No. 764,775. PATENTED JULY 12, 1904.

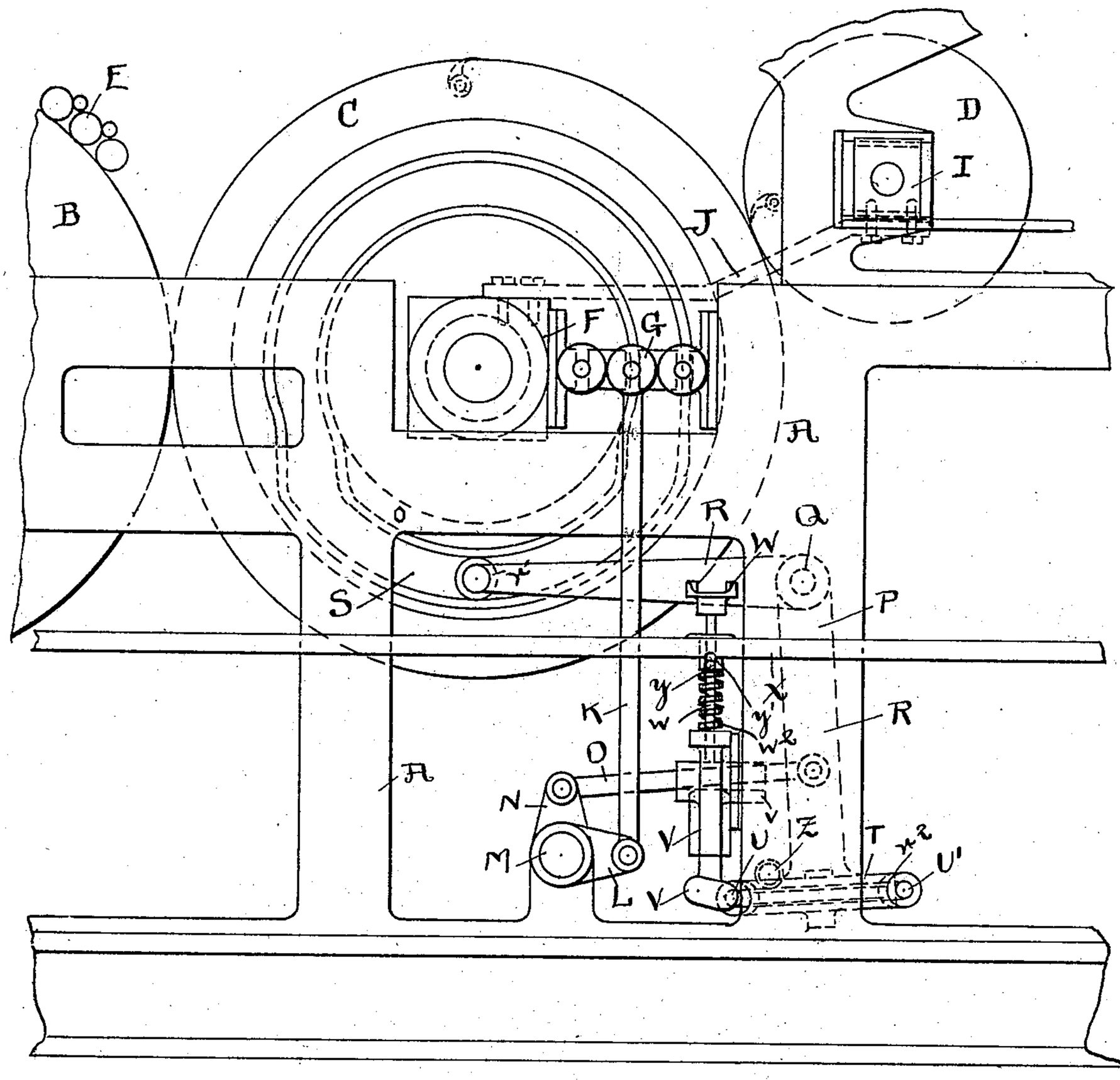
W. SCOTT & A. W. WESEMAN.

PRINTING PRESS.

APPLICATION FILED FEB. 11, 1901.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.



