

L. H. HANGEL.
ADDRESSING MACHINE.
APPLICATION FILED MAR. 2, 1921.

1,411,210.

Patented Mar. 28, 1922.

2 SHEETS—SHEET 1.

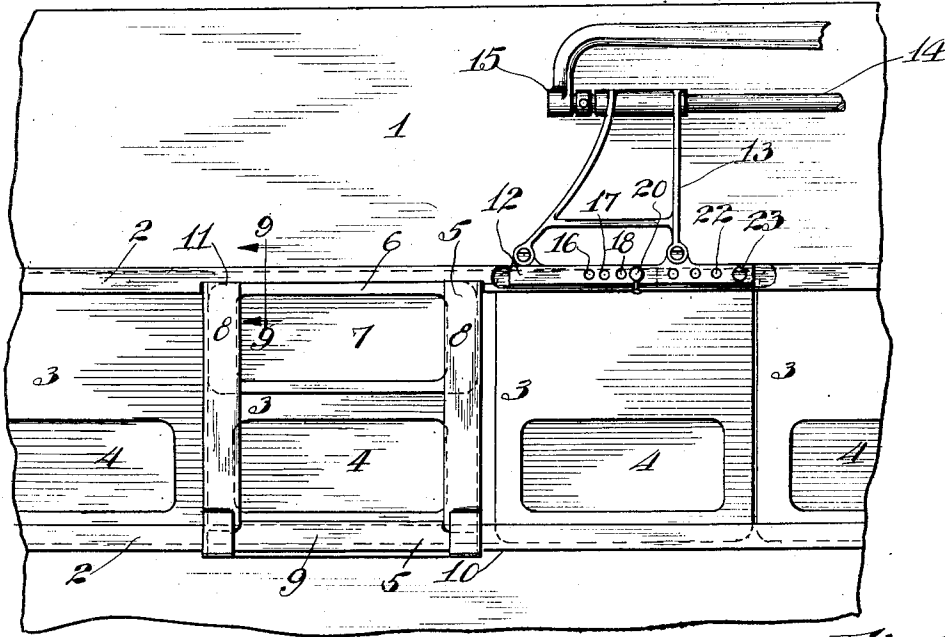


Fig. 1.

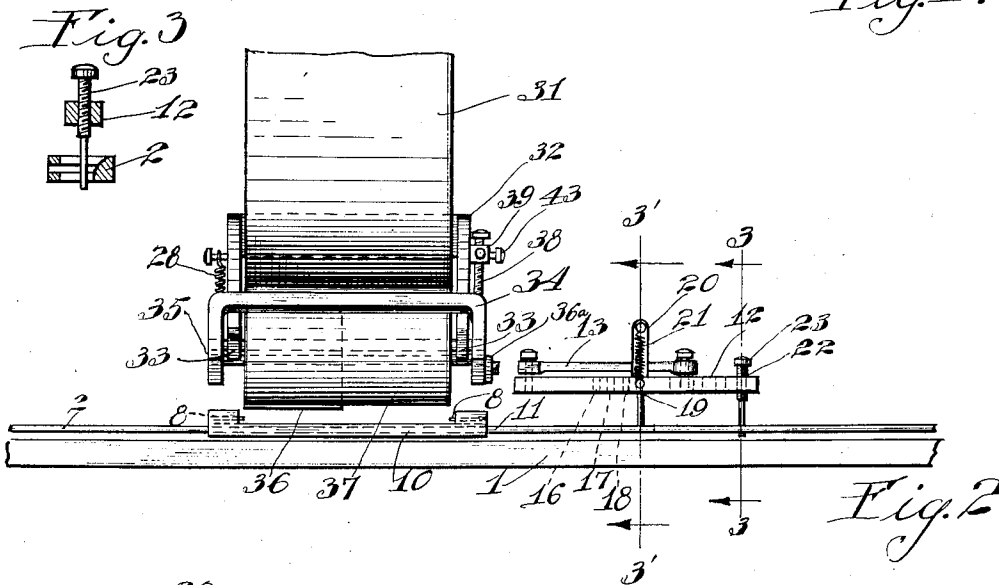


Fig. 2.

