

April 13 , 1926.

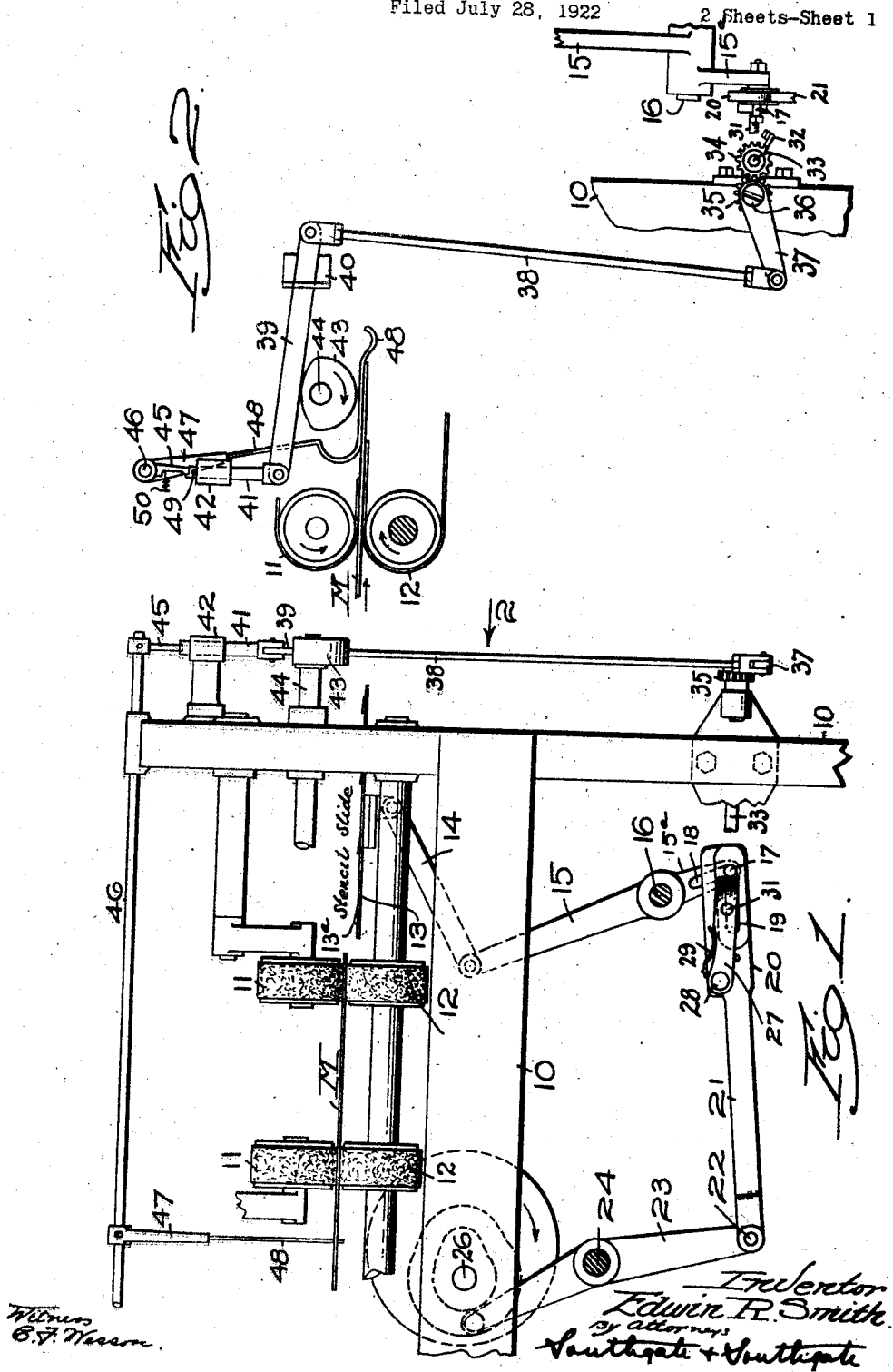
E. R. SMITH

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STOP MOTION FOR ADDRESSING MACHINES

