No. 893,750. PATENTED JULY 21, 1908.

W. W. PLUMMER.

MAIL BOX.

APPLICATION FILED NOV. 6, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

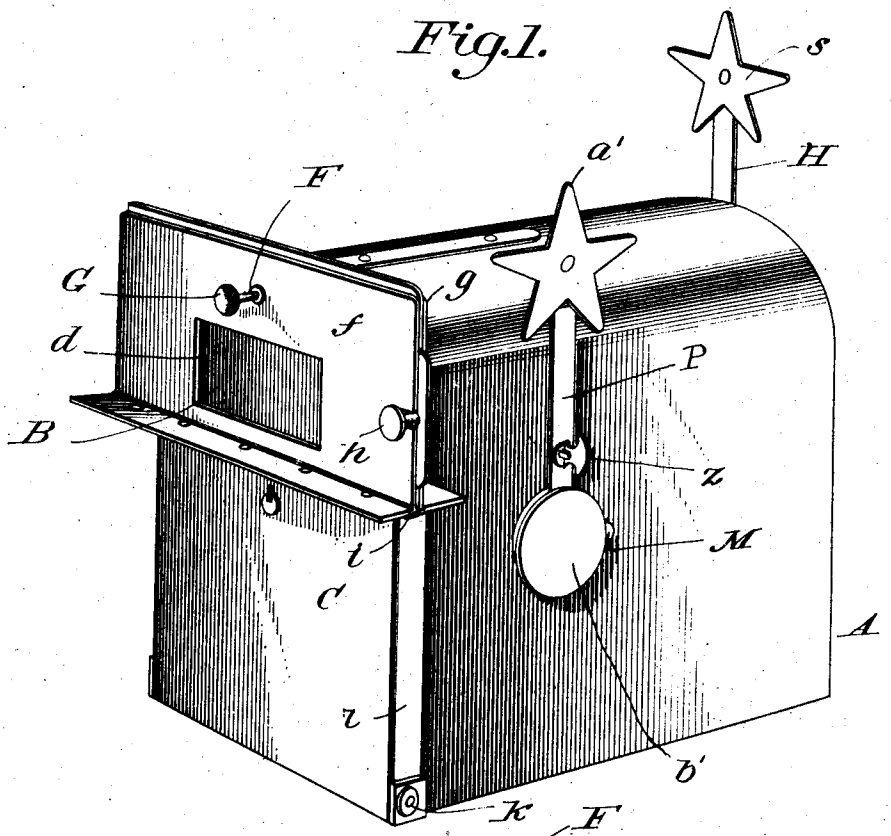
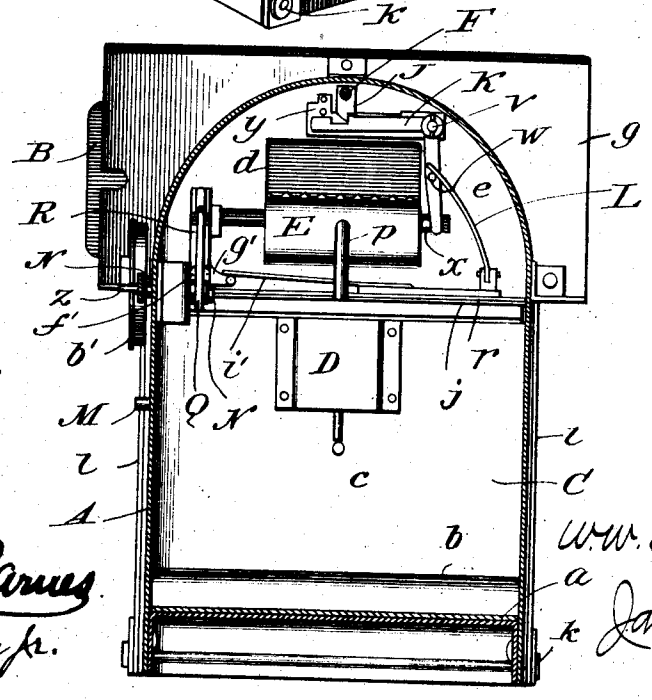


Fig. 2.



