W. W. W. BELKNAPP.

PRINTING PRESS.

No. 183,109. Patented Oct. 10, 1876.

Fig: 1.

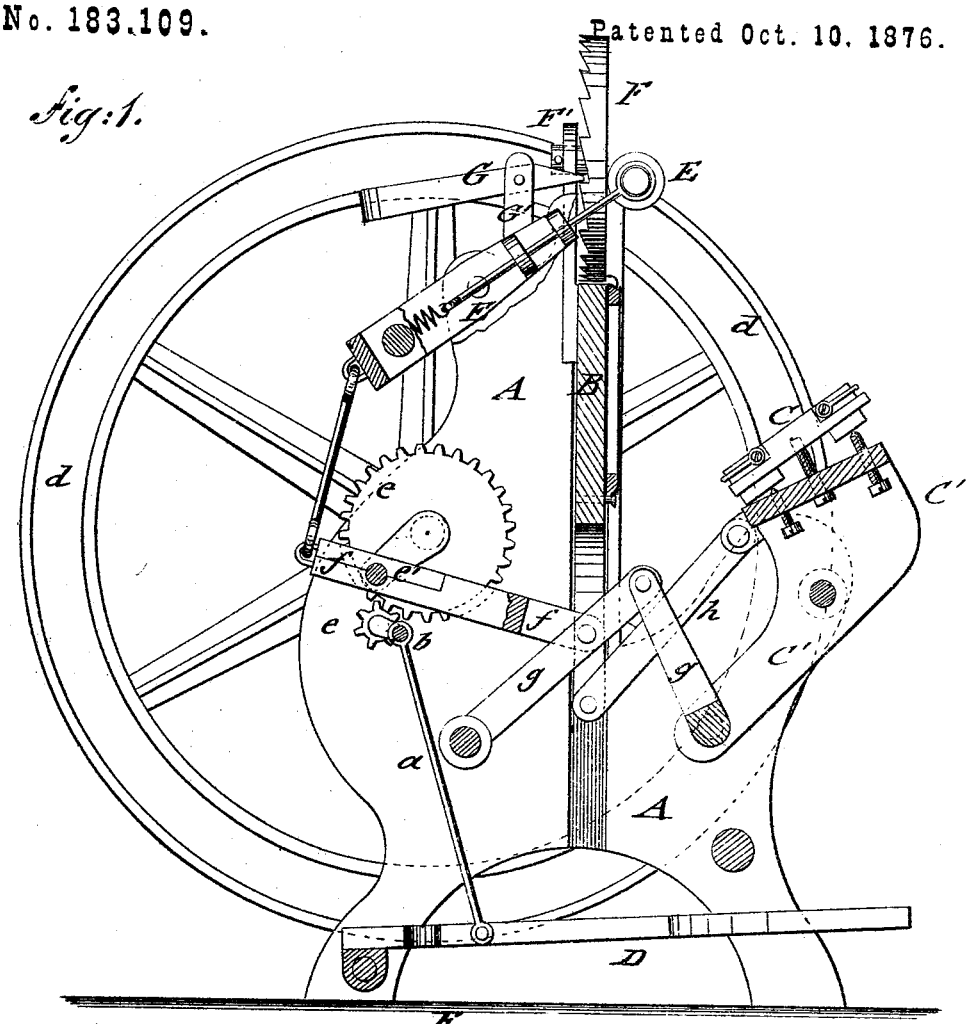
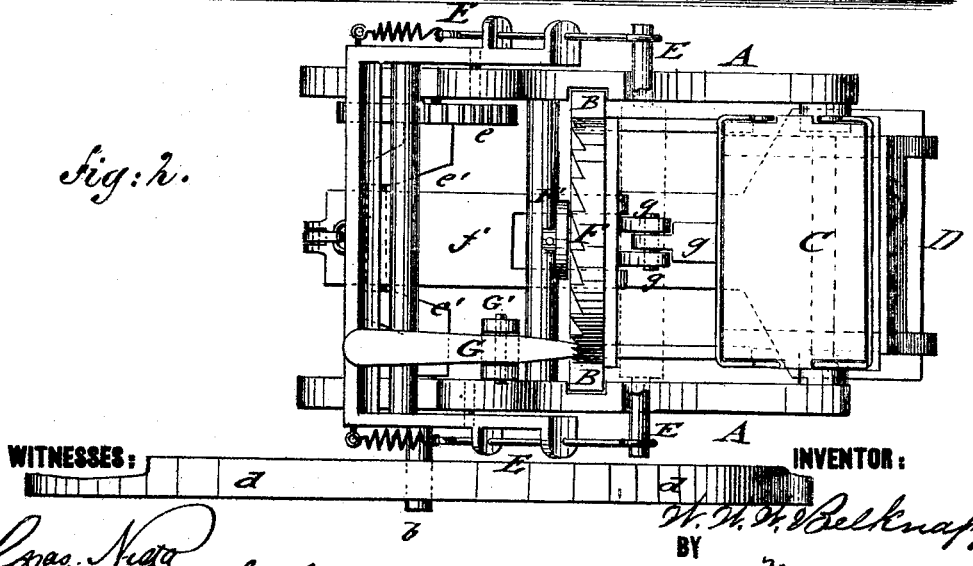


