

(No Model.)

2 Sheets—Sheet 1.

H. E. WAITE.
MAIL MARKING MACHINE.

No. 582,593.

Patented May 11, 1897.

FIG. 2.

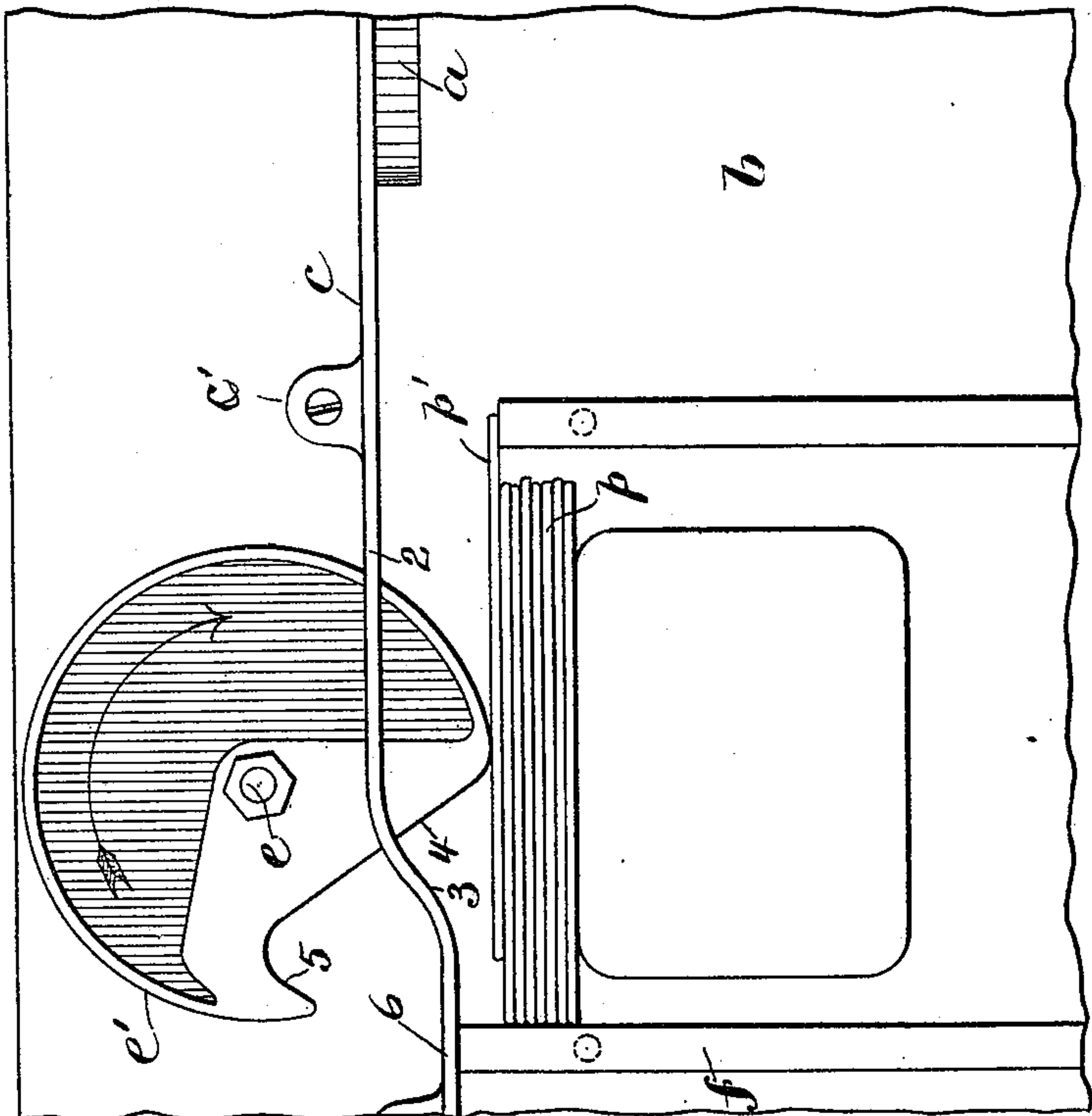
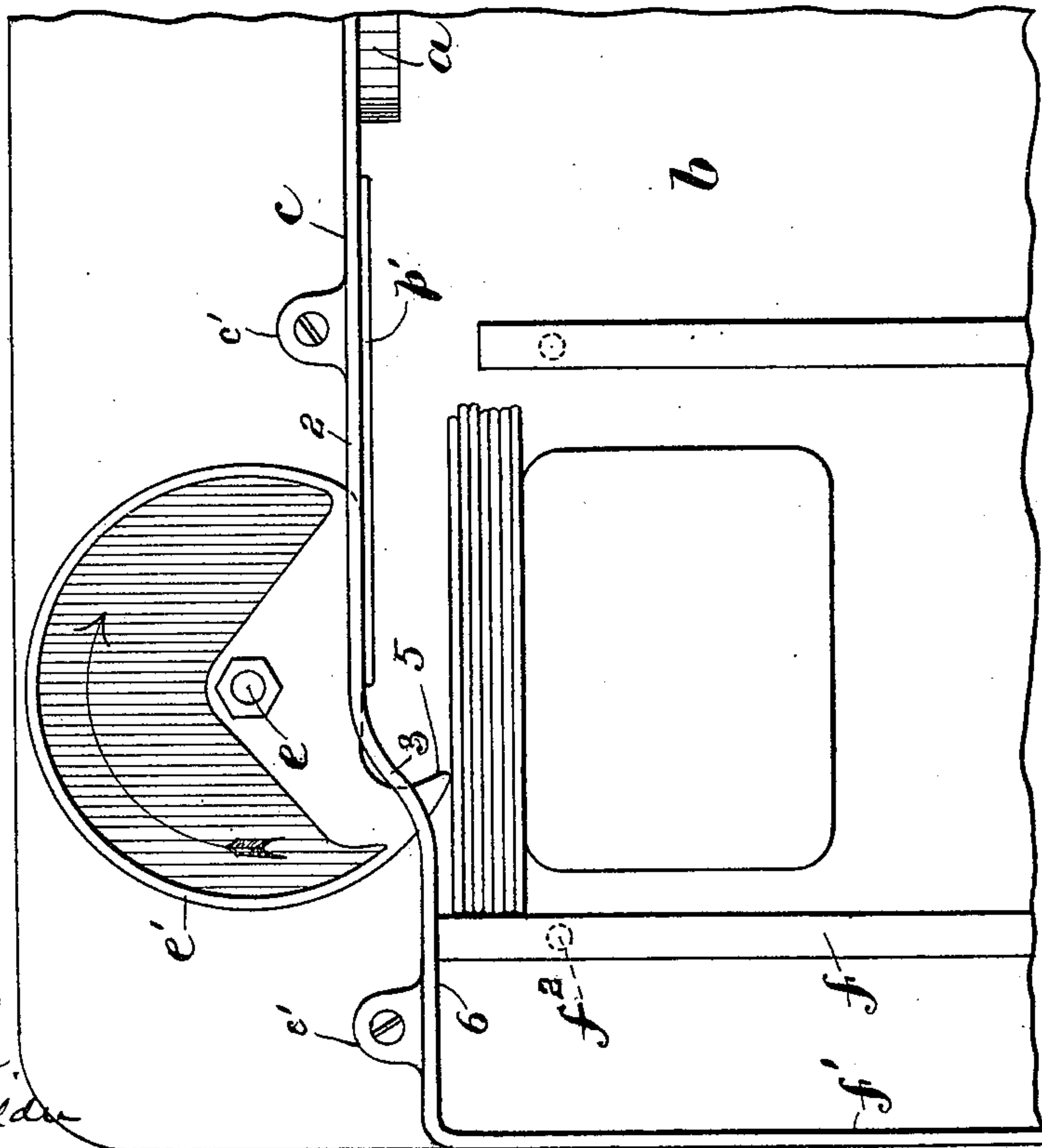


FIG. 1.