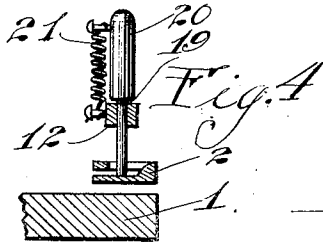


Fig. 4.

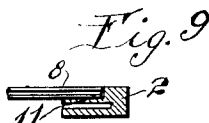


Fig. 9.

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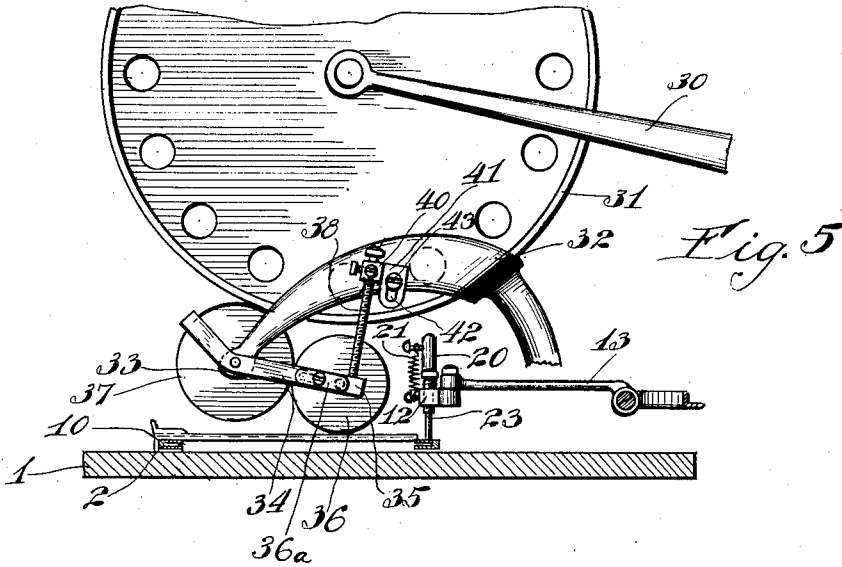
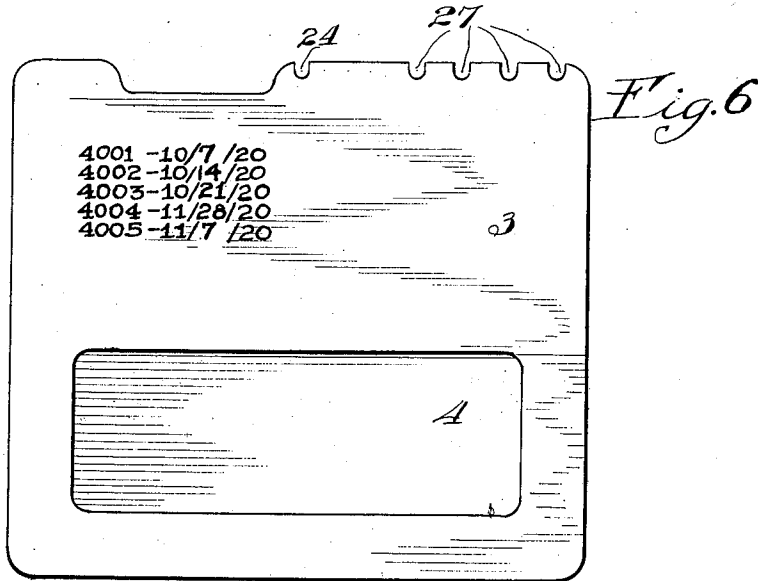
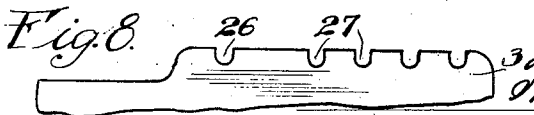
BY
Thomas G. Steward, ATTORNEY.

