

A. ROSENSTJERNA.
Letter-Boxes.

No. 141,237.

Patented July 29, 1873.

Fig. 1.

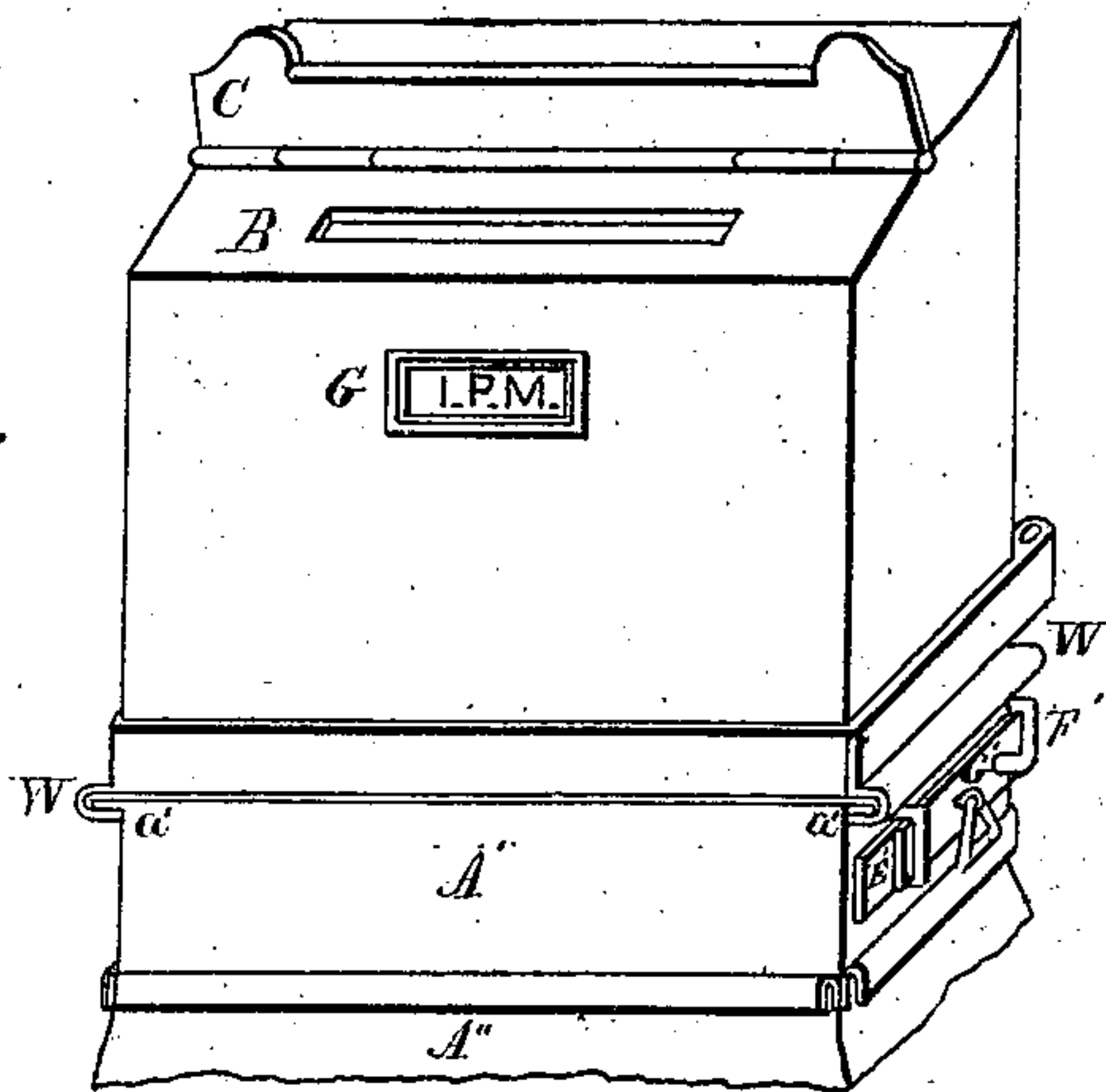


Fig. 7.

