W. LYNN & G. CLASEN.

Letter-Box.

No. 221,084. Patented Oct. 28, 1879.

Fig: 1.

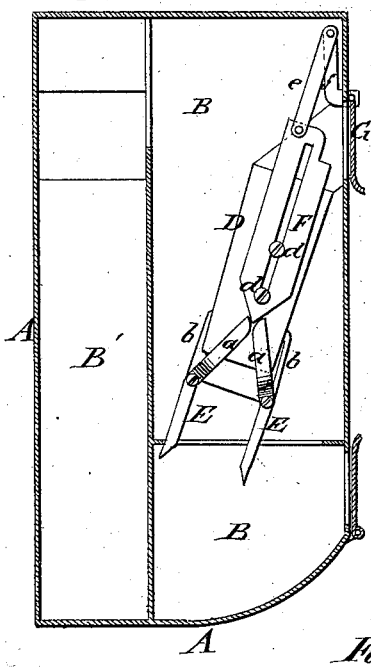


Fig: 2.

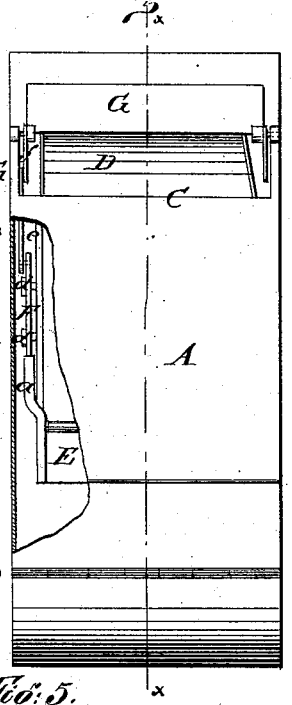


Fig: 3.

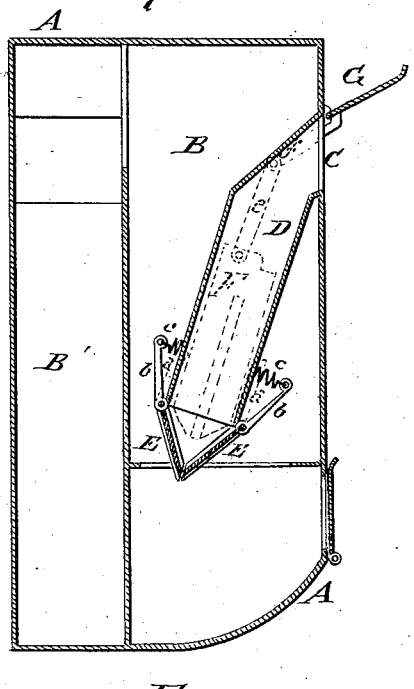


Fig: 5.

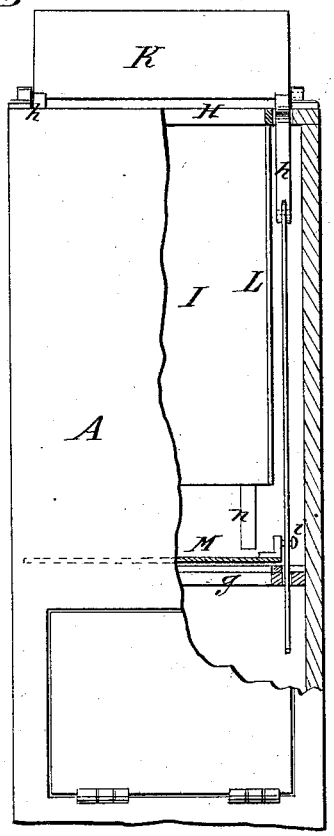


Fig: 4.