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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 2

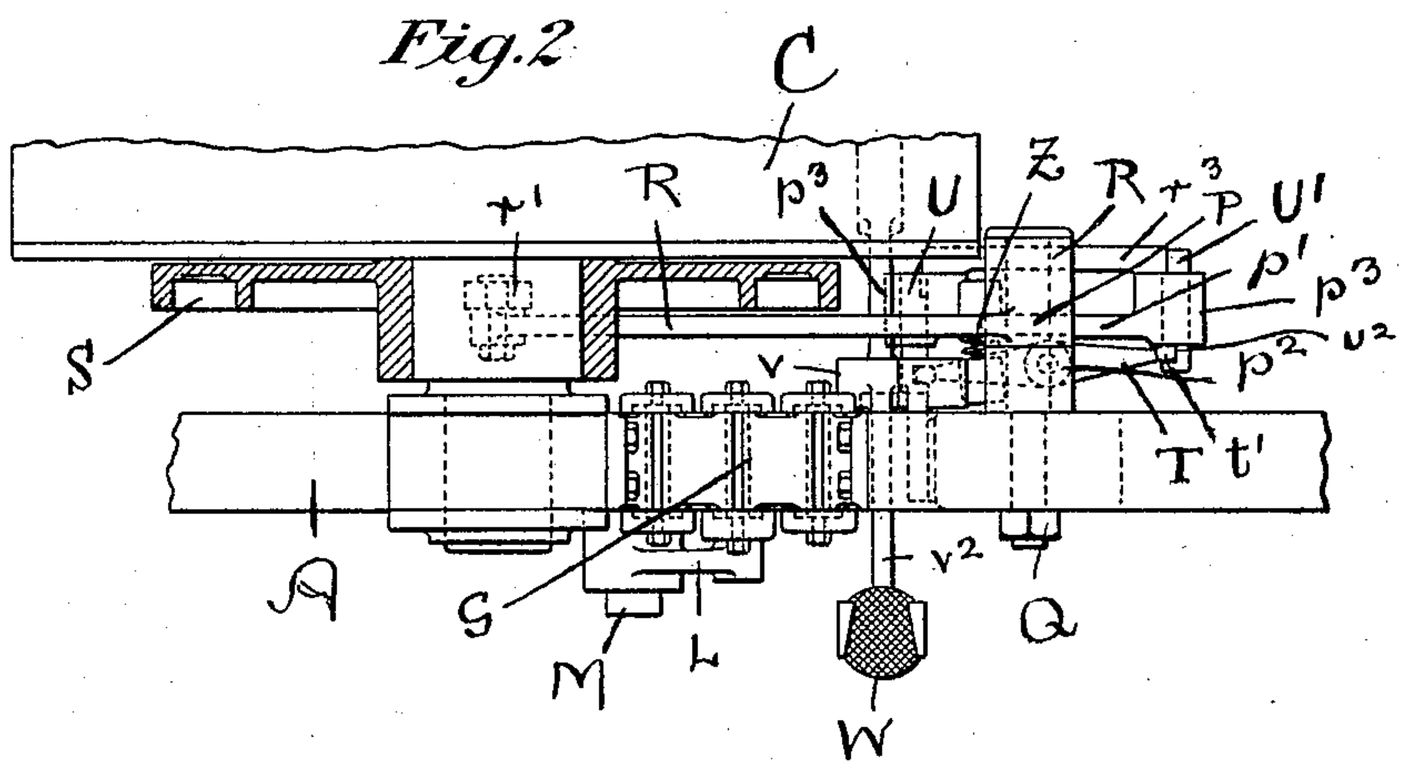


Fig. 4