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INVENTOR:

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By *H. E. Waite*
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(No Model.)

2 Sheets—Sheet 2.

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MAIL MARKING MACHINE.

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FIG. 3.

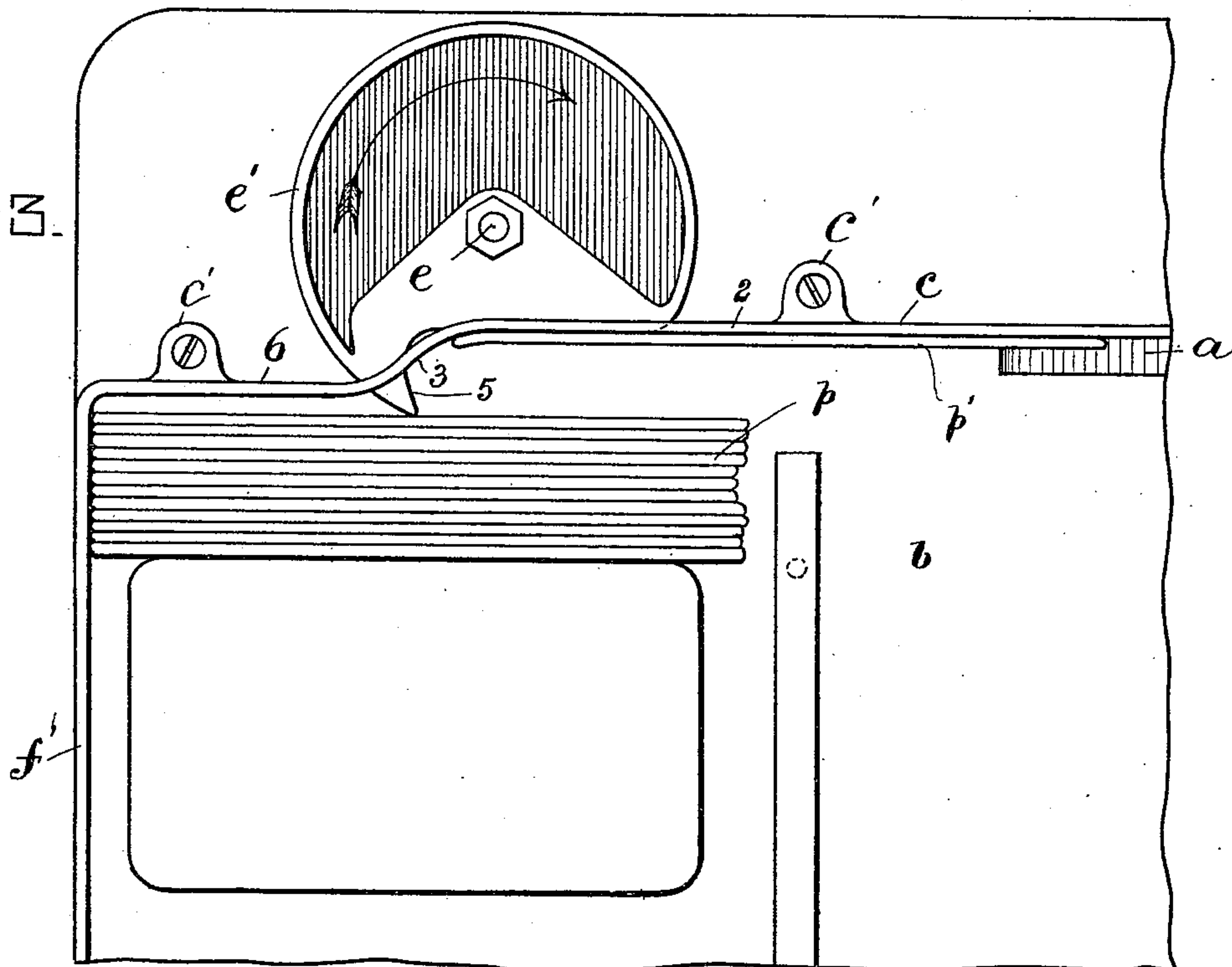


FIG. 4.

