

No. 780,803.

PATENTED JAN. 24, 1905.

M. B. & H. S. MILLS.

MAIL BOX.

APPLICATION FILED MAY 23, 1903.

Fig. 1.

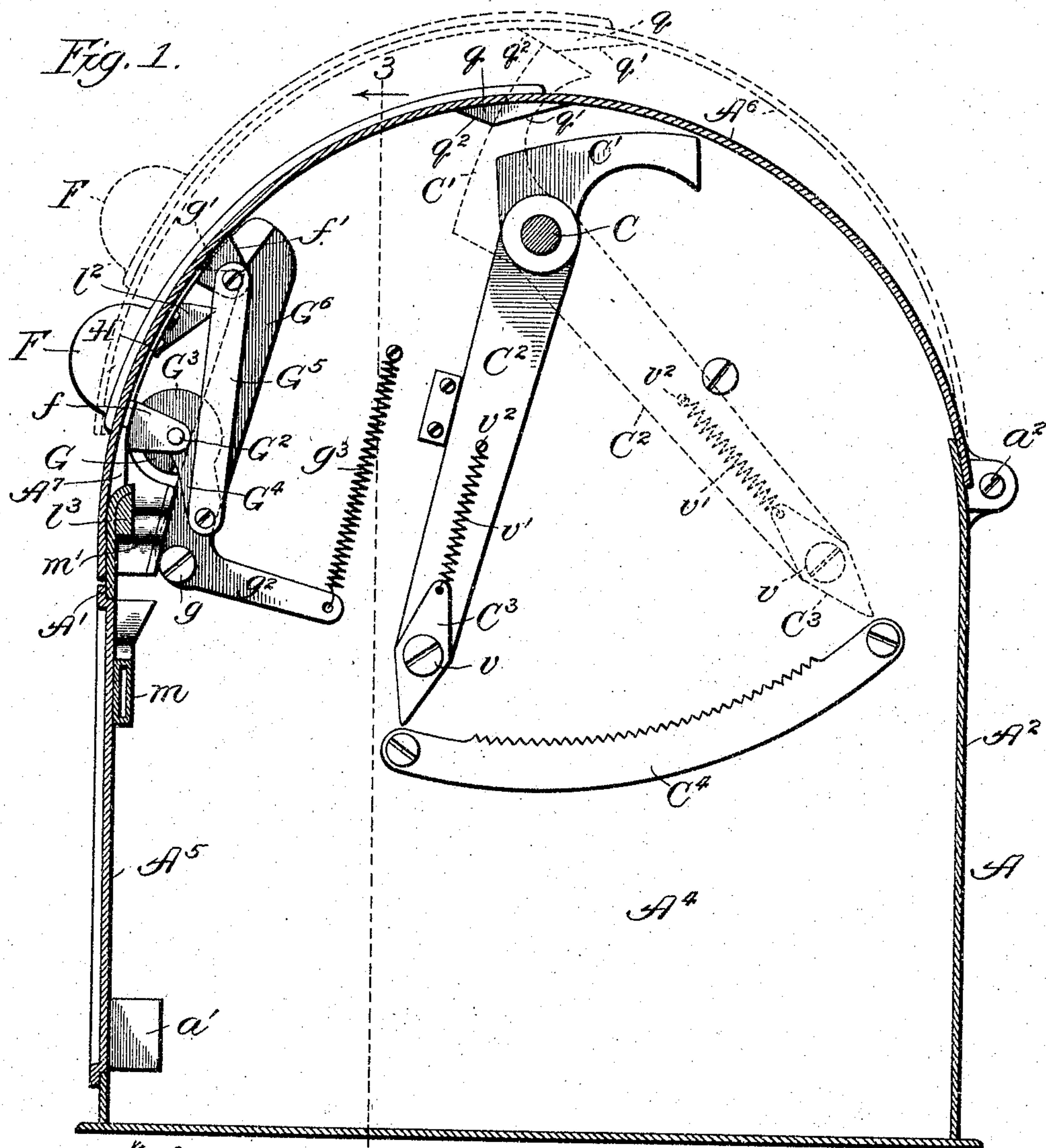


Fig. 2.