Filed July 28, 1922

2 Sheets-Sheet 1



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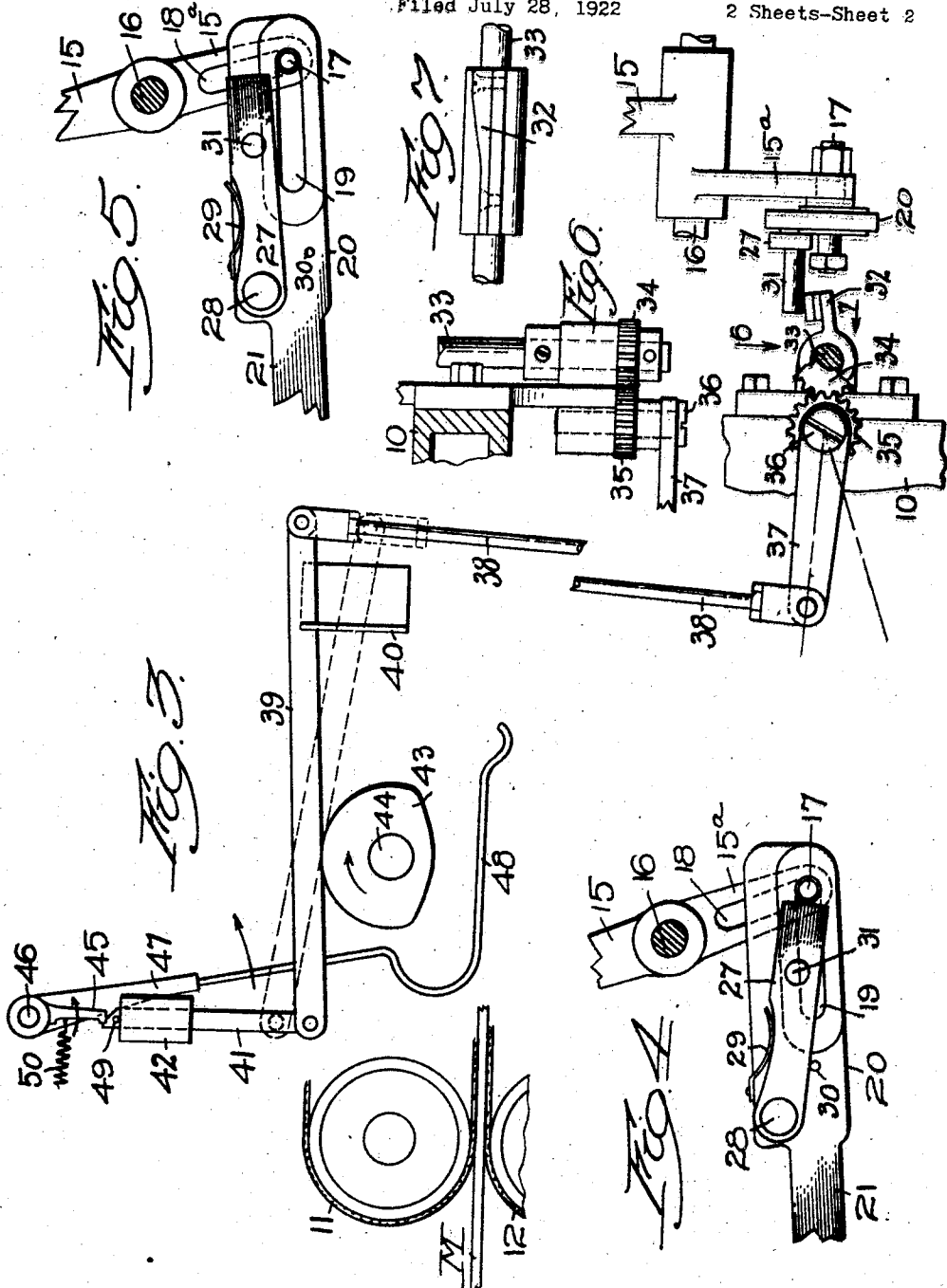
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE.

