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J. BRUCKMAN & A. E. MAIDEN.

PLATEN PRESS ROLL FEED ATTACHMENT.

APPLICATION FILED DEC. 19, 1905.

Fig. 1.

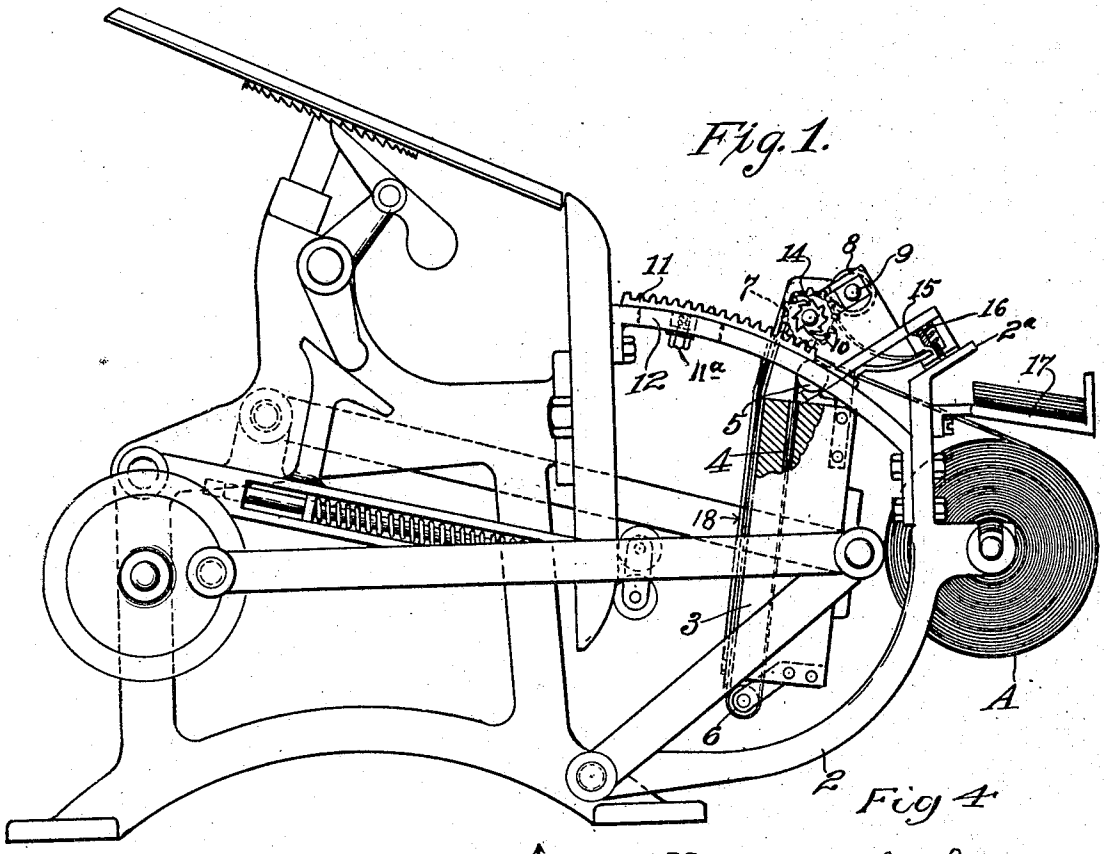


Fig 4

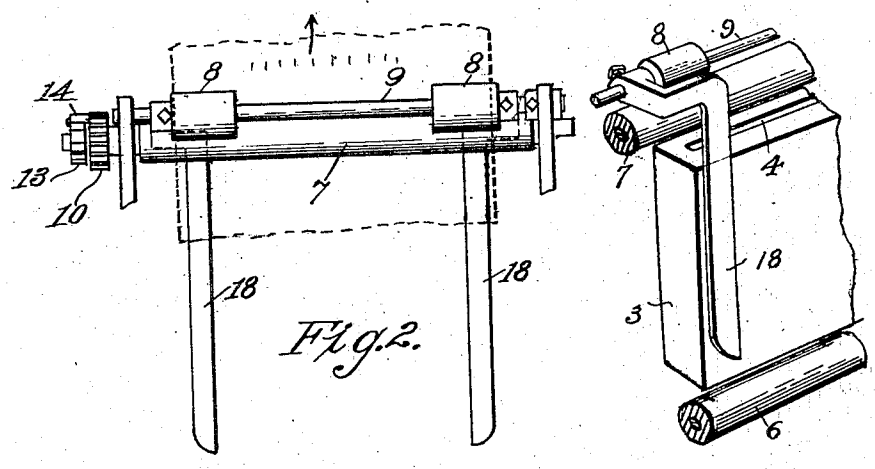
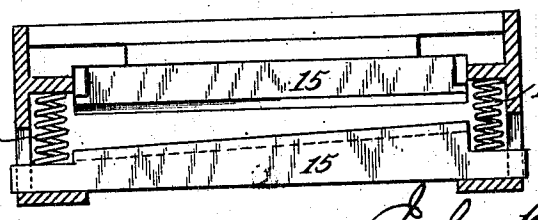


Fig. 2.

Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN BRUCKMAN, OF SAN FRANCISCO, AND ARTHUR E. MAIDEN, OF OAKLAND, CALIFORNIA.

PLATEN-PRESS ROLL-FEED ATTACHMENT.

No. 830,766. Specification of Letters Patent. Patented Sept. 11, 1906.

Application filed December 19, 1905. Serial No. 292,521.

To all whom it may concern:

Be it known that we, JOHN BRUCKMAN, residing in the city and county of San Francisco, and ARTHUR E. MAIDEN, residing at Oakland, county of Alameda, State of California, citizens of the United States, have invented new and useful Improvements in Platen-Press Roll-Feed Attachments, of which the following is a specification.

Our invention relates to an attachment for platen-presses whereby paper may be fed from a continuous roll to be printed, cut, and delivered automatically.

It consists in combinations of parts and in details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a side view of a press having the attachment applied. Fig. 2 is a detail view of the feed-rolls, and Fig. 3 a detail view of the cutting-knives. Fig. 4 is a detail showing in perspective one of the arms 18 and one of the rolls 8 and parts of the guide-rolls 6 and 7 and platen.

It is the object of our invention to make an attachment for what are known as "platen-presses," either having a slot made through the platen or a double platen whereby paper of any width up to the capacity of the press may be taken from a suitable journaled roll through the slot, thence over the face of the platen, and printed, and afterward being drawn off, cut, and delivered upon a receiving-table.

