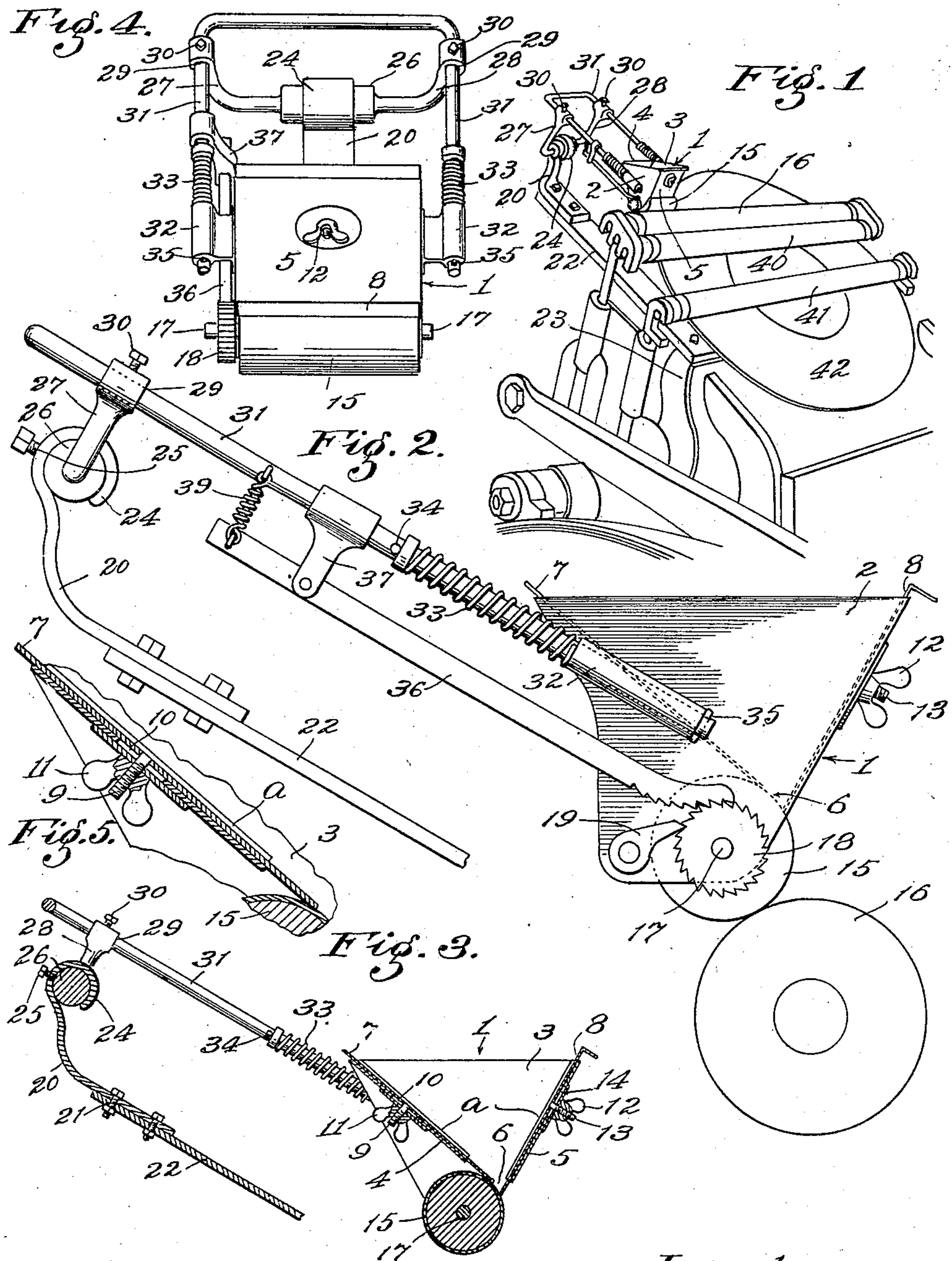


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G. O. BEEM & C. H. MARTIN.
AUTOMATIC INK FONT FOR PLATEN PRINTING PRESSES.
APPLICATION FILED MAR. 11, 1907.



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UNITED STATES PATENT OFFICE.

GUY OWEN BEEM AND CHARLES HUGH MARTIN, OF LOS ANGELES, CALIFORNIA.

AUTOMATIC INK-FONT FOR PLATEN PRINTING-PRESSES.

No. 869,863.

Specification of Letters Patent.

