

U. G. LEE.  
 PAPER FEEDING MECHANISM FOR ADDRESSING AND PRINTING MECHANISM AND THE LIKE.  
 APPLICATION FILED FEB. 18, 1910.

1,002,529.

Patented Sept. 5, 1911.

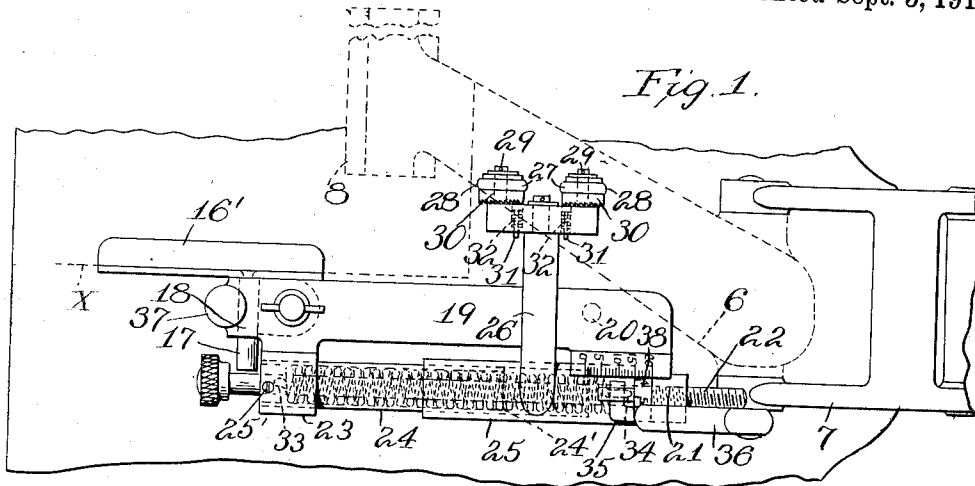


Fig. 1.

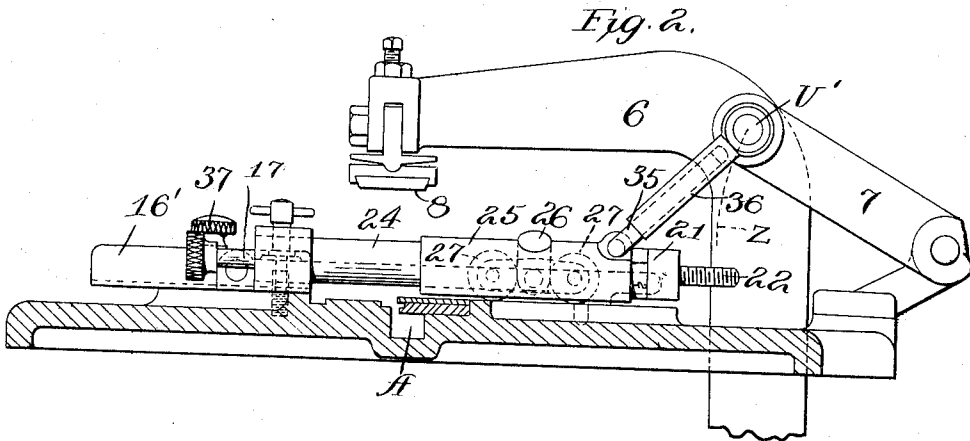


Fig. 2.

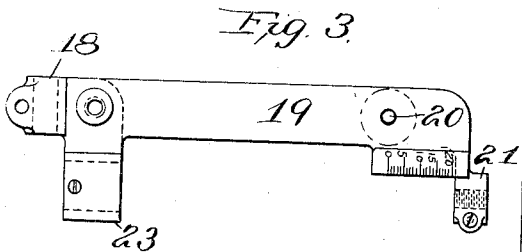


Fig. 3.