We have only shown so much of the press in the drawings as will enable our attachment to be intelligently understood.

A is a roll of paper of suitable size, the shaft of the drum being journaled in the frame 2, which is secured to the press for that purpose and in rear of the platen 3.

The platen has a slot or channel made through it, as shown at 4, of sufficient width to allow the paper to pass through this slot.

5 is a guide-roller at the upper end of the slot, over which the paper from the roll A passes, thence through the slot or channel 4 and over the guide-roll 6 at the lower end of the slot. From this point the paper passes up across the face of the platen, thence over the roll 7 and between this roll 7 and the sleeves or rolls 8, which are adjustable upon a journaled shaft 9. The rolls 8 are slidable upon their shaft 9 and are so fixed that they will press upon the edges of the sheet which is passing between them and the roll 7. The printed matter passes between the rolls 8, not being pressed upon by them. It will be seen that by moving these rolls outward or inward they may be adjusted to suit any width of paper which is to be taken from the roll and printed.

Upon the end of the shaft of the roll 7 is a loosely-mounted gear-wheel 10, and this gear-wheel engages a curved rack 11, which is carried upon a similarly-curved support 12. Upon the outer end of the shaft of the gear-wheel 10 is a ratchet-wheel 13, and this is engaged by pawls, as at 14, the object of which is to prevent the rotation of the roller 7 while the platen is moving in one direction and engaging with the ratchet-wheel so as to revolve the roller when moving in the opposite direction.

