

(No Model.)

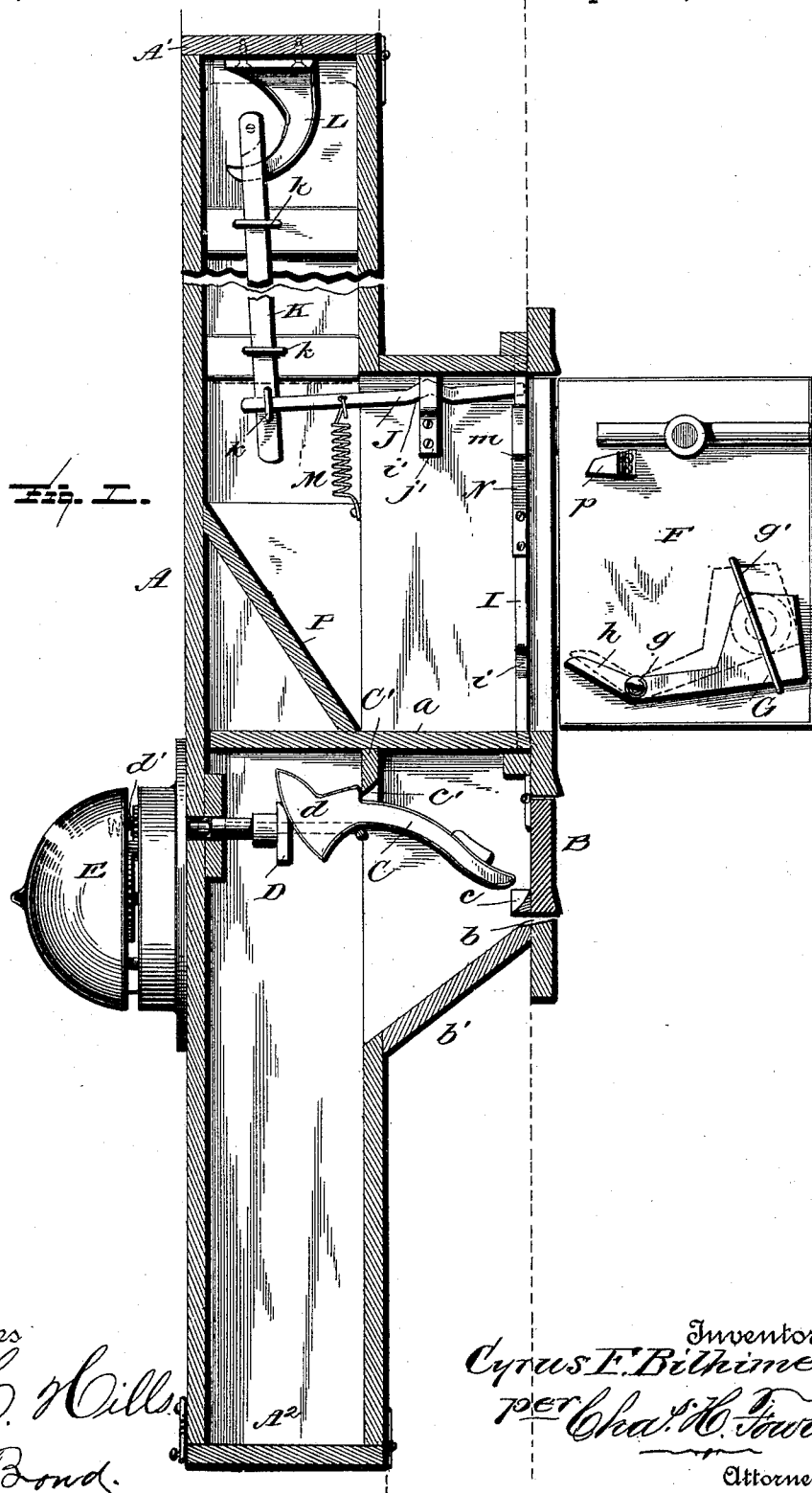
2 Sheets—Sheet 1.

C. F. BILHIMER.

COMBINED RECEIVING AND DELIVERY LETTER BOX.

No. 460,106.

Patented Sept. 29, 1891.



Witnesses
L. C. Mills
E. H. Bond.

