

Nov. 9, 1937.

C. I. HOLMES

2,098,242

RURAL MAIL BOX

Filed May 15, 1935

2 Sheets-Sheet 1

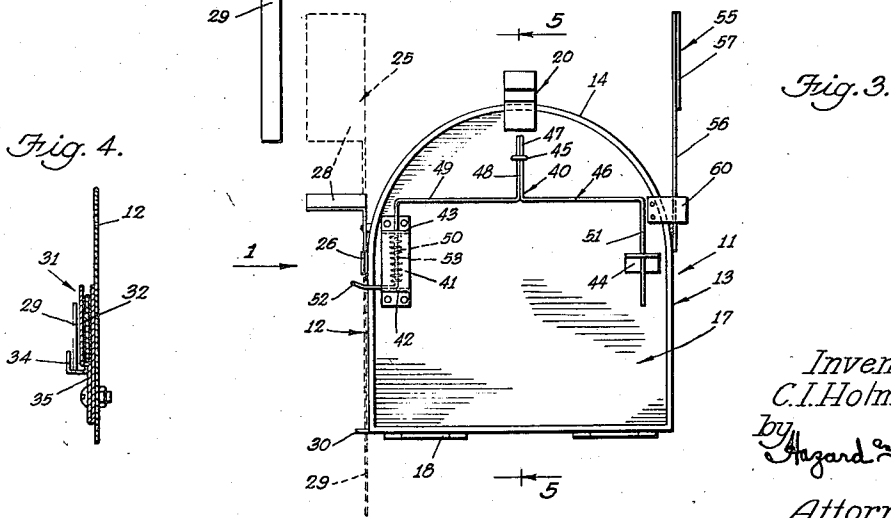
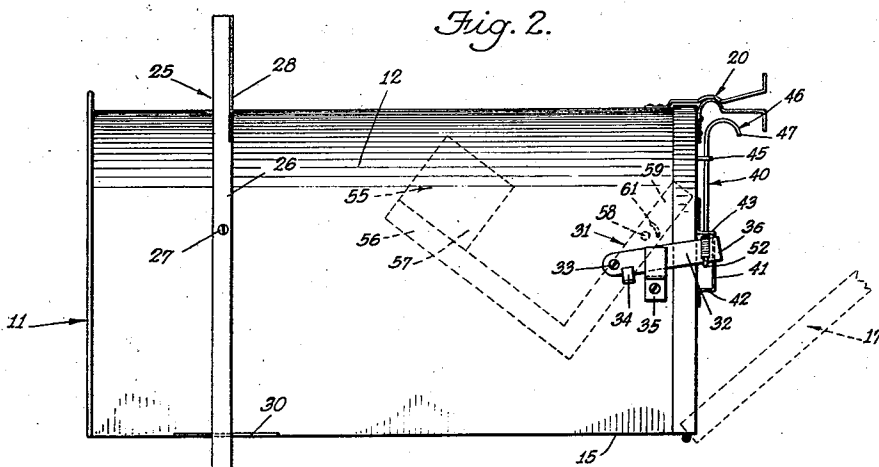
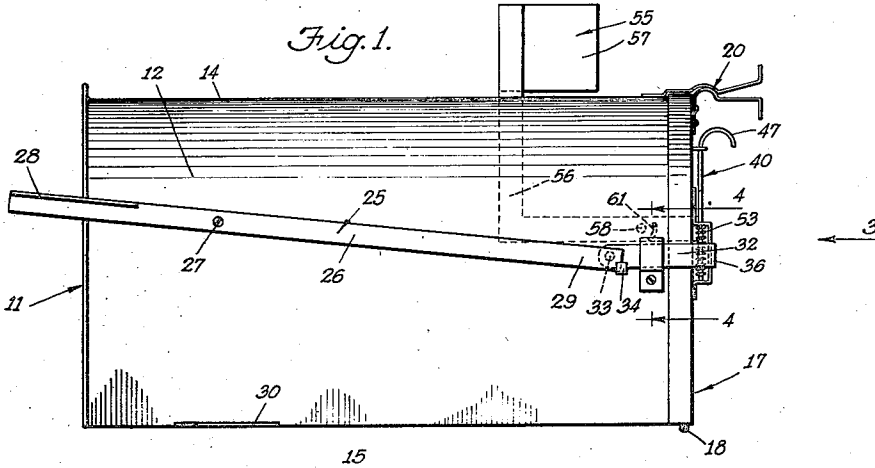
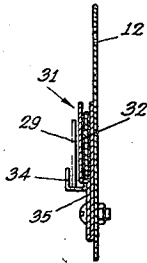


Fig. 4.



