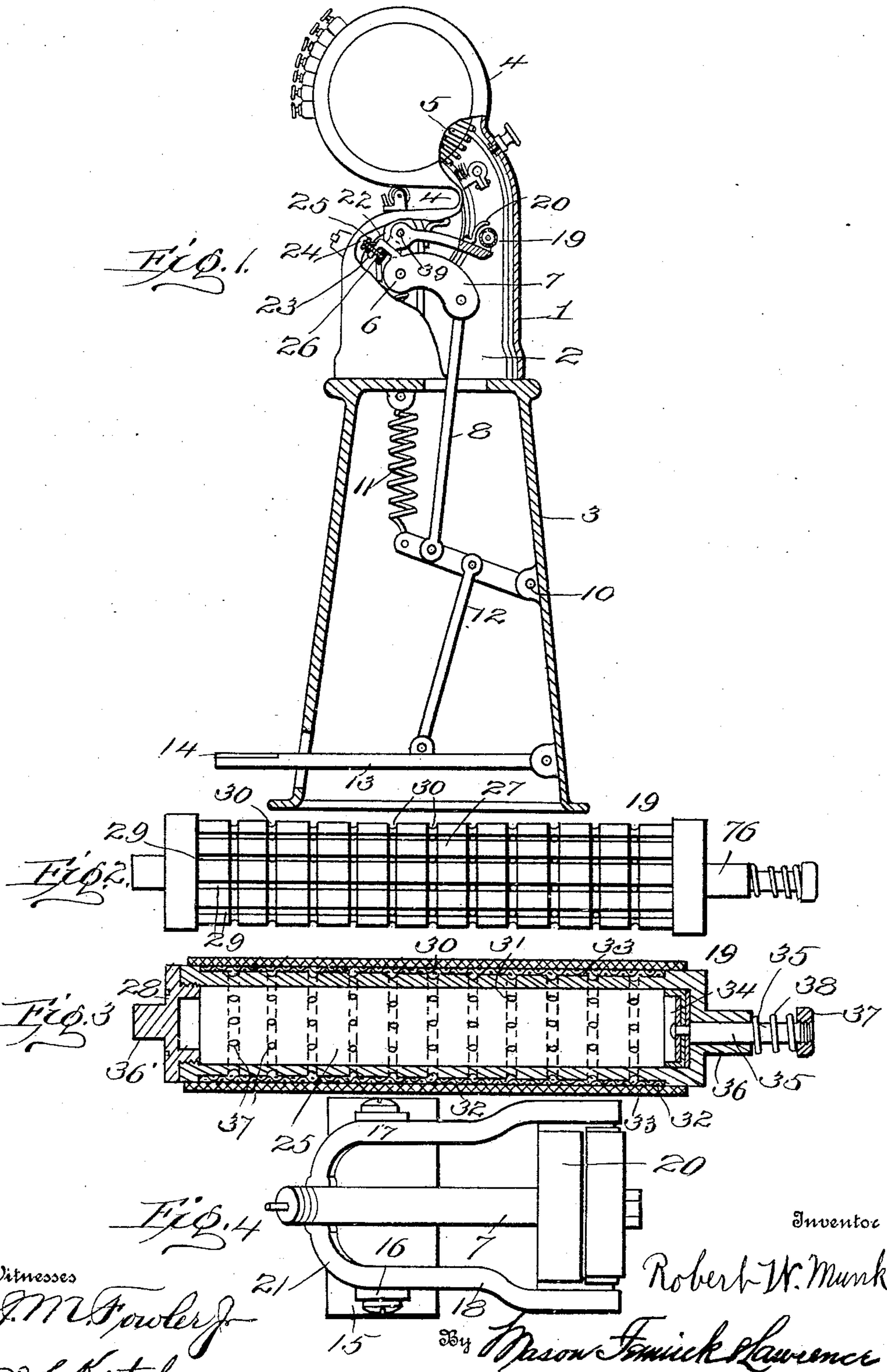


R. W. MUNK.  
INKING DEVICE.  
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930,309.

Patented Aug. 3, 1909.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## INKING DEVICE.

No. 930,309.

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Patented Aug. 3, 1909.

Original application filed November 13, 1907, Serial No. 402,031. Divided and this application filed September 17, 1908. Serial No. 453,430.

*To all whom it may concern:*

Be it known that I, ROBERT W. MUNK, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Inking Devices; 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.

This invention relates to improvements in inking rollers, and particularly to inking rollers adapted to act as a fountain roller which receives the ink in its interior and feeds the same to the periphery as the ink is needed.