Inventor
Cyrus F. Bilhimer.
per Chas. H. Fowler
Attorney

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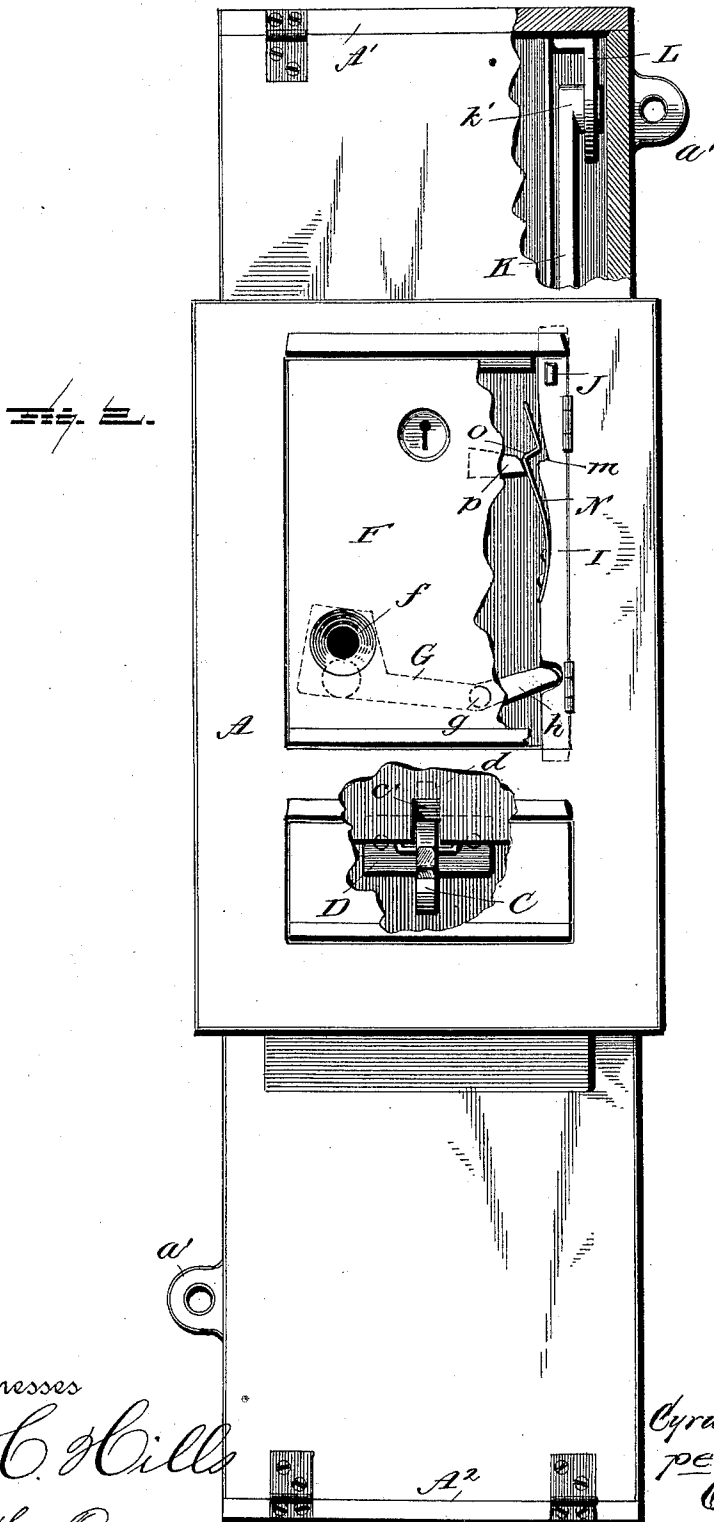
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UNITED STATES PATENT OFFICE.

CYRUS F. BILHIMER, OF IRWIN, PENNSYLVANIA.

COMBINED RECEIVING AND DELIVERY LETTER-BOX.

SPECIFICATION forming part of Letters Patent No. 460,106, dated September 29, 1891.

Application filed March 30, 1891. Serial No. 386,996. (No model.)

