Sept. 7, 1926. 1,598,957

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NUMBERING STAMP FOR PRINTING MACHINES

Filed Dec. 16, 1924

FIG - 1 -

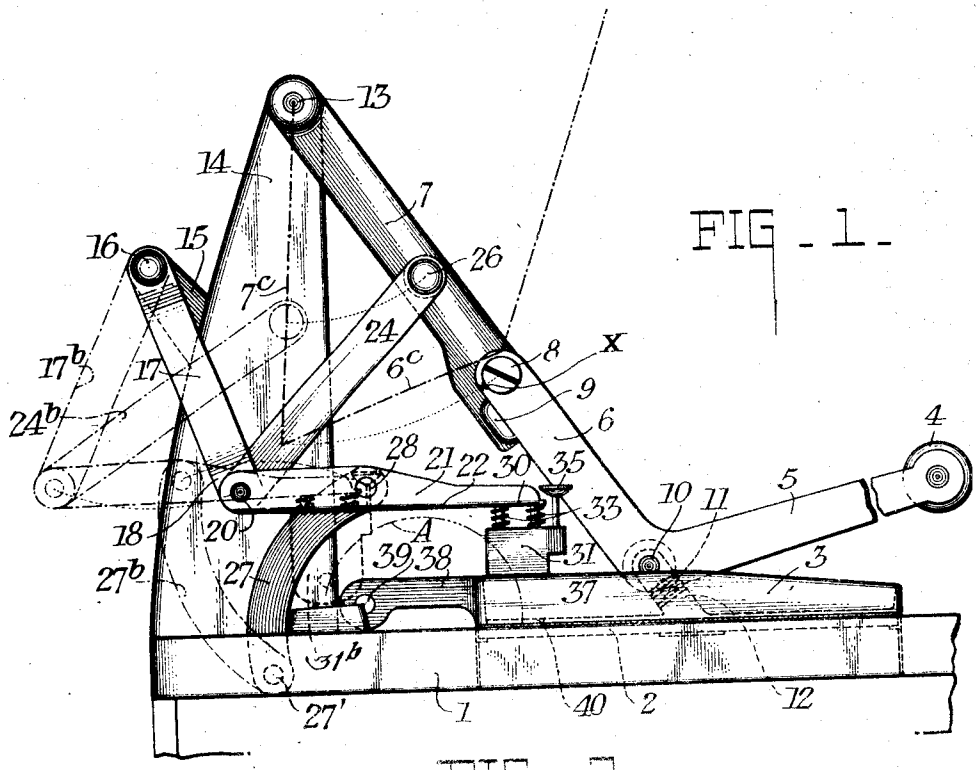


FIG - 2 -

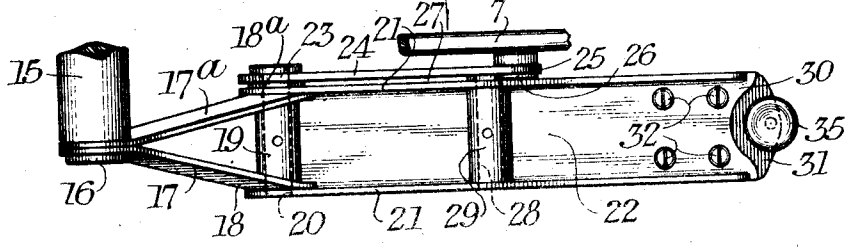
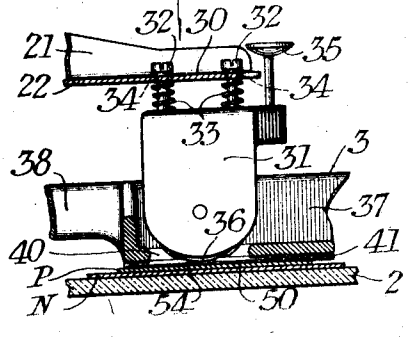


FIG - 3 -



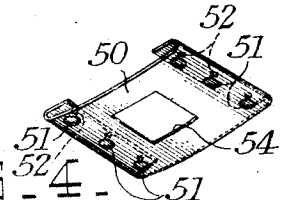


FIG - 4 -

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UNITED STATES PATENT OFFICE.

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NUMBERING STAMP FOR PRINTING MACHINES.

Application filed December 16, 1924. Serial No. 756,348.

This invention relates to photography, and more particularly to numbering stamps for photographic printing machines. One object of my invention is to provide such a stamp which is mounted on a carrier separated from the platen. Another object is to provide a numbering stamp which is moved a comparatively short distance between its stamping and its inking positions, so that it is accessible for changing the number. Another object is to provide a printing stamp which will function after the printing paper is clamped upon the printing panel by the platen. Another object of my invention is to provide mechanism for carrying the stamp which will require but little energy for its operation. Another object is to provide a carrier for the printing stamp which will press the stamp firmly upon an inking pad at one end of its stroke, and upon the paper held in printing position at the other end of its stroke. Other objects will appear hereinafter from the following specification, the novel features being pointed out in the claims at the end thereof.