The invention further comprises an inking roller in combination with a printing machine whereby the printing machine and roller may be operated so that when the type is at rest the inking roller will be inking the same, and when the type is making an impression the roller will be at rest.

An object in view is the provision of an inking roller arranged to receive ink in the interior and to feed the same to its outer surface in such a manner as to form an even distributing of the ink for use.

Another object of the invention is the provision of an inking roller and mechanism for operating the same in connection with a printing or stamping machine.

With these and other objects in view the invention comprises certain novel constructions, combinations, and arrangement of parts as will be hereinafter more fully described and claimed.

In the accompanying drawing: Figure 1 is a view partly in elevation and partly in section of a complete stamping machine, including the stand and foot operated parts, together with an inking roller. Fig. 2 is a view in side elevation of an inking roller with the distributing mesh and blanket removed. Fig. 3 is a detailed longitudinal vertical central section through the inking roller detached. Fig. 4 is a detailed plan view of the inking roller and operating parts.

Referring to the drawing by numerals, 1 indicates an inclosing housing or casing which covers all parts of the machine which require protection, and which do not demand to be exposed, and within the housing

1 is arranged a framework 2 which extends upwardly and throughout the casing to all points necessary for sustaining the parts of the machine, the parts of the machine being sustained by the framework 2. The casing 1 and framework 2 are mounted upon a stand 3 containing foot lever mechanism hereinafter described. A head 4 is provided upon casing 1 and is arranged to receive type disks 5 which are revolubly mounted in head portion 4 and may be operated or revolved in any desired way for causing any of the type on the wheels to be brought in position for operation.

Within the boxing portion of the housing suitably supported on framework 2 is a power shaft 6, to which shaft is fixed a downwardly curved arm 7 which is engaged by the bifurcated upper end of an operating link 8, the said link obtaining power from any desired source, but by preference as shown in Fig. 1 being connected with a lever 9 which is pivoted at one end to supporting stand 3 at 10 and at its opposite end is retained normally in its uppermost position by spring 11, the lever 9 in turn being engaged by link 12 which extends to a foot treadle or lever 13 so that the lever 7 may be depressed by depressing the treadle 14 at the outer end of the lever 13.

Connected to lever 7 is a sleeve 15 that has arms 16 and 17 radially projecting upward therefrom to the outer end of which is pivoted a frame 18 which is adapted to carry an inking roller 19. For preventing contact of the roller 19 with the article to be printed, a guard 20 is preferably disposed in front of the roller as seen in Figs. 1 and 4. Extending forward from the frame 18 is a yoke 21. An arm 22 extends upwardly from the sleeve 15 through yoke 21 and is formed with a bent end 23 through which a pin 24 is slidably passed, said pin being fixed to the outer end of the yoke 21. A thumb nut 25 is threaded into the outer end of pin 24 for the purpose of adjustment, and an extension pin 26 surrounds the pin and enters between the yoke 21 and the bent end 23 so that the frame 18 with its inking roll 19 will follow the movement of the arm 7 subject to the pressure of spring 26.

The inking roller proper is constructed preferably as indicated in Figs. 2 and 3 and consists of a hollow cylinder 27 having one of its ends threaded or otherwise detachably con-



nected as at 28 for facilitating the introduction of the charge of ink into the cylinder. The cylinder 27 is provided with longitudinal grooves 29 and intersecting annular grooves 30, and is also provided with apertures 31—31 leading from the interior and communicating with the grooves 29 and 30, said grooves 29 and 30 being employed for facilitating the distribution of the ink. Surrounding the cylinder 27 is a wire mesh cylinder 32 which is covered by a distributing blanket 33 of cotton or other suitable fabric. In the opposite end of the cylinder 27 from the removable cap 28 is arranged a piston or plunger 34 engaged by a piston rod 35 which is passed through the hollow journal 36 of the cylinder 27. The outer end of the piston rod 35 is provided with a button or nut 37, and a spring 38 is interposed between said nut and the journal 36 so as to normally maintain the piston rod and piston in their outermost position.