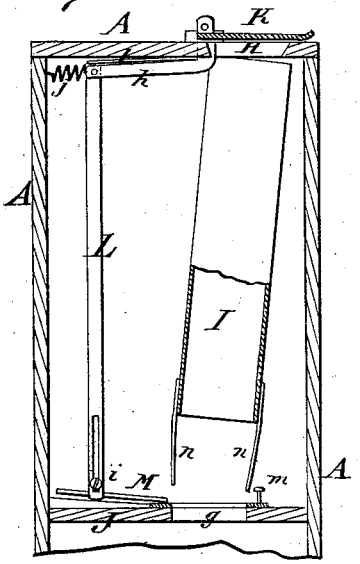
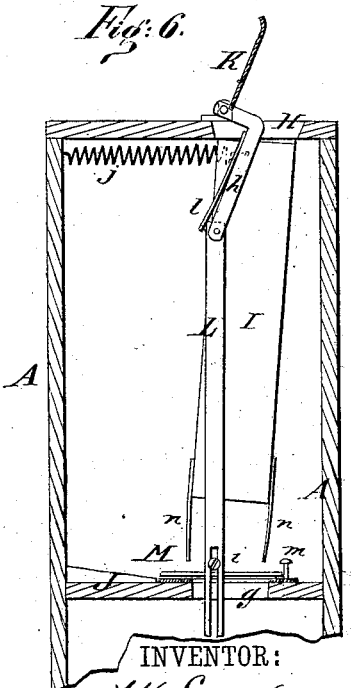


Fig: 6.



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WAUHOPE LYNN, OF NEW YORK, AND GOTTFRIED CLASEN, OF BROOKLYN, N. Y.

IMPROVEMENT IN LETTER-BOXES.

Specification forming part of Letters Patent No. **221,084**, dated October 28, 1879; application filed May 2, 1879.

To all whom it may concern:

Be it known that we, WAUHOPE LYNN, of the city, county, and State of New York, and GOTTFRIED CLASEN, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Letter-Box, of which the following is a specification.

The object of our invention is to prevent the extraction of letters from the box through the slit in which they are deposited.

It consists in providing the box with a tube extending from the slit at the top inward and downward, and closing the lower end with spring-doors having arms in position to be operated upon by a plunger connected with the hinged door covering the slit at the top on the outside, whereby, when the outer door is opened to put a letter in the box, the doors at the end of the tube are closed, thus cutting off communication through the tube with the interior of the box; but when the letter is slipped through the slit and the outer door allowed to close, the inner doors open and permit the letter to fall within the box.

It also consists of details of construction and arrangement hereinafter specifically referred to, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of the interior of a letter-box provided with our improvements. Fig. 2 is a front view of the box with the casing cut away on one side and exposing the device for operating the doors at the end of the tube. Fig. 3 is a vertical section of the box and the improvements on line *x x* of Fig. 2. Figs. 4, 5, and 6 are views of a modified arrangement of the improvements.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the casing of the box, divided vertically into two compartments, B B′, the former for letters, and containing the devices for closing the box, while the latter is for newspapers, packages, &c.

It is preferable to provide two compartments, as large packages passed down through the tube are liable to interfere with its proper working.

Near the bottom of the box, on one side, a door can be provided that will close and open both compartments at once, and thus enable the collector to remove the contents by opening one door. The two compartments are not, however, essential, as the improvements can be applied to the ordinary construction of letter-boxes.

C is the slit or aperture through which the letters are passed into the box. From the inside of this slit a rectangular tube or spout, D, extends, making a slight bend, so as to project toward the bottom of the box, as shown in the drawings. This tube must be sufficiently long to take in a letter between its upper and lower end, to avoid interfering with its proper working.

At the lower end of the tube D, at the edge of each side, are hinged doors E E, adapted to swing toward each other and close the lower end of the tube by the edges coming in contact, as in Fig. 3. From the hinged edge of these doors, at one end, arms *a a* extend upward at an obtuse angle, and are bent around outwardly, so as to lie against the outside of the tube, as more clearly shown in Fig. 2. At the opposite end are arms *b b*, the ends whereof are connected with springs *c c*, attached to the tube. These springs tend to draw the arms toward the tube, and thus throw the doors apart, bringing the arms *a a* in contact at their upper ends.