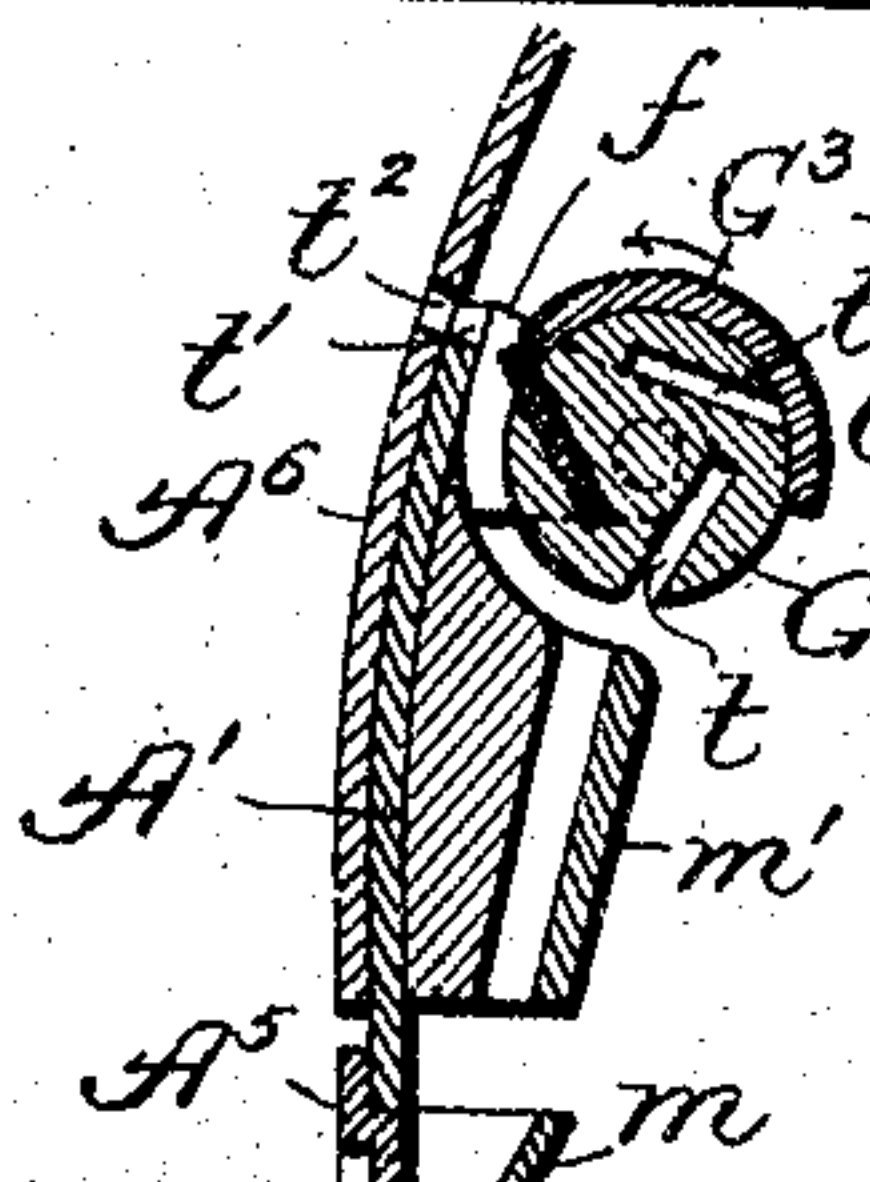


Fig. 3.