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2 SHEETS—SHEET 2.



INVENTOR.

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UNITED STATES PATENT OFFICE.

LOUIS H. HANGEL, OF CHICAGO, ILLINOIS.

ADDRESSING MACHINE.

1,411,210.

Specification of Letters Patent. Patented Mar. 28, 1922.

Application filed March 2, 1921. Serial No. 449,116.

To all whom it may concern:

Be it known that LOUIS H. HANGEL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, has invented certain new and useful Improvements in Addressing Machines, of which the following is a specification.

The invention relates to addressing machines for automatically taking stencil cards, or their equivalents, from a stack, and sequentially feeding them to a printing mechanism wherein pieces of mail matter receive the impressions of the respective stencils.

These addressing machines are commonly provided with electrically-controlled driving means for the printing mechanism, the circuits being completed by selector fingers which pass through prearranged holes or notches in the stencil cards, whereby only certain desired stencil cards will print, the remainder of the stencil cards being permitted to pass through the printing mechanism without making impressions on the pieces of mail matter.

The invention herein set forth, involves means additional to the mechanisms of these known addressing machines for the attainment of results of new character, such as the visual indication of conditions under which a machine is operating, and the printing on the stencil cards of data relating to the work that is being performed, whereby said stencil cards will thereafter constitute permanent and available records showing the names of the addressees, the dates of the mailing of the letters and the nature of the correspondence.

These and other objects are attainable by machines embodying my invention which is hereinafter more fully described in connection with the accompanying drawings in which—

Figure 1 is a plan view showing parts of the added improvements;

Figure 2 is a view showing certain parts in elevation;

Figure 3 is a sectional view taken on the line 3—3 of Figure 2;

Figure 4 is a sectional view taken on the line 3'—3' of Figure 2;

Figure 5 is a view in elevation of the end of the usual inking means of an addressing machine, and also of the inking devices for my improved machine;

Figure 6 is a view of a stencil card adapt-

ed to co-operate with my improved machine;

Figures 7 and 8 are views showing fragments of stencil cards which have differently arranged notches, and

Figure 9 is a sectional view of a detail taken on the line 9—9 of Figure 1.

1 is the bed of the machine on which the operative parts are mounted, and upon this bed are secured grooved guide strips 2 for the stencil cards 3 which are each provided with a stencil 4 of usual character.

5 is a frame for receiving and removably holding a secondary stencil plate 6 which is provided with a stencil 7 for printing data on the blank spaces of the stencil cards 3. This frame includes folded or grooved side bars 8 for receiving and retaining the edges of a secondary stencil plate, and these side bars are united by an end bar 9 which is curved around and under the edge of the proximate guide strip 2, the free ends 11 of the frame being supported in a suitable manner by the other guide strip. The frame 5 is slightly spaced from the bed of the machine to allow the stencil cards to pass beneath it as they are fed through the machine. These stencil cards are made sufficiently large to admit of the printing thereon of data concerning the mailing of letters to listed correspondents, the dates of original letters, the dates of "follow-up" letters, and an identifying number assigned to letters in any particular group wherein the subjects are identical, so that on all stencil cards will appear information in printed form concerning the facts of the previous correspondence and enable the operator to proceed intelligently and in accordance with the original plan.

12 is a selector bar attached to a bracket 13 which in turn is secured to a shaft 14 that is mounted to turn in an arm 15.

The selector bar has a series of holes, preferably four in number, which are designated by the reference characters 16, 17, 18 and 19, and through these holes extend spring-pressed selectors or pins 20 (only one of which may be used provided it is shifted from one hole to another) for the purpose of making the electrical circuit complete and the printing mechanism operative in a usual manner. 21 is the spring for actuating each of the selectors.