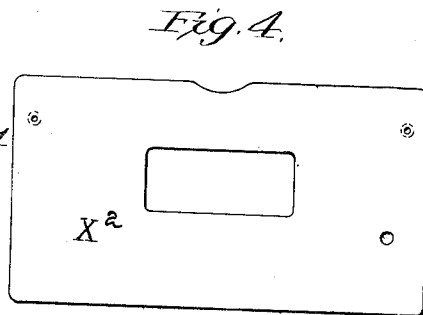


Fig. 4.

Attest.  
 Bernhard Stahl,  
 Edward N. Sarton

Inventor:  
 Ulysses G. Lee,  
 by Spear, Middleton, Donahoe & Spear  
 Attys.

# UNITED STATES PATENT OFFICE.

ULYSSES G. LEE, OF BROOKLYN, NEW YORK, ASSIGNOR TO MONTAGUE MAILING MACHINERY COMPANY, OF NEW YORK, N. Y., A CORPORATION OF TENNESSEE.

PAPER-FEEDING MECHANISM FOR ADDRESSING AND PRINTING MECHANISM AND THE LIKE.

1,002,529.

Specification of Letters Patent.

Patented Sept. 5, 1911.

Original application filed August 16, 1909, Serial No. 513,044. Divided and this application filed February 18, 1910. Serial No. 544,722.

To all whom it may concern:

Be it known that I, ULYSSES G. LEE, a citizen of the United States, residing at 1164 Forty-fourth street, Brooklyn, New York, have invented certain new and useful Improvements in Paper-Feeding Mechanism for Addressing and Printing Mechanism and the Like, of which the following is a specification.

The present invention is an improvement in paper feeding machines, and is a division of the invention disclosed by me in application for Letters Patent of the United States filed by me August 16, 1909, No. 513044, for addressing and printing machines.

The invention consists in the features and combination and arrangement of parts hereinafter described and particularly pointed out in the claims.

In the accompanying drawings:—Figure 1 is a plan view of so much of a printing machine as is necessary to an understanding of my invention; Fig. 2 is a front view of the parts shown in Fig. 1; and Figs. 3 and 4 are detail views.

In the present machine, the printing is done by an impression pad 8 which is given a vertical movement by any suitable operating connections which are connected to the arm 6, and embossed printing plates are fed into position beneath this pad along a channel A by any suitable means, and in addition an inking ribbon is employed in making the impression. I do not limit myself to the employment of the features just mentioned nor to the details of construction of the feeding mechanism hereinafter described.

In feeding the paper sheets I utilize the up and down movement of the yoke 6 which carries the impression pad 8. This feed mechanism comprises a gage plate 16' carried adjustably by its stem 17 clamped in a socket 18 of a plate or bracket 19, which is held by a pin 20 to the top of the machine frame. This plate 19 has a boss 21 at one end into which the threaded end of a rod 22 is screwed, the said rod passing through a boss 23 at the other end of the plate 19. In this latter boss a sleeve 24 is fixed by a screw 25', and over this sleeve is adapted to slide a paper feed carriage or bracket 25 having

an arm 26 which carries a pair of rollers 27, each having a rubber periphery 28, the said rollers turning on pins 29 supported on the arm 26. The rollers have portions 30 toothed on their front faces adjacent the arm 26 to be engaged by pawls 31, mounted in the arm 26 and pressed forward by springs 32. These pawls prevent rotation of the feed rolls 27 in one direction, while permitting them rotation in the other direction. The sleeve 24 extends only part way into the cylindrical portion or sleeve part of the carriage 25 to the point indicated at 24'. The said sleeve contains a spring which is attached thereto at the point 33, and said spring also extends through the cylindrical or sleeve portion of the paper feed carriage 25, and is attached thereto at the point 34. The carriage is operated along the sleeve by a slip joint link connection consisting of the rod 35 extending into the hollow section 36, which is pivotally connected with the yoke 6, the rod 35 being pivoted to an ear on the carriage sleeve 25. The papers to be fed are placed in position against the gage 16'', as indicated by the dotted line *a*, which thus serves the purpose of a stop and of a guide for the movement of the paper to keep it straight, and this stop also regulates the amount of margin. This stop is adjustable in relation to the plate 19, its stem being clamped, as above mentioned, by means of the screw 37. As the yoke moves downwardly to bring the impression pad 8 into action for making the impression from the printing plate and through the ribbon, the link connections 35, 36 will move the paper feed carriage 25 toward the left, the rolls 27 being free to rotate when the carriage is moved in this direction. The said rolls are thus brought into contact with the sheet which is next to be fed into position beneath the impression pad, and in this action or movement of the carriage toward the left, the spring within the carriage and the sleeve 24 will be compressed, so that after the impression has been made upon the paper already in position beneath the pad, and the said pad, together with the yoke, rises, the spring will move the carriage 25 toward the right, and as the rolls in this movement are held from rotation, they will draw the paper sheet