In the drawings wherein like reference characters denote like parts throughout:

Fig. 1 is a side elevation of a printer equipped with a stamp constructed in accordance with, and embodying one form of my invention;

Fig. 2 is a top plan view of the stamp carrier and its supporting links;

Fig. 3 is an enlarged fragmentary section showing a portion of the printing panel with the stamp in its operative position; and

Fig. 4 is a perspective view of a contact spring which may be used with my device.

This stamp may be used with the printing machine shown in my co-pending application Serial No. 756,347 filed Dec. 16, 1924.

In the present embodiment, the printing machine may include a top frame member 1, in which there is a printing panel 2, over which a platen 3 may be moved by means of a handle 4. This handle is connected to an arm 5 of a bell crank lever, the short arm 6 of which forms one link of a toggle 6—7. These toggle links are pivoted together at 8, and their movement is limited in one direction by a lug 9 carried by link 7. The bell crank lever is pivoted at 10 upon a spring support 11, which is attached to formed-up lugs 12 on the platen, as is fully described in my co-pending application above noted. Link 7 is pivoted at 13 to an upwardly extending bracket 14.

An arm 15 extends out from this bracket and carries a stud 16, upon which the link 17 is mounted. This link, as best shown in Fig. 2, preferably consists of two arms 17 and 17ª which are separated at their lower ends 18 and 18ª by means of a sleeve 19 which surrounds a shaft 20. This shaft passes through flanges 21 of the stamp carrier 22, and also through the end 23 of a link 24, the other end of which 25 is carried upon a stud 26 which passes into link 7.

The stamp carrier 22 is supported in the middle by a curved link 27 which is pivoted to the flanges 21 of the carrier upon a shaft 28. This shaft may be encircled by a sleeve 29. Link 27 is carried at its lower end by a stud 27′ which is attached to the main frame 1.

The outer end 30 of the stamp carrier, as best shown in Fig. 3, supports the stamp 31 upon four screws 32, each of which is encircled by a spring 33. These screws pass up through apertures 34 in the stamp carrier, and the screws may slide freely through these openings. The stamp may be of any well known type, but is preferably of the type shown herein. A plunger 35 may be depressed to change the number carrying discs 36.

The platen 3 may consist of a casting, as shown, having raised sides 37, and rearwardly extending arms 38 which are hingedly attached to a shaft 39. When the handle 4 is moved, the toggle 6—7 will move the platen about its hinge, the position of the toggle being indicated by the dot and dashed lines 6ᵉ and 7ᵉ of Fig. 1. The platen is provided with an aperture 40 through which the stamp may operate, and is preferably faced with felt or plush 41.

In order to secure good contact around the printing stamp numbers between the paper P and the negative N, the platen is preferably provided with a pressure spring 50, such as is shown in Fig. 4. This spring is made of thin metal and is provided with two rows of apertures 51 which are used for inserting screws through holes 52 to attach the spring to the platen. This spring is normally curved in cross section, but when pressed against the printing paper P

it becomes flat, as is shown in Fig. 3. The walls of the aperture 54 closely surrounds the type discs 36.

In Fig. 1 the operative or stamping position of the stamp 31 is shown in full lines. In this position, the stamp carrier 22 is pressed downwardly upon the springs 33 so that the stamp is firmly held against the printing paper P, and is free to move in a universal direction. To move the stamp from this position to its inking position, shown in broken lines at 31^b, the stamp is moved through a substantially arcuate path A. The carrier 22 swings upon the links 17, 24 and 27 giving the stamp an up-and-down movement, so that the stamp is firmly pressed on the inking pad. The position of the links is shown at 17^b, 24^b and 27^b in dot and dashed lines.

The operation of my device is as follows:

As the handle 4 is moved downwardly to bring the platen 3 in contact with paper P lying over a negative the toggle 6—7 comes to a position in which the stud 8 lies in the position indicated by the cross X, at which time the platen is in contact with the paper. In this position, the stamp 31 has not yet come in contact with the paper. A further movement of handle 4 will bring the toggle links 6 and 7 to their latched position, in which links 6 will rest against the lug 9. This further movement of the toggles 6—7 causes the stamp carrier 22 to move and press the stamp 31 through the opening 40 so as to impress its legend upon the paper P. A detail description of the toggle and platen movement can be had by referring to my application for printing machines above referred to.

It should be noted that the stamp is moved through a different path from that through which the platen is moved, and the stamp path is much shorter than the path of the platen. This is a very useful feature because the stamp is retained in an upright position, in which the plunger 35 can be readily operated being close to its printing position at all times. An operator does not have to reach far to change the numbering disc. The stamp may be readily removed by removing the screws 32 so that the numbering disc can be cleaned or repaired.

While I have shown in the drawing a preferred embodiment of my printing stamp, I contemplate as within the scope of my invention all such modifications or alterations as may come within the scope of the appended claims.

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

1. In a photographic printing machine having a printing panel and a platen movable thereover. the combination with platen-moving mechanism, of a stamp carrier, and a plurality of links pivoted to the stamp carrier for supporting it, one of said links being pivoted to the platen-moving mechanism whereby the stamp carrier is moved by the movement of the platen-moving mechanism.