The selector bar is also provided with a plurality (preferably four) screw-threaded

holes 22 corresponding in number with the groups of cards in the stack of stencil cards, and in these holes I have mounted an equal number of screw-threaded indicator pins 23.

- 5 The purpose of these pins is to afford a visual indication of the number of groups into which the stencil cards in the stack are divided, to thereby assist the operator in the manipulation of the machine. Instead of a plurality of indicators, only one may be used.

- 10 The stencil cards of the respective groups are provided with notches or holes, such as 24, 25 and 26, which, in cards of different groups, are non-coincident, whereby the cards of all of the groups, save one, are obstacles to the completion of the electrical circuit to thereby make the operation of the machine selective, as is usual. Said stencil cards are furthermore provided with a series of notches or holes 27 through which openings the indicator pins 23 may idly pass as the selector bar 12 moves up and down in the performance of its normal functions.

- 25 30 is the usual lever arm which carries the doctor 31.

- 32 is a yoke on the ends 33 of which is mounted a U-shaped lever 34 carrying at its free ends 35 an inking roll 36 for the secondary stencil plate 6. This inking roll has an adjustable bearing 36^A. The main inking roller 37 is also mounted on the yoke 32, this being the inking roller which is used in machines of the type to which my invention is applied. The lever 34 is retracted by the spring 28.

- 30 The thrust of the secondary inking roll 36 is produced by a screw 38 which bears against one of the ends 35 of the U-shaped lever 34, said screw being mounted in a sustaining block 40 which is a part of the bracket 41. The bracket has a slot 42 through which a sustaining screw 43 extends. The adjusting screw may be manipulated to allow the secondary inking roll to remain idle, or to vary the degree of pressure on the secondary stencil card, as desired.

- 45 The operator in starting the machine stacks the stencil cards, places a selector in one of the multiple positions on the selector bar and starts the feeding mechanism of the machine, whereupon the selector under the influence of its spring, will pass through the notches or openings of those cards which are in alignment with said selector, thus completing the electrical circuit and causing the printing mechanism to act, all as in machines hitherto known.

- 50 The action of the secondary stencil card is automatic if the screw 38 has been prop-

erly adjusted, the two inking rolls 36, 37 being moved in unison by the actuating devices except when the screw is withdrawn to no longer actuate the secondary inking roll.

As successive groups of stencil cards have completed their work, the indicator pin, (or pins if a plurality of pins is used) will be set in position to appropriately indicate the number of such groups as have been active in printing addresses, enabling the operator to perceive how many more times the entire series of stencil cards must be run through the machine to complete the printing of addresses.

The subject matter of this application is not claimed in my co-pending application No. 513,955, filed November 9, 1921.

Having thus described my invention what I claim is:

1. The combination with an addressing machine having means for selectively applying addresses to mail matter, of means for indicating the number of groups into which the addresses are divided.

2. The combination with an addressing machine having means for selectively applying addresses to mail matter, of visual means for indicating the groups into which the addresses are divided.

3. The combination with an addressing machine having an automatic control, of pins equal in number to the groups into which the addresses are divided for indicating the number of said groups.

4. A printing or stencil plate having in addition to the usual mechanism-controlling notches or holes, other notches or holes for indicating the number of groups into which a stack of stencil cards is divided.

5. The combination with an addressing machine having means for selectively applying addresses to mail matter, of a printing mechanism for recording data on one of the printing instrumentalities.

6. The combination with an addressing machine having means for feeding stencil plates therethrough, of a printing mechanism for recording data on said stencil cards.

7. The combination with a machine for selectively applying addresses to mail matter, of a stencil card for recording data, and an inking roll associated with said stencil.

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

LOUIS H. HANGEL.

Witnesses:

STANLEY A. PETTIBONE,
N. H. KADING.