E. C. SHAVER.

INKING ROLLER CONTROLLER.

APPLICATION FILED SEPT. 19, 1919.

1,331,219.

Patented Feb. 17, 1920.

2 SHEETS—SHEET 1.

Fig. 1.

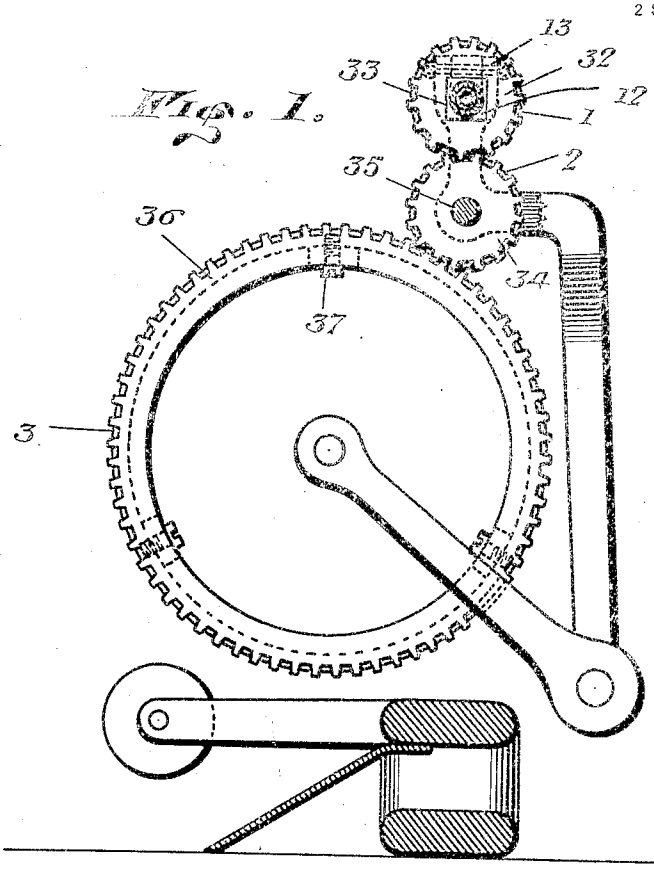
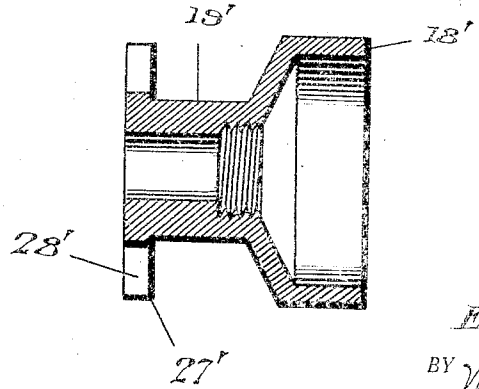


Fig. 4.



WITNESS:

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2 SHEETS—SHEET 2.

