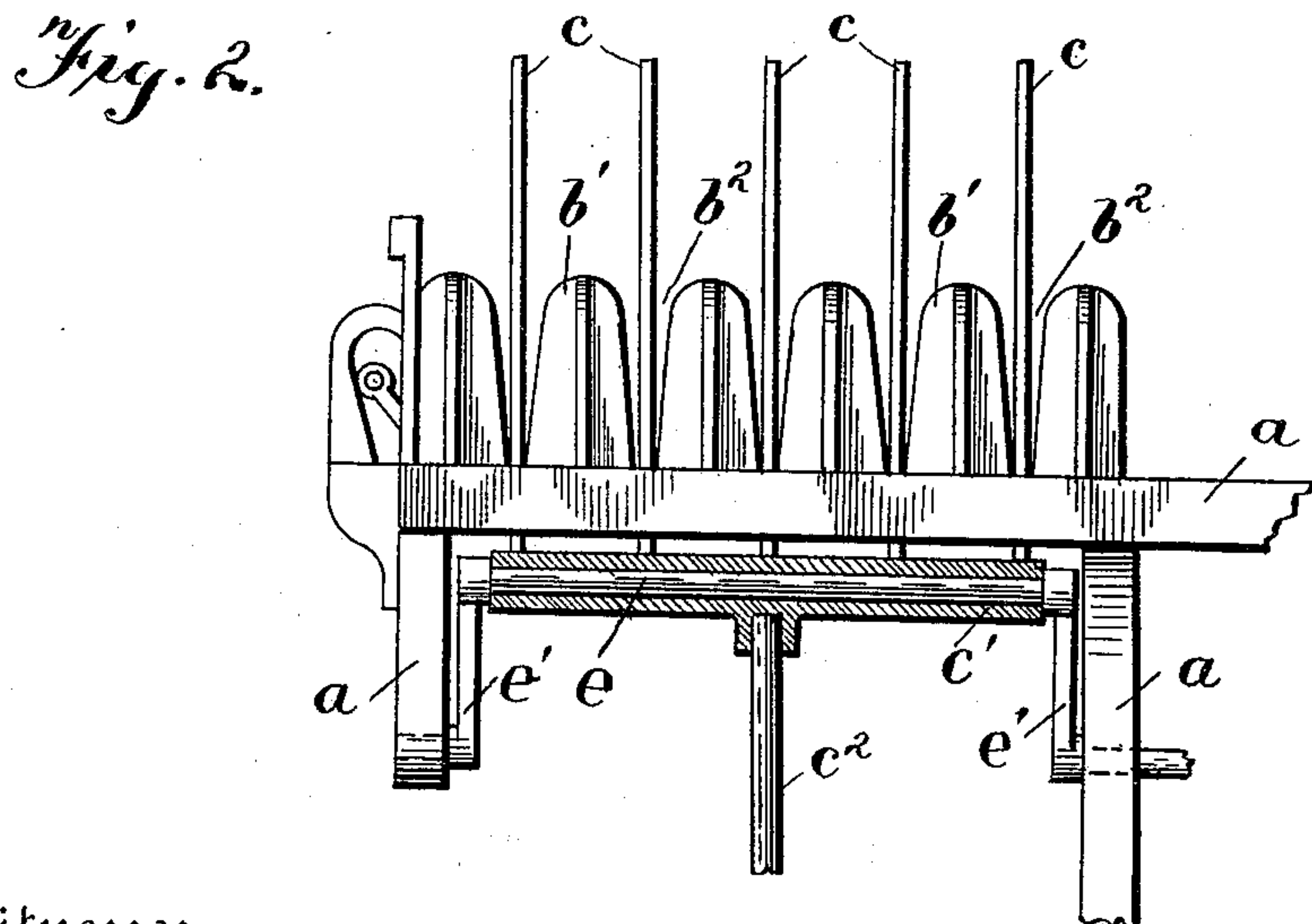
