

(No Model.)

A. B. CARTY.
INK FOUNTAIN FOR PRINTING PRESSES.

No. 401,542.

Patented Apr. 16, 1889.

Fig. 1.

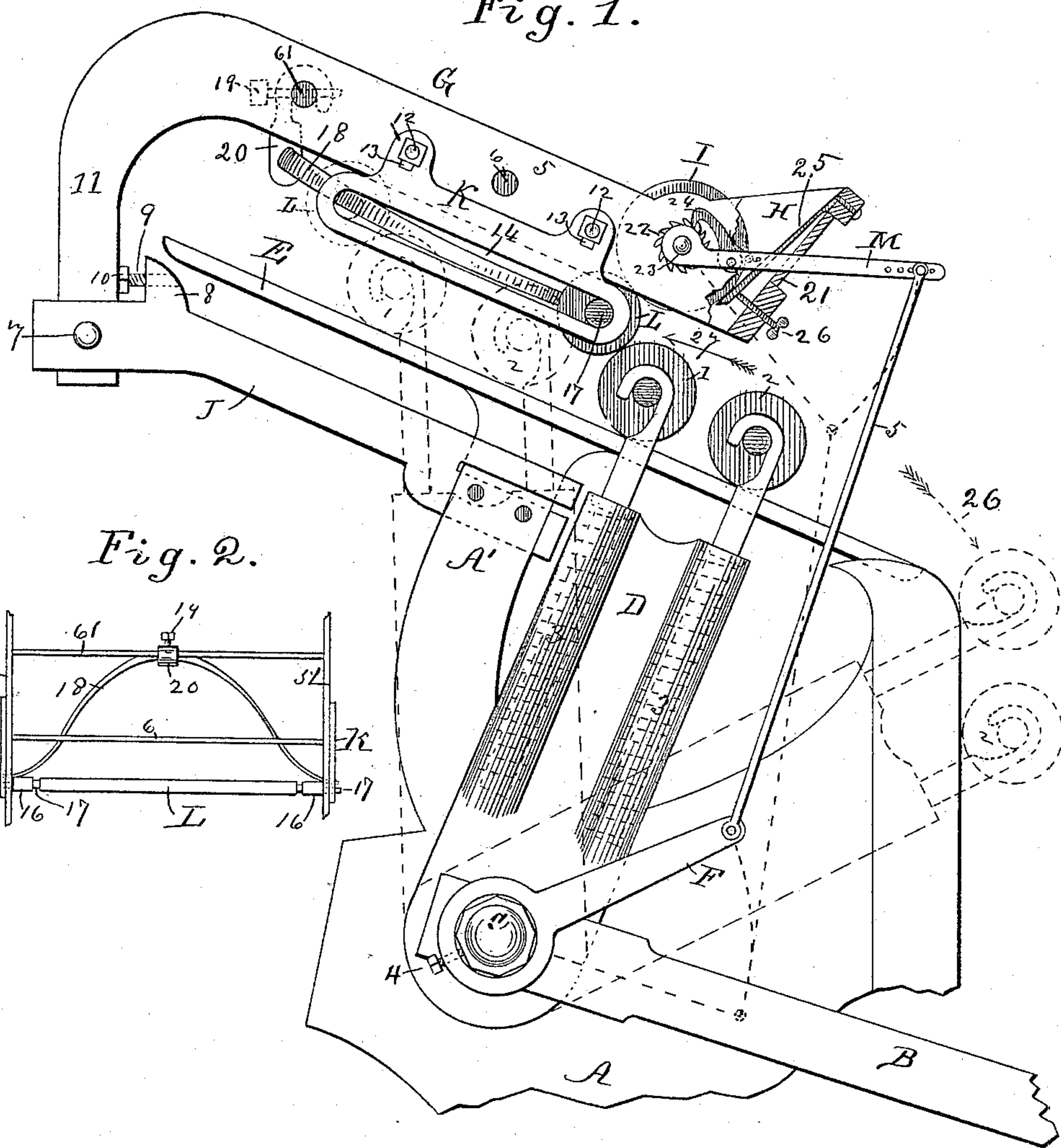
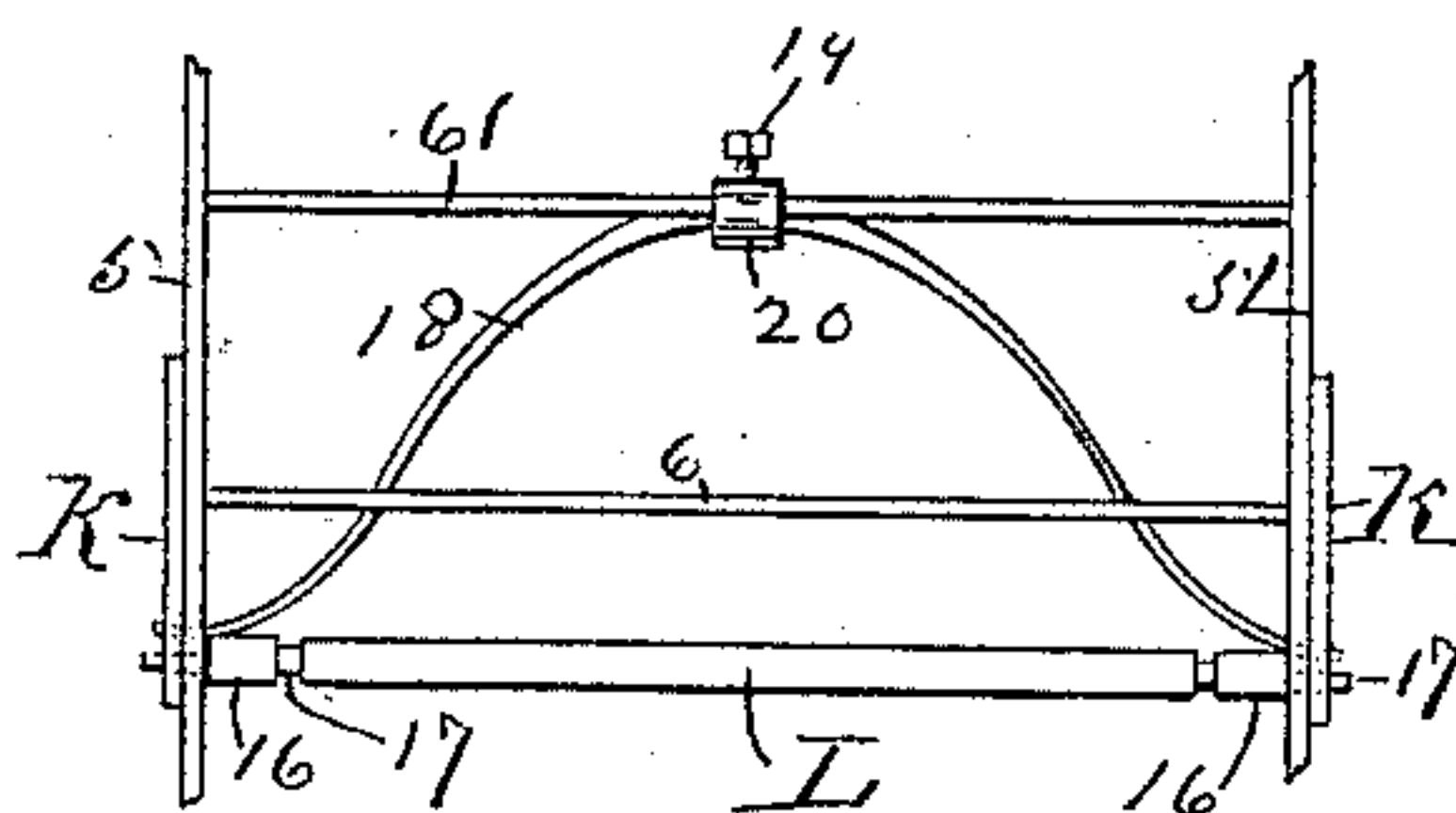