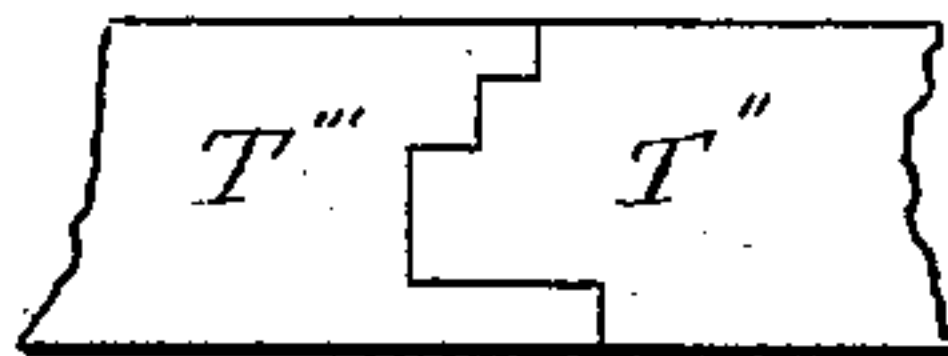


Fig. 6.

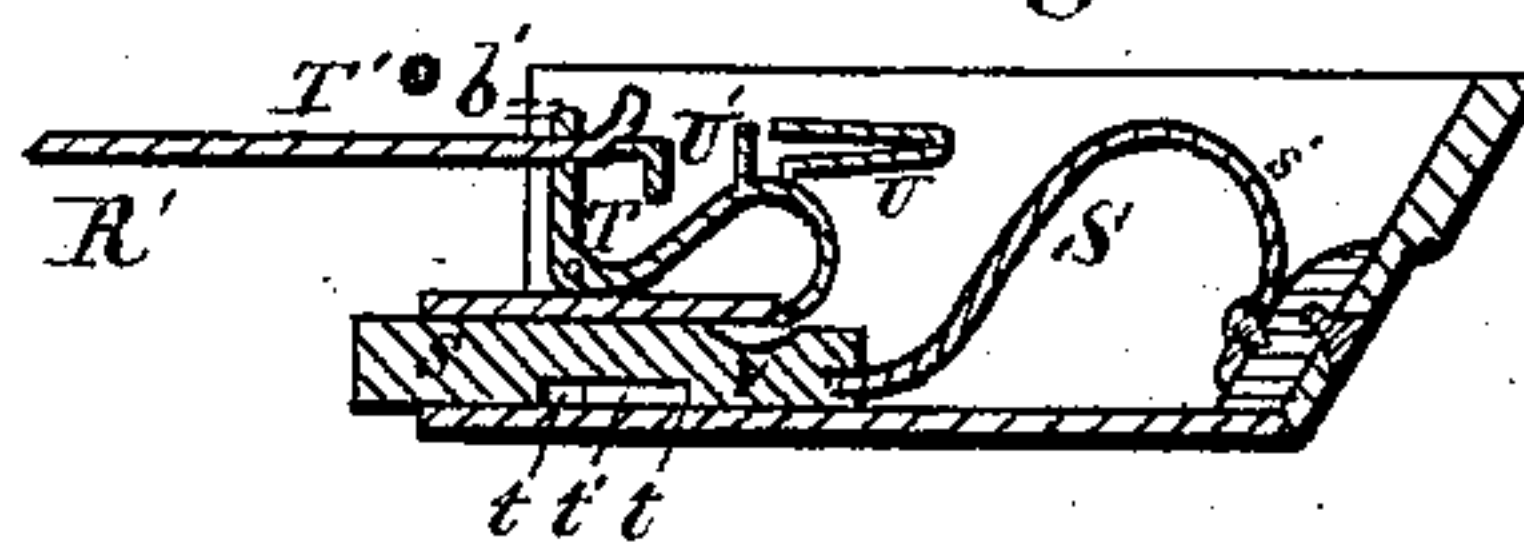
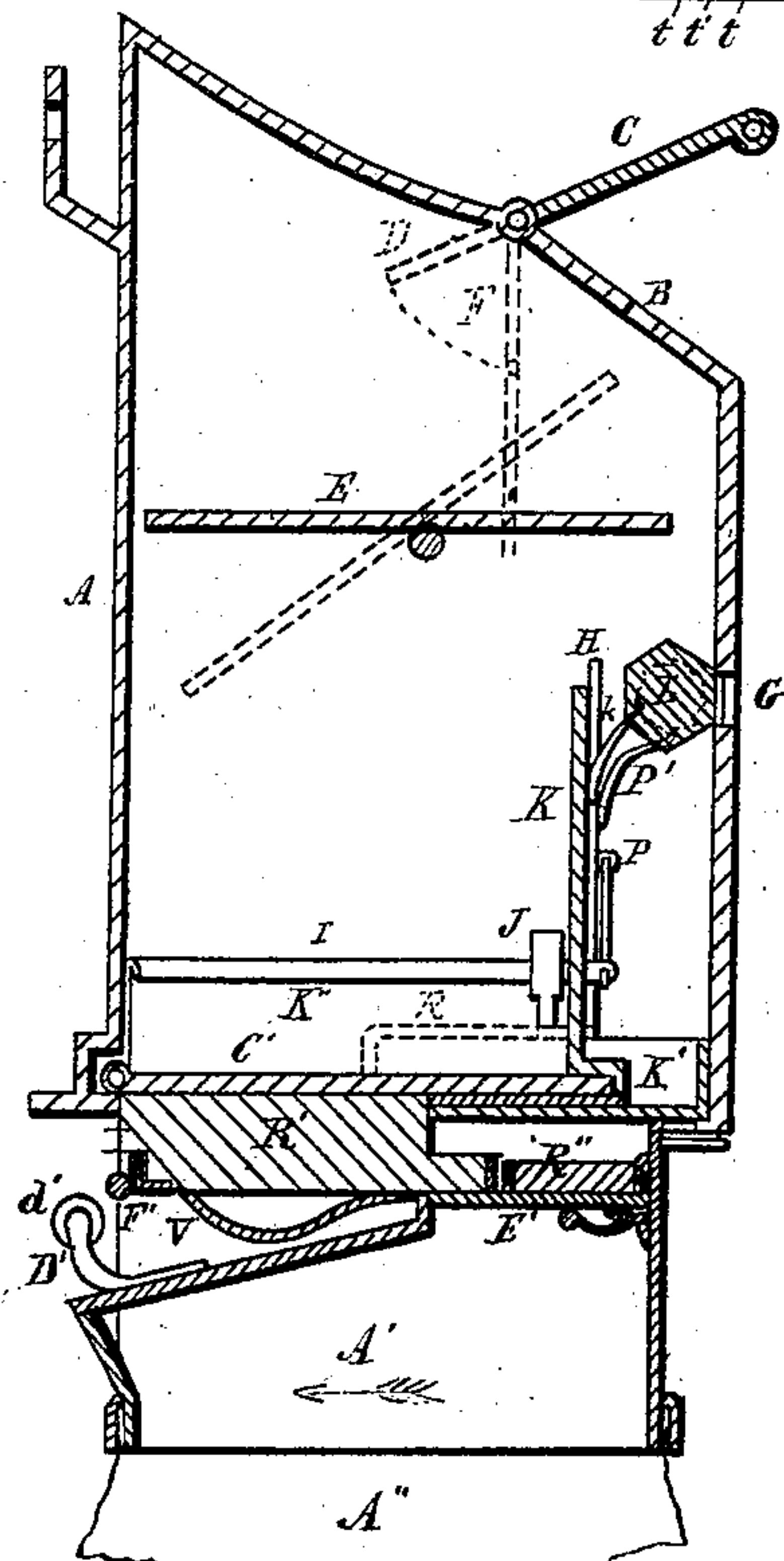