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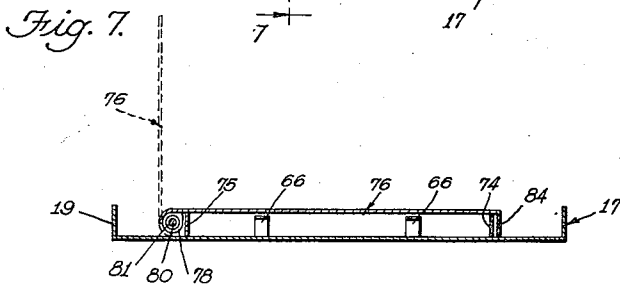
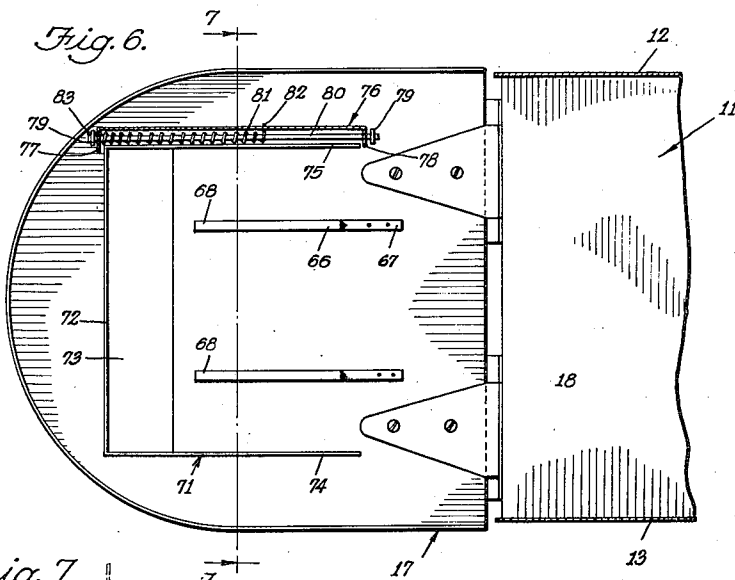
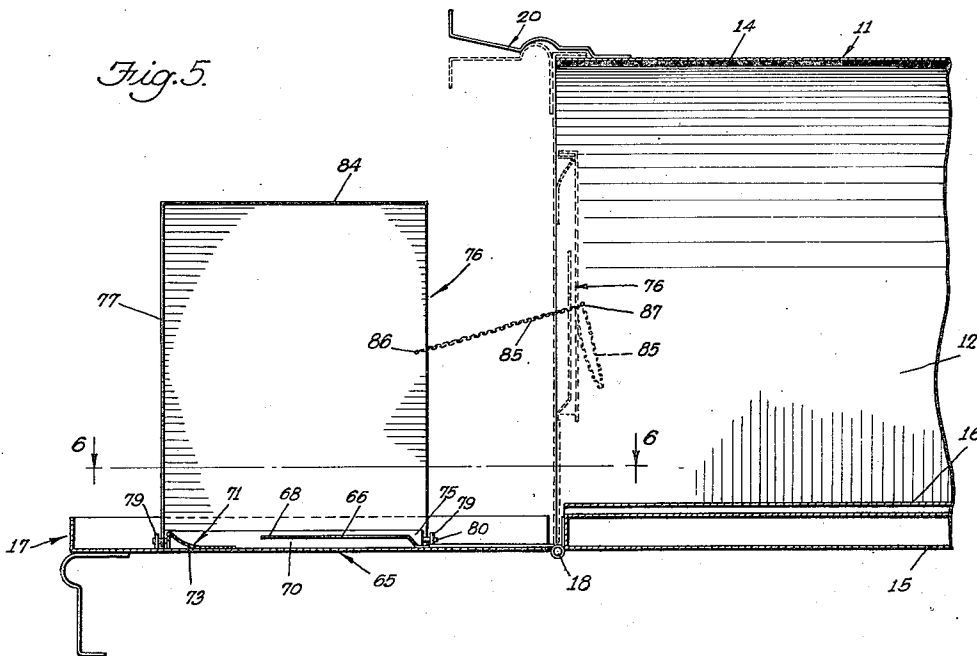
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RURAL MAIL BOX