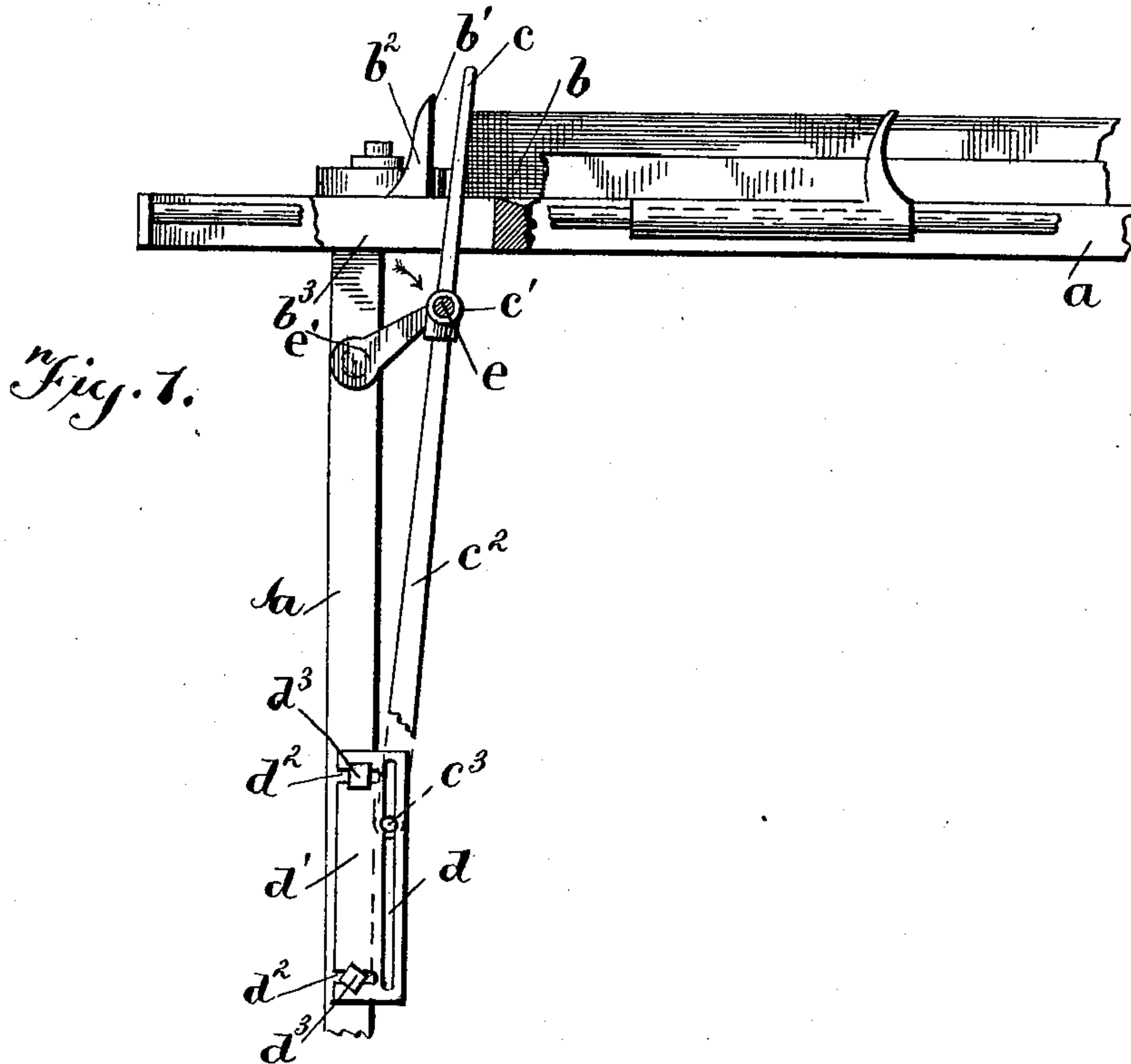


