustrated in the accompanying drawings, wherein like letters of reference indicate corresponding parts in the several views, and in which—

Figure 1 is a perspective view of a chase detached from the press with my improved ribbon-holding attachment applied thereto, showing the ribbon in position for use. Fig. 2 is a side elevation of the roller-holding frames detached from the chase, the rollers being shown in position in dotted lines. Fig. 3 is an end elevation of the upper-roller-holding frame. Fig. 4 is a detached perspective view of the double spring-pawl-ratchet-engaging device. Fig. 5 is a detached perspective view of the ratchet and shaft secured thereto. Fig. 6 is a detached perspective view of one end of one of the rollers; and Fig. 7 is a perspective view of a portion of a chase, showing a modified form, wherein the support for the rollers is cast integral with the chase.

In the drawings, A designates an ordinary chase which is adapted to be clamped to the bed of any job-printing press in the usual well-known manner.

B designates a form of type adapted to be secured within the chase by means of the ordinary furniture C and quoins D.

E designates the upper-roller-holding frame. The upper-roller-holding frame is provided with a flange E', which fits beneath

the lower portion of the upper horizontal part of the chase and between it and the furniture, as plainly shown in Fig. 1. F designates the lower-roller-holding frame. The lower-roller-holding frame is provided with a flange F', which fits over the upper portion of the lower horizontal part of the chase and between it and the furniture. By this construction it is only necessary when it is desired to secure the frames to the chase to place the frames in position and lock up the furniture in the usual and well-known manner, it being understood that the type-form is in its usual position in the chase.

The upper frame E is provided with two upwardly-extending arms G G'. The arm G is provided with a horizontal portion G''.

H designates a spring-bearing secured to the arm G' by means of a screw H'. The upper end of the bearing is provided with a curved portion H'', forming a handle, and a stud H'''.

Journaled in the arm G is a shaft K. The outer end of this shaft is provided with a ratchet K'. The lower-roller-holding frame is provided with two downwardly-extending arms J J'.

L designates a spring-bearing secured to the arm J by means of a screw L'. The lower end of the bearing is provided with a curved portion L'', forming a handle, and a stud L'''.

The arm J' is provided with a socket J''. M designates the upper roller. One end of this roller is adapted to fit over the stud H''', and the opposite end is slotted, as shown at M', Fig. 5, and is adapted to fit over the end of the shaft K and be secured thereon by means of a pin M'', so that when the shaft rotates it will also rotate the roller.

N designates the lower roller. This roller is a duplicate of the upper roller. This roller is adapted to have one end fit over the stud L''' and the other end journaled in the socket J''.

U designates an inked ribbon having its opposite ends secured to the rollers M and N, respectively. This ribbon is preferably made of the same material as that of an ordinary type-writer ribbon and inked with the same kind of ink, the dimensions of course being larger, so as to cover the form of type. While I have shown and described such a

ribbon, it is obvious that I could use any kind of an inked ribbon which would of itself be capable of making an impression and still be within the spirit of my invention.

5 In assembling the parts on the chase it is only necessary to place the flanges E' F' of the roller-holding frames within the chase, as before described, and lock the frames in position by means of the furniture and quoins, 10 the type-form being also locked in the usual way. To secure the rollers in the frame, one end of each roller will be placed in the rigid bearings carried by the frames and the studs on the spring-bearings be pulled back by 15 means of the handles and the rollers placed in position, when the bearings can be released, thereby locking the rollers in the arms.

Pivoted to the end of the horizontal portion G'' of the arm G by means of a screw- 20 pivot O' is a lever O. This lever is positioned on the outside of the arm G, but parallel therewith, and has its lower portion extending below the frame, as plainly shown in Figs. 1 and 2. The lower end of this lever 25 is flattened, as shown at O'', and is adapted to be struck and thereby actuated at each upward movement of the press-platen (not shown) and when the chase and mechanism are in position on a press.

30 Pivotaly secured to the lever between its ends is a double spring-pawl P. This pawl is provided with an eye P', through which passes a screw pivot-pin P'' for pivoting the pawl to the lever. The outer end of this 35 pawl is provided with two spring-arms R R', respectively. These arms are provided with inwardly-extending teeth r r', respectively, which are adapted to engage the teeth on the opposite sides of the ratchet K', as plainly 40 shown in Fig. 3. By this construction just described and by referring to Fig. 3 it will appear that when the lever O is moved to the left by being struck by the platen the spring-arm R on the pawl will turn the ratchet 45 to the left and the spring-arm R' will ride over the teeth and that when the lever O is moved to the right the spring-arm R' will engage the teeth, further moving the ratchet to the left, and the spring-arm R will simply 50 ride over the teeth, so that by this construction the ratchet will be moved with both the forward and backward movements of the lever. As it will be remembered that the upper roller M is secured to the shaft of the 55 ratchet, it will be seen that this roller M will wind up a small portion of the ribbon at each movement of the lever. As the lever is moved backward after the platen leaves the same and after the impression there will be 60 a movement of the ribbon, and as the lever is moved forward by the upward movement before the next impression there will be a double movement of the ribbon between each impression.