Fig. 2.



WITNESSES

C. J. Shipley
H. A. Herring

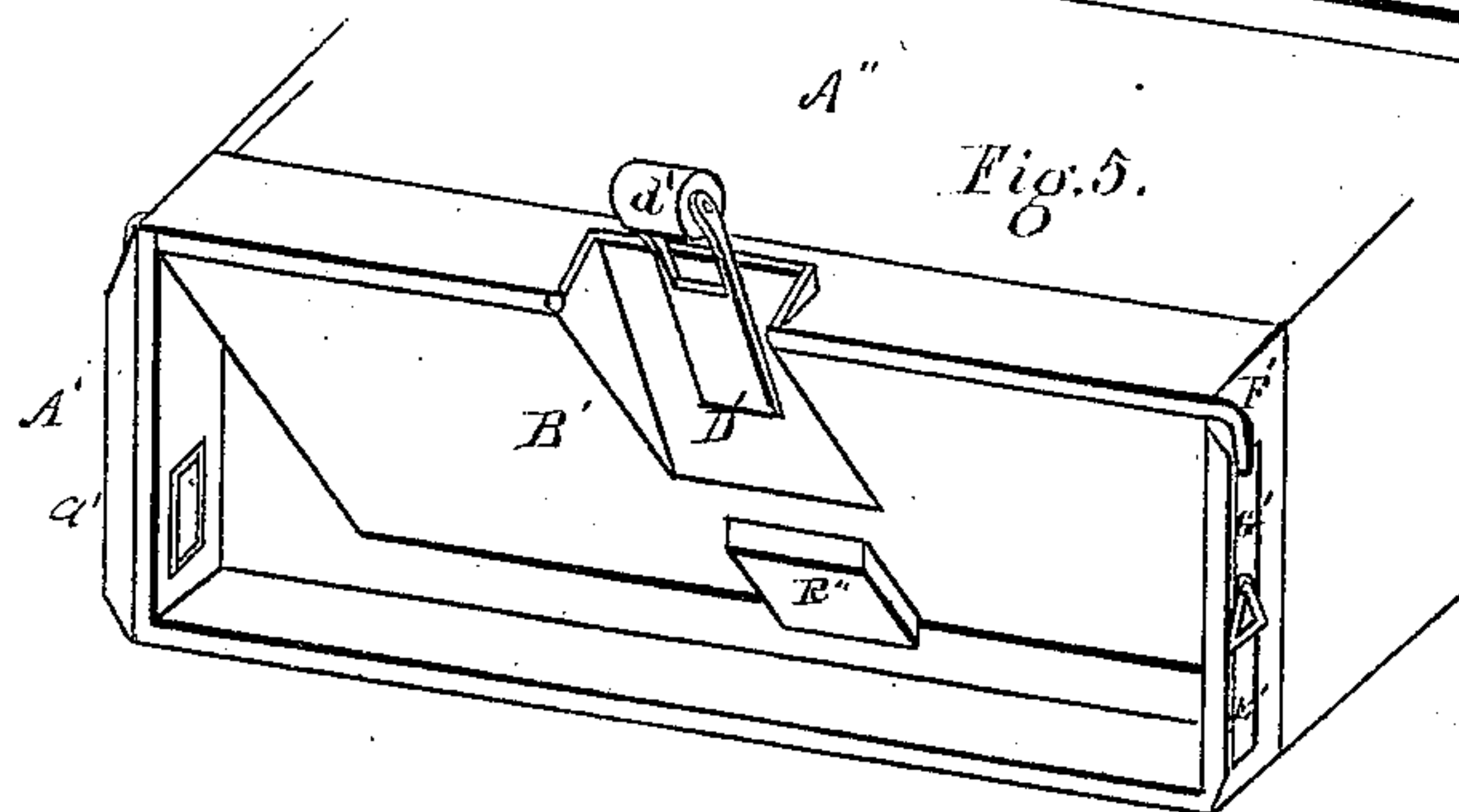
