

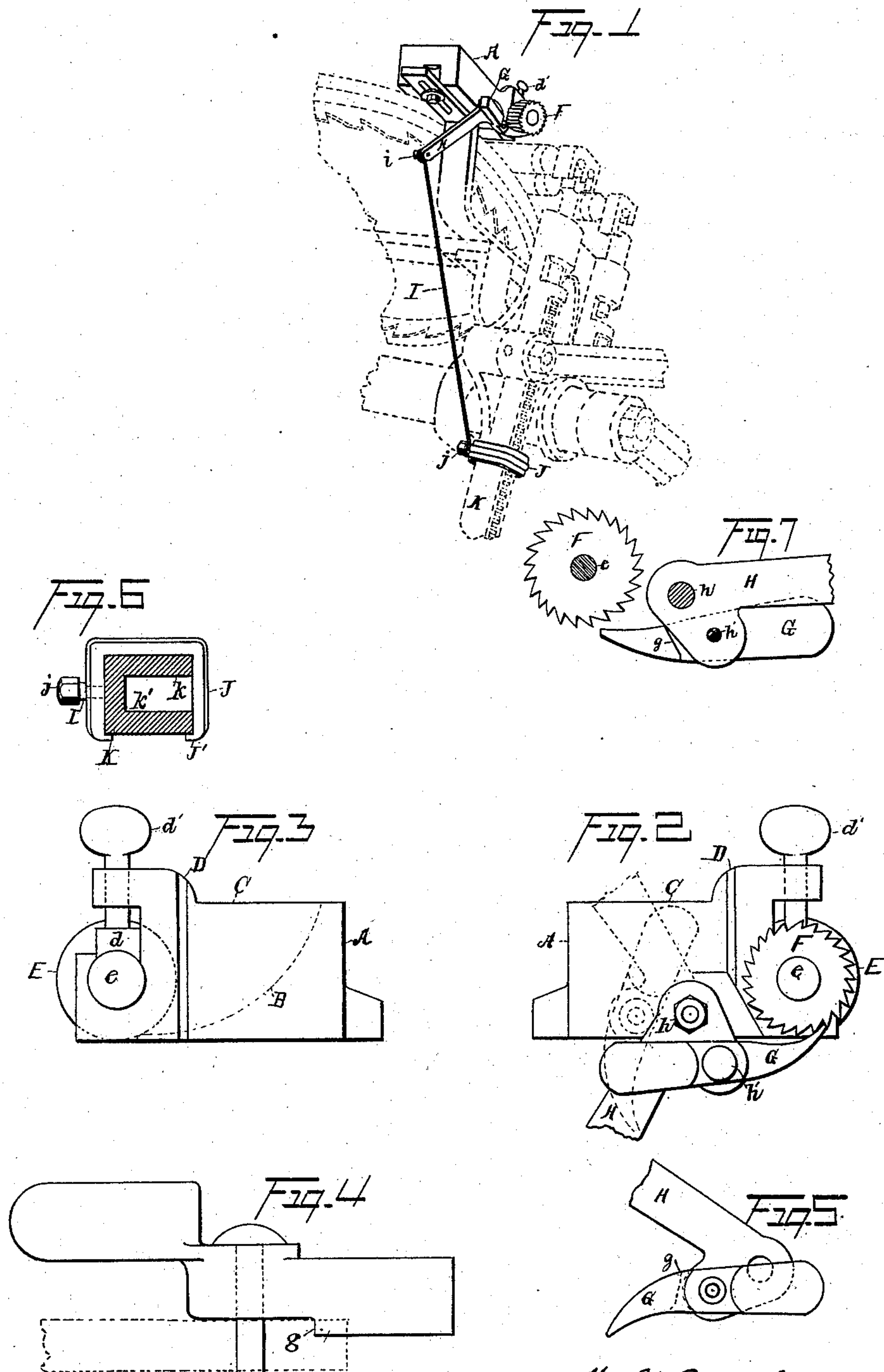
(No Model.)

W. H. PRICE, Jr.

INK FOUNTAIN FOR PLATEN PRINTING PRESSES.

No. 384,216.

Patented June 5, 1888.



WITNESSES.

*B. J. Bourie.*  
*Geo. W. King.*

*Wm. H. Price Jr.* INVENTOR.  
*By*  
*Liggett & Liggett.* Attorneys.



# UNITED STATES PATENT OFFICE.

WILLIAM H. PRICE, JR., OF CLEVELAND, OHIO, ASSIGNOR TO CHANDLER & PRICE, OF SAME PLACE.

## INK-FOUNTAIN FOR PLATEN PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 384,216, dated June 5, 1888.

Application filed October 24, 1887. Serial No. 253,273. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. PRICE, Jr., of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Ink-Fountains for Platen Printing-Presses; 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 pertains to make and use the same.

My invention relates to improvements in ink-fountains for platen printing-presses; and it consists in certain features of construction and in combination of parts hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective showing the ink-fountain in position on a portion of a press. Fig. 2 is a front side elevation of the ink-fountain. Fig. 3 is a rear side elevation of same. Fig. 4 is a bottom plan of the pawl. Fig. 5 is a detail of the lever and pawl, showing the latter in its reversed position. Fig. 6 is a rear side elevation of the clamp, showing also an arm of the roller-frame in section; and Fig. 7 is a view in side elevation of the pawl-lever and ratchet-wheel, the pawl being disengaged from the ratchet-wheel.