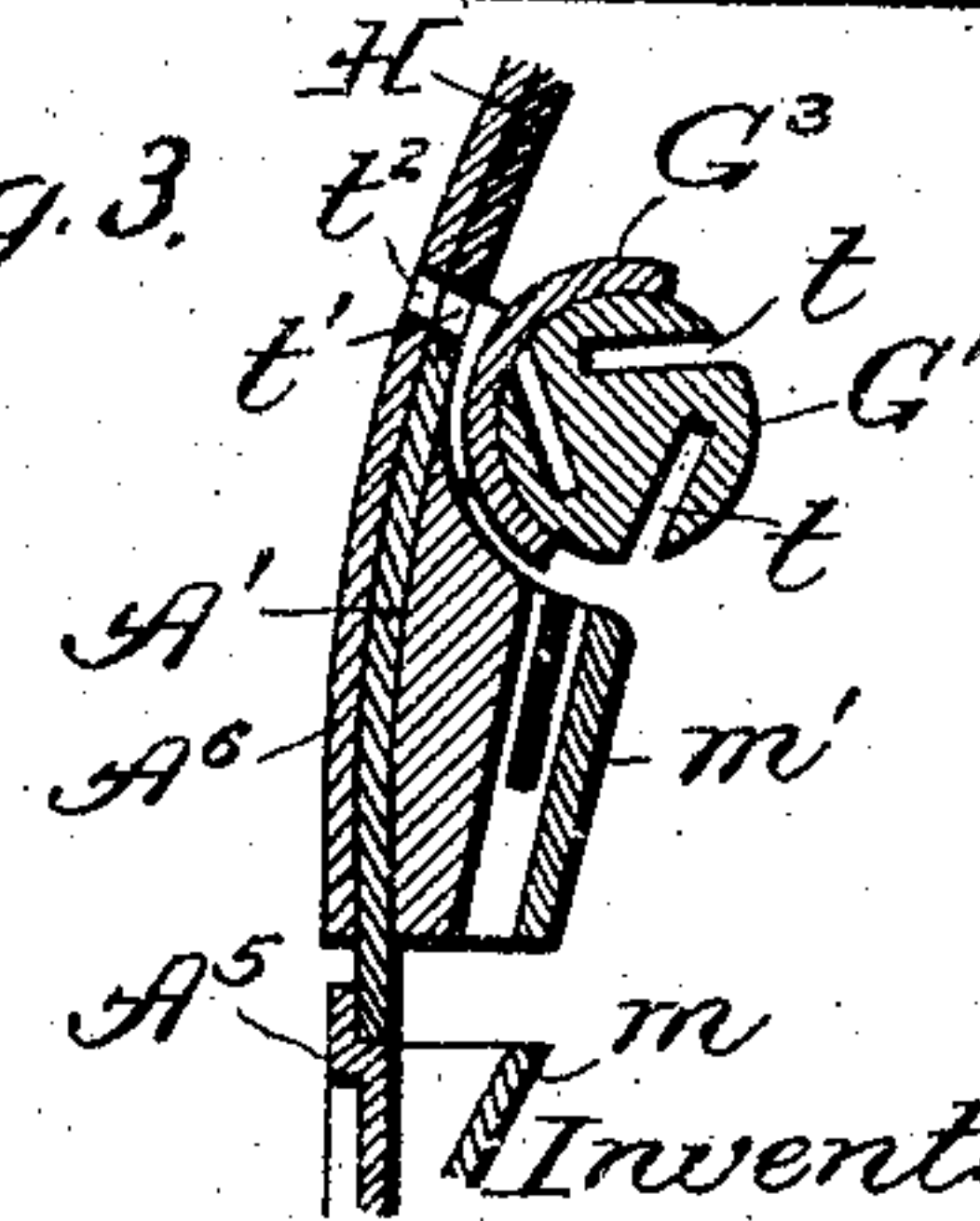