EDWIN R. SMITH, OF FITCHBURG, MASSACHUSETTS, ASSIGNOR TO AUTO-MAILING MACHINERY COMPANY, A CORPORATION OF MASSACHUSETTS.

STOP MOTION FOR ADDRESSING MACHINES.

Application filed July 28, 1922. Serial No. 578,184.

To all whom it may concern:

Be it known that I, EDWIN R. SMITH, a citizen of the United States, residing at Fitchburg, in the county of Worcester and State of Massachusetts, have invented a new and useful Stop Motion for Addressing Machines, of which the following is a specification.

This invention relates particularly to a machine for addressing magazines, periodicals or other articles. It is customary to use such machines for addressing magazines to their subscription lists and it is very essential that one magazine and only one should be addressed by each stencil in the list. If, for any reason, the supply of magazines fails or a magazine is not fed forward to addressing position at the proper time, the stencil feed should be immediately stopped.

It is the general object of my invention to provide improved devices for thus suspending the stencil feed upon failure to present a magazine in addressing position.

With this general object in view, my invention in a preferred form comprises a stencil feeding mechanism controlled as to its operation by the presence or absence of a magazine in addressing position.

A further feature of my invention relates to the provision of actuating mechanism for the stencil feed, together with means for disabling the actuating mechanism on failure to present a magazine in addressing position.

A preferred form of my invention is shown in the drawings in which

Fig. 1 is a front elevation of parts of an addressing machine, showing the stencil feed;

Fig. 2 is a side elevation of parts of the addressing machine, showing particularly the stop motion mechanism;

Fig. 3 is an enlarged side elevation of the stop motion;

Figs. 4 and 5 are enlarged front elevations of a detachable connection in the stencil feed;

Fig. 6 is a detail plan view, looking in the direction of the arrow 6 in Fig. 3; and

Fig. 7 is a detail side elevation, looking in the direction of the arrow 7 in Fig. 3.

Referring to the drawings, I have shown portions of the frame 10 of an addressing

machine adapted to operate upon magazines, periodicals or other articles of similar size and shape. Hereafter in the specification and claims, where the word "magazine" is used, it is to be understood as covering periodicals and other articles without a specific definition thereof.

Upper and lower conveyor tapes 11 and 12 (Fig. 1) or other suitable conveying devices are provided for feeding the magazines M to and from position for receiving the address from the corresponding stencil. The stencils are preferably fed transversely to the path of travel of the magazines by a stencil slide 13 having stencil engaging ledges or projections 13^a, preferably beveled rearwardly so as to slide freely under the stencils during the return or idle stroke thereof.

The stencil slide 13 is connected by a link 14 to the upper end of a lever 15 mounted on a fixed pivot 16 and having a pin or stud 17 secured in adjusted position in a slot 18 in the lower arm 15^a (Fig. 3) of the lever 15. The pin 17 extends through a slot 19 (Fig. 4) in the head 20 of a link or connecting rod 21, which in turn is pivoted at 22 (Fig. 1) to a lever 23 mounted on a fixed pivot 24 and engaging a side cam 25 on the driving shaft 26.

A latch 27 (Fig. 4) is pivoted at 28 on the head 20 of the link 21 and is normally held yieldingly in the position shown in Fig. 4 by a spring 29 which holds the latch 27 against a stop pin 30. When in this position, the latch locks the pin 17 in the outer end of the slot 19 and thus establishes operative connection between the cam 25 and the stencil slide 13. The shaft 26 and cam 25 are continuously rotated and the stencil slide is thus given regularly repeated reciprocary feeding movements.