To all whom it may concern:

Be it known that I, CYRUS F. BILHIMER, a citizen of the United States, residing at Irwin, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in House Letter-Boxes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

This invention relates to certain new and useful improvements in house letter-boxes; and it has for its objects, among others, to provide a simple, cheap, and durable letter-box adapted for both house collection and delivery, with means for indicating to the postman from a distance whether the box contains mail for collection or not, so that in case he has no mail to deliver at that house he need not stop if there be no mail in the box to collect. I provide in the face of the box, preferably in the door, an opening through which is displayed a signal, said signal being operated by the opening of the lid to the box through which the mail is deposited by the occupants of the house and reset by the opening of the door by the postman to remove the mail thus deposited. I so arrange the cover to the opening through which the postman delivers his mail that as the said lid is moved for the insertion of the mail an alarm is sounded to notify the occupants of the house that the postman has been there. No time is lost by the postman in waiting for the occupant to answer the door-bell.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a vertical section through my improved letter-box, from front to rear, with the door open and shown in side elevation. Fig. 2 is a face view with parts broken away and others in section.

Like letters of reference indicate like parts in both of the views.

Referring now to the details of the drawings by letter, A designates the box proper, which may be of any suitable material and of any required size and shape. I have chosen to show it in this instance as a rectangular box having a horizontal partition *a*, which divides it into two compartments, the upper one being designed to receive the mail for mailing by the occupants of the house and the lower one to receive the incoming mail delivered by the letter-carrier. At the top of the upper compartment is a hinged lid *A'* and at the bottom of the lower compartment a hinged bottom *A''*. The box may be secured in any desired position, preferably in the vestibule of a house, and should be provided with lugs or ears *a'* for this purpose, as seen in Fig. 2. In Fig. 1 it is shown as secured to the inner side of the door, the outer face of which is designated by the dotted line, the front of the box being upon the outside, as shown, where the postman can have access to it at all times. In the front wall of the lower compartment near its upper end is a slit or transverse opening *b*, through which the carrier delivers the mail. This opening is closed by a door *B*, which is hinged at its upper edge within the box and is designed to keep normally closed. It may be weighted for this purpose or it may be acted upon by a spring to force it closed. Both of these are common expedients, and are therefore not shown. The weight of the door may ordinarily be sufficient for the purpose. The bottom wall of the lower compartment from the bottom of this slit or opening slopes downward and outward, as shown at *b'* in Fig. 1. This aids in causing the mail to find its way to the bottom of the compartment. The lower edge of the door is provided with a cleat or analogous provision *c*, as seen in Fig. 1, which is designed to contact as the door is opened with the end of a lever *C*, which is fulcrumed at *c'* in a lug or plate *C'*, secured to the partition *a*, as seen in Fig. 1, the said lever being free to move slightly endwise and its outer end cam-shaped, as seen at *d* in Fig. 1, and arranged to contact with a push-plate *D*, which is arranged to actuate a bell or other alarm *E*, which is secured to the inner wall of the box, as shown in Fig. 1. This bell is of known construction, and the push-plate operates in the usual way. When it is out,

as shown in Fig. 1, the bell is held from sounding an alarm; but when the push-plate is pushed in, as when the door is opened, it releases the bell-hammer, which it had heretofore held from movement, and the alarm is sounded. I have therefore not shown the details of the bell. The operation of this part of the invention will be readily understood. When the postman arrives with the mail, he places it in through the door, which he can readily do with one hand, and this act moves the door against the lever which actuates the push-plate and sounds the alarm. A suitable spring *d'* is provided to cause the push-plate to return to its normal position when the door closes.

The upper compartment is provided with a hinged door F, as seen in both views. This is hinged at one side, so as to open as shown in Fig. 1. In this door is provided a hole *f*, preferably near the lower corner farthest from its hinge, as seen in Fig. 2, and through this opening it is designed to display the signals which indicate to the postman whether there is mail in the upper compartment or not. This signal is carried by the weighted end of a lever G, which is pivoted at *g* to the inner face of the door, and has affixed thereon by paint or otherwise two different colors—say white and black, or any other colors may be chosen—the one—say the black—to be normally displayed through the opening in the door, and it is to be understood by the postman that when this is seen through the opening there is no mail in the upper compartment and he need not stop unless he has mail to deliver. When the other color is displayed, he knows there is mail in the upper compartment. The weighted end of the lever is guided by a suitable guide *g'* on the inner face of the door, as seen in Fig. 1. The lever extends beyond its pivot to provide a short arm *h*, which is designed to engage a notch *i* in the vertically-movable bar I, which is arranged to move in suitable guides, and at its upper end is engaged by one end of the horizontal lever J, which is fulcrumed at *j'* in a suitable support *j'* within the box, as seen in Fig. 1, and its other end having connected thereto the vertical bar K, which is guided by suitable guides *k* within the upper part of the box, as seen in Fig. 1, and its upper end provided with a lateral portion *k'*, as seen best in Fig. 2, beneath which engages the hook of the arm L, which is secured to the under side of the cover to the upper compartment, as shown in both views. A spring M is arranged to act upon the horizontal lever between its pivot and its point of connection with the vertical bar K, as shown in Fig. 1, the said spring having one end secured to some fixed part within the box. The bar I, near its upper end, has a notch *m*, and at a distance below the notch is secured one end of a flat spring N, the upper portion of which is free and is provided with a bend or substantially horizontal portion *o*, corresponding