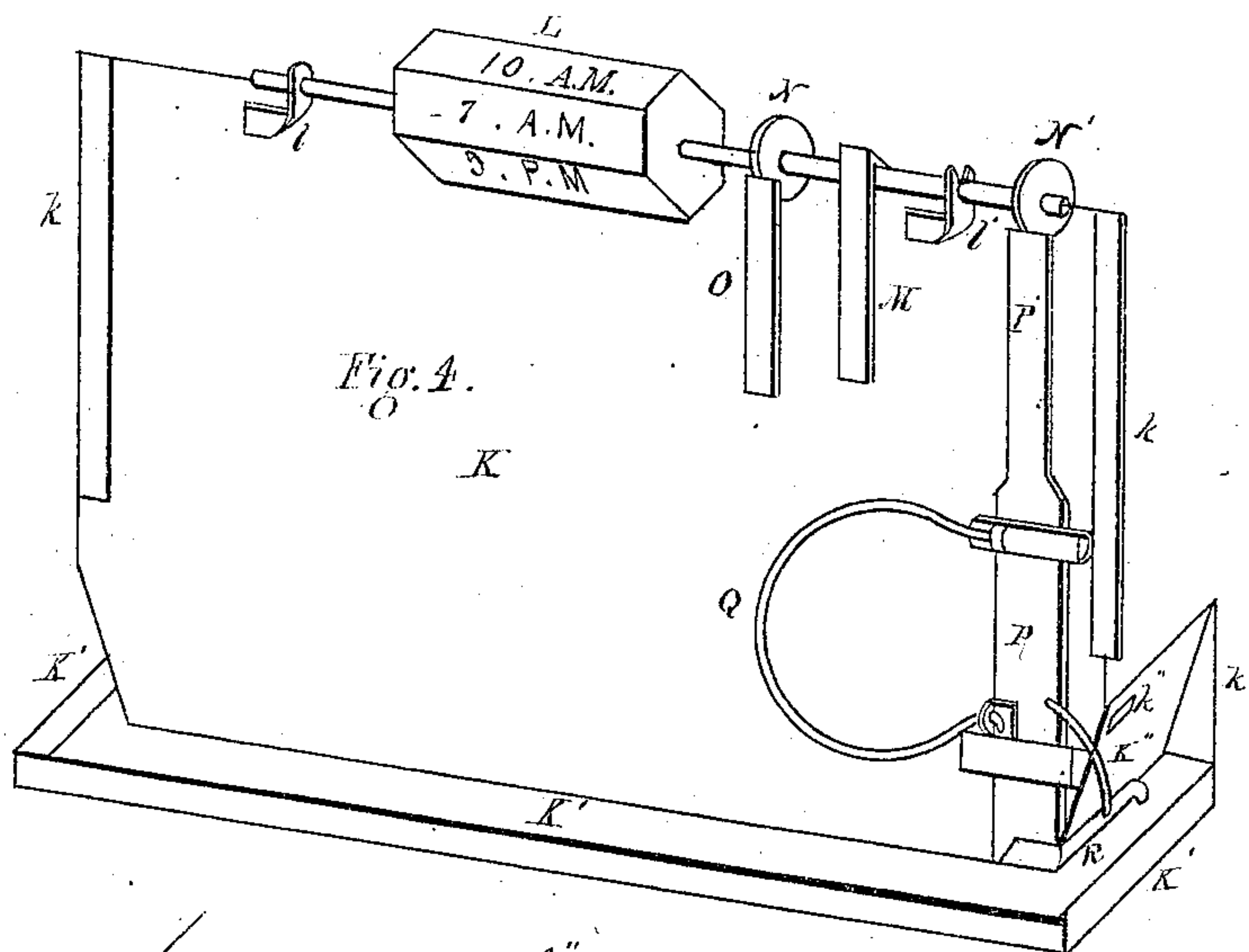
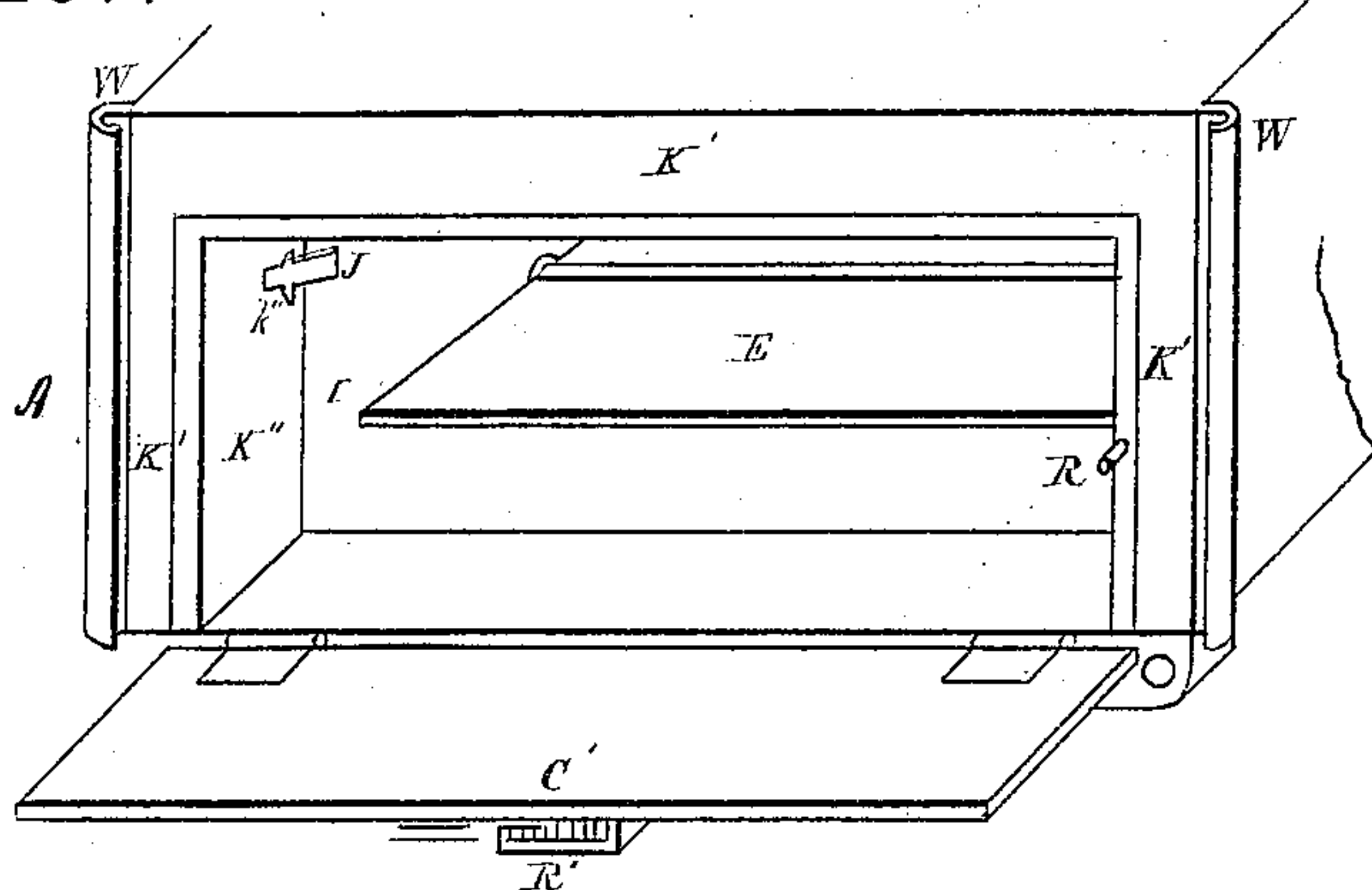
INVENTOR