A represents the body of the fountain, the same having a sloping bottom, B, sides C, and housings D, all cast integral.

E is the feed-roll, the trunnions *e* of which operate in the housings, with half-boxes *d* above the trunnions, and thumb-screws *d'*, for depressing the boxes, and thereby holding the roller as near the front edge of bottom B as may be necessary to give the desired discharge of ink, more or less, according to the amount of type-surface used in the form that is to be inked. The feed-roller E, although it fills the space between the housings, is preferably only about three inches (more or less) in length, for the reason that such short roller may be raised far enough to supply any amount of ink that may be wanted, and in case a very small quantity of ink is required—as would be the case, for instance, in printing small cards—such small supply can be better regulated with a short roll than with a long roll. It is evident that a feed-roller twelve inches long, when set as

close to the bottom as may be and discharge ink at all, will discharge four times as much ink as a roller three inches long under the same conditions. On one of the trunnions of the feed-roll is mounted and keyed fast the ratchet-wheel F, the latter being actuated by a gravity push-pawl, G.

H is a lever of the bell-crank variety, this lever being pivoted at *h* to the side of the fountain. Pawl G is pivoted at *h'* to the short depending arm of this lever. Link I, at *i*, is pivoted to lever H. This link is also pivoted to clamp J, the latter being secured to the one arm of roller-frame K. The stud *j*, that fastens the clamp to frame K, serves also as pivotal connection for link I. The pawl is offset on the side thereof next lever H, forming a shoulder, *g*. This shoulder, by engaging the lever, serves as a stop for the pawl when the latter is turned in either direction. (See Fig. 5 and dotted lines, Fig. 2.) To render the fountain inoperative, the pawl is reversed, and by means of shoulder *g* aforesaid the pawl remains approximately in a horizontal position. (Shown in dotted lines, Fig. 5.) For operating the fountain, the pawl usually should move the ratchet-wheel only one or two notches at each stroke of the machine; but clamp J is necessarily so far removed from the axis of frame K that the sweep of lever H is likely to be enough to actuate the pawl a distance of several notches. To remedy this difficulty, shoulder *g* is made to engage the short arm of the lever H when the long arm of this lever is about midway of its upstroke, by reason of which the pawl is kept from engaging the ratchet-wheel until about midway of the downstroke of the lever, (see dotted lines, Fig. 2,) and when such engagement occurs the engaging end of the pawl is about under the axis of the ratchet-wheel, in consequence of which the pressure of the pawl on the ratchet-wheel in turning the latter is forward and upward and tends to hold the feed-roller up against its boxes rather than to depress the roller. While the pawl is drawn back the consistency of the ink is usually such as in a measure to buoy up the feed-roll.

With some of the devices in ordinary use it has been customary to fulcrum the pawl-lever



on one of the trunnions of the feed-roll with a hook-pawl pivoted to the lever and drawing rearward and downward on the ratchet-wheel in actuating the latter, by reason of which the inking-roller was likely to be depressed by the action of the pawl, causing an irregular feed, and sometimes shutting off the ink-supply altogether. Of course springs could be arranged to support the feed-roller as against such downward action of the pawl; but this would require modifications in the general construction, and would considerably increase the cost of the fountain, while my purpose is to make a first-class fountain at a minimum cost.

The arm K, to which clamp J is attached, is usually approximately of the form shown in Fig. 6. Heretofore the hook end of the clamp was made to engage the upper rib, *k*, and the set-screw *j*, if set opposite this rib, would be so near the upper edge of arm K that it would likely slip off, and if the set-screw were placed farther down a line from the point of the set-screw to the point of the hook end of the clamp would be oblique to the rear face of arm K, and consequently in such case the tendency of the set-screw would be to move to a point opposite the hook end, and in doing so would become loosened. I make the hook end *J'* of the clamp long enough to reach past the front side of arm K and hook under the lower rib, *k'*. With such construction, when the set-screw is applied, for instance, midway of

the rear face of arm K, or even farther down, the tightening of the set-screw draws the body of the clamp against the upper edge of arm K and draws the hook end of the clamp up against the lower rib, *k'*, and any loosening of the set screw by change of bearing under such conditions would be impossible.

What I claim is—

1. The combination, with ink-fountain, feed-roll, and ratchet-wheel, substantially as indicated, of bell-crank lever pivoted to the fountain, and push-pawl pivoted to the lever in position to engage the ratchet-wheel, said pawl having an offset and shoulder adapted to engage either side of the lever, substantially as set forth.

2. The combination, with ink-fountain and attachments, substantially as indicated, of clamp J and link L, for actuating the fountain from the movement of the inking-roller frame, said clamp being adapted to embrace three sides of such inking-roller frame, and a set-screw for fastening the clamp, such set-screw serving also as a pivotal connection for the link, substantially as set forth.

In testimony whereof I sign this specification, in the presence of two witnesses, this 4th day of October, 1887.

WILLIAM H. PRICE, JR.

Witnesses:

CHAS. H. DORER,  
ALBERT E. LYNCH.