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

2,098,242

RURAL MAIL BOX

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Application May 15, 1935, Serial No. 21,517

7 Claims. (Cl. 232—35)

My invention resides in a rural mail box, having a so-called owner's signal and mail carrier's signal and also a pocket forming device having holding appliances for letters to be collected by the mail carrier.

A feature of the signals of my present application may be considered as an improvement on or further development of my patent application for Rural mail box, Serial No. 695,831, filed October 30, 1933.

My invention in the present application relates to a combination of signals and a holder or pocket structure for letters to be collected by the mail carrier, in which the pocket or letter holder structure is mounted on the inside of the door of the box and the owner's and mail carrier's signal are set and controlled in actuation either by the opening of the door or by releasing a detent to actuate one of the signals.

In regard to the signals, an object and feature of my invention is in providing a mail carrier's signal which may be set by the owner when he deposits letters in the pocket of the door to signal the mail carrier to call for the letters. Then due to an interconnection between the carrier's signal and the door, when the carrier opens the door to secure the letters in the pocket, the carrier's signal is automatically released and by a gravity action returns to its inoperative or non-signalling position.

A further feature of my invention in the combination of signals is in employing an owner's signal pivotally mounted on the side of the box, preferably opposite that having the carrier's signal, the owner's signal being of a type so that it is normally latched in its inoperative position or non-signalling position; such owner's signal being held inoperative principally by a pivoted catch. Therefore the mail carrier may open the door, unset the signal to himself and remove the mail without setting the owner's signal should he deposit no mail in the box for the owner.

A further feature of my invention in regard to the owner's signal, is in employing a latch releasing bolt slidably mounted on the door; this bolt having a finger normally spring pressed to an inoperative position, whereby the door may be opened and closed without disturbing the catch for the owner's signal. However, when the mail carrier in opening the door to deposit mail for the owner, desires to set the owner's signal, he may give a pulling movement to the bolt and hence the finger and displace the catch, whereby the owner's signal by the action of gravity swings to its operative or exposed position. Further, this catch may be operated by the owner when removing his mail from the box to reset the owner's signal in its inoperative or non-signalling position.

Thus as to the signals, I provide a combination

by which the owner, should he put mail in the pocket of the door for the carrier to collect, may set his own signal as non-operative and set the carrier's signal and then the carrier must release his signal on opening the door, either for collecting mail or for depositing mail in the box, but he may optionally set the owner's signal or not, as he desires. For instance, if he deposits no mail in the box for the owner, he would not set the owner's signal but it would remain as formerly set, inoperative.

A further object and feature of my invention in regard to the pocket for holding the letters or mail for collection by the mail carrier, consists of resilient fingers secured to the inside of the door, the base of the fingers being preferably towards the hinge of the door, which hinge is usually horizontal and the pocket is formed by a gate or flap hinged to the door by a pintle at right angles to the door hinge. This gate is normally maintained closed by a tension spring to form a socket or cover over the fingers and thus they protect any letters held by the fingers from exposure to rain or water which might possibly leak in through the door.

A further feature of my invention includes a flexible connection between the gate on the inside of the door and the box, whereby when the box door is opened, the gate is automatically opened, either for the owner to insert letters for collection or for the mail carrier to remove such letters when he opens the door. Thus the single operation of opening the door automatically opens the gate for insertion or removal of mail and on closing the gate is automatically swung to its closed position against the inside of the door and thus forming a pocket covering the letters.