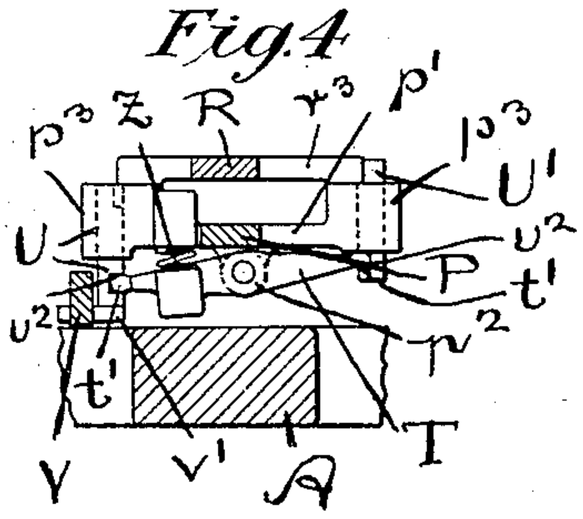
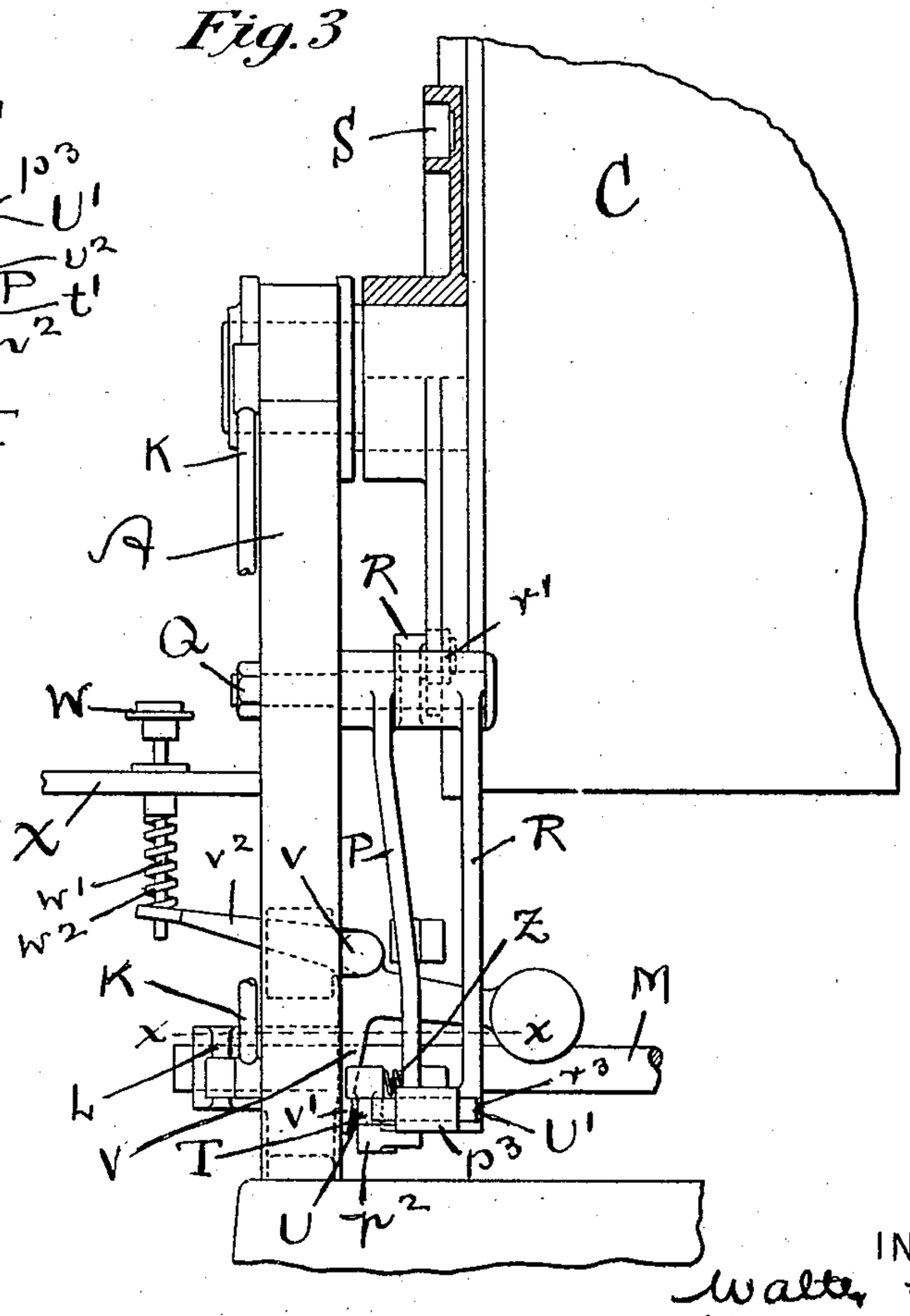


Fig. 3



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No. 764,775. Patented July 12, 1904.