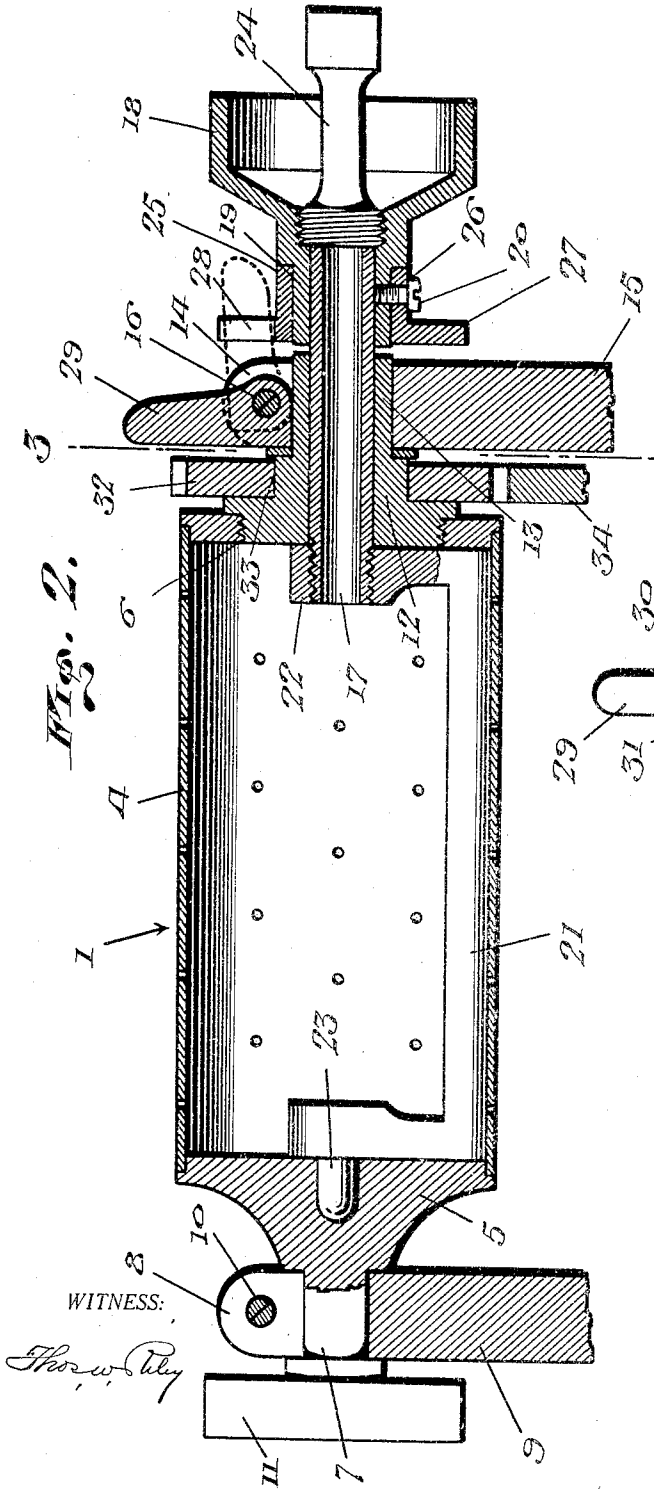


Fig. 2.

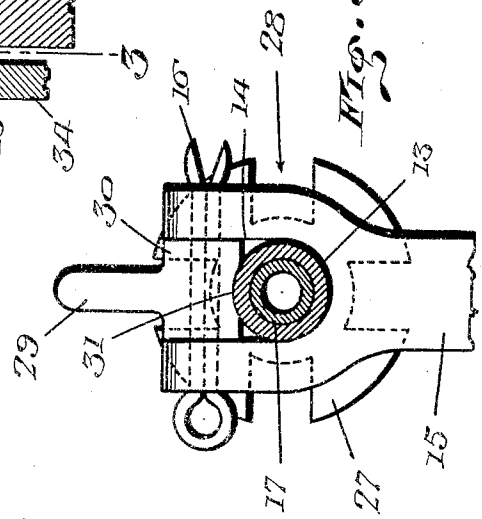


Fig. 3.

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ELMER CLIFTON SHAVER, OF NEW YORK, N. Y.

INKING-ROLLER CONTROLLER.

1,331,219. Specification of Letters Patent. **Patented Feb. 17, 1920.**

Application filed September 19, 1919. Serial No. 324,737.

To all whom it may concern:

Be it known that I, ELMER C. SHAVER, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Inking-Roller Controllers; and I do hereby 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.

The present invention relates to a fountain inking or semi-liquid supplying roller such as used in machines for printing addresses, or the like, wherein the roller is hollow to contain the ink or pigment which is forced out through apertures in the periphery of the roller by means within the roller, when said means and said roller rotate relatively.

Such machines are provided with knobs which are held by the hand while the inking roller rotates so as to force the ink out of it. This is done from time to time to replenish the ink and it is necessary for the operator to use one hand for holding the knob of the inking roller until sufficient ink has been supplied. This manipulation of the inking roller at intervals requires more or less time and attention and it is the object of the invention to provide means whereby the ink ejecting means can be held stationary while the inking roller rotates and then released.

It is the object of the invention to provide an inking roller controller of simple and inexpensive construction, which can be readily applied to machines already in use as well as being capable of embodiment in new machines manufactured, and which will be operable in a convenient and efficient manner for controlling the supply of ink in a more desirable and serviceable manner than by holding the knobs by hand.

With the foregoing and other objects in view, which will be apparent as the description proceeds, the invention resides in the construction and arrangement of parts hereinafter described and claimed, it being understood that changes can be made within the scope of what is claimed without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a fragmentary side elevation of an addressing machine showing the inking roller and rollers which receive the ink therefrom.

Fig. 2 is an enlarged longitudinal vertical section through the inking device, embodying the improvements.

Fig. 3 is a cross section taken on the line 3—3 of Fig. 2.

Fig. 4 is a sectional detail illustrating a modification.

Machines, such as used for addressing envelops, letters and the like, and machines for other purposes are equipped with a fountain inking roller and the present improvements are useful with machines embodying such an inking roller. As shown the improvements are used in a certain style of addressing machine, and the inking roller, designated generally at 1, supplies ink to the roller 2 and thence to the drum 3. The remainder of the machine need not be considered, since the present invention relates only to the inking device.

The inking roller includes a cylindrical shell 4 having apertures scattered throughout its periphery through which the ink is forced from within the shell to supply ink to the roller 2, and the ends of the shell 4 are fitted upon heads 5 and 6. The head 5 has a trunnion or journal 7 seated for rotation in a notch or seat 8 in the upper end of a supporting bracket 9 and a cotter pin 10 or the like extends through the bracket 9 above the trunnion 7 to prevent accidental lifting of the inking roller from the brackets. The trunnion 7 has a knob 11 which can be grasped by the hand for turning the inking roller or holding it still. The head 6 has an outer square boss 12 from which extends a trunnion or journal 13 which is seated for rotation in a notch or seat 14 in the upper end of the bracket 15, and a cotter pin 16 or the like extends through the bracket 15 above the trunnion 13 to hold it down in place. A tube 17 extends through the head 6 and its boss 12 and trunnion 13, and a funnel shaped knob 18 has a hub 19 secured on the outer end portion of the tube 17 by means of a set screw 20. An ink-ejecting member 21 is disposed within the roller and extends longitudinally along the interior of the shell 4, one end of said member 21 being secured, as at 22, to the inner end of the tube 17 and the other end of said member 21 having a pivot 23 engaging within the head 5, thereby mounting the roller and ink-ejecting member for relative

rotation about a common axis. The knob 18 has a removable plug 24 therein closing the outer end of the tube 17, and permitting ink to be introduced through said tube when the plug is removed.