Witnesses

Phil C. Barnes

J. J. Sheehy Jr.

Inventor

W. W. Plummer.

by James J. Sheehy

Attorney

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2 SHEETS—SHEET 2.

Fig. 3.

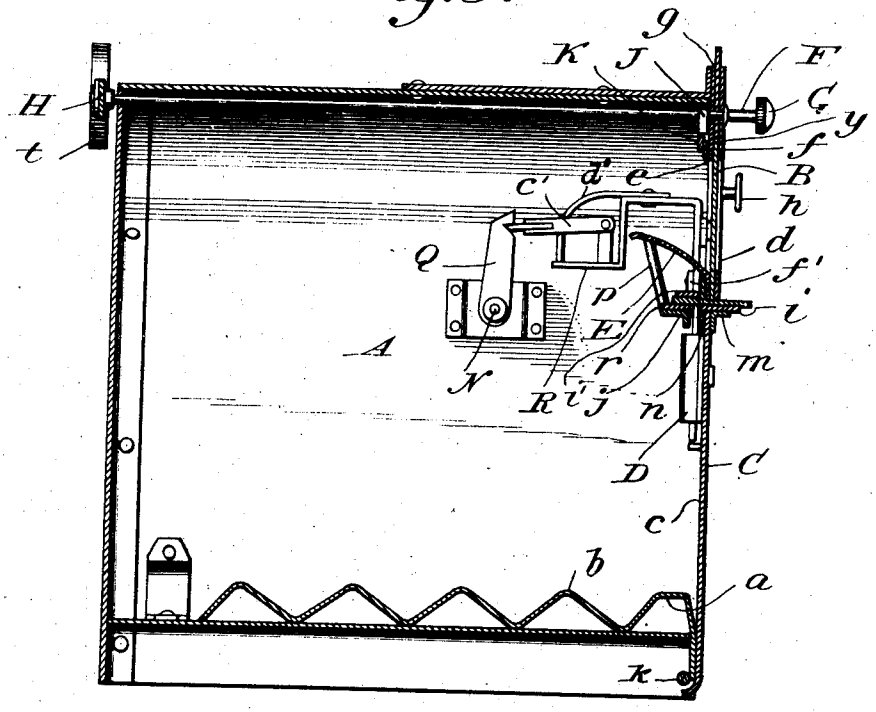


Fig. 4.

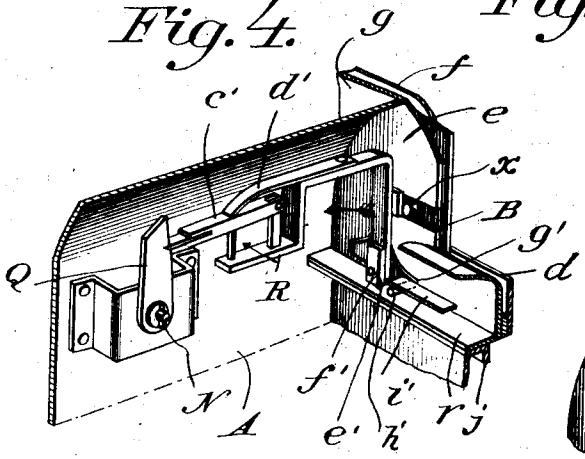
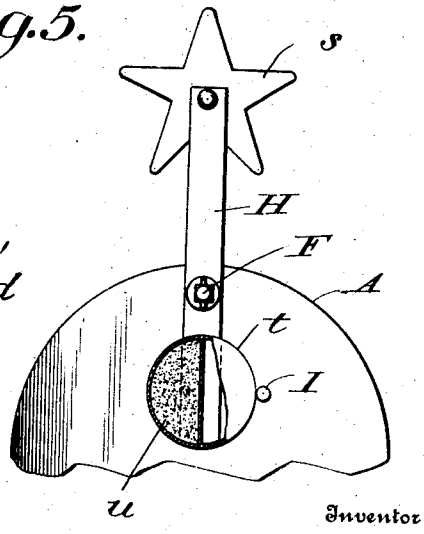


Fig. 5.