Anders Rosenstjerna
By Lindsey & Warner
Attys

A. ROSENSTJERNA.
Letter-Boxes.

No. 141,237.

Patented July 29, 1873.



WITNESSES.

C. J. Shipley
A. P. Herring

INVENTOR.

Anders Rosenstjerna
By Girdley & Warner
attys

UNITED STATES PATENT OFFICE.

ANDERS ROSENSTJERNA, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-FIFTH
HIS RIGHT TO CHARLES FERM, OF SAME PLACE.

IMPROVEMENT IN LETTER-BOXES.

Specification forming part of Letters Patent No. **141,237**, dated July 29, 1873; application filed
December 30, 1872.

To all whom it may concern:

Be it known that I, ANDERS ROSENSTJERNA, of Chicago, in the county of Cook, State of Illinois, have invented a new and useful Letter-Box, of which the following is a full, clear, and exact description, which will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming a part hereof, and in which—

Figure 1 represents a perspective view of my improved box when both parts are arranged together; Fig. 2, a vertical central cross-section through the same; Fig. 3, a bottom view of the fixed part of the box; Fig. 4, a perspective view of the part to which the indicator mechanism is attached; Fig. 5, a top view of the discharging apparatus; Fig. 6, a vertical central longitudinal section through one of the locks; and Fig. 7, a plan view of the keys.

Like letters of reference indicate like parts.

My invention relates to that class of letter-receiving boxes placed in streets and other public places so that mail-matter, especially letters, may be conveniently delivered into the post-office department. The contents of boxes of this class are now under the immediate control of the collector, who can readily inspect and handle the matter intrusted to his care. The object of my invention is to render it impossible for the collector to manipulate the deposited matter without detection. In order to accomplish the objects above set forth, my invention consists in making the box in two separable parts, one of which is fixed to receive the letters deposited by the writers, and the other of which is portable, and serves as the collector's bag; each of these parts being made to operate in connection with the other, so that each part will unlock the other when the parts are arranged together in the manner hereinafter described, and the contents of the fixed part be discharged into the portable part, and each part be locked by the other when the portable part is withdrawn. It further consists in certain other novel features relating to the construction and operation of the box, and hereinafter fully described and particularly set forth in separate claims.

In the drawing, A represents that part of the box which is fixed in a place convenient for the purpose of depositing letters. B is the receiving-slot, through which the letters are dropped into the part A. C is a lid hinged to the part A and arranged over the slot B. D is an arm rigidly attached to the hinged edge of the lid C. E is a tilting table, pivoted to the part A, and arranged therein below the slot B. F is a pitman connecting the lower end of the arm D and the table E. The table E forms a diaphragm, which divides the part A into two compartments.

When the lid C is raised so as to admit of the depositing of letters through the slot B, the table E is thrown into the position indicated by the full lines in Fig. 2. The letters fall upon the table or platform E; and when the lid C falls, or is pushed down, the platform E is thrown into the position indicated by the dotted lines in Fig. 2, and the letters are dumped into the lower compartment of the part A. By this means access to the letters through the slot B is prevented.

I do not here claim the tilting platform and the means by which it is operated; but I have here described its arrangement and operation in connection with the box in order to instruct others how to apply it thereto.