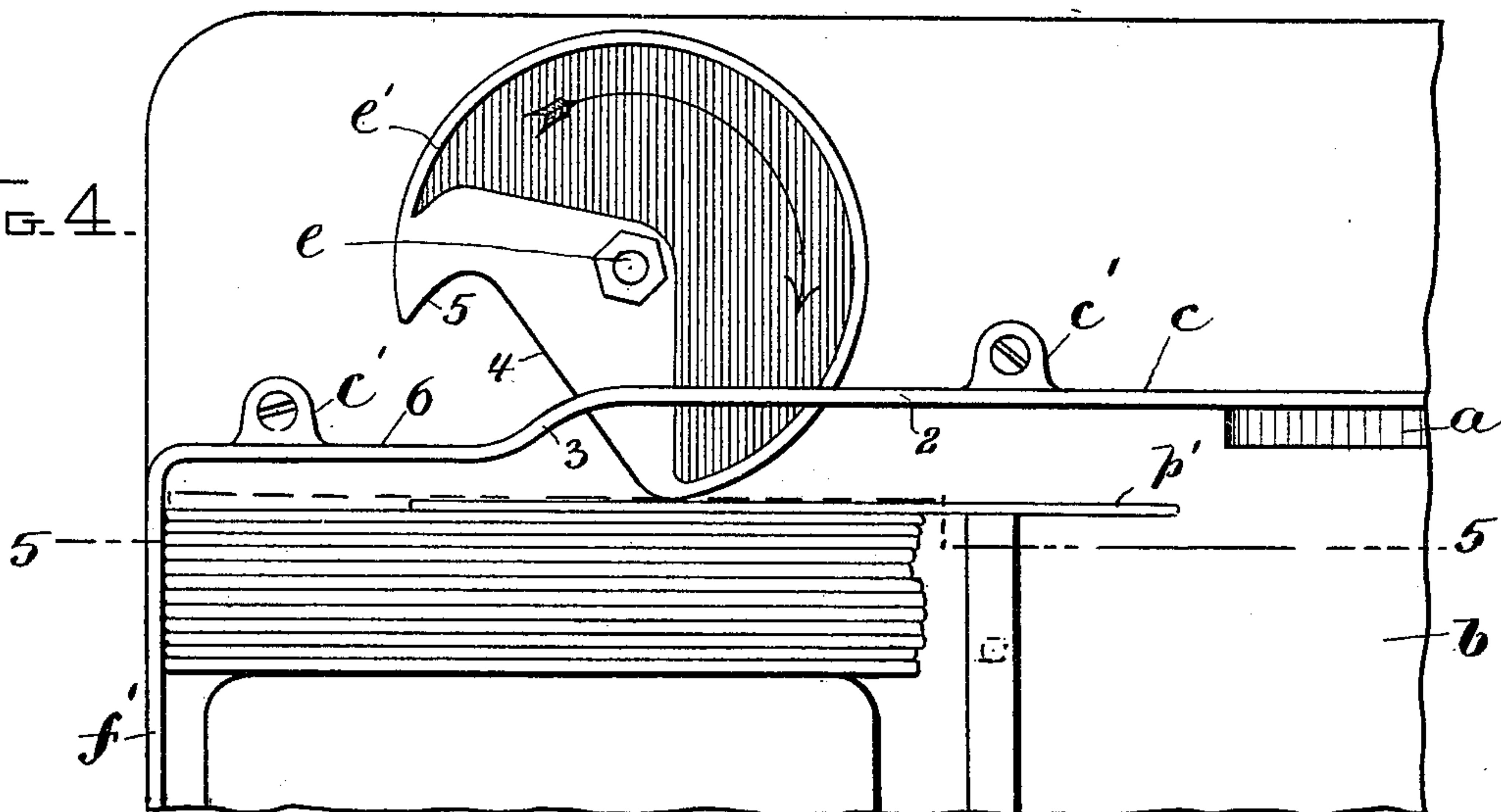