(No Model.)

W. BARRY.
STACKING DEVICE.

No. 585,017.

Patented June 22, 1897.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM BARRY, OF SYRACUSE, NEW YORK.

STACKING DEVICE.

SPECIFICATION forming part of Letters Patent No. 585,017, dated June 22, 1897.

Original application filed August 10, 1892, Serial No. 442,715. Divided and this application filed February 5, 1896. Serial No. 578,096. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BARRY, a citizen of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Stacking Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain improvements in stacking devices, and is filed as a division of my application filed August 10, 1892, Serial No. 442,715.

The object of the invention is to provide an improved stacking or packing device simple and durable in construction and efficient in operation.

The invention consists in certain novel features of construction and in combinations and arrangements of parts, as more fully described and particularly pointed out hereinafter.

Referring to the accompanying drawings, Figure 1 is a side elevation of a portion of a mail-marking machine, parts being broken away, showing a stacker embodying the invention of this application. Fig. 2 is a sectional view of a portion of the pusher portion of the stacker.

In the drawings the reference-letter *a* indicates the frame of a mail-marking machine of any suitable or desirable construction.

b is a receiving-way of said machine, into which the pieces of mail-matter are separately discharged in an upright position, preferably through an opening in the side wall or guide of said way and by any suitable means. (Not here shown.) This receiving-way has an end wall *b'*, provided with the series of vertical slots *b²*, which are continued down through the floor of the way at said end, the slots *b³* in the floor of the way being elongated longitudinally of the way, substantially as shown. In the arrangement shown the pieces of mail-matter are discharged into the way immediately behind said vertical end wall *b'* and are fed or moved toward the outer end of the way and are pressed or stacked together and in proper relation to each other. The stacker moves rearwardly through said end wall in front of each letter discharged into said way

and presses the same rearwardly and against the mass of letters in the way.

The letter-engaging portion of the pusher, as specifically shown in the drawings, comprises a series of upright slats, strips, or fingers *c*, passing up through the slots *b³* in the floor of the way and arranged to move back and forth through said slots in the end wall, as hereinafter described. These strips are secured rigidly to and extend up from a horizontally-arranged cross piece or head *c'* beneath the floor or plane of the way and in the drawings shown formed of a tube and provided with a downwardly-extending shank body or portion *c²*, at its lower portion having a lateral pivot or pintle *c³*, formed in any suitable manner and sliding in a vertical slot *d* and constituting the fulcrum of the pusher.

The slot *d* can be arranged at any suitable part of the machine, although shown in the drawings as formed in a plate *d'*, secured to and projecting beyond an upright of the machine-frame. The plate is shown provided with horizontal slots *d²*, through which the securing-bolts *d³* pass into the frame to clamp the plate in the desired position and yet permit lateral or horizontal adjustment thereof to shift or vary the horizontal position of the pusher-fulcrum to vary the stroke of the pusher, as will be made clear hereinafter.

In the drawings the operating mechanism is specifically shown as a crank-shaft *e*, arranged horizontally and mounted or journaled in suitable portions of the framework of the machine with one end extended to be connected with suitable rotating means or parts of the machine, (not here shown,) this end of the shaft being shown broken away, as the shaft can be connected with and rotated from any movable or rotating part. This shaft extends through and turns in said tubular portion *c'*, and at the end thereof has the cranks *e'*, extending therefrom in the same direction. It will thus be seen that as the crank-shaft revolves in the direction of the arrow the letter-engaging portion of the pusher will move up through the slots in the floor of the way and rearwardly through said slots and the end wall against the letter just discharged into the way and will carry said

letter rearwardly and gradually move down through the said floor-slots, and then when not projecting above the floor of the way will move back beneath the same to its starting-point to start in behind the next letter entering the way, the letter-engaging portion moving in an elliptical or approximately elliptical path into and out of the way and above and below the same, although I do not wish to limit myself to a movement above and below the way, nor to a movement in an elliptical path. During this movement, as just specifically described, the pusher rocks on its fulcrum, which moves longitudinally of the slot *d* and is controlled so that its letter-engaging portion moves in the proper path by the walls of the slot formed by the plate *d'* or in any other suitable manner.

The lateral or horizontal throw of the letter-engaging portion of the pusher can be varied or changed by means of shifting the movable fulcrum of the pusher through the medium of the adjustable plate, but it should be noted that the pusher moves in a predetermined path after said plate has been adjusted.