G is a slot or opening in the front face of the part A. H is a vertical rib on the inner face of the ends of the part A, and I is a lip or downwardly-inclined rib or flange on the same parts. J is a spring-catch, also attached to the inner face of the ends of the part A. C' is the bottom of the part A, hinged to the rear edge thereof, and opening downward. K is a removable partition, provided with the recesses or grooves *k k*. K' is the base of the partition K. The base K' is L-shaped at each end, as shown in Figs. 3 and 4; and K'' are walls adjacent to the partition K, and projecting upward and outward from the ends of the base K'. *k' k'* are vertical walls, adjacent to the walls K'' and to the base K'. *k'' k''* are slots in the walls K''. The partition K and its attachments, above described, are constructed and arranged together so that they may be inserted into the part A through its bottom, and so that the partition K will

stand at a considerable distance rearward from the front wall of the part A. As the partition K is thus inserted, the ribs H enter the recesses or grooves *k*, and the lips I receive the walls *K''*, and limit their upward movement. When the partition K and its attachments are in place the spring-catch J enters the slots *k''*, and prevents the partition from sliding from the part A when the bottom C' is opened. The table E prevents the letters from falling between the partition K and the front wall of the part A, and the walls *K''* and *k'* prevent them from lodging on the base K'. The base K' prevents access to the interior of the part A, and the letters are readily discharged when the bottom C' is opened. L is a roller, the spindles of which rest in the bearings *l'* attached to the front side of partition K. The spindle of the roller L may be lifted from the bearing *l'*, and then withdrawn from the bearing *l*, thus rendering the roller removable. M is a spring-catch attached to the partition K, and engaging the spindle of the roller L so as to prevent the latter from being accidentally displaced. N and N' are ratchet-teeth rigidly attached to the spindle of the roller L. O is a spring-catch attached to the partition K, and engaging the ratchet N so as to limit its movement, except in one direction. P is a slide, arranged in lugs on the partition K. P' is a spring-catch attached to the slide P, and engaging the ratchet N'. Q is a spring, one end of which is immovable, and the other end of which is attached to the slide P. R is a rod or bar rigidly attached to the slide P, and extending through the base K' so as to be operated by the bottom C'. The pressure of the spring Q is downward, and as the bottom C' is opened the slide P is pushed down, and the spring P' rotates the ratchet N' one notch, and causes the roller L to be rotated to a corresponding extent. When the bottom C' is closed the spring P' engages a succeeding notch of the ratchet N', and the operation of rotating the roller L is thus repeated, when the bottom C' is again opened. The roller L is provided with plane faces, corresponding in number to the number of teeth on the ratchet N'. The hours of making the collections are indicated in regular successive order on the faces of the roller L, which are thus alternately arranged so as to be viewed through the slot G. By this means, after the roller L is once properly set, each depositor is notified of the time his deposit will be collected, and the indicator mechanism, when arranged in the manner described, does not obstruct the free discharge of the letters through the bottom C'. The indicator-roller, and the mechanism by means of which it is operated, may also be readily removed, either for repair or permanently, without in any way affecting the operation of the remaining parts of the box. R' is a lock arranged on the bottom C'. The bolt of the lock R' engages the base K', and is drawn by the pressure of a key against the ends of the tum-

blers, and as soon as the key is withdrawn the bolt returns to its position. The lock R' may also be operated in the manner hereinafter described.

In order to enable others to make and use the lock R' for the purposes for which I employ it, I will briefly describe its construction.

S is the case of the lock, and *s s s s* are tumblers sliding freely in the case, and retained in their proper position by it. *s' s' s' s'* are springs, which press the tumblers *s s s s* forward. *t t* are shoulders on the tumblers *s s s s*, and *t'* is a bar engaged by them, so as to limit the movement of the tumblers *s s s s*. *v v* are notches in the tumblers *s s s s*, for the purpose of engaging and drawing the bolt. The forward faces of the notches *v v* are vertical, and their rear faces are inclined. T is one part of the bolt, bent in the manner shown, and pivoted to the case S so that its rear end will fall into the notches *v v*, when the latter are arranged in a line. U is a spring pressing the part T so as to insure the engagement with the notches *v v*. T' is the other part of the bolt; and this part is loosely hooked to the part T, in the manner shown. U' is a spring, for the purpose of holding the part T' in its proper position. T'' is a key, for the purpose of pushing the tumblers *s s s s* rearward until the notches *v v* are in a line.