The action will then be as follows: When the platen moves to the rear, the engagement of the gear-wheel 10 with the rack 11 will cause the roller 7 and the contacting rolls 8 to revolve, thus drawing the paper off of the roll A, over the guide-rollers 5 and 6, and through the slot 4 in the platen, thence over the face of the platen and between the rollers 7 and 8. When the platen moves forward, the pawls will move freely over the ratchet-wheel and the gear-wheel 10 will turn loosely on the shaft of the roller 7 and will not advance the paper during this movement, which carries the platen to the point where the paper, which extends across its face, is impressed and printed in the usual manner for this class of machines. When the platen again moves back, the paper will then be advanced by the action of the pawl on the rack, the turning of the rolls 7 and 8, and the printed portion of the paper will be drawn off and passed between cutting-shears to be hereinafter described.

As previously described, the rolls 8 may be adjusted to press upon the edges of the paper whatever may be its width, and thus insure its advancing at each backward movement of the platen and without any pressure being brought upon the printed portion.

The length of the paper to be printed will be regulated by the position of the curved rack 11. This rack is fixed upon its support 12 by locking-screws 11^a, so that it may be moved forward or back. Thus if moved to

such a point that the gear-wheel will engage it at once when the platen commences to move back it will be understood that the greatest amount of paper will be drawn through the feed apparatus; but if a shorter amount is desired the rack is moved upon the support 12, so that the pinion 10 will not engage with the rack until the platen has moved over a considerable portion of the distance in its backward movement, and the paper will not commence to move over the platen until such engagement of the pinion with the rack takes place.

15 represents cutting-blades normally separated by springs 16. These blades have a length equal to the width of the apparatus and are actuated by coming in contact with an extension 2^a of the frame 2, the carrier of the blades 15 being attached to and carried with the platen, and when the platen returns to its rearmost position the blades contact with the extension 2^a and are thus closed and the paper cut off. When thus cut, it drops upon the table or support 17, suitably located beneath the discharge portion of the apparatus.

In order to insure the proper movement of the paper, we have shown guide-arms 18 extending in line with the feed-rolls 8 and across the face of the platen and adjustable in unison with these rolls, so that whatever width of paper may be fed between the rolls 7 and 8 the guides 18 will be adjusted to correspond with the rolls 8, so that the edges of the paper will pass between the guides and the platen and be properly delivered to pass over the rollers.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination with a platen-press of a roll-paper support, mechanism by which a portion of the paper is advanced across the face of the platen at each oscillation thereof, and mechanism by which the printed portion is subsequently severed from the roll and delivered, said last-named mechanism being carried with the platen and the severing devices thereof being actuated by contact with a stop at the termination of the rearward movement of the platen.

2. The combination with a press having a reciprocating platen of a roll-paper support, a platen with a slot or channel through which the paper passes before passing across the face of the platen, mechanism by which the paper is drawn through said slot and across the face of the platen during the backward movement of said platen, said paper remaining stationary during the forward movement and impression, and cutters by which the paper is severed and discharged at the culmination of the backward movement.

3. The combination of a press having an oscillating platen, of a frame, a paper-roll support journaled in said frame, a platen having a slot or channel made therethrough, guide-rollers by which the paper is directed through said slot and thence across the face of the platen, a feed mechanism operating during the rearward movement of the platen, and remaining stationary during its forward movement, and until after the impression is made, shears or cutters movable in unison with the platen and a stop whereby said shears are closed to sever the paper at the termination of the rearward movement.

4. The combination with a press having an oscillating platen, of a paper-roll support journaled with relation thereto, a slotted or channeled platen, guide-rollers by which the paper is directed through the slot and thence across the face of the platen, a feed mechanism consisting of rollers movable in unison with the platen and between which the paper passes, a gear-wheel carried by one of said rollers, a fixed rack over which the gear travels during the movements of the platen, and pawl-and-ratchet mechanism whereby the feed-rolls are only actuated during the rearward movement of the platen.