2. In a photographic printing machine having a printing panel and a platen movable thereover, the combination with a hinge carrying said platen, of platen-moving mechanism adapted to move the platen about its hinge, a stamp carrier, means for supporting the stamp carrier, and means, connected to the platen-moving mechanism, for moving the stamp through a curved path as the platen is swung about its hinge.

3. In a photographic printing machine having a printing panel and a platen movable thereover, the combination with a stamp carrier comprising a member separate from the platen, of mechanism for moving the platen, and means connecting the platen-moving mechanism and the stamp carrier for moving the latter when the platen is moved.

4. In a photographic printing machine, the combination with a printer having a printing panel, of an apertured platen adapted to move to cover and uncover the panel, mechanism for moving the platen, a printing stamp adapted to operate through the aperture in the platen, a stamp carrier independent of the platen, and connections between the stamp carrier and platen-moving mechanism for moving the stamp to and from its operative position in which the stamp is moved through the aperture in the platen.

5. In a photographic printing machine, the combination with a printer having a printing panel therein, of an apertured platen adapted to cover and uncover the panel, mechanism adapted to move the platen to and from the printing panel, an ink pad on the printer and a printing stamp, a carrier for the stamp pivotally mounted on the printer and adapted to swing the stamp from an inking position to a stamping position in which the stamp operates through the aperture in the platen, and connections between said printing stamp carrier and the mechanism for moving the platen adapted to move the stamp in timed relation to the platen.

6. In a photographic printing machine, the combination with a printer having a printing panel therein, of an apertured platen adapted to cover and uncover the panel, mechanism adapted to move the platen to and from the printing panel, said mechanism being arranged to cause the platen to lie against the panel before the mechanism comes to rest, the movement after so lowering the platen being adapted to increase the pressure upon the panel, a print-

ing stamp, a printing stamp carrier, and means for moving the carrier including a connection between the carrier and the platen-moving mechanism, said connection being arranged to cause the stamp to function after the platen is lowered upon the printing panel.

7. In a photographic printing machine, the combination with a printer having a printing panel therein, of an apertured platen adapted to cover and uncover the panel, mechanism adapted to move the platen to and from the printing panel, said mechanism being arranged to cause the platen to lie against the panel before the mechanism comes to rest, the movement after so lowering the platen being adapted to increase the pressure upon the panel, a printing stamp, a printing stamp carrier, and means for moving the carrier including a connection between the carrier and the platen-moving mechanism, including a link adapted to move the stamp to its printing position after the platen has come to rest upon the printing panel, the movement of the platen-moving mechanism for increasing the pressure on the platen causing the stamp to function.

8. In a photographic printing machine, the combination with a printer having a printing panel therein, of a platen adapted to cover and uncover the panel, mechanism adapted to move the platen, a printing stamp, a support for the printing stamp, links for supporting the printing stamp, one link being pivoted to the printer above the support, and another link being pivoted to the printer below the support, and connections between the support and the platen-moving mechanism adapted to swing the stamp upon its links into an inking and a stamping position.

9. In a photographic printing machine, the combination with a printer having a panel and a platen adapted to cover and uncover said panel, of mechanism for moving the platen, a printing stamp, mechanism for moving the printing stamp, connections between the two mechanisms for moving the latter by the former, the connections being such that the extent of movement of the stamp will be much less than the extent of movement of the platen.

10. In a photographic printing machine, the combination with a printer having a panel and a platen adapted to cover and uncover said panel, of mechanism for moving the platen, a printing stamp, mechanism for moving the printing stamp, connections between the two mechanisms by which the stamp is moved through a separate path from the platen by the platen-moving mechanism.

11. In a photographic printing machine, the combination with a printer having a panel and a platen adapted to cover and uncover said panel, of mechanism for moving the platen, a printing stamp, a mount for the printing stamp comprising a plurality of pivoted links, a connection between the platen-moving mechanism and the stamp carrier including a link, the linkage being adapted to move the stamp through a path separate from the path of the platen and being moved by the platen-moving mechanism, the path of the stamp being such that the stamp is given an up-and-down movement.

12. In a photographic printing machine, the combination with a printer having a panel therein, of a platen adapted to cover and uncover said panel, mechanism for moving the platen, a printing stamp, a movable carrier for the printing stamp, a support for the carrier comprising a plurality of links pivoted to the printer and to the carrier upon which the stamp is adapted to swing between an inking and a stamping position, and means including a link attached to the platen-moving mechanism for swinging the stamp.

13. In a photographic printing machine, the combination with a printer having a panel therein, of a platen adapted to cover and uncover said panel, mechanism for moving the platen, a printing stamp, a movable carrier for the printing stamp, a plurality of links for supporting the carrier, two links being pivoted to the frame and to the carrier, said pivotal points on the carrier being spaced apart, and a link pivoted also to the carrier and to the platen-moving mechanism adapted to move the platen and stamp in timed relation.

Signed at Rochester, New York, this 12th day of December, 1924.

BENJAMIN D. CHAMBERLIN.