The foregoing structure is old in the art, and to supply ink to the roller 2 and drum 3, it is the practice to either hold the knob 18 while the roller 1 is in rotation so that the member 21 is stationary, thereby causing the ink to be squeezed out through the apertures, or the knobs 11 and 18 can be rotated relatively by holding one of them and rotating the other, which will accomplish the same results. This, however, requires time and attention, taking the attention of the operator away from the normal operation of the machine, and sometimes interfering with the operation.

The improvements which will be described serve to avoid holding either knob, and making it more convenient and less trouble to control the ink supply.

In carrying out the invention a device is employed for locking or latching one of the relatively rotatable parts of the inking roller against rotation while the other rotates, to thereby automatically supply the ink through the periphery of the roller, and as soon as said part is unlatched or released, the supply of ink will be stopped. As shown, the ink ejecting member 21 is held against rotation, and to accomplish this in a simple and efficient manner, a collar 25 is fitted on the hub 19 of the knob 18, and is provided with an annular outstanding flange 27 having a series of notches 28 therein. Said collar 25 has an aperture 26 to receive the set screw 20, whereby the collar will be held in place without additional securing means. A latch or locking finger 29 is provided to engage the notches 28 for holding the member 21 against rotation and this latch 29 has an apertured portion 30 to fit snugly within the notch or slot 14 above the trunnion 13 on the pin or member 16. The latch is thus pivotally mounted on the pin 16, and the portion 30 can be grooved, as at 31, to fit over the trunnion 13. The latch 29 is thus pivoted on the bracket 15 and can be swung to upright position as seen in full lines in Fig. 2, or it can be swung away from the inking roller downwardly into one of the notches 28 as seen in dotted lines. The latch 29 is so formed that when it is swung upwardly, the center of gravity is at that side toward the roller, thereby supporting the latch in upright position, as it will have a tendency to swing away from the flange 27.

It is an easy matter to swing the latch or finger 29 downwardly so that it drops into one of the notches 28, which will therefore lock and hold the member 21 against rotation, while the roller continues to rotate. This will automatically force the ink out through the periphery of the roller, and as soon as sufficient ink has been discharged, the operator can conveniently raise the latch 29 back to idle position. This device simply requires the downwardly throwing of the latch when more ink is required, and the raising of the latch to stop the supply of ink, so that it is not necessary to hold the knob 18 during the supply of ink, which may require more or less time.

In some of these machines in which the friction between the rollers 1 and 2 and drum 3 is relied upon for rotating the inking roller, gears can be used for positively driving the inking roller, to avoid slippage, although the gears will not be required if the inking roller is already driven positively, so that there is no liability of the roller slipping when the member 21 is latched. Thus, a gear 32 can be applied to the inking roller, said gear having a square hole 33 to receive the boss 12, and said gear meshes with an idle pinion 34 mounted on the shaft 35 of the roller 2. An annular gear 36 is applied to the drum 3, and meshes with the pinion 34. This annular gear 36 has set screws 37 engaging within one end of the drum 3 so as to rotate with said drum, thereby driving the inking roller and preventing same from slipping when the latch 29 is thrown in engagement with the flange 27.

As shown in Fig. 4, it is also possible to cast the flange 27′ integral with the hub 19′ of the knob 18′, said flange having the notches 28′ for the engagement of the latch.

As a result of this simple and inexpensive addition to the inking roller, time and trouble is saved in inking, and the operation and output of the machine are enhanced.

These improvements can also be used in a similar arrangement if the roller is used for supplying paste or any other semi-liquid.

Having thus described the invention, what is claimed as new is:—

1. The combination of a fountain ink roller, means therein for discharging the ink, said means and roller being relatively rotatable, and means operable for holding one of them against rotation and releasing same at will.

2. The combination of a fountain ink roller, means therein for discharging the ink, said means and roller being rotatable relatively, and means for latching and unlatching said means at will to hold it against rotation or release it.

3. The combination of a fountain ink roller, ink discharging means therein, a notched member rotatable with said means, and a latch movable into and out of engagement with said member to hold said

means against rotation and release it for rotation with said roller at will.

4. The combination of a fountain ink roller having a trunnion, a bracket supporting said trunnion, ink discharging means in the roller having a portion extending through said trunnion, a notched flange carried by said portion, and a latch pivotally mounted on said bracket to be moved by hand into and out of engagement with said flange to lock said means against rotation and release it for rotation with the roller at will.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ELMER CLIFTON SHAVER.

Witnesses:

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H. C. HEYDEGGER.