65 S designates a lug on the side of the arm G. Passing through this lug, but not secured thereto, is a screw S', which has its end

screwed into the lever. Interposed between the lever and lug is a coiled spring S''. By this construction when the lever is moved forward it will compress the spring, and when 70 the platen leaves the end of the lever the spring will force back the lever to its normal position. By tightening up the screw the stroke of the lever can be either lengthened 75 or shortened, thereby increasing or diminishing the movement of the ribbon between the impressions of the press.

It will be seen that the rollers M and N are not journaled parallel with the frames E and 80 F or the sides of the chase, but are set at an angle thereto. This will make the ribbon travel over the type-bed at a slight angle or obliquely to the lines of type, as shown in Fig. 1. By this construction the type will 85 not strike in the same place as they would were the line of the movement of the ribbon not at a slight angle or oblique to the line of type in the chase. By this construction the ribbon will not be worn in streaks, but every 90 particle of its surface will come in contact with the type-face.

When all the ribbon has been wound upon the roller M, it is only necessary to disconnect the rollers from their bearings and reverse them, placing the empty roller above 95 and the full roller at the bottom again.

While I have shown a ribbon-holding attachment which can be readily attached to or detached from any ordinary chase without in 100 any way changing the operation of the press with the exception of removing the inking-rolls, it is obvious that I could make slight changes in the construction and arrangement of parts without in the least departing from 105 the nature and principles of my invention. I show such a slight modification in Fig. 7, where the roller-holding frames, which can be attached to or detached from a chase, are dispensed with, and instead I cast the support- 110 ing-arms for the rollers integral with the chase. I only show in this figure one arm on the upper right-hand corner of the chase, which is designated as T on the drawings and which corresponds exactly with the arm G on 115 the roller-holding frame E.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a printing-press attachment for printing from an inked ribbon, the combination 120 with a chase, of rollers detachably secured to the chase, a ribbon having its opposite ends secured to the rollers and passing over the face of the type, and means for actuating the 125 ribbon over the face of the same.

2. In a printing-press attachment for printing from an inked ribbon, the combination with a chase, of roller-holding frames detachably secured to the chase, a roller journaled 130 in each frame, a ribbon having its opposite ends secured to the rollers and passing over the face of the type, and means for actuating the ribbon over the face of the same.

3. In a printing-press for printing from an inked ribbon, the combination with a chase, of roller-holding frames detachably secured to the chase, a roller detachably secured in each frame, a ribbon having its opposite ends secured to the rollers and passing over the face of the type, and means for actuating the ribbon over the face of the same.

4. In a printing-press for printing from an inked ribbon, the combination with a chase and furniture therefor, of roller-holding frames secured to the chase by means of the furniture, a roller journaled in each frame, a ribbon having its opposite ends secured to the rollers and passing over the face of the type, and means for actuating the ribbon over the face of the same.

5. In a printing-press for printing from an inked ribbon, the combination with a chase, of roller-holding frames secured to the chase, a roller journaled in each frame, a ratchet journaled in one frame and secured to the end of one of the rollers, a lever pivoted to the same frame provided with a handle extending into the path of the platen, a spring-pawl secured to the lever, inwardly-extending teeth on the ends of the pawl adapted to engage the opposite sides of the ratchet, and a spring bearing against the lever and frame to normally hold the lever in its outward position.

6. In a printing-press for printing from an inked ribbon, the combination with a chase, of roller-holding frames secured to the chase, a roller journaled in each frame, a ratchet journaled in one frame and secured to the end of one of the rollers, a lever pivoted to the same frame provided with a handle extending into the path of the platen, a spring-pawl secured to the lever, inwardly-extending teeth on the ends of the pawl adapted to engage the opposite sides of the ratchet, a screw secured to the lever and slidingly secured to the frame, and a spring surrounding the screw bearing against the lever and frame

to normally hold the lever in its outward position.

7. In a printing-press for printing from an inked ribbon, the combination with a chase, of roller-holding frames secured to the chase, a roller journaled in each frame having a slotted end, a shaft journaled in one frame having one of its ends extending into the end of one of the rollers, a pin passing through the slots on the end of the roller and through the shaft, means for actuating the shaft, and a ribbon having its opposite ends secured to the rollers.

8. In a printing-press attachment for printing from an inked ribbon, the combination with a chase, of rollers detachably secured to the chase, a ribbon having its opposite ends secured to the rollers and passing over the face of the type, and means for actuating the ribbon over the face of the type between each impression made by the press.

9. In a printing-press attachment for printing from an inked ribbon, the combination with a chase, of rollers detachably secured to the chase, the rollers being arranged parallel with each other but not parallel with the frame of the chase, a ribbon having its opposite ends secured to the rollers and passing over the face of the type and obliquely to the line thereof, and means for actuating the ribbon over the face of the type.

10. In a printing-press attachment for printing from an inked ribbon, the combination with rollers adapted to be detachably secured to the chase, of a ribbon having its opposite ends secured to the rollers and passing over the face of the type, and means for actuating the ribbon over the face of the same.

In testimony whereof I have hereunto affixed my signature in the presence of two witnesses.

CHARLES ELLSWORTH ADAMSON.

Witnesses:

CHARLES P. GOODWINE,
W. A. THORNBURG.