In operation indelible ink must be employed sometimes, and even with the precaution provided in the structure just described does not remain sufficiently moist, whereupon the operator will simply press inwardly upon the button or nut 37, and then release the same which will thrust the piston 34 inwardly and cause said piston to return to its outer position. This will have the effect of first forcing a comparatively large quantity of ink outwardly through the apertures 31, and then draw the same inwardly again. This will thoroughly moisten the blanket 33 and insure the even distribution of ink. The cap 28 is provided with a journal 36' and the said journals 36 and 36' are mounted in suitable bearings in the frame 18. By preference I turn down the intermediate portion of the cylinder 27 as clearly indicated in Figs. 1 and 2, so that the ends of said cylinders have greater diameters than the intermediate portions so that the wire mesh cylinder may be fitted against the cylinder 27 and be flush with the end portions and the inner surface of the edges of the blanket 33 rest against the end portions of the cylinder. This is of course an arbitrary feature of construction and may be varied at will. However, the wire mesh is preferable for the proper distribution of the ink, although I have found that by knurling the cylinder the capillary action will produce efficient result. When the cylinder 27 is knurled the wire mesh need not be used, and when thus depending upon the knurling the grooves of the knurling are preferably cut rather deep so that the projecting portions and grooves may act as means for freely distributing the ink to blanket 33.

In operation when it is desired to ink any of the type on type disk 5, treadle 14 is depressed which will cause inking roller 19 to wipe across the type on the lower edge of the

disk 5. When the treadle is released the inking roller 19 takes the position shown in Fig. 1. During the wiping action of inking roller 19 ink is taken off from blanket 33 as the same is saturated with ink from the interior of cylinder 27. Ordinarily the ink will flow through the various apertures 31 for keeping the blanket 33 saturated, but if for any reason the apertures 31 should get stopped up so that the ink on the blanket should become dry the same may be refreshed by pressing inward nut or member 37, which will cause ink to be forced positively out through opening 31 and then drawn in again to a greater or less extent. Member 37 may be pressed by hand at any desired interval, or means may be provided for automatically forcing the same inward, together with the piston 34 at predetermined intervals. A cam, for instance, might be mounted upon the machine upon which the roller is used for at intervals pressing inward member 37. This will give a refreshing supply of ink to the blanket at intervals, and will thereby positively keep the same in the best possible condition for inking the type. After each refreshing the ink will continue to feed in the usual manner to the outer surface of roller 19.

The roller 19 is particularly adapted for use with a stamping machine, for instance, a stamping machine for stamping laundry, but it is evident that the same may be used for other machines within the spirit of the invention.

This application is a divisional application of my former application, Serial No. 402,031, filed November 13, 1907, for stamping machine.

What I claim is:

1. An inking roller comprising a hollow perforated cylinder formed with enlarged ends and a constricted central portion, an ink distributing medium encircling said constricted central portion, a blanket surrounding said medium for evenly distributing ink therefrom, a plunger arranged in said cylinder for forcing ink therefrom, manually operated means for moving said plunger in one direction for forcing ink from said cylinder, and a spring for forcing said plunger in the opposite direction for withdrawing substantially all of the ink forced from said cylinder.

2. An inking roller comprising an inking surface, an automatic supply therefor, means for forcing an additional supply to said surface, and a spring acting in connection with the means for forcing the additional supply to said surface for withdrawing the additional supply from said surface.

3. An inking roller comprising a hollow perforated cylinder, a wire mesh inclosing said cylinder, a distributing member encircling said wire mesh, means for manually forcing ink from the interior of said cylinder to the surface of said surrounding member,



and resilient means acting in connection with the means for manually forcing ink from the interior of said cylinder to said surface for withdrawing the ink forced to said means.

5 4. An inking roller, comprising a hollow perforated cylinder formed with enlarged ends and a constricted central portion, wire mesh encircling said constricted central portion, and a blanket surrounding said wire mesh and part of said end portion.

10 5. An inking roller comprising, a hollow perforated cylinder formed with enlarged ends and a constricted central portion, having a plurality of longitudinal grooves, and a plurality of annular grooves formed therein, a wire mesh surrounding said constricted central portion, and a dispensing blanket surrounding said wire mesh for forming an even distributing means for ink from said 20 cylinder.

6. An inking roller, comprising a hollow perforated cylinder formed with enlarged ends and a constricted central portion having longitudinal grooves, and annular grooves 25 formed therein, said perforations passing through said cylinder at the juncture of said

annular and said longitudinal grooves, whereby the ink in said cylinder is distributed to the surface of said constricted portion, an ink distributing member encircling 30 said constricted portion and substantially filling the same, and a blanket encircling said ink distributing member for dispensing ink from said cylinder.

7. An inking roller comprising a hollow 35 perforated cylinder, distributing means on the outside of said cylinder, a removable cap for one end of said cylinder having a projecting journal axially alined with respect to the cylinder, a hollow journal projecting from the 40 opposite end of the cylinder, a piston rod extending through the hollow journal, a piston head within the cylinder connected with said rod, and operating means connected with 45 said piston rod.

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

ROBERT W. MUNK.

Witnesses:

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