Fig. 2.



Witnesses:
A. C. Rawlings
G. M. Copenhagen

Inventor:
Alton B. Carty.
By his Atty.
W. H. Singletary.

UNITED STATES PATENT OFFICE.

ALTON B. CARTY, OF FREDERICK, MARYLAND.

INK-FOUNTAIN FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 401,542, dated April 16, 1889.

Application filed May 21, 1888. Serial No. 274,506. (No model.)

To all whom it may concern:

Be it known that I, ALTON B. CARTY, a citizen of the United States, residing at Frederick, in the county of Frederick and State of Maryland, have invented certain new and useful Improvements in an Ink-Fountain for Printing-Presses; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

In the accompanying drawings, Figure 1 is a side elevation of the upper portion of a printing-press with my improved inking-fountain attached thereto. Fig. 2 is a detail top view of the fountain-frame, the intermediate or ink-transferring roller, and its propelling-spring.

Similar letters refer to similar parts in the several views.

The object of my invention is to give the form-rollers an even coating of ink, so that the ink from said rollers shall be evenly distributed over the face of the form, thus insuring a good job of work. This object I accomplish by the following mechanism, which may be applied to various types of printing-presses. I will herein describe its application and mode of operation when attached to a press having a revolving ink-disk.

A A' is the upper portion of the frame of such a press.