Witnesses

Phil E. Barnes

J. J. Sheehy Jr.

Inventor

W. W. Plummer.

By James J. Sheehy

Attorney

UNITED STATES PATENT OFFICE.

WILLIAM W. PLUMMER, OF OWINGSVILLE, KENTUCKY, ASSIGNOR OF ONE-THIRD TO JAMES W. LANE, AND ONE-THIRD TO JEFF L. ATCHISON, OF OWINGSVILLE, KENTUCKY.

MAIL-BOX.

No. 893,750. Specification of Letters Patent. Patented July 21, 1908.

Application filed November 6, 1907. Serial No. 401,036.

To all whom it may concern:

Be it known that I, WILLIAM W. PLUMMER, citizen of the United States, residing at Owingsville, in the county of Bath and State of Kentucky, have invented new and useful Improvements in Mail-Boxes, of which the following is a specification.

My invention pertains to mail boxes and more particularly to mail boxes designed for use in the rural free delivery and parcels post services.

One of the objects of the invention is the provision of a mail box equipped with means for signaling to the box owner and to the carrier; the former to apprise the owner when the box contains or is devoid of incoming mail and the latter to inform the carrier when the box contains or is without outgoing mail, thus saving the owner and the carrier the tasks of approaching and opening the box when to do so is to no purpose.

Another object of the invention is the provision in combination with a mail box, of duplex signals arranged to be automatically set by the manipulation of the door to the induction opening of the box, and to be manually lowered; the scheme being that when both signals are up, the owner of the box is informed that the box contains incoming mail, and when said owner removes the mail, he turns down both signals when he leaves the box empty, and turns down but one signal provided he leaves outgoing mail in the box.

Another object is the provision in a mail box, of a bottom of such type that any article, no matter how small, may be expeditiously and easily grasped, without the aid of the finger nails.

Another object is the provision of a mail box constructed with a view of effectually excluding rain and moisture, and:

Still another object is the provision of a mail box embodying simple and efficient means for resisting the surreptitious removal of mail from the box by unauthorized persons.

With the foregoing in mind, the invention will be fully understood from the following description and claims when the same are read in connection with the drawings, accompanying and forming part of this specification, in which:

Figure 1 is a perspective view of the best practical embodiment of my invention of which I am, at present cognizant; the same being shown with both signals up. Fig. 2 is a transverse section of the box, looking toward the rear end thereof, and showing both signals down. Fig. 3 is a longitudinal vertical section of the box, also showing both signals down. Fig. 4 is a fragmentary perspective view illustrating coöperating parts, hereinafter referred to in detail, for holding the side signal down. Fig. 5 is a detail elevation, partly in section, of the rear end of the box, with the end signal up.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which:

A is the body of my novel mail box, which is preferably, though not necessarily, made of sheet-metal. The said body is provided with a bottom *a*, preferably a false bottom as shown, having transverse corrugations *b*, this being materially advantageous since, by virtue of the corrugations, any article, irrespective of size and shape, may be readily grasped without the aid of the finger nails precedent to the removal of such article from the box. At its front end, the body A is provided with an eduction opening *c* and a comparatively small induction opening *d;* the latter being situated above the opening *c* and formed in the front end wall *e* of the body, and in a plate *f*, fixed and disposed at a right angle to the body. Back of the plate *f* is fixed a plate *g* which preferably forms an extension of the end wall *e*, and between the plate *f* and the wall and plate *e* and *g* a sliding door B is arranged and adapted to be transversely translated; said door being provided with a handle *h*, and having for one of its offices to close the induction opening *d* of the box in such manner as to effectually exclude rain and moisture from the interior of the box. Fixed to the body A above the eduction opening *c*, and extending forward from said body is a horizontal flange *i;* and arranged in the body above the said eduction opening is a vertical flange *j*. These flanges *i* and *j* are designed to coöperate with a door C, in excluding rain and moisture from the interior of the box. The said door C is hinged at *k* to body A and is provided with side flanges *l* arranged to lap the side walls of the body, a top flange *m* arranged to assume a position below and snug against the body flange *i*, and a top

flange *n* also arranged to assume a position below the body flange *i* and against the body flange *j*, all with a view of excluding the weather when the door C is closed.