to the notch in the bar, as seen best in Fig. 2. On the inner face of the door F is a lug *p*, arranged so that as the vertical bar I is depressed by the opening of the lid to the upper compartment the spring engages with its horizontal portion beneath this lug, and thus holds the spring and bar; but when the door is opened the lug is moved away from the spring, the said spring flies back to its normal position, and so does the bar, the horizontal lever, and its attached parts. The upper compartment has an inclined bottom P, which serves to throw the mail toward the door, as will be readily understood from Fig. 1. The operation of this part of my invention is as follows: Normally the parts are in the position in which they are shown in Fig. 2, and the black spot on the lever on the door is shown through the opening in the door. When the cover to the upper compartment is raised to deposit the outgoing mail therethrough into the upper compartment, the raising of the cover pulls upon the bar K, pulls upon the horizontal lever or bar J, which pushes the vertical bar I downward, and by reason of the engagement of its notch with the short arm of the weighted lever on the door throws the said lever upward into the position in which it is shown by dotted lines in Fig. 1, and thus throws the white spot on the lever into position to be displayed through the opening in the door, thus notifying the postman that there is mail in the upper compartment for him to collect. As the bar I is forced downward, the spring N is compressed by reason of the engagement therewith of the lug on the door until the horizontal portion of the spring passes the lug, when the spring flies out and its horizontal portion is engaged beneath the said lug, and the parts are thus held until the door is opened, which releases the lug from the spring, which flies back to its normal position, and the spring M restores the vertical bar K and lever J to their normal positions, and the weighted lever on the door drops and the black spot is again displayed.

Various modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What I claim as new is—

1. The combination, with the box having a compartment with a hinged lid, of the hinged door to the said compartment, a weighted lever pivoted on the door and carrying two different signals adapted to be displayed through an opening in the door, the vertically-movable bar constructed to engage the short arm of said lever, and connections between said bar and the lid, as and for the purpose specified.

2. The combination, with the box having a compartment with hinged lid, of the hinged door to said compartment, the weighted lever pivoted thereon and carrying two different signals, the vertically-movable bar engaging

the lever, connections between said bar and the lid, and the spring on the bar engaging a lug on the door, as specified.

3. The combination, with the box having a
5 compartment with hinged lid, of the hinged door with lever, the vertical bar, the horizontal lever engaged therewith, the vertical bar connected with the horizontal lever, and the hook on the under side of the lid and engaging the vertical bar, as set forth.
10

4. The combination, with the box having a vertical compartment, of the hinged door having opening and lug, the pivoted lever on the door, the vertical bar operated by the movement of the lid of the compartment, and a spring on the said bar having horizontal portion, as and for the purpose specified.
15

5. The combination, with the lid of the compartment and the door of said compartment,
20 of the lever pivoted on the inner face of the door, the vertical bar in the compartment en-

gaging the said lever, the horizontal lever engaged with the bar and having a spring acting thereon, the vertical bar connected with the horizontal lever and having lateral portion at its upper end, and the hook on the under face of the lid and engaging the said lateral portion of the vertical bar, as set forth.
25

6. The combination, with the box having slit and the hinged door thereto, of the lever
30 fulcrumed within the compartment and free to move endwise and having cam-face, the bell, and the push-plate arranged to be engaged by the cam-face of the lever, substantially as shown and described.
35

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CYRUS F. BILHIMER.

Witnesses:

R. E. HANNA,
ELI MCCORMICK.