

(No Model.)

J. H. UTTER.
PRINTING PRESS.

No. 296,898.

Patented Apr. 15, 1884.

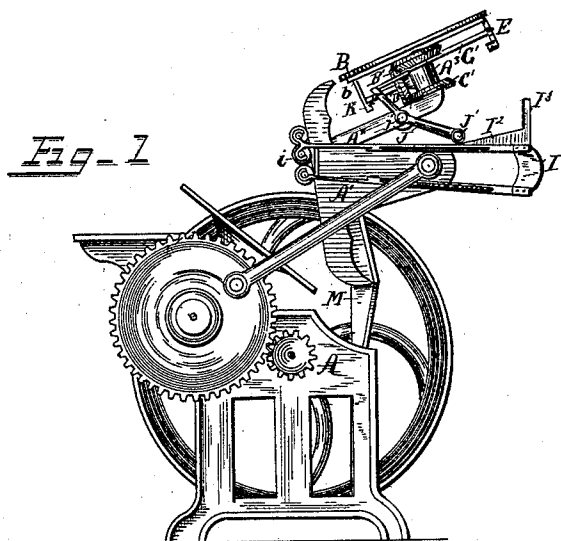


Fig - 3 -

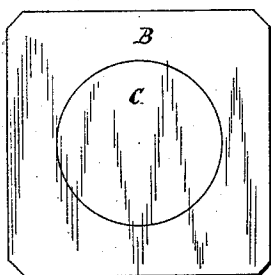


Fig - 4 -

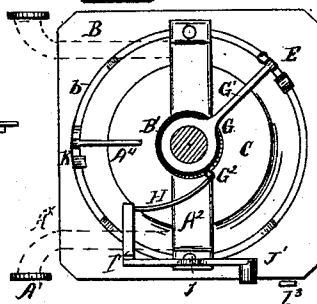


Fig - 5



Fig. 6.

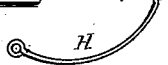
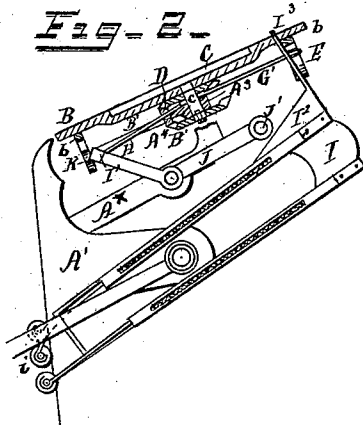


Fig-2-



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN H. UTTER, OF WESTERLY, RHODE ISLAND.

PRINTING-PRESS.

SPECIFICATION forming part of Letters Patent No. 296,898, dated April 15, 1884.

Application filed March 6, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. UTTER, of Westerly, in the county of Washington and State of Rhode Island, have invented certain new and useful Improvements in Printing-Presses, of which the following is a specification.

The following is a description of what I consider the best means of carrying out the invention.

The accompanying drawings form a part of this specification.

Figure 1 is a side elevation showing the novel parts, with so much of the ordinary parts as is necessary to indicate their relation thereto. Fig. 2 shows the position of the parts at another portion of the operation while the stop is in position, which prevents the distributing-table from rotating too far. Fig. 3 is a plan view of the ink-table. Fig. 4 is a corresponding view, seen from below, with the table removed, showing the mechanism underneath which operates it, and showing also in dotted lines the means of supporting the table and its attachments. Fig. 5 is a front view of a portion, showing the pawl which prevents a recoil of the table. Fig. 6 represents a connecting-link detached.

Similar letters of reference indicate corresponding parts in all the figures.

A is the fixed frame-work of the press, certain portions being distinguished, when necessary, by additional marks, as A' A².

The exterior or principal ink-distributing table is marked B. It is substantially square, with the corners clipped. A considerable area in the center is sunk, and receives a thin circular disk, C, which is turned in the opposite direction to B.