from the gage or stop 16 and feed it beneath the pad 8, and into position to be printed upon. The spring within the sleeve and the carriage also serves as a torsion spring to keep the carriage, with its arm 26, pressed downwardly, so that the feed rollers will make proper contact with the sheet to be fed.

In order to adjust the amount of feed, a collar 38 is fixed on the screw rod 22, and adapted to form a stop against which the end of the paper carriage 25 will strike on its movement toward the right. By turning the screw rod in the bearing 21, the collar 38 may be set at different points in relation to the stroke of the carriage so as to limit the movement of the same on its return to the right. This collar is graduated, and a portion of the frame or bracket 19 is also graduated, so that accurate adjustment of the collar may be secured. By reason of the slip joint connection between the yoke and the paper feeding bracket or carriage, the said bracket may be stopped by the collar 38 at different points in relation to the up-stroke of the yoke 6; that is to say, the bracket may be arrested before the yoke completes its upward stroke. This is of importance, because the amount of movement of the paper feed bracket is thus made independent of the up-stroke of the yoke or the operating foot lever, which is not always uniform.

By reference to Fig. 2 it will be observed that the center U' at which the slip joint link is pivoted to the yoke, describes an arc of movement indicated by the dotted line Z, and by reason of the arrangement of the paper feeding carriage and the connections described, the outward movement of the carriage is completed before the yoke 6 has reached its lowest position. In other words, after the yoke has moved part way down, the point U' will move substantially in a vertical direction as it is approaching the horizontal plane of the lower pivot of the link 7, and during this substantially vertical movement, no material movement will be imparted to the paper carriage or bracket. In this way the measured stroke of the feed attachment is, in a large measure, independent of the amount of downward movement of the foot lever, which may vary somewhat. Furthermore, by the arrangement described,

the pad is allowed to lift from making the impression before the paper is moved.

In Fig. 4 is shown a ribbon cover plate X<sup>2</sup>, it being understood that the machine is used with a ribbon for making an impression.

I claim as my invention:—

1. In combination a reciprocating impression member, a sliding and turning paper feed carriage, a spring acting as a return spring for the carriage on its feeding stroke, and as a torsion spring to hold the feed carriage against the paper, substantially as described.

2. In combination a reciprocating impression member, a paper feed carriage having a hollow or cylindrical portion, and an arm extending therefrom, a sleeve upon which said cylindrical portion fits, a spring within the sleeve and carrier attached, at its ends, thereto, and acting both as a return spring for the carriage and as a torsion spring to hold the carriage down to its work, and means for operating the carriage, substantially as described.

3. In combination a table an impression member having up and down movement above the table, a horizontally movable paper feed carriage, movable along the upper surface of the table and a connection from the impression member downwardly and forwardly to the carriage for pushing the latter, said connection having a slip joint, an adjustable stop against which the carriage strikes on its feeding stroke to place the paper in position under the impression member, and a spring for forcing the carriage against said adjustable stop, substantially as described.

4. In combination a table an impression member movable to and from the upper side of the table and having its up and down movement along a curved path, a horizontally movable paper feed carriage, and a slip joint connection extending at an incline from the impression member down to the carriage, substantially as described.

In testimony whereof, I affix my signature in presence of two witnesses.

ULYSSES G. LEE.

Witnesses:

CHAS. OWENS,  
G. C. FIEGEL.