Carried by the door C is a lock D for securing the door in its closed position. The said lock may be of any construction consonant with the purpose of my invention and the postal regulations, and the owner of the box and the mail carrier will obviously be supplied with keys fitting the lock.

With a view of preventing the abstraction of letters or other mail matter through the induction opening *d* of the box, I provide the guard E which extends inward and upward from the lower wall of said opening and is preferably braced by a support *p* interposed between it and a transverse shelf *r* which is fixed inside the body A, and preferably forms a continuation of the flange *i*. The upper edge of said guard E is serrated and curved as shown, and hence it will be seen that there is no liability of the guard tearing or otherwise injuring mail matter pushed in through the opening *d*, and yet mail matter cannot be drawn out of the box past said guard. It will also be seen that the guard E is calculated to resist the insertion of a hand or an abstracting instrument.

F is a rock shaft journaled in the longitudinal center of the upper portion of the body A and having a finger piece G at its forward end and a signal H at its rear end, and I, Fig. 5, is a stop on the rear end wall of the body A, against which the signal H brings up when said signal assumes its upright position. The signal H is fixed at an intermediate point of its length on the rear end of shaft F and is provided at one end with a head *s*, preferably in the form of a five-pointed star, and at its opposite end with a box *t*, the half of which remote from the stop I is loaded with heavy material, as indicated by *u* in Fig. 4, while the other half is empty, this in order to enable the signal to promptly assume an upright position when the shaft F is released, as presently described, and to remain in such position until swung downward by the hand of a person applied to the finger piece G. I prefer to square the rear end of the shaft F and detachably secure the signal H on said square end through the medium of a washer and a cotter pin, all as shown in Fig. 5, this in order that when the signal is broken or otherwise damaged it may be readily removed from the shaft F and as readily replaced with a new signal.

Fixed on the shaft F, as best shown in Fig. 2, is a beveled finger J which is arranged, when the signal H is swung down, to be engaged by a bell-crank K, the office of which is to retain the signal H in its lower position. The said bell crank K is fulcrumed at *v* on the front end wall of body A, and its upper arm is recessed to receive the finger J while its depending arm is provided with a lateral projection *w* against which bears a spring L for holding the bell crank yieldingly in engagement with the finger J; the said spring L being fixed to the before mentioned shelf *r* in the body A. On the sliding door B is a lateral projection *x* arranged to engage the depending arm of bell-crank K, and hence it will be seen that when the door B is shoved inward to close the induction opening of the box, the bell-crank will be disengaged from the finger J whereupon the signal H, by reason of the gravitation of its weighted end, will promptly assume its upright position. After the inward pressure on door B is removed, the spring L will return the bell-crank K to and hold it yieldingly against a fixed stop *y*, ready to again engage the finger J when the signal H is lowered.

M, Fig. 1, is a stop fixed on the outer side of one side wall of the body A, and N is a rock-shaft journaled in said side wall of the body and having a finger piece *z* at its outer end. Fixed at an intermediate point of its length on the rock-shaft N is a signal P which has a head *a'* at its upper end, preferably in the form of a five-pointed star, and a box *b'* at its lower end, which box is similar in construction to the box *t* of the signal H—*i. e.*, has its half remote from the stop M filled with heavy material and its other half empty for the purpose before described. When deemed expedient, the signal P may be fixed on the shaft N in the same specific manner that signal H is fixed on shaft F, but this I have not thought necessary to illustrate. Fixed on the inner end of rock-shaft N is a beveled finger Q, Figs. 3 and 4, which, when the signal P is in its lower position, is engaged by a vertically-swinging toe *c'* on a laterally swinging lever R, which toe *c'* is backed by a spring *d'*. The said lever R is fulcrumed at *e'* on a standard *f'* rising from the fixed shelf *r*, and is provided with an arm *g'* on which is a projection *h'*, arranged under a spring *i'* also connected to the fixed shelf; the said spring operating to return the lever R to and hold it yieldingly in the position illustrated. When the signal P is lowered by hand, the toe *c'* on lever R moves upward to permit the beveled finger Q to pass it and then engages said finger to retain the signal P in its lower position. It will also be observed that when the door B is drawn outward to uncover the induction opening *d*, precedent to the placing of a piece of mail matter in the box, the projection *x* on said door will engage the lever R, after the manner shown in Fig. 4, and by swinging the same laterally outward, see arrow in Fig. 4, will disengage the toe *c'* from the finger Q, thereby enabling the signal P to assume its upright position. After the signal P assumes its upright position and the door B is moved inward, the spring *i'* serves to return