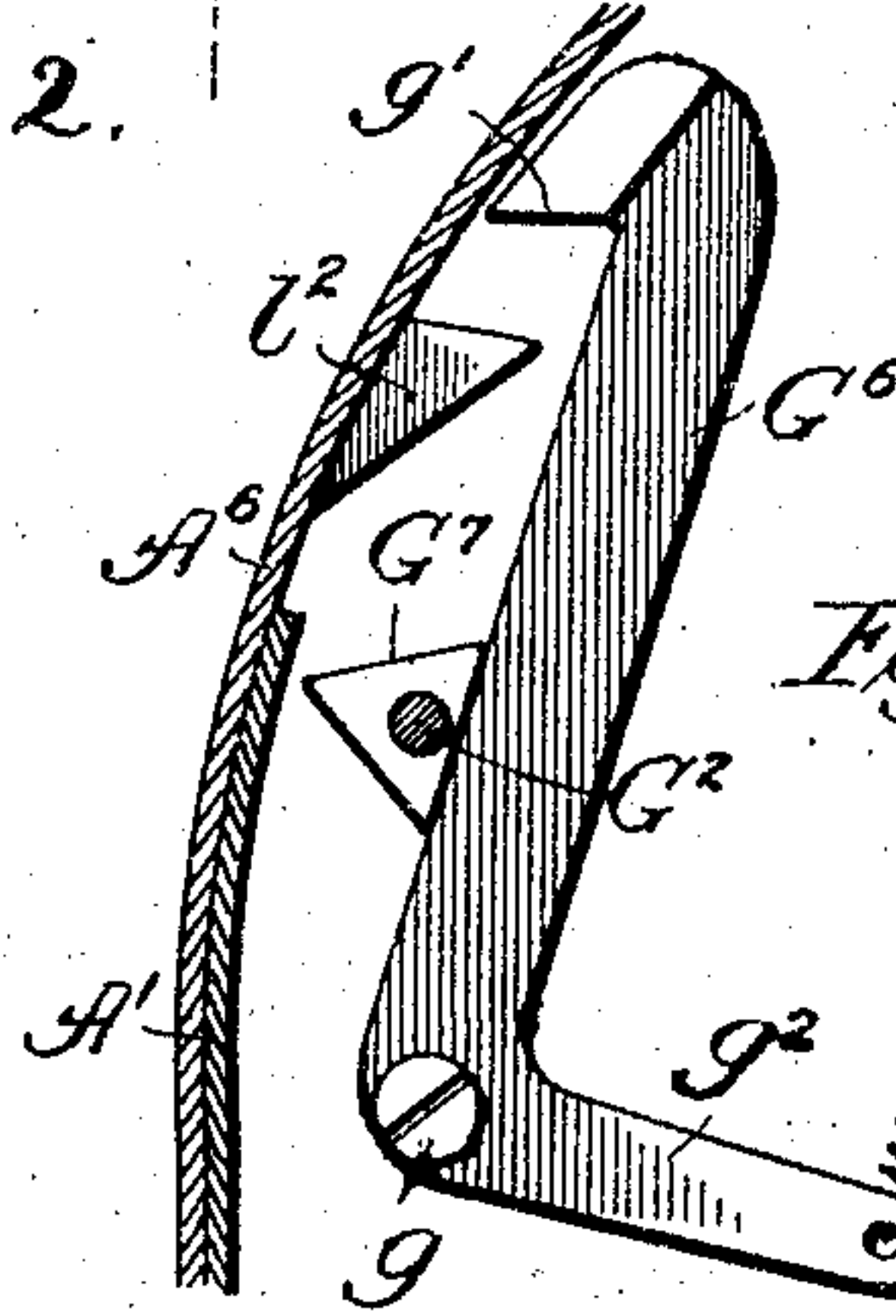