My invention is illustrated in connection with the accompanying drawings, in which,

Fig. 1 is a side elevation taken in the direction of the arrow 1 of Fig. 3, showing the owner's signal in non-signalling or inoperative position and the carrier's signal elevated or exposed on the opposite side of the box.

Fig. 2 is an elevation similar to Fig. 1, showing the catch in its released position to permit automatic setting of the owner's signal in its operative position and indicating the door partly open with the carrier's signal automatically swinging to its housed position.

Fig. 3 is a front elevation taken in the direction of the arrow 3 of Fig. 1.

Fig. 4 is a vertical section on the line 4—4 of Fig. 1, through the catch for the owner's signal.

Fig. 5 is a vertical longitudinal section on the line 5—5 of Fig. 3 in the direction of the arrows, but with the door open, showing the gate of the pocket to receive letters in its open position.

Fig. 6 is a horizontal section on the line 6—6 of Fig. 5 in the direction of the arrows.

Fig. 7 is a vertical transverse section on the line 7-7 of Fig. 6 in the direction of the arrows, but showing the gate on the door in its closed position.

In my invention the mail box is indicated by the numeral 11, having opposite sides 12 and 13. The box is rounded on the top 14 and has the usual flat bottom 15 with the usual raised floor 16. The front of the box is open and is closed by a hinged door 17, the hinge 18 being at the bottom of the box. The door has a flanged construction 19 and is held in the closed position by a latch 20, this being the usual type.

Describing first the owner's signal which is designated by the assembly numeral 25, this has a signal arm 26 pivoted at 27 to the side 12 of the box and having a flag 28 extending outwardly at right angles to the axis of the box. The arm 26 has a long end 29 which is of sufficient weight to swing the arm on its pivot from its non-signalling substantially horizontal position of Fig. 1 to its signalling vertical position of Fig. 2. A friction cam strip 30 is secured adjacent the lower edge of the box to engage the end 29 of the arm when it swings downwardly and hold the arm from oscillating or being broken by the wind.

In order to hold the arm in its non-signalling position, I employ a catch 31. This has a catch lever 32 pivoted at 33 to the side 12 of the box, the catch lever having a hook 34 on one side. The catch normally rests on a bracket 35 secured to the side of the box adjacent the door. The free end 36 of the catch lever extends along one edge of the door and beyond the face of the door when the door is closed. The end 36 of the catch is of sufficient weight so that when the end 29 is caught in the hook 34, the weight of the catch holds the signal arm in the inoperative position of Fig. 1.

The latch bolt assembly 40 for releasing the catch employs a U-shaped bracket 41 on one side of the box with lower and upper shoulders 42 and 43, the upper shoulder being perforated. This is at one side of the door on its front adjacent the catch 31. On the opposite side of the front of the door there is a guide bracket 44 also perforated and at the center of the door, preferably near the top there is a guiding eye 45. The latch bolt 46 has a finger grip end 47, a vertical section 48 passing through the eye 45, two horizontal sections 49, a depending section 50 extending through the perforations in the shoulder 43, a second depending section 51 extending through the perforation in the bracket. A lateral finger 52 is preferably formed integral with the extension 50 and extends sidewise underneath the catch lever 32 slightly beyond the side of the box. A compression spring 53 is coiled on the depending section 50 and engages between the finger 52 and the shoulder 43; thus normally holding the latch bolt with its finger 52 depressed.

The operation of the owner's signal is substantially as follows: The owner leaves this in the non-signalling position of Fig. 1, with the end 29 caught on the hook 34, then when the mail carrier wishes to open the box to deposit mail he pulls upwardly on the finger grip 46, at the same time exerting a pull to open the door. The upward movement of the latch bolt 46 elevates the finger 52 to raise the latch arm 32 from its horizontal position of Fig. 1 to its upwardly inclined position of Fig. 2. This move-

ment is sufficient to allow the end 29 of the arm 26 to slip off the hook 34, the arm swinging by gravity to the vertical position of Fig. 2. The mail carrier then closes the door when leaving the box and leaves the owner's signal set, showing that mail has been deposited for him to receive.