It will be observed from the foregoing description that that portion of the part T to which the bolt T' is hooked will be thrown backward when the rear part of the part T falls into the notches *v v*, and that the bolt will be thus drawn.

It will also be perceived that the action of the springs *s' s'*, operating in connection with the inclined faces of the notches *v v*, the pivoted part T, and the spring U, will throw the part T' forward when the key is removed.

V is a cam projection on the lock R'. W are recesses or grooves on the part A.

The part A, with its attachments, is firmly fastened to a suitable support in a place convenient for the purpose of depositing letters or other matter intended for the mail.

A' is the remaining part of my improved box, and consists of a shallow case provided with a hinged bottom, B'. *a' a'* are flanges or ribs projecting from the upper lateral edges of the part A', and constructed and arranged so as to enter the grooves or recesses W W.

The bottom B' is provided with a lock, R'', substantially the same as the lock R', excepting that it has not the part T', the part corresponding to the part T' being bent forward at *b'*, so as to form a bolt, as indicated by the dotted line there placed in Fig. 6.

The notches which engage the bolt of the lock R'' are so arranged as to engage and draw the bolt when the supplement T''' of the key T'' is employed.

The locks R' and R'' are so arranged on the bottoms C' and B', respectively, that the exposed ends of the tumblers of one lock will be opposite the exposed ends of the tumblers

of the other lock when the flanges a' a' are arranged in the recesses or grooves W W . The tumblers of the lock R'' will yield until their exposed ends assume the position of the notches and projections on the uneven end of the key T'' , and the tumblers of the lock R' will yield until their exposed ends assume the position of the notches and projections on the uneven end of the key T''' ; hence, when the parts A and A' are arranged together in the manner shown in Fig. 1, each lock will serve as a key to the other, it being understood that the sliding movement of the part A' continues until the exposed ends of the tumblers of one lock are in contact with the exposed ends of the tumblers of the other lock, and until the tumblers of each lock cease to yield. The bottoms C' and B' will thus be unlocked, and will then swing downward on their pintles. When the part A' is withdrawn the tumblers and bolts of each lock will assume their original position, owing to the action of the springs s' and U' , and the bolts, being beveled for that purpose, will engage the box to which they belong when the doors B' and C' are closed, and each part of the box will then be locked. The doors are closed during the operation of drawing the part A' from the part A , all of which will hereinafter be described.

D' is a spring attached to the bottom B' , and provided with a friction-roller, d' . E' E' are openings in the case of the part A' , and these openings are also covered by a transparent substance. The pintle F' of the hinge of the bottom B' is rigidly attached to the bottom, and is bent and pivoted to slides G' G' , which are supported so as to move back and forth over openings E' E' , which are thus uncovered when the bottom B' is opened and covered when it is closed. When the bottoms C' and B' are thus unlocked and released the contents of the part A pass through the part A' into a bag, A'' , securely attached to the part A' , as shown in Fig. 1. The roller d' passes over cam V before the locks are unlocked, and therefore does not interfere with the action of the bottom B' and C' ; but in drawing the part A' from the part A the

roller d' returns over the cam V , and each bottom is thereby closed and locked before the parts A and A' are separated. While said parts are unlocked the collector can determine, by looking through the openings E' , whether all the contents have been discharged, and, if not, the bottoms may be shaken by drawing the part A' back and forth on the part A , and thereby loosen the contents which remain in either part. The part A' may then be taken to the post-office and unlocked by the proper officer having charge of the key.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A letter-box made in two separable parts, one to receive the letters and the other to discharge them, when these parts are made to operate together, so as to unlock each other, discharge the contents from one part into the other, and lock each other, by means of a combination and arrangement of parts substantially the same as described.

2. The spring D' on the bottom B' , and provided with a friction-roller, in combination with the cam V arranged on the bottom C' , substantially as and for the purpose specified.

3. The windows E' E' , in combination with the slides G' G' and the pintle F' , substantially as and for the purposes specified.

4. In a letter-box, an indicator-roller provided with a ratchet engaged by a pawl actuated by the door or bottom of the box, and by a spring, when the said roller, ratchet, pawl, and spring are all arranged upon a removable partition, substantially as and for the purposes set forth.

5. In a letter-box made in two separable parts, A and A' , the lock R' arranged upon the bottom or door C' of the part A , in combination with the lock R'' arranged upon the door B' of the part A' , substantially as and for the purposes specified.

ANDERS ROSENSTJERNA.

Witnesses:

N. C. GRIDLEY,
F. F. WARNER.