A pin 31 (Fig. 3) is fixed in the latch 27 in position for engagement by a plate or arm 32 mounted on a cross shaft 33 supported in fixed bearings on the frame 10. A pinion 34 (Fig. 2) on the shaft 33 meshes with a similar pinion 35 mounted on a fixed pivot 36 and movable with an arm 37 connected by a link 38 to a lever 39. The lever 39 is slidable in a guide plate 40 (Fig. 3) and is connected at its opposite end to a plunger 41

slidable in a fixed block 42. At its intermediate portion, the lever 39 is engaged by a cam 43 secured to a shaft 44 operatively connected to rotate in timed relation with the shaft 26 previously described.

A stop arm or finger 45 (Fig. 3) is mounted on the fixed pivot 46 and is connected to swing with a detector arm 47 to which is secured the magazine engaging feeler or detector 48. When there is no magazine in addressing position, the detector 48 remains by gravity in the position shown in Figs. 2 and 3, with the finger 45 preventing upward sliding movement of the plunger 41 in the block 42, while downward movement is prevented by a stop pin 49 in the plunger, which engages the upper end of the block 42. A spring 50 may be added to accelerate the return movement of the detector 48.

As the cam 43 rotates from the position shown in Fig. 3, the lever 39 swings about its pivotal connection to the plunger 41, from the position shown in Fig. 2 to that shown in full lines in Fig. 3. The stop plate 32 will be simultaneously moved, through the connecting links and gearing described, to the position shown in Fig. 3, thus raising the latch 27 to the position shown in Fig. 5. The connecting rod or link 21 may be thereafter reciprocated by the cam 25 without imparting any movement to the lever 15 or to the stencil slide 13. There will thus be no stencil feed when no magazine is presented in addressing position.

If, however, the detector 48 is engaged by a magazine M, the detector will be moved to the right in Figs. 2 and 3, carrying the stop finger 45 out of the path of the plunger 41. When the cam 43 thereafter rotates, the lever 39 will swing freely about its pivotal connection to the link 38, moving to the position shown in broken lines in Fig. 3 and communicating no movement to the link 38 or through the gearing to the stop plate 32, these parts remaining in the position shown in Fig. 2. The latch 27 thus remains in the position shown in Fig. 4, connecting the lever 15 to the rod or link 21 and permitting the cam 25 to reciprocate the stencil slide 13.

I have thus provided a very simple mechanism which positively prevents a feed of the

stencils in the absence of a magazine from position to receive an address.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed otherwise than as set forth in the claims, but what I claim is:—

1. In a magazine addressing machine, in combination, a stencil feeding mechanism, a disabling device for said mechanism, regularly actuating means to move said disabling device to operative or inoperative positions, and magazine controlled mechanism effective to prevent movement of said disabling device to operative position by the movement of said regularly actuated means when a magazine is presented in an addressing position in said machine.

2. In a magazine addressing machine, a stencil feeding mechanism, actuating devices therefor including a slot and pin connection, a latch for said pin, and means to remove said latch from locking position on failure to present a magazine in addressing position.

3. In a magazine addressing machine, a stencil feeding mechanism, actuating mechanism therefor, a controlling device for said actuating mechanism including a lever mounted to swing about a pivot bearing, a movable support for said pivot bearing, means to normally lock said support, and means to unlock said support on presentation of a magazine in addressing position.

4. In a magazine addressing machine, a stencil feeding mechanism, actuating mechanism therefor, a controlling device for said actuating mechanism including a lever mounted to swing about a pivot bearing, a movable support for said pivot bearing, means to normally lock said support, means to unlock said support on presentation of a magazine in addressing position, and a cam continuously rotated and engaging and moving said lever at each revolution thereof, the movement of said lever being effective to stop the stencil feed only when said movable support is locked.

In testimony whereof I have hereunto affixed my signature.

EDWIN R. SMITH.