The carrier's signal designated by the assembly numeral 55, employs an L-shaped arm 56. This has a flag 57 at the top and is pivoted at 58, preferably to the side 13 of the box opposite the owner's signal. The arm 56 has a forward extension 59 extending beyond the pivot 58 to engage a detent 60 which is secured to the front of the box and extends beyond the side 13 in a position to engage the end 59 and hold the signal flag 57 in the elevated position of Fig. 1 when the door is in the closed position. A pin and slot connection 61 between the portion 59 of the arm 56 and the side 13 of the box, limits the pivoting movement of the signal 55 to its non-signalling position, illustrated dotted in Fig. 2.

The manner of functioning of the carrier's signal 55 is as follows: This is intended to be used only when the owner deposits letters or mail matter in the box for the carrier to collect. When he does so, in closing the door he lifts the flag into the position of Fig. 1 and engages the end 59 of the arm 56 underneath the edge of the detent 60. Then when the carrier stops to pick up this mail, in opening the door and swinging the detent 60 out of engagement with the end 59, the signal arm 56 pivots by gravity to its non-signalling position of Fig. 2 and when the carrier closes the door he leaves the signal in this position. It will thus be seen that there is a combinational connection through the medium of the door between the owner's signal and the carrier's signal.

The mailing pocket assembly designated by the numeral 65 on the inside of the door, is constructed as follows, having reference to Figs. 5, 6 and 7: A pair of resilient fingers 66 have each one end 67 secured to the door on the inside; these ends being towards the bottom of the door, that is towards the hinge 18. The free ends 68 of the fingers are set off by a space 70 from the inside of the door. A weather strip 71 consists of an upper flange 72 to which is connected a cross member 73, the cross member being secured to the door and there are also two side flanges 74 and 75. These are of sufficient height to extend slightly beyond the space 70 of the fingers from the door.

A pivoted gate 76 has a flange 77 on the top extending across its full length and a short flange 78 at the bottom. A pair of hinge ears 79 are secured to the inside of the door and a pintle pin 80 extends through the ears and through the flanges 77 and 78. A coiled tension of closing spring 81 is secured at one end 82 to the door and at the other end 83 to one of the ears 79. This spring is normally tensioned to swing the door to its closed position. On its free end the door has a flange 84 extending over the flange 74 of the weather strip 71. The upper flange 77 of the door extends over the upper flange 72 of the weather strip in a facing position on the door. A chain 85 has one end 86 secured to the door adjacent its lower edge and its other end 87 secured inside of the box at one side, this being at the side adjacent the hinge or pivot of the gate.

The manner of operation and functioning of the mail pocket and its gate is as follows: Normally when the door of the box is closed, the fingers 66 occupy a vertical position as shown

dotted in Fig. 5 and the gate 76 is closed, this being closed by the coiled spring 81; the gate forming a cover or pocket for the letters. When the owner opens the door to place mail therein for collection, he swings the door from its vertical closed position, to its horizontal open position of Figs. 5 and 6. In this action the chain 85 swings the gate from its position adjacent and parallel to the door to its elevated open position at right angles to the door, in which case the gate extends substantially vertical as shown in Fig. 5. The owner then slips letters or the like in the space 70 between the fingers and the door and closes the door when the gate automatically swings closed on the inside of the door; the flanges on the gate together with the weather strip forming a weather-proof covering for the mail left for collection.

An important characteristic of my invention in regard to facilitating the work of mail carriers, resides in the employment of the carrier's signal operatively connected to the door to be retracted when the door is opened for the carrier to pick up mail and also that if he has no parcels to deposit he can readily withdraw the letters from the letter pocket 65 without fully opening the door. Moreover, should he be required to insert large parcels in the box, the hinged gate automatically swings closed as the door is closed. Hence, although the gate stands in a vertical position when the door is opened to its full extent, nevertheless as the door closes the edge of the gate remote from its hinge does not enter the box, and thus a parcel the full length of the box may be inserted without its interfering with the closing of the gate on the door.