5. In a printing-press, an oscillating platen having a slot or channel made through it, a support, a paper-roll support carried thereby, rollers over which the paper is guided to pass through the slot and across the face of the platen, feed-rollers between which the paper passes after leaving the platen, a pinion and ratchet loosely turnable upon one of the feed-roller shafts, a rack with which the gear engages, pawls by which the ratchet and gear are allowed to revolve freely in one direction and are held to revolve the feed-rolls when moving in the other direction, and means for severing and discharging the paper at the end of each rearward movement of the platen.

6. The combination with a press and the oscillating platen thereof, said platen having a slot or channel through which the paper passes before passing across the face of the platen, of a roll-paper support, means for guiding the paper from the roll and causing it to move intermittently across the face of the platen and during the backward movement thereof, feed-rollers, and a mechanism by which said rollers are actuated to advance the paper during the intervals between the impressions thereon.

7. The combination with a press and the oscillating platen thereof, of a roll-paper support, means for guiding the paper from the roll and causing it to move intermittently across the face of the platen during the backward movement of said platen, feed-rollers between which the paper passes and by which it is advanced, cutting-blades transverse to the line of travel of the paper and movable with the platen, and a fixed stop by which

the blades are closed to sever the paper at the termination of the rearward movement of the platen.

8. The combination with a press and the oscillating platen thereof, of a roll-paper support, means for guiding the paper from the roll and causing it to move intermittently across the face of the platen, feed-rollers between which the paper passes and by which it is advanced, cutting-blades transverse to the line of movement of the paper and between which it passes, springs by which the blades are normally separated and a stop by which said blades are closed to sever the paper at the termination of its advance.

9. The combination with a press, of a roll-paper support, an oscillating platen, a channel or passage through which the paper passes behind the face of the platen, guides by which the paper is subsequently directed across the platen-face, and a feed mechanism by which the paper is intermittently advanced.

10. The combination with a press, of a roll-paper support, an oscillating platen, with a channel through which the paper passes behind the platen-face, guides by which the paper is subsequently directed across the platen-face, a feed mechanism by which the paper is intermittently advanced, and means by which the advance of the paper is regulated.

11. The combination with a press and the platen thereof, having a fixed limit of oscillation, of a roll-paper support, and a channel through which the paper passes behind the platen-face, guides by which the paper is subsequently directed across the platen-face, a feed mechanism by which the paper is intermittently advanced and means by which said advance is regulated independently of the arc of movement of the platen.

12. In a printing-press having an oscillating platen, with a channel through which the paper passes behind the platen-face, a roll-paper support, guides by which the paper is subsequently directed across the platen-face, a feed mechanism actuated by the movements of the platen, and means for varying said feed independent of the fixed movement of the platen.

13. The combination with an oscillating platen having a slot or channel through which the paper passes before passing across the face of the platen, of mechanism by which a continuous sheet of paper is intermittently fed to the press to be printed, and discharged therefrom in separate sheets.

14. An oscillating platen-press having in combination a platen provided with a slot or channel through which the paper passes before passing across the face of the platen, mechanism by which a continuous sheet of paper is delivered intermittently across the platen to be printed, cutters and mechanism by which they are actuated during the intermission of movement, to sever and discharge the printed portion.

15. The combination in an oscillating platen-press having a platen with a channel or slot made through it behind the platen-face, and through which channel or slot the paper passes before passing across said face, of means whereby a continuous sheet of paper is advanced across the platen, during the movement of said platen in one direction, arrested while an impression is being made, again advanced and delivered to a cutter, and arrested while the printed portion is being severed.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

JOHN BRUCKMAN.
ARTHUR E. MAIDEN.

Witnesses:
HARRY J. LASK,
JAS. C. HAYBURN.