Fig. 4.



Witnesses:

*Edw. J. O'Connell*  
*John E. Anderson*

Inventors:

*Mortimer B. Mills*  
*Herbert S. Mills*

*By Dyrenforth, Dyrenforth & Lee,*  
*Att'ys.*



# UNITED STATES PATENT OFFICE.

MORTIMER B. MILLS AND HERBERT S. MILLS, OF CHICAGO, ILLINOIS,  
ASSIGNORS TO MILLS SPECIAL DELIVERY MAIL BOX COMPANY, OF  
CHICAGO, ILLINOIS, A CORPORATION OF WEST VIRGINIA.

## MAIL-BOX.

SPECIFICATION forming part of Letters Patent No. 780,803, dated January 24, 1905.

Application filed May 23, 1903. Serial No. 158,384.

*To all whom it may concern:*

Be it known that we, MORTIMER B. MILLS and HERBERT S. MILLS, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Mail-Boxes, &c., of which the following is a specification.

This invention relates particularly to coin-controlled mail-boxes; and our primary object is to provide improved means of this character for controlling the closure device whereat the mail is inserted.

In the accompanying drawings, Figure 1 represents a sectional view of a mail-box of the character shown in detail in our Patent No. 775,630, dated November 22, 1904; Fig. 2, a broken sectional view showing a detail of the coin-controlled mechanism with the parts in one position; Fig. 3, a similar view with the parts in another position; and Fig. 4, a broken sectional view showing the improved locking device which serves to secure the closure device, while permitting initial movement of the latter to enable the unlocking operation to occur.

In the construction shown, A represents a casing or mail-box having a front side A', a rear side A<sup>2</sup>, and lateral sides A<sup>4</sup>, (one shown;) A<sup>5</sup>, a lower door whereat the mail may be removed; A<sup>6</sup>, a top for the mail-box connected with the rear upper portion of the box by pivots a<sup>2</sup> (one shown) and constituting a movable upper closure device whereat the letters may be introduced; A<sup>7</sup>, an opening or cut-away portion at the upper part of the front side of the box affording an opening whereat mail may be introduced when the cover is in the elevated position; C, a rock-shaft extending parallel with the front of the casing and suitably journaled at the ends of the casing; C', a cam-arm fixed to the shaft C and serving to lift the cover or closure device A<sup>6</sup>; C<sup>2</sup>, an arm fixed at its upper end to the shaft C and equipped at its lower end with a pawl C<sup>3</sup>, engaging a curved rack or toothed segment C<sup>4</sup>, which is fixed to the inner surface of one of the casing-plates A<sup>4</sup>; F, an enlargement with which the front portion

of the cover A<sup>6</sup> is equipped on its outer surface, and which serves as a housing for a counting device and indicator, (not shown;) G, coin-controlled mechanism controlling the closing device A<sup>6</sup> and comprising a coin-actuated member G', having a shaft G<sup>2</sup> journaled in suitable bearings f' (one shown) and a coin-actuating cylindrical hood G<sup>3</sup>, having end portions journaled on the shaft G<sup>2</sup>; G<sup>4</sup>, an actuating-arm formed integrally with the hood G<sup>3</sup>; G<sup>5</sup>, a link connecting the extremity of the arm G<sup>4</sup> with a lug f' on the inner surface of the front portion of the cover A<sup>6</sup>; G<sup>6</sup>, a locking-pawl supported on a pivot g, projecting inwardly from the side A<sup>4</sup> of the casing, said device having a hook or locking-shoulder g' at its upper extremity and a short arm g<sup>2</sup> at its lower portion connected by a spring g<sup>3</sup> with the plate A<sup>4</sup>; G<sup>7</sup>, a triangular member fixed on the shaft G<sup>2</sup> and serving in the initial movement of the cover A<sup>6</sup> to release the locking device G<sup>6</sup>, and H a gravity-held coin-slot-closing plate slidably connected with the cover A<sup>6</sup>.

The means for actuating the rock-shaft C is not shown in the drawings, and the devices housed by the enlargement F are not shown in detail. These parts are shown, however, in the patent referred to. The cover A<sup>6</sup> is provided at its front lower inner margin with a lug f<sup>2</sup>, which affords a locking-shoulder for engagement with the shoulder g' of the locking device G<sup>6</sup>. The cover A<sup>6</sup> is equipped on its inner surface with a cam g, coacting with the cam-arm C' and having inclined surfaces g' g<sup>2</sup>. The stationary front of the casing at its upper edge is bent inwardly at the opening A<sup>7</sup> and is provided thereat with a strengthening-rib l<sup>3</sup>. To the inner surface of the door A<sup>5</sup> is connected a coin-receptacle m. The casing-front is provided with a short chute-section m', which receives the coin from the coin-actuated member G' and delivers it to the receptacle m.