Various changes may be made in the details of construction without departing from the spirit or scope of the invention as defined by the appended claims.

I claim:

1. In a device as described, the combination of a mail box having a hinged door at one end, an owner's signal having a straight arm pivoted to one side of the box, a pivotally mounted catch on the side of the box having a hook to engage one end of the said arm and hold the arm in non-signalling position, a latch bolt slidably mounted on the door, and a spring normally retaining said bolt in inoperative position, the bolt having a finger to engage the catch on manually operated movement of the bolt to actuate the catch to release the said arm, the arm being weighted to swing by gravity into a vertical signalling position.

2. In a device as described, the combination of a mail box having a hinged door, an owner's signal having a straight signal arm pivotally mounted at the side of the box with a flag at the top, the opposite end being weighted, a pivotally mounted catch on the side of the box having a hook, the hook engaging the lower end of the arm and holding said arm in substantially horizontal position, the catch having a free end extending beyond the door when the door is closed, the door having guides, a latch bolt slidably mounted in said guides and having a laterally extending finger to engage the free end of the catch, and a spring means connected to the door and the bolt to retain the finger in a lowered position, the bolt having means for elevating the finger to move the catch and release the owner's signal, said signal swinging to a vertical position.

3. In a device as described in claim 1, the catch comprising a lever having its pivot between the

door and the pivot of the owner's signal arm, a supporting bracket on the side of the box to support the portion of the lever between its pivot and the outer portion of the box, the hook being positioned between the pivot of the catch lever and the bracket to engage the weighted end of the signal arm and to normally hold said arm in its inoperative position.

4. In a device as described in claim 2, the catch comprising a lever structure having its pivot between the door of the box and the pivot of the owner's signal arm, a supporting bracket on the side of the box to limit the downward movement of the free end of the catch lever, the hook extending from one side of the lever and being positioned when the lever is supported by the bracket to engage the weighted end of the signal arm and to hold said arm in its inoperative position, the said bracket normally holding the free end of the catch lever above the laterally extending finger of the bolt, whereby if desired the door may be opened without actuating the catch lever.

5. In a device as described, the combination of a mail box having a hinged door, guides on the door, a latch bolt slidably mounted in the guides, a catch lever pivotally mounted on the side of the box and having a free end positioned to be engaged by the latch bolt, a signal arm pivoted to the box, and interengaging means between the signal arm and the catch lever to normally hold said arm in a first position, the operation of the bolt actuating the catch lever to release the signal arm therefrom and the signal arm being weighted, whereby on release it swings by gravity to a second position.

6. In a device as described, the combination of a mail box having a hinged door at one end, guides on the door, a latch bolt slidably mounted in said guides and having a laterally extending finger, a spring interacting between the bolt and the door to normally maintain the finger in its lowermost position, a catch lever pivoted to the side of the box and having a free end extending above the finger, means to limit the downward movement of the lever to normally maintain the free end of the lever above the finger, a signal arm pivoted to the side of the box, means to interengage the arm and the catch lever to normally hold the signal arm in a first position, the said latch bolt being movable to cause the finger to tilt the catch lever upwardly and release the signal arm therefrom, said arm being weighted to turn by gravity on its pivot to a second position, the door having a means for opening without actuating the bolt, whereby if desired the door may be opened while retaining the signal arm in its first position.

7. In a device as described, the combination of a mail box having a door hinged at its lower end, an owner's signal having an arm pivotally mounted on the side of the box, a catch on the side of the box to engage one end of the arm and a movable bolt on the door to actuate the catch to release the arm, the arm being counter-weighted to swing into a signalling position, the catch being pivoted to the same side of the box having the owner's signal, a supporting device on the box to support the catch to hold the owner's signal in a non-operative position, the catch having a free end opposite its pivot to be engaged by the bolt on the door, the said bolt raising the catch above the supporting means for disengagement of the arm of the signal from the catch.

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