Patented Oct. 29, 1907

Application filed March 11, 1907. Serial No. 361,841.

To all whom it may concern:

Be it known that we, GUY OWEN BEEM and CHARLES HUGH MARTIN, both citizens of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Automatic Ink-Font for Platen Printing-Presses, of which the following is a specification.

This invention relates to means for applying ink to the composition inking rollers of a platen printing press.

It is of the objects of this invention to provide an improved automatic inking font that can be readily applied to any make of platen printing press, and which will be automatically operated by the operation of the press to positively and invariably supply the required amount of ink to the composition inking roller of the press; to provide for ready adjustment of the amount of ink supplied for different kinds of work; to provide means whereby such adjustment can be accomplished without difficulty while the press is running; to provide an automatic inking font which is self-contained and does not require the addition to the press of any moving arm for its operation; and also to provide for convenient cleaning.

Another object is to provide means for quickly, conveniently and accurately adjusting the fountain toward and from the inking roller of the press.

Other objects and advantages may appear from the subjoined description.

The invention may be applied in different forms and sizes of font.

The accompanying drawings illustrate the invention in a form we at present deem most desirable.

Figure 1 is a fragmental perspective view of a printing press provided with this invention. Fig. 2 is a side elevation of the font on a printing press, a fragment of which is shown. Fig. 3 is a vertical mid-section of the same. Fig. 4 is a front elevation of the car attached to its support. Fig. 5 is a fragmental detail to illustrate the adjustable slide construction for the bottom and front of the ink-box.

1 is the ink-box provided with two side walls 2, 3, a rear wall 4 and a front wall 5, which front and rear walls approach each other at an angle of 90°, more or less, but do not meet; thus providing a slot 6 at the lower edge of the box extending from one to the other of the side walls rearward from the inside of the front wall.

7 and 8 are rear and front slides inside the box, the rear slide being adjustable on the rear wall by the bolt 9 secured in slot 10 by thumb-nut 11, while the front slide is adjustable on the front wall by a nut 12 screwed on bolt 13 that is secured to the front slide and slides

in slot 14 in the front wall. The front and rear slides are adapted to be slid tightly together to close the slot and to be drawn apart to form a slot between them of any width desired by the operator. Guideways *a* may be provided in the box for the slides 7 and 8.

15 is an ink delivery roller arranged below the slot underneath the front of the box to form the front end of the floor thereof to receive the ink inside of the box and carry it forward and downward to the upper composition inking roller 16 of the platen press when said delivery roller moves forward. The side walls 2, 3, of the ink-box extend down below the slot, and the shaft 17 of the ink delivery roller is journaled therein.

18 is a ratchet-wheel, and 19 a click for the same, the former being fixed to the roller shaft, and the latter to the box, to prevent the roller from rotating backwards.

20 is a bracket provided with rivet holes 21 for attachment to any suitable arm or support 22 fastened to stationary part 23 of the press. The bracket 20 is provided with an eye 24 with set-screw 25 to engage and rigidly support a swivel-piece 26 provided with two arms 27, 28, each having an eye as 29 and a set-screw 30 for the purpose of adjustably holding the track 31 upon which the ink-box 1 is mounted by means of bearings or slide-ways 32 which slide freely along the track. The track 31 is in the form of a rod bent into an elongated U-shape, on the parallel two limbs of which are mounted two springs 33 yieldingly held against recoil by pins 34, and engaging the rear ends of the guides 32 in which the track is held by means of pin 35.

36 is a roller-rotating pawl pivotally connected to the track by a hanger 37 and yieldingly held in engagement with the ratchet-wheel 18 by spring 39. This pawl 36 is stationed rearwardly of the ratchet-wheel and is designed to cause rotation of the ink-delivery roller whenever the ink-box with its attachments,—which for convenience we term the car,—is moved rearwardly on the track.

40, 41, are the usual ink-distributing rollers, and 42, the rotating color plate of the press.

For convenience of description we use the term "car" to denote the box with its slides and roller.

In practice, the workman will adjust the car to such position that when the printing-press is operated the upper composition inking-roller 16 will engage the ink-delivery roller 15 at the close of the upward movement of the inking roller, so that the inking roller will force the car rearwardly a short distance depending upon the amount of rotation desired to be given to the ink-delivery roller at each operation of the press. The car can be accurately adjusted by manipulation of the set-

screws 25 and 30. Then the slides will be adjusted to provide a slot of the desired width to allow the ink to flow on to the ink delivery roller 15 and to be carried by such roller from the ink-box on to the inking roller 16.

