No. 641,439. Patented Jan. 16, 1900.

L. J. DAVIS.

ROLLER PRINTING DEVICE.

(Application filed May 29, 1899.)

(No Model.)

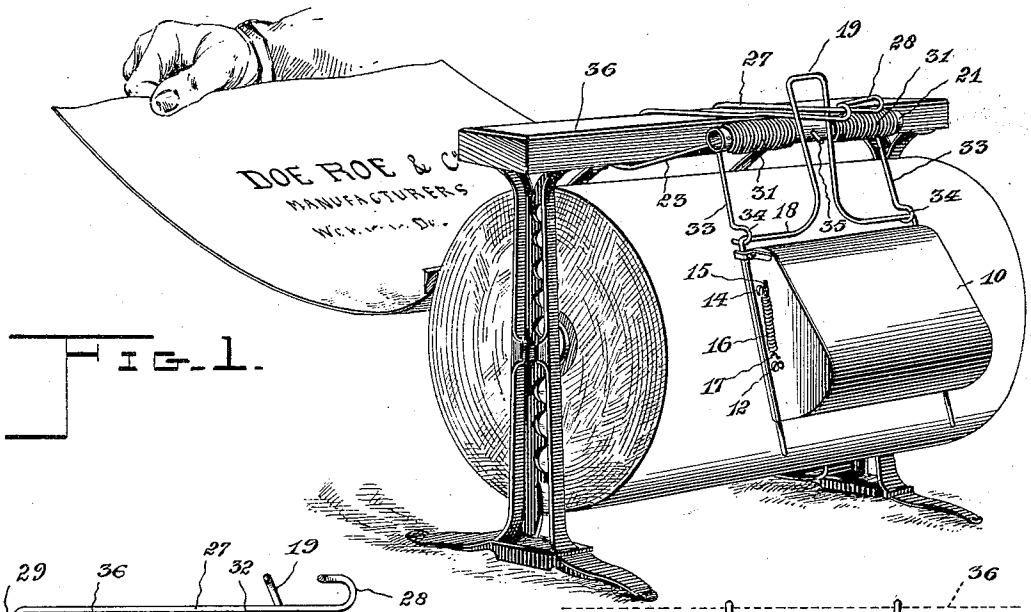


FIG. 1.