The member G' is shown provided with three non-radial coin-recesses t, which correspond with the three sides of the triangle G<sup>7</sup>. In any position of rest of the member G',



therefore, a coin-recess is presented to a slot  $t'$ , with which the casing-front is provided. The cover  $A^6$  is provided with a slot  $t^2$ , which registers with the slot  $t'$  when the cover is in its depressed position. The member  $H$  rests normally upon the upper edge of the casing-front  $A'$ , with its lower edge forming the upper wall of the slot  $t'$ . When the cover is raised, the slot  $t^2$  is moved upwardly with relation to the slot  $t'$  (the member  $H$  remaining stationary) and the insertion-passage is closed.

While forming no part of the present invention, it may be stated that the pawl  $C^3$  is supported on a pivot  $v$ , projecting laterally from the lower end of the arm  $C^2$ , and the upper end of the pawl is connected by a spring  $v'$  with a stud  $v^2$  on said arm. The length of the portion of the pawl which is beneath the pivot  $v$  is a little greater than the distance between the teeth of the segment  $C^4$  and the pivot, so that the pawl will lock the arm  $C^2$  against retrograde movement regardless of the direction of movement when the pawl is in engagement with the teeth of the rack; but the movement of the arm  $C^2$  may be freely reversed after the arm has completed its traverse. Any suitable device may be provided in connection with the rock-shaft  $C$  and its actuating means for closing the cover  $A^6$ . No such device is shown in the present drawings, however.

From the foregoing detailed description the operation will be readily understood. A person wishing to send a letter by special delivery, for instance, inserts the proper coin, usually a dime, at the slot  $t^2$ . This couples the members  $G$   $G'$  of the coin-controlled mechanism together. As shown in Figs. 1 and 4, there is in the position of rest, a space between the locking-lug  $l^2$  of the cover  $A^6$  and the locking-shoulder  $g'$  of the device  $G^6$ . This permits initial movement of the cover when the shaft  $C$  is turned (by the actuating means not shown) to raise the cover. After inserting the dime the operator actuates the shaft  $C$ , which moves the cover  $A^6$  initially, turns the member  $G^3$  through the medium of the link  $G^5$ , and thereby actuates the member  $G'$  through the medium of the coin. This causes the triangular or star-shaped member  $G^7$  to rotate, thereby unlocking the device  $G^6$  and permitting the cover to rise the full distance. When the direction of rotation of the shaft

$C$  is reversed and the cover depressed, the device  $G^6$  serves automatically to lock the cover. It should have been stated that after the triangular member  $G^7$  has acted upon the device  $G^6$  to cause the cover to be released the device  $G^6$  reacts upon the member  $G^7$  to cause the member  $G^7$  to move with relation to the member  $G^3$ , thereby releasing the pressure upon the coin and permitting it to fall into the coin-receptacle.

What we regard as new, and desire to secure by Letters Patent, is—

1. The combination of a receptacle, a closure device, and coin-controlled locking means for the closure device comprising a coin-actuated member equipped with an angular member, a locking-pawl for the closure device engaged by said angular member, a coin-actuated member connected with and operated by the closure device and actuating means for the closure device.

2. In means of the character described, the combination of a receptacle, a swinging top constituting a closure device, and coin-controlled locking means for said top, comprising a spring-held locking-pawl, a coin-actuated member equipped with a pawl-engaging member having a plurality of sides, said coin-actuated member having also a plurality of coin-recesses corresponding with the sides of said pawl-engaging member, and a suitably-actuated coin-actuating member, for the purpose set forth.

3. In combination, a receptacle, a swinging top pivoted to the rear upper portion thereof, a locking-shoulder carried by the front portion of said top, a locking-pawl supported on the receptacle having a shoulder for engaging said first-named shoulder and permitting initial movement of the top, coin-controlled releasing means for said locking-pawl, including a rotatable coin-actuated member equipped with angular projections serving to actuate said locking-pawl, and a coin-actuating member and a link connecting the same with the front portion of said top.

MORTIMER B. MILLS.  
HERBERT S. MILLS.

In presence of—

WALTER N. WINBERG,  
A. C. KITTLESON.