- 5 When the parts are all properly set and secured, a charge of ink will be placed in the box and the press be set into operation. At each upward movement of the inking roller 16 of the press, the same will engage the ink-delivery roller and will cause a partial rotation of
10 the same, and at the same time the car will yield to the pressure of the roller moving upward along the track against the tension of the springs 33 which return the car to initial position as the inking roller retracts.

- As the car moves rearwardly along the track the
15 ratchet-wheel 18 moves along the toothed face 43 of the pawl 36 and is thereby rotated, thus turning the ink delivery roller 15 forward so that the same rolls on the face of the upwardly-moving inking roller. Then when the inking roller returns, the springs 33 return the car and
20 its roller, holding said roller still in engagement with the upper inking roller, which is now rotating in a direction reverse to that on its upward movement by reason of contact of said inking roller with the color-plate. This movement of the inking roller in contact
25 with the ink delivery roller causes the inking roller to wipe the ink from the ink-delivery-roller, thus preventing any large surplus of ink to be carried around on the roller to clog the same at the rear of the box.

- The amount of ink that is delivered to the ink-deliv-
30 ery-roller may be regulated by adjusting the front slide. The rear slide is preferably arranged approximately at a tangent to the top of the roller 15 so as to engage, or nearly engage, the top of said roller, and the regulation of the quantity of ink delivered from the box is accom-
35 plished by turning the thumb-screw 12 and thereby moving the front slide up and down, but the rear slide is adapted to be forced over the top of the roller and against the front slide so as to entirely shut off the dis-charge of ink onto the roller. These adjustments of the
40 slides may be readily accomplished while the press is in operation.

- The track may be loosened in its clamp, and the car may then be moved up out of the way of the roller 16, whereupon the device is out of commission; or, the
45 whole device, track and car may be removed and replaced with ease and convenience.

- The fountain may be readily readjusted relative to the inking roller by simply moving the elongated U
50 shaped track both sides of which will move together, each serving to guide the other, thus keeping the roller

of the fountain parallel with the inking roller of the press.

What we claim is:—

1. An ink fount for platen printing presses comprising a track formed of a rod bent into an elongated U shape, an ink box provided with guides, one for each of the arms of the track, the same being mounted to move along said track, means for delivering ink from said ink-box, and means in which said arms are slidably mounted for adjustably mounting the track on a printing-press whereby the ink delivery means is held in the path of the inking roller of the press.

2. An ink fount comprising a track formed of a rod bent into an elongated U shape, an ink-box provided with guides movably mounted on the track and provided with an outlet, a roller at said outlet, and means for adjustably mounting the track on a press with the roller in the path of the inking roller of the press.

3. A bracket, a track formed of a rod bent into an elongated U shape, means for adjustably mounting the track on the bracket, an ink-box provided with guides mounted to move on the track, a roller tangent to the rear bottom wall to deliver ink from said box, a ratchet wheel on the roller, a pawl pivotally connected to the track and engaging the ratchet to rotate the roller at the rearward movement of the box on the track, and springs on the arms of the track to move the box forward.

4. A track, a box mounted on the track and provided with slides at the front and bottom to afford a slot through which ink may be delivered, a roller carried by the box to deliver ink from said slot, a ratchet wheel on the roller, a click for the ratchet wheel, and a pawl to engage the ratchet wheel to rotate the roller when the box is moved along the track in one direction.

5. A bracket, a track, means adjustably connecting the track with the bracket, a pawl connected with the track, an ink-box provided with an ink outlet, converging slides to close the outlet, a roller to deliver ink from said outlet and adapted to be covered by the rear bottom slide, a ratchet wheel connected with the roller, a click for said ratchet wheel, and a spring to yieldingly hold the pawl in engagement with the ratchet wheel.

6. The combination of a bracket adapted to be fastened to a printing press, a swivel-piece in said bracket provided with two arms, means for clamping the swivel-piece in the bracket, a U shaped track having its arms adjustable in the arms of the swivel-piece, means for clamping the same in said arms of the swivel-piece, springs on the track arms, stop means for said springs, an ink box provided with guides slidable along said arms and engaging said springs, means to retain said guides on said arms, and means for delivering ink from the bottom of said ink box.

In testimony whereof, we have hereunto set our hands at Los Angeles California this 26th day of February 1907.

GUY OWEN BEEM.
CHARLES HUGH MARTIN.

In presence of—

JAMES R. TOWNSEND,
TILLIE E. ADAM.