the lever R to the position shown in Fig. 4 so as to enable toe c' to again engage the finger Q when signal P is lowered.

It will be understood from the foregoing that when the mail carrier draws the door B outward to uncover the induction opening *d*, precedent to passing mail matter into the box through the said opening, the projection *x* on said door coöperates with the lever R to release the signal P, whereupon said signal assumes its upright position shown in Fig. 1. The mail carrier then inserts the mail matter through the opening *d*, after which he moves the door B inward to its closed position, whereupon the projection *x* engaging the bell-crank K will effect the release of the signal H and said signal will assume its upright position, also shown in Fig. 1. By reason of both signals being up, the box owner is apprised of the fact that there is incoming mail in the box. When said owner removes the mail from the box he turns down both signals H and P, provided he leaves the box empty, but if he leaves outgoing mail in the box, then he leaves one of the signals, preferably the side signal P in its upright position. Thus when the carrier deposits mail for the box owner on Monday and raises both signals by so doing, he knows so long as both signals are up that B has not taken mail from the box. If, however, on a subsequent visit to the box, the carrier finds both signals down he is informed that the owner has removed his mail from the box and left the box empty. If, however, the carrier finds the side signal P up and the end signal H down he is apprised of the fact that the owner has placed outgoing mail in the box. This mail the carrier removes from the box, and if he leaves the box empty he lowers the side signal. If, however, he deposits incoming mail in the box, he leaves the side signal P up and also raises the end signal H. At this point attention is directed to the fact that when both signals are up, the door B may be opened and closed any number of times without affecting the position of the signals.

It will be appreciated from the foregoing that when both the carrier and the box owner are at considerable distances from my novel box, they can ascertain from the signals whether or no it is necessary for them to go to the box.

In addition to the practical advantages hereinbefore ascribed to my novel mail box, it will be noted that the box is simple and inexpensive in construction and is well adapted to withstand exposure to the weather and the general rough usage to which mail boxes are ordinarily subjected.

As before stated the construction herein illustrated and described constitutes the best practical embodiment of my invention known to me, but it is obvious that in the future practice of the invention such changes or modifications may be made (to meet the requirements of the postal regulations or for any other purpose) as fairly fall within the scope of my invention as defined in the claims appended.

Having described my invention, what I claim and desire to secure by Letters-Patent, is:

1. The combination of supporting means, signals mounted on said supporting means and movable independently of each other, means for moving the signals, independent, movable means for detachably securing the signals against movement, and a hand device common to the said independent means, and arranged on one movement to actuate one means and on another movement to actuate the other means.

2. The combination in a letter box, of a body having an opening, a door for covering said opening, a rock-shaft journaled in the body, a swinging signal fixed on said rock-shaft, means for moving the signal to and normally maintaining the same in one position, a finger fixed on the rock-shaft, a spring-pressed bell crank arranged to be swung by the door, and yielding means carried by said bell crank and arranged to enable the finger on the rock-shaft to swing past it and also arranged to engage said finger.

3. The combination in a letter box, of a body having an opening, a slidable door for covering said opening, a rock-shaft journaled in the body, a swinging signal fixed on said rock-shaft, means for moving the signal to and normally maintaining the same in one position, a finger fixed on a rock-shaft, a bell crank having one of its arms arranged to be moved by the slidable door, yielding means carried by said arm and arranged to enable the finger on the rock-shaft to swing past it and also arranged to engage said finger, and a spring for coöperating with the other arm of the bell-crank to return the bell crank to and yieldingly retain the same in its normal position.