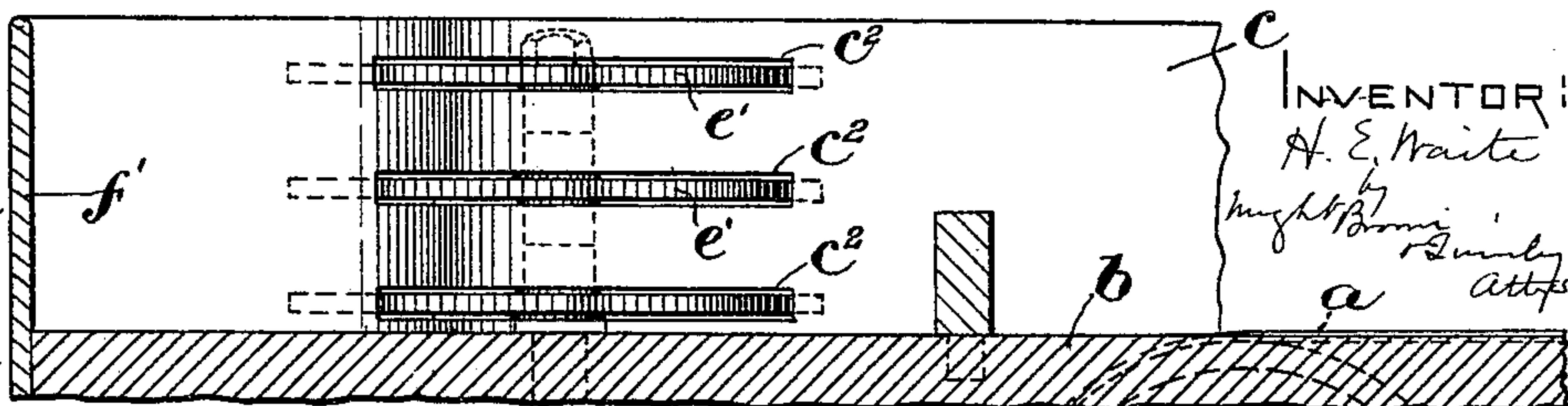