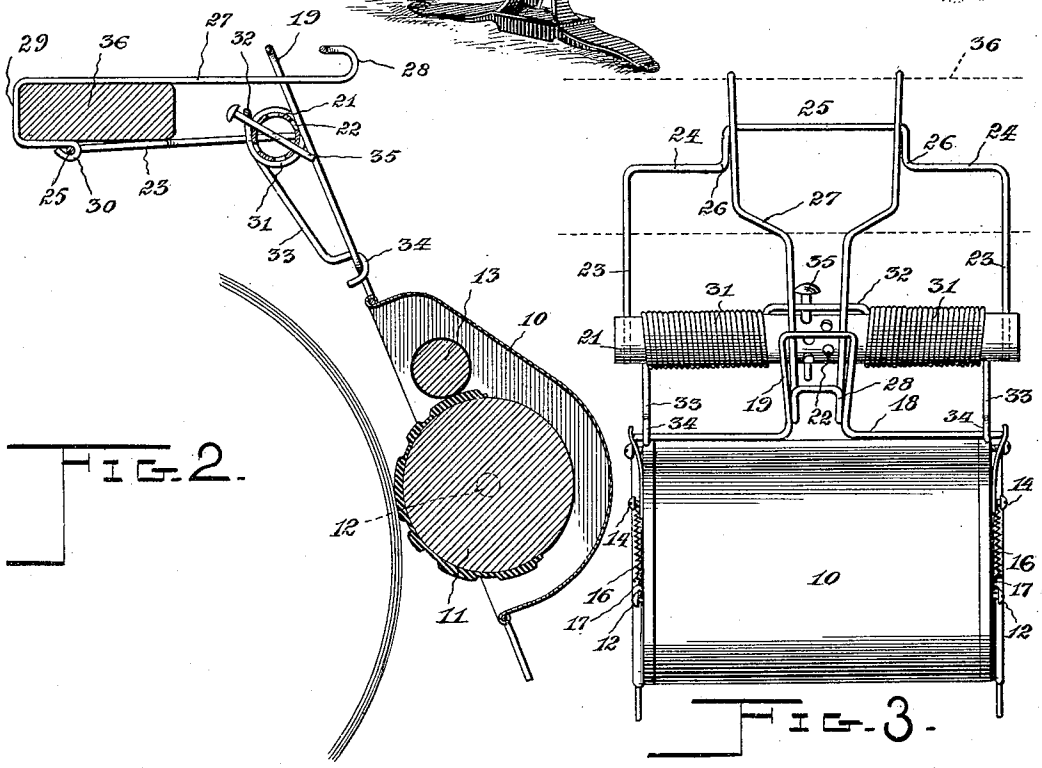


FIG. 2.

FIG. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

LINFORD J. DAVIS, OF BATTLE CREEK, MICHIGAN.

ROLLER PRINTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 641,439, dated January 16, 1900.

Application filed May 29, 1899. Serial No. 718,711. (No model.)

To all whom it may concern:

Be it known that I, LINFORD J. DAVIS, a citizen of the United States, residing at Battle Creek, in the county of Calhoun and State of Michigan, have invented a new and useful Roller Printing Device, of which the following is a specification.

My invention relates to roller printing devices especially designed for use in connection with ordinary roll-paper holders which are used by merchants for containing wrapping-paper; and one object in view is to provide simple and effective means for securely and expeditiously clamping the printing device upon the frame of the paper-holder.

A further object is to provide a compact arrangement of devices by which spring-pressure is exerted on the printing devices to hold the latter in frictional contact with the roll of paper as it diminishes in diameter and also to provide means for increasing the tension of the spring as it weakens through prolonged service.

With these ends in view the invention consists in the novel construction and arrangement of parts, which will be hereinafter fully described and claimed.

In the drawings, Figure 1 is a perspective view of my improved printing device applied in operative relation to a paper-roll contained in a roll-holder. Fig. 2 is an enlarged vertical sectional elevation through the printing device and the top bar forming a part of the frame of the roll-paper holder. Fig. 3 is a plan view of the printing device, showing the top bar of the frame by dotted lines.

The same numerals of reference are used to indicate like and corresponding parts in each of the several figures of the drawings.

The casing 10 of my improved printing device is adapted to carry the printing-roll 11 and the inking-roll 13. This printing-roll has its surface provided with a suitable inscription, and it is supported by journals 12 within said casing 10. The inking-roll may consist of a fabric-covered roll adapted to absorb the fluid for inking the surface of the printing-roll, and said inking-roll is provided with journals 14, which are fitted slidably in slots 15, provided in the ends of the casing 10. Springs 16 are fastened to hooks 17 on the casing outside of the rolls, and these springs are connected with the journals 14 of the inking-roll to draw the latter into contact with the surface of the printing-roll 11 for applying ink thereto. The casing 10 has a bail 18, secured firmly in any suitable way to the ends thereof, and this bail is contracted in width to form the loop-shaped arm 19.

21 designates an arbor which is designed to be supported in a stationary position on the top cross-bar of the frame forming a part of the roll-paper holder, and this arbor may be tubular, as shown by Figs. 1 and 2 of the drawings, or it may be a solid bar or rod. The arbor is designed to support a coiled spring which acts to exert its tension on the casing 10, so as to press the printing-roller 11 into intimate frictional contact with the roll of paper, and this arbor is provided at its middle with a series of transverse or radial apertures 22, adapted to receive an adjustable pin which may be fitted in either of said apertures for the purpose of increasing the tension of the spring. This arbor is provided with a fastening-bail 23, adapted to be applied against the lower side of the cross-bar on the frame of the roll-paper holder, and this bail has its ends secured firmly to the arbor 21 at or near the ends of the latter. The fastening-bail has its cross-bar 24 bent or offset, as at 25, to form the shoulders 26, (see Fig. 3,) and with this fastening-bail is loosely engaged a clamp 27. One end of the clamp is bent to form the hook 28, adapted to engage with the extremity of the looped arm 19 on the bail 18 of the casing 10, and the other end of this clamping-bail is bent to form the angular arms 29, which terminate in the arms 30.