UNITED STATES PATENT OFFICE.

WALTER SCOTT AND ALONZO W. WESEMAN, OF PLAINFIELD, NEW JERSEY; SAID WESEMAN ASSIGNOR TO SAID SCOTT.

PRINTING-PRESS.

SPECIFICATION forming part of Letters Patent No. 764,775, dated July 12, 1904.

Application filed February 11, 1901. Serial No. 46,923. (No model.)

To all whom it may concern:

Be it known that we, WALTER SCOTT and ALONZO W. WESEMAN, citizens of the United States, and residents of Plainfield, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Printing-Presses, of which the following is a specification.

Our invention relates generally to printing-presses, and more particularly to a tripping mechanism or improved means for preventing the impression on the sheets or on the impression-cylinder when for any reason such impression is not desired while said sheets are passing through the machine, so as to transmit them without being printed to be delivered.

In the accompanying drawings we have shown the improvement in connection with a rotary press for printing from aluminium or zinc plates; but it is obvious that it may be applied to other machines.

In the said drawings, Figure 1 is a side elevation of a printing-press with parts broken away embodying our invention. Fig. 2 is a top view of Fig. 1, also partly broken away and in section for the sake of clearness. Fig. 3 is an end view of Fig. 1, also partly broken away and in section. Fig. 4 is a sectional plan view showing the lower end of the lever R and arm P and adjacent elements, taken on the line $x\ x$ of Fig. 3.

Similar letters of reference indicate corresponding parts in the different views.

We shall describe a tripping mechanism embodying our invention and afterward point out the novel features in the claims.

The press consists in the present instance of three cylinders—the plate-cylinder B, impression-cylinder C, and delivery-cylinder D—all suitably mounted in a framework A and connected by gearing in the usual manner, the plate-cylinder having means, as E, for providing it with ink.

In order to permit the impression-cylinder C to be tripped or moved away from the plate-cylinder B, it is provided with some suitable means for allowing this motion; but it is preferably constructed as illustrated in the drawings, where it is shown mounted in sliding boxes F, which are caused to slide backward from the plate-cylinder B by the action of the toggle G. To retain an equal distance between the cylinders C and D, so as to transfer the sheet without liability of its being torn or dropped, the said cylinder D is likewise constructed to move backward similarly to the cylinder C and is to that end preferably mounted in sliding boxes I, which are fastened to the boxes F of the cylinder C by the bars or rods J, so that both cylinders move in unison.

The means for tripping the cylinders C and D or for moving them away from the plate-cylinder B are as follows: Mounted upon the stud Q of the framework is a bell-crank lever R, which is oscillated continuously by means of the roll r' engaging with the cam S, which makes one revolution to each impression and which is conveniently mounted on the impression-cylinder C, as shown. The toggle G is connected on both sides of the machine by the rods K and the arms L to the transverse rock-shaft M. This shaft M carries an arm N, attached to a rod O, connecting with the arm P, pivoted in the framework, and, preferably, as shown, mounted loosely on the stud Q in front of the bell-crank lever R. At its lower end the arm P carries a horizontal cross-piece p', extending on both sides of the said arm, and also a centrally-disposed bushing p^2, located in front of the arm P. At the extreme ends of the said cross-piece p' are two transverse sleeves p^3, in which are located the pins U and U′, which are free to move in the said sleeves. In the bushing p^2 is mounted a swinging arm T, whose ends t' extend into the apertures u^2 of the pins U and U′. The lever R carries at its lower end a cross-piece r^3 of a length substantially equal to the distance between the pins U and U′, which cross-piece r^3 oscillates continuously with the lever R directly in the rear of the cross-piece p' of the arm P. The framework of the machine is further provided with a stud v, which supports a bell-crank V, the lower end v' of which is adjacent to and contacts with the pin U, and the other end, v^2, of which is connected to the foot-pedal W on the platform X by means of a rod w' with a yield-