B is one of a pair of fixed arms of the press, (there being two such arms, one on each side of the press,) in which is journaled a rock-shaft, C, on which is keyed or otherwise secured outside of the frame the usual form-roller carrier, D. The form-rollers 1 2 are held in position and adapted to move toward or from the rock-shaft C, in the usual well-known manner, by means of spiral springs 3.

E is a revolving disk upon which the ink is distributed. Disk E is intermittently rotated by a pawl and ratchet-wheel, in the usual manner.

F is an arm secured by a set-screw, 4, to rock-shaft C. It carries at its outer end a connecting-rod, 5, by which the fountain-roller is intermittently revolved.

G is the frame of my improved fountain. It consists of two side pieces, 5 5', and two cross-tie rods, 6 6'. Said frame G carries at its forward end the fountain H and fountain-roller I. Frame G is pivotally secured at 7 to arms J, one on each side of the press. Arms J are bolted to the press-frame at A' and have abutments 8 at their upper ends, in which are screwed adjusting-screws 9, the heads 10 of which adjusting-screws impinge against the inner sides of the vertical portions 11 of the frame. The height of the fountain is regulated by said adjusting-screws 9.

On the outside of each side piece, 5 5', of the frame there is adjustably secured thereto, by bolts 12, passing through slots 13, a slotted roller-frame, K, its longitudinal slot 14 forming a guide or way for the journals of the transferring-roller L.

16 16 are friction-rollers on shaft 17 of roller L, against which the pressure of a bow-spring, 18, is exerted. Spring 18 is centrally secured to cross-tie 6' by set-screw 19, passing through the spring-holder 20, as shown in dotted lines in Fig. 1.

The fountain proper consists of a front plate, 21, extending across the press and secured within the front ends of side pieces, 5 5', of frame G, an adjustable plate, 25, and a fountain-roller, I. On one end of the shaft of roller I, outside of the frame, there is secured a ratchet-wheel, 22. A lever, M, is pivoted at 23 to shaft of roller I and is connected to said roller by a spring-pawl, 24. Lever M receives an intermittent motion from rock-shaft arm F, being connected thereto by rod 5. Between front plate, 21, and roller I a spring-plate, 25, is secured at its upper side to plate 21, its lower side being free to move between roller I and plate 21.

26 are set-screws near the bottom of plate 21 to adjust and retain spring-plate 25 in position, so as to regulate the supply of ink from the fountain to suit the form.

The operation of my device is as follows: A supply of ink is placed in the fountain, plate 25 is adjusted, and the height of the fountain also adjusted by means of screws 9. The press is given a few revolutions to ink the form-rollers, which is done thus: As rock-shaft C carries the form-rollers down in the direction indicated by arrow 26, lever M is

depressed, and its pawl 24, engaging with the teeth of ratchet-wheel 22 on the shaft of fountain-roller, causes the transferring-roller L to receive a fresh supply of ink from the fountain, and when the form-rollers are going up the inclined inking-disk below the fountain, in the direction indicated by arrow 27, they receive a fresh supply of ink from above and below, and as the disk is intermittingly revolved the result is an even distribution of ink on both the form-rollers before they leave the upper part of the press. Roller L will be pushed up to the end of slot 14 by the form-rollers, and is restored to its normal position against the fountain-roller by the tension of its bow-spring, as shown in Fig. 2. Thus while said roller L is being forced up under the fountain-frame by the form-rollers it will transfer a coating of ink to one of the form-rollers, thereby making a perfect distribution of the ink before it is placed on the ink-disk of the press.

I prefer that slot 14 shall be always parallel to the plane of the revolving disk above which the fountain is placed; but when the fountain is raised very high or lowered said slot would be thrown out of parallelism with the plane of the disk. In such cases I can restore slot 14 to its parallel position above referred to by means of slots 13 and bolts 12.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a printing-press inking device, the combination of the form-rollers and the fountain-roller with an intermediate transfer-roller and a spring bearing laterally against the transfer-roller, whereby the latter is held with a yielding pressure against the fountain-roller and removed therefrom by the contact of the traversing form-rollers, as set forth.

2. In a printing-press inking device, a transfer-roller, in combination with its supporting-plates K, adjustable and having the slotted ways 14, whereby the parallelism of the roller-ways with the inking-disk of the device can be preserved, as set forth.

3. The combination of a pivotal-supported ink-fountain for printing-presses, as herein set forth, with ratchet-wheel 22, spring-pawl 24, lever M, rod 5, arm F, and rock-shaft C of a printing-press, as and for the purposes herein set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ALTON B. CARTY.

Witnesses:

MARSHALL FOUT,
LEWIS E. WOLFE.