A coiled spring 31 is fitted loosely on the arbor 21, and this spring has a central loop 32. The ends of the spring are extended to form the arms 33, which terminate in the hooks 34, and these hooks are arranged to engage with the bail 18 on opposite sides of the looped arm 19 thereof. The central loop 32 of the coiled spring is engaged by the pin 35, which is fitted in one of the apertures 22 of the arbor, and this pin may be fitted in either of said apertures for increasing the tension of the spring.

From the foregoing description it will be seen that the fastening-bail 23 of the clamp 27 may be applied to the cross-bar 36 of the

roll-paper frame in order to support the arbor 21 in a stationary position on said cross-bar and at one side thereof. (See Fig. 2.) The fastening-bail 23 may be fitted against the lower side of the cross-bar 36, while the angular arms 29 of the clamp fit around the bar 36, so as to bring the hook 28 of said clamp into position to engage with the arm 19 of the bail 18. The hooked ends of the arms 33, forming the ends of the coiled spring 21, engage with the bail 18, and as the spring has its central loop 32 held on the arbor by the pin 35 the arms 33 of said spring are caused to exert pressure against the bail 18, whereby the printing device is pressed toward the roll of paper for the printing-roll 11 to have frictional contact with the paper. When the paper is drawn from the roll in the holder, the printing-roll 11 is rotated by frictional contact with the paper-roll, and as this printing-roll is inked from the roll 13 the desired impression will be made upon the paper as it is drawn from the paper-roll. The printing device may easily be lifted against the tension of the spring for the purpose of supplying the ink to the roller 13; but when the casing 10 is released the spring reacts to force the printing-roll firmly upon the paper-roll. The hook 28 of the clamp may be disengaged from the looped arm 19 of the casing-bail 18, so as to permit the clamp 27 to be removed from the cross-bar 36, and thus the entire printing device may be readily detached from the paper-roll frame and in like manner applied thereto.

My printing device is constructed for use in connection with any suitable type of roll-paper holder, and I do not therefore limit myself to the employment of the printing device in connection with the particular style of holder shown by Fig. 1 of the drawings.

Changes may be made in the form and proportion of some of the parts, while their essential features are retained and the spirit of the invention embodied. Hence I do not desire to be limited to the precise form of all the parts as shown, reserving the right to vary therefrom.

Having thus described the invention, what I claim is—

1. In a printing device for roll-paper holders, the combination with a casing having a bail, of an arbor, a spring fitted to said arbor and connected with the bail, and a separable clamp connected to the arbor and to the bail of the casing, whereby the clamp may attach the printing device to a part of a roll-holder frame, substantially as described.

2. In a printing device for roll-paper holders, the combination with a casing having a bail, of an arbor also provided with a bail, a clamp loosely connected with the bail of said arbor and adapted to have interlocking engagement with the bail of said casing, and a spring supported by the arbor and having arms which are engaged with the bail of said casing, for the purpose described, substantially as set forth.

3. In a printing device for roll-paper holders, the combination with a casing, of an arbor provided with transverse perforations, a coiled spring fitted on said arbor and having a central loop and the extended arms which are engaged with the casing-bail, an adjustable pin connected to the arbor and engaging with the loop of the spring, and a clamp for supporting the arbor on the frame of a roll-paper holder, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

LINFORD J. DAVIS.

Witnesses:
F. E. BARR,
DELLA B. BARR.