ing spring w^2, which can be compressed at all times. If pressure is now exerted on the pedal W, and consequently on the pin U, through the instrumentality of the bell-crank V, the said pin U when the cam S brings the cross-piece r^3 past it will project beyond the sleeve p^3, while the pin U′ will recede into the other sleeve p^3 by reason of the arm T, and thus cause the lever R to move the arm P with it when the said lever R moves toward the impression-cylinder. The arm P through the connecting means described will then actuate the toggle G and move the cylinders C and D away from the cylinder B. As long as the pedal W is retained in its depressed position the impression-cylinder will be tripped, which may be done by any well-known means—such as, for instance, by turning around the pedal W by means of the foot engaging with its sides until the pin y is out of the slot y' in the platform X. When the pedal is released, the spring Z, located on the arm P and acting continuously against the arm T to push the pin U′ out of the sleeve p^3, will swing the said arm T so as to cause the pin U to recede into the sleeve p^3 and the pin U′ to project beyond its sleeve p^3, whereby the cross-piece r^3 will engage with the pin U′ when the lever R is oscillated away from the cylinder B and move the arm P with it, thus straightening out the toggle G and putting the cylinder C into printing position again, which then carries the cylinder D with it. By this means it will be observed that the arm P can be moved at variable periods.

Having thus described our invention, what we claim is—

1. In a printing or other machine, the combination of a rotary cam making one revolution to each impression, a stud mounted in the framework, a bell-crank lever mounted on the said stud, means formed on one end of said bell-crank lever for coöperating with the cam aforesaid, a transverse arm mounted on the other end of said lever, a pivoted vertical arm, a swinging arm carried on the lower end of the same, and two transversely-movable pins carried by the said vertical arm engaging with the transverse arm of the bell-crank lever, and adapted when actuated to permit the bell-crank to move the vertical arm.

2. In a printing or other machine, the combination of a stud mounted in the framework, a vertical arm pivoted to the same, two transversely-movable pins carried on the lower end of said arm and a swinging arm carried by the said vertical arm pivoted at its central portion and engaging with its ends with the pins aforesaid.

3. In a printing or other machine, the combination of a stud mounted in the framework, a vertical arm pivoted to the same, two transversely-movable pins carried on the lower end of the said arm, a swinging arm carried by the vertical arm pivoted at its central portion and engaging with its two ends with the pins aforesaid, a bell-crank lever, a cam making one revolution with each impression adapted to actuate the said lever, a transverse arm carried by the said lever adapted to engage with the two pins aforesaid, and means for effecting the transverse movement of the said pins simultaneously in opposite directions, whereby the bell-crank lever actuates the vertical arm.

4. In a printing or other machine, the combination of a stud mounted in the framework, a vertical arm pivoted to the same, two transversely-movable pins carried on the lower end of the said arm, a swinging arm carried by the vertical arm pivoted at its central portion and engaging with its ends with the pins aforesaid, a bell-crank lever, a cam making one revolution with each impression adapted to actuate the said lever, a transverse arm carried by the said lever adapted to engage with the two pins aforesaid, a bell-crank mounted transversely of the vertical arm in the framework, means formed on the said bell-crank for tilting the same, and a lug carried by the said bell-crank adapted to engage with one of the two pins aforesaid to move the same transversely and simultaneously in opposite directions when the bell-crank is tilted.

5. In a printing or other machine, the combination of an oscillating lever, an arm, two sleeves carried by the said arm, pins in the said sleeves, a swinging arm centrally pivoted for moving the pins in opposite directions, means for swinging the said swinging arm around its center, whereby the oscillating lever engages with one pin or the other, as the case may be, to move the said arm.

6. In a printing or other machine, the combination of a stud mounted in the framework, a vertical arm pivoted to the same, two transversely-movable pins carried on the lower end of the said arm, a swinging arm carried by the vertical arm pivoted at its central portion, and engaging with its ends with the pins aforesaid, a bell-crank mounted transversely of the vertical arm in the framework, means formed on said bell-crank for tilting the same, a lug carried by the said bell-crank adapted to engage with one of the two pins aforesaid, and to move the same transversely and simultaneously and in opposite directions when the bell-crank is tilted, and means for returning the said pins to their normal position when the tilting movement of the bell-crank ceases.

Signed at Plainfield, in the county of Union and State of New Jersey, this 15th day of December, A. D. 1900.

WALTER SCOTT.
ALONZO W. WESEMAN.

Witnesses:
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