Fig: 2.



WITNESSES:

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WILLARD W. W. BELKNAPP, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN PRINTING-PRESSES.

Specification forming part of Letters Patent No. **183,109**, dated October 10, 1876; application filed July 1, 1876.

To all whom it may concern:

Be it known that I, WILLARD W. W. BELKNAPP, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Printing-Press, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical longitudinal section of my improved printing-press, and Fig. 2 a plan view of the same.

Similar letters of reference indicate corresponding parts.

My invention relates to improvements in the class of small job printing-presses by which the construction of the same is simplified, and the working facilitated and accelerated.

The invention consists of a swinging platen, in combination with a vertically-movable bed, and an oscillating ink-distributing mechanism.

In the drawing, A represents the supporting-frame of my improved printing-press; B, the vertically-reciprocating bed, and C the swinging platen. The platen and bed are jointly operated by a compound toggle-lever mechanism from the treadle D, which is connected by a pitman, *a*, with a crank-shaft, *b*, having fly-wheel *d*, the crank-shaft operating, by a pinion and gear-wheel, *e*, an intermediate crank-shaft, *e'*, that connects by a lever, *f*, with the toggle-levers *g g*, of which one is pivoted to the frame A, the other to the arms of the platen-frame C', which arms are extended below the shaft on which the platen swings.

The platen C is adjusted on its supporting-frame by set-screws, that secure the platen in the exact position required by the motion of the bed. The upper part of the swinging platen-frame C' is connected by pivot-rods *h*, with downward-extending arms of the bed B, so as to reciprocate the same in guide-grooves of the frame jointly with the motions of the platen.

The inking roll or rolls E are supported in an oscillating frame, E', that is pivoted to the upper part of frame A, and connected at the rear end with the lever *f*. The roll E is hung to the frame E' by any approved spring mechanism, and passed over the form in the bed, and over a distributing-disk, F, at the top of the reciprocating bed B. The distributing-disk F turns by a center pivot on a standard, F', attached to the bed, and feeds continually another portion of its surface to the rolls by means of a pivoted pawl, G, that engages a radial ratchet device at the rear part of the disk, so as to turn the same for the distance of a sectional tooth at every upward motion of the disk and bed.

The pawl G swings in a standard, G', of frame A, and secures in reliable manner the rotation of the distributing-disk by engaging, at each downward motion of the disk, a tooth, and turning the disk during the upward motion, so as to keep up a regular distribution of the ink.

The simplicity of the inking and distributing arrangement renders the press less expensive, and facilitates the rapid and effective working of the same.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

In a printing-press, the combination of a swinging platen, a vertically-reciprocating bed, and an oscillating inking device, substantially in the manner and for the purpose set forth.

WILLARD W. W. BELKNAPP.

Witnesses:
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