4. The combination in a letter box, of a body having an opening, a slidable door for covering said opening, signals movable independently of each other on the box, means for moving one signal to and normally maintaining the same in one position, means for moving the other signal to and normally maintaining the same in one position, means movable by the completion of the sliding movement of the door in one direction for detachably preventing movement of one signal to the said position, and means movable by the completion of the sliding movement of the door in the opposite direction for detachably preventing movement of the other signal to its said position.

5. The combination in a mail box, of a body having an opening, a door covering the

same, movable signals on the body, means for moving said signals, and means movable by the door for detachably securing the signals against movement.

6. The combination in a mail box, of a body having an opening and stops, a door covering said opening, swinging signals mounted on the box, means for moving and holding said signals against said stops, and means movable by the door for detachably securing the signals against said movement.

7. The combination in a mail box, of a body having an opening, independently movable signals mounted on the box, means for moving the signals, independent, movable means for detachably securing the signals against movement, and a door arranged to cover the opening and also arranged to move the said independent movable means.

8. The combination of a letter box, signals, a device movable in opposite directions on the box, means for setting one signal on movement of the device in one direction, and means for setting the other signal on movement of the device in the opposite direction.

9. The combination of a letter box having an opening, a door for covering said opening, signals, means for setting one signal on movement of the door in one direction, and means for setting the other signal on movement of the door in the opposite direction.

10. The combination of a letter box, signals independently movable by hand to their idle positions, a device movable in opposite directions on the box, means for setting one signal on movement of the device in one direction, and means for setting the other signal on movement of the device in the opposite direction.

11. The combination of a letter box having an opening, a door for covering said opening, signals independently movable by hand to their idle positions, means for setting one signal on movement of the door in one direction, and means for setting the other signal on movement of the door in the opposite direction.

12. The combination in a letter box, of a body having an opening in one end wall and a stop on its opposite end wall, a door for covering the said opening, a rock-shaft journaled in the end walls of the body, a swinging signal fixed at an intermediate point of its length on the rear end of the rock-shaft, a weight arranged on the lower arm of the signal and adapted to move and hold the same against the stop, a finger fixed on the rock-shaft and arranged within the body, and a spring-pressed bell crank arranged to engage the said finger and to be engaged by the said door.

13. The combination in a letter box, of a body having an opening in one end wall and a stop on one side wall, a door for covering, a rock-shaft journaled in said side wall of the body, a swinging signal fixed at an intermediate point of its length on the outer end of said rock-shaft, a weight arranged on the lower arm of the signal to move and hold the same against the stop, a finger fixed on the rock-shaft, within the body, and a spring-pressed bell crank having a spring-pressed toe arranged to engage the finger; the said spring-pressed bell crank being arranged to be moved by the door.

14. The combination in a letter box, having an opening and also having a stop, a door for covering the said opening, a rock-shaft journaled in the body, a swinging signal fixed at an intermediate point of its length on the rock-shaft, a weight arranged on the lower arm of the signal to move and hold the same against the stop, a finger fixed on the rock-shaft, within the body, and means arranged within the body to engage the said finger and also arranged to be engaged and moved by the door.

15. The combination in a mail box, of a body having an opening in one end wall and a stop on its opposite end wall and also having a stop on one side wall, a door for covering the said opening, a rock-shaft journaled in the end walls of the body, a swinging signal fixed at an intermediate point of its length on the rear end of the rock-shaft, a weight arranged on the lower arm of the signal, to move and hold the same against the end stop, a finger fixed on the rock-shaft, within the body, a spring-pressed bell crank arranged to engage the said finger and to be engaged by the said door, a rock-shaft journaled in the side wall of the body, a swinging signal fixed at an intermediate point of its length on the outer end of said rock-shaft, a weight arranged on the lower arm of the signal to move and hold the same against the stop, a finger fixed on the rock-shaft, within the body, and a spring-pressed bell crank having a spring-pressed toe arranged to engage the finger; the said spring-pressed bell crank being arranged to be moved by the door.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM W. PLUMMER.

Witnesses:
JNO. A. DAUGHERTY,
J. W. LANE.