FIG. 5.

WITNESSES:
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Baithelden



INVENTOR:
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UNITED STATES PATENT OFFICE.

HENRY E. WAITE, OF NEWTON, MASSACHUSETTS.

MAIL-MARKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 582,593, dated May 11, 1897.

Application filed April 23, 1896. Serial No. 588,788. (No model.)

To all whom it may concern:

Be it known that I, HENRY E. WAITE, of Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Mail-Marking Machines, of which the following is a specification.

This invention relates to mail-marking machines in which letters are moved endwise, one at a time, between a printing and an impression cylinder, and are delivered from said cylinders to a table, on which they are packed or assembled in a compact mass side by side.

The invention has for its object to provide a simple and effective packing apparatus for machines of this class; and it consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a top view of a portion of a mail-marking machine provided with my improvements. Fig. 2 represents a similar view showing the rotary packer in a somewhat different position. Figs. 3 and 4 represent views similar to Figs. 1 and 2, showing the letter-abutment on the pack-supporting table at a different adjustment from that shown in Figs. 1 and 2. Fig. 5 represents a section on line 5 5 of Fig. 4.

The same letters and numerals of reference indicate the same parts in all the figures.

In the drawings, *a* represents a portion of an endless carrier-belt, which is arranged to run horizontally along the bottom of a trough or hopper and carry forward letters which are dropped edgewise upon it, the letters being carried by the said carrier between an impression-cylinder and a printing-cylinder, as usual in machines of this class.

b represents a table arranged to receive the letters delivered by the carrier *a*, said table being substantially flush with the upper surface of the carrier, as indicated in Fig. 5, where the carrier is shown in dotted lines.

c represents a guide affixed to the table *b* and comprising a straight portion 2, which extends beside the path in which the letters are moved by the carrier *a*, an oblique portion 3, which extends across said path, and a straight portion 6, parallel to the straight portion 2. Said guide is preferably a metal strip

or flange having ears *c'*, which are screwed to the table *b*.

e represents a vertical shaft which is journaled in suitable bearings below the table *b* and projects upwardly therethrough. To said shaft, above the table, is affixed a series of disks *e'*, which collectively constitute a packer, which is so arranged relatively to the guide *c* that portions of the disks *e'* project through slots *c'*, formed in said guide, as shown in Fig. 5. Each disk *e'* has a recess comprising the two sides 4 and 5, which are relatively arranged, so that when the pack is in the position shown in Figs. 1 and 3 the side 4 will coincide with the straight portion 2 of the guide, while the side 5 will project through the guide and across the letter-path and will bear against one end of a pack *p* of letters and hold said pack away from the straight portion of the guide sufficiently to form a recess at one end of the letter-path, into which the letters are projected by the carrier, as indicated in Figs. 1 and 3, where the advancing letter is designated *p'*.

The packer is continuously rotated in the direction indicated by the arrow marked thereon, its rotation being timed so that it is in the position shown in Figs. 1 and 3 when every letter is advanced by the carrier to the position shown in said figures. The rotation of the packer causes it to move the letter laterally from the position shown in Figs. 1 and 3 first sidewise against the body of the pack, as shown in Figs. 2 and 4, and then endwise along the pack until its advancing end strikes an abutment projecting above the table *b*.

The segmental portions of the peripheries of the disks *e'* bear against the letter-pack excepting during the brief interval when the disks are rotating from the position shown in Fig. 1 to that shown in Fig. 2, the bearing of said disks against the pack keeping the pack away from the guide 2. In order that the bearing of the disks against the pack may be practically at the center of the width of the pack, this being essential in order that the end of the pack may be kept substantially parallel with the guide *c*, I provide the table *b* with an adjustable abutment, so that when short envelopes or letters are being treated the abutment may be moved forward to such po-

sition that it will arrest the ends of short letters when the central portions of said letters are in position to bear upon the peripheries of the disks *e'*. When longer letters are being treated, the abutment is moved back a distance corresponding to the variation between the length of the longer and shorter letters. I have here shown two interchangeably-acting abutments *f* and *f'*, the abutment *f* being a strip having dowel-pins *f*² by which it may be detachably secured to the table *b*, the latter having holes to receive said pins. When shorter letters are being treated, the abutment *f* is secured to the table *b*, as shown in Figs. 1 and 2, and arrests the forward ends of the letters in position to cause their upper portions to bear against the peripheries of the disks *e'*. When longer letters are being treated, the abutment *f* is removed, and the abutment *f'*, which, as here shown, is rigidly secured to the table and is preferably an extension of the guide *b'*, arrests the advancing ends of the letters, as shown in Figs. 3 and 4.

It will be seen that the described improvements enable letters of different sizes to be accurately packed as fast as they are delivered by the carrier.

I claim—

In a mail-marking machine, the combination of a carrier adapted to convey letters endwise in a predetermined path; a fixed guide having a straight portion which extends beside said path, an oblique portion which extends obliquely across the letter-path and a straight portion parallel to the other straight portion; a rotary packer having a cylindrical periphery containing a recess one side of which coincides with the straight portion of the guide at a given point in the rotation of the packer, and another side which at said point extends across the letter-path; a pack-receiving bed or table extending from said guide, and an abutment on said table, adjustable relatively to the packer and to the oblique portion of the fixed guide.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 22d day of April, A. D. 1896.

HENRY E. WAITE.

Witnesses:

A. D. HARRISON,
E. BATCHELDER.