On the side of the tube or spout is a slotted plunger, F, held in place by the heads of screws *d d*, passed through the slot into the tube, so as to allow the plunger to slide freely up and down. The lower end of this plunger forms a short angular point, which rests between the ends of arms *a a*, while its upper end is pivoted to one end of a connecting-rod, *e*, the opposite end whereof is pivoted to the end of the arm *f*, extending inward through the slot C from the upper hinged edge of the door G, which covers the slit C. The arm *f* makes a right-angular bend through the slit, so as to extend in a parallel line from the door, as clearly shown in Fig. 1.

The operation of the device is as follows: When the door G is lifted to uncover slit C,

through the arm *f* and connecting-rod *e*, the plunger F is thrown down, and the pointed end, passing between arms *a a*, separates them and throws the free edges of the doors toward each other until they come in contact and close the bottom of the tube, as in Fig. 3. At this point the door G is about one-third open, and the straight edges of the plunger are between the arms *a a*, and no further pressure is exerted upon them. Thus the plunger is allowed to descend until the door is fully opened. The doors E E are closed at the first movement, in order that no opportunity may be afforded to insert an instrument for extracting the letters during the opening of door G.

When letters are put through the slit C they fall in the tube, and rest upon the closed doors E E. As soon, however, as the door G is allowed to close down the plunger F is drawn up, and the springs *c*, when the door G is nearly closed, open the doors E, and the letter falls into the box below. The positions the several parts assume in the operation of opening the door for the admission of the letter and dropping it into the box are clearly shown in Figs. 1 and 2.

The modification of the improvement consists in operating, by the cover of the slit, a sliding door under the letter tube or spout and over an aperture in a division of the box immediately under the tube.

The slit for the admission of the letters is shown at H in the top of the casing. From this a spout, I, leads down and opens over an aperture, *g*, in a division, J, in the letter-box.

The arms *h*, extending from the hinged edge of the door K inside the box, are pivoted to the upper ends of rods L L, the lower ends whereof are provided with slots working over pivots *i* in the ends of sliding door M, resting on the division J. A spiral spring, *j*, connects one of the arms *h* with the opposite side of the casing, and operates to draw the arm to a horizontal position.

When the door K is lifted the arms *h* instantly throw the rods L, and with them the door M, forward over the aperture *g*, as in Fig. 6, the springs *l* on the arms *h* bearing upon the ends of rods L, and making the connection sufficiently rigid to carry the rods and door forward; but when the movement of the door is stopped by pins *m* the rods turn on their pivots and slide down over the pivots *i*, leaving the door undisturbed, and permitting the door K to rise without trouble. This closes the entrance to the letter-box below, and makes it impossible to abstract the letters.

When a letter is passed through the slit it falls down through the spout and rests on the door M, and when the door K is lowered the spring *j* draws it down quickly, and simultaneously the arms operate on the rods L, raising them up, and when the door K is nearly closed the door M is thrown back, and the letter falls into the box below.

The fingers *n*, extending downward from the end of the spout, are to prevent the door M from being lifted up off its seat.

Instead of springs *c c* to open doors E E, they may be weighted in such a way as to open themselves when the plunger is withdrawn.

The arrangement may be applied to money-boxes and other receptacles for valuables.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The plunger F, held by set-screws passed through the slot into the tube D, provided with an angular end, connected through rod *e* with arm *f*, in combination with the hinged doors E E, provided with arms *a a* and springs *c c*, and tube D, whereby, when door G is opened and letters are passed through into the spout, the plunger closes doors E E by throwing arms *a a* apart, and when door G is closed the plunger is withdrawn and springs *c c* open doors E E, substantially as described.

2. The plunger F, operated by door G, and provided with the slot and pointed end, in combination with the arms *a a* of doors E E, whereby, when first moved by door G, it closes doors E until the arms *a a* bear on its straight sides, when it passes down without straining the said doors, substantially as described.

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