

April 17, 1928.

A. E. DEIBERT

1,666,281

MAIL BOX

Filed June 4 1927

Fig. 1

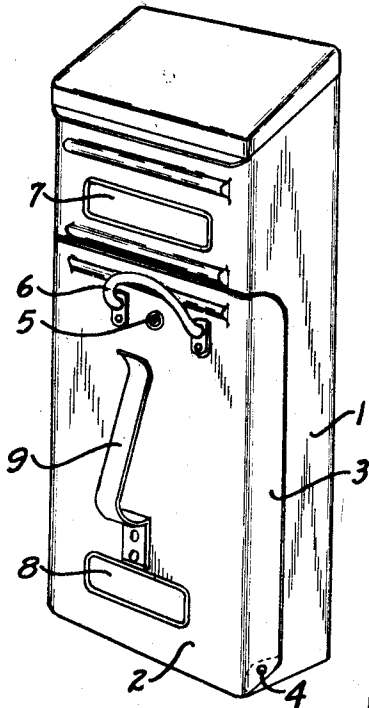


Fig. 2

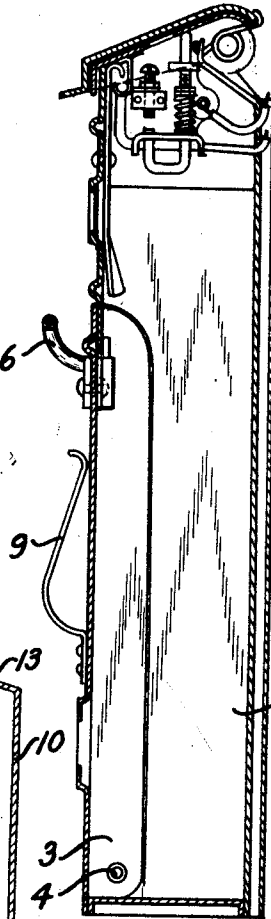


Fig. 3

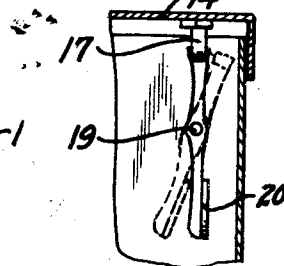
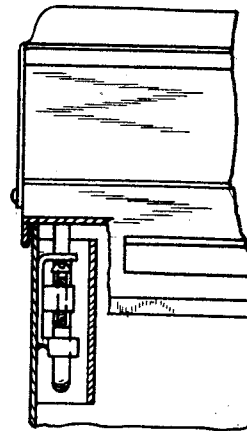


Fig. 4

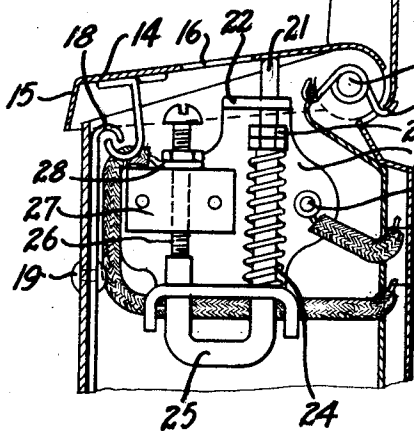
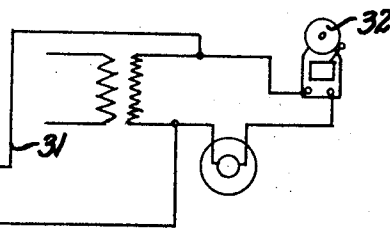


Fig. 5



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UNITED STATES PATENT OFFICE.

AMBROSE E. DEIBERT, OF SEATTLE, WASHINGTON.

MAIL BOX.

Application filed June 4, 1927. Serial No. 196,564.

My present invention relates to an improved mail box for domestic use and adapted for both urban and suburban mail routes. The invention contemplates the use of a box with an electric signal, as a bell, which is sounded when the lid or closure is opened for depositing mail within the mail box, and the lid or closure is automatically returned to closed position after the deposit of mail in the box.

In carrying out my invention a slotted inner lid or cover is employed, which is normally closed and has only a limited opening movement, and an outer imperforate cover or lid is also employed, that is spring pressed to normal closed position. Electrical connections are provided whereby when the outer retaining door or lid is opened a circuit maker is closed to energize a signal circuit, and as the inner lid is closed by action of the outer lid, the circuit is caused to be opened to de-energize the signal.

The invention consists in certain novel combinations and arrangements of parts as will hereinafter be more fully set forth and claimed. In the accompanying drawings I have illustrated one complete example of the physical embodiment of my invention wherein the parts are combined and arranged according to the best mode I have thus far devised for the practical application of the principles of my invention.

Figure 1 is a perspective view of the mail box embodying my invention.

Figure 2 is an enlarged, vertical sectional view of the box with the two upper lids or covers closed, showing the circuit maker for the electric signal system open.

Figure 3 is a detail sectional view as seen from the left in Figure 2 showing part of the electrical circuit maker.

Figure 4 is an enlarged, sectional view at the top of the mail box showing the spring pressed outer door held open and with the circuit maker closed for energizing the signal, the wiring for the signal or bell also being indicated in this figure of the drawing.

Figure 5 is a detail view of the releasable latch device for the inner slotted door of the mail box.

In carrying out my invention I utilize the usual type of metal mail box 1 that is provided with a front door 2 having side flanges 3 to fit over the sides of the box and hinge 4 near the bottom of the box in order that the door may be swung open on its hinges to

permit withdrawal of mail that has been deposited in the box by the mail man. This front door is provided with a key-lock 5 to prevent unauthorized access to the box, a handle 6 for manipulating the door, and panels 7 and 8 are provided for name plates etc. The front of the front door is also provided with a spring clip 9 for retaining newspapers and similar mail packages that may be delivered, or for outgoing mail to be collected.

The mail is deposited or delivered by the mail man through the open top portion of the mail box, but this opening is normally closed by the action of the spring actuated, outer door 10 that is hinged at 11 through the upper rear corners of the box and normally held closed by action of a spring 12 coiled about the hinge and with its ends secured to the box and to the door. As a protection for the mail within the box against the weather the door is fashioned with a depending flange 13 that fits over the inner door 14.

The inner door 14 is hinged at the same points 11 as the outer door or lid and has a flange 15 over which the flange 13 of the outer door fits to make a closed joint about the open top of the box. When the outer door is turned back on its hinges against the tension of the coiled spring 12 the inner door is exposed to view, and this door has therein a slot 16 of sufficient size to permit insertion of the mail therethrough, which mail falls to the bottom interior of the mail box.

The inner door has only a limited swinging movement on its hinge 11 and is prevented from being opened by means of an interior latch arrangement that includes a hook 17 depending from the inner side of the inner door 14, and a latch hook 18 pivoted at 19 inside the box and to one of its walls and provided with a flange 20. As indicated by dotted lines in Figure 5 this latch hook may be released from the door hook 17 when desired or necessary for adjusting parts of the operating means of the mail box.

Electrical connections and a circuit maker, the latter normally open, are utilized in conjunction with these two doors 10 and 14, and when the former door is opened the electric signal or bell is sounded as a warning or announcement as the case may be.

Within the upper portion of the box is located a spring bolt 21 disposed in vertical position and supported to reciprocate in per-

forated flanges 22 of the plate 23 secured within the box.

The upper end of the spring bolt is normally