It is evident that various changes might be made in the forms, constructions, and arrangements of the parts described without departing from the spirit or scope of my invention, and that I do not limit my invention to the exact constructions herein set forth.

What I claim is—

1. In a mail-marking machine, the combination of a frame, a receiving-way having a slotted floor and front wall, a plate or member secured to the frame beneath said way and having a vertically-elongated guide or way, a swinging pusher having vertically-disposed letter-engaging strips movable in said slots into and out of the way and having a fulcrum at its lower portion confined to move in said guide, and rotary actuating means applied to the pusher.

2. In combination, a frame, a receiving-way, a stacker comprising a tube having a series of parallel separated letter-engaging fingers rigid therewith and an arm or shank rigid with the tube having a lateral pintle or pivot, an elongated guide in which said pivot is confined, and a crank-shaft in said tube, substantially as described.

3. In combination, a frame, a receiving-way, a swinging stacker confined to move in an encircling or elliptical path into and out of the receiving-way, and having a movable fulcrum or pivot, an elongated guideway in which said fulcrum is confined to turn and reciprocate, and actuating means, substantially as described.

4. The combination with a horizontally-disposed receiving-way into the front end of which the pieces are separately discharged in an upright position, and a frame, of a drive-shaft horizontally mounted in the frame opposite the front end of the way and having the cranked portion opposite the way and in length approximately equal to the width of

the way, a sleeve loose on and of approximately the same length as said cranked portion of the shaft, letter-engaging fingers rigid with said tube and arranged to move into and out of the way and enter the front end of the way behind and engaging the flat face of each piece, a shank rigid with and extending down from the tube and having a movable fulcrum at its lower end, and controlling means determining the path of movement of said fingers, substantially as described.

5. A receiving-way into which the pieces are separately discharged in an upright position, in combination with a supporting-frame, a swinging stacker having its letter-engaging portion movable in an encircling path into and out of the front end of the way to engage each letter after it has entered the way, a part rigid with the frame having an elongated guideway, the stacker having a fulcrum movable in and controlled in its movement by said guideway, and actuating means applied to the stacker between said fulcrum and letter-engaging portion, substantially as described.

6. In a mail-marking machine, the combination of a supporting-frame having a laterally-adjustable normally-rigid member provided with an elongated guide, a letter-receiving way into which the letters are separately discharged, a stacker having its letter-engaging portion movable into and out of the way in an encircling path and provided at its outer end with a shank having a fulcrum moving and confined in said guide, and rotary actuating means connected with the stacker between its letter-engaging portion and fulcrum, substantially as described.

7. In a mail-marking machine, the combination of a horizontally-disposed receiving-way into which the pieces of mail matter are discharged in a vertical position on edge and transverse of the way, a frame, an actuating-shaft horizontally mounted in the frame immediately adjacent to and opposite the front end of the way, a vertically-disposed stacker at the front end of the way comprising a cross-head, fingers extending vertically therefrom, and a shank depending from said head, said shank, head and fingers rigid with each other, the front end of the receiving-way having a rigid vertically-slotted wall through which the fingers swing, the lower end of the shank having a lateral pivot directly confined to a stationary part of the frame directly beneath the front end of said way, said actuating-shaft eccentrically connected with the stacker directly beneath the front end of the way, substantially as described.

8. In a mail-marking machine, the combination of a frame, a receiving-way into which the pieces are discharged in an upright position, a stacker having its letter-engaging portion moving in an encircling path directly at the front end of the receiving-way and engaging the flat face of each letter and pushing the same in the receiving-way out of the path

of the following letter, and comprising the
horizontal tube opposite the front end of the
way, the series of separate letter-engaging
fingers rigid with and extending from said
5 tube into the way, the shank rigid with and
extending down from the tube and at its
lower end having a fulcrum confined to move
in a predetermined path, and the actuating-
shaft confined in the frame opposite the front

end of the way and passing through said tube 10
with the crank-arms at the ends of the tube,
substantially as described.

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

WILLIAM BARRY.

Witnesses:

PERCIVAL A. RIDDEN,
H. E. DOWD.