M is the bed supporting the form. A' A' are the ordinary guides which support the inking-rollers in traversing across the space between the form and the distributing-table; and A^x A^x are arms which project from the main frame A, and support the cross-bar A² at points near the ends thereof, as shown in dotted lines in Fig. 4.

A² is a rigid cross-bar, and A³ a boss on the upper surface thereof, which affords a support

for the ink-table and for the operating means therefor.

As is common in ink-tables having separate centers, the under face of the ink-table B is provided with a beveled gear, B'. The lower end of the pivot c, fixed in the disk C, carries a corresponding beveled gear, C', and an arm, A⁴, in the side of the boss A³ supports a beveled gear, D, which connects the two. This arrangement insures that the intermittent rotary motion communicated to the rectangular ink-table B is communicated in the reverse direction to the central ink-table, C. The arm A⁴ extends outward, and provides a support for the pawl K, which will be described.

I is the ordinary oscillating frame, which receives motion by suitable connections to the other portions of the press, and carries the inking-rollers i alternately down across the form and up across the distributing-table B C. The exterior table, B, has a circular ledge, b, on its lower face, which is notched at four points, the notches being beveled to facilitate the turning of the table in the proper direction by the loaded hook-pawl E, carried on a long arm, G', which is fixed on a ring, G, centered on the boss A³. This ring G and its arm G' receive a large vibrating motion through a curved link, H, attached to an eye, G². In order to get a sufficient sweep of the arm G' to insure a quarter-revolution of the outer table, B, at each impression, it is essential that the eye G² be actuated with considerable motion. This is obtained through the medium of a bell-crank lever, J, turning on a fixed center, j, and receiving motion through its horizontal arm by means of a roller, J', traversed on a cam, I', the cam being formed with a quick incline. The lever J receives, through the oscillating motion of the frame I, sufficient motion about its center j to impart through the link H a sufficiently vigorous and long throw to the arm G'. As the frame I by its rocking motion moves the inking-rollers i down across the form, thus leaving the distributing-table B C free, the arm I', through the link H, turns the ring G and arm G' through a little more than a quarter of a revolution, thus insuring a sufficient motion to give the desired quarter-revolution to the table B.

The return motion of the frame I rocks the ring G and arm G' in the opposite direction back to their original positions. The parts are so arranged that that portion of the motion of the frame I which traverses the inking-rollers i over the distributing-table B C induces no motion in the pawl E, and produces no movement of the ink-table. The mechanism by which the motion is communicated from the exterior table, B, to the interior table, C, has been long used, and is much approved. From the extreme end of the cam I², I extend upward a stop, I³, which, when the frame I is oscillated to its farthest extreme, so as to bring this portion in its highest position, stands in the path of the corners of the table B, and, being struck by the corner which is approaching at that moment, arrests the revolution. This insures that the table B shall not be turned too far by its momentum after the termination of the quick movement imparted to it by the arm G'. There is a liability that through the elasticity of the stop I³ or other cause the table may, under some conditions, be induced to rebound after its revolution is suddenly arrested by the

stop I³. I guard against this by a loaded pawl, K, turning on the fixed arm A⁴. This loaded pawl K engages with each notch in the circular ledge B, and thus by resisting the tendency to rebound compels the table to remain in the required position.

I claim as my invention—

1. In a printing-press, the cam I², carried on the vibrating frame I, in combination with the lever J, link H, ring G, arm G', disk B, and pawl E, as and for the purposes specified.

2. In a printing-press, the disks B C and pawls K E, combined with the cam I², frame I, lever J, having roller J', link H, ring G, arm G', and movable stop I³, as and for the purposes set forth.

In testimony whereof I have hereunto set my hand, at Westerly, Washington county, Rhode Island, this 3d day of March, 1883, in the presence of two subscribing witnesses.

JOHN H. UTTER.

Witnesses:

EUGENE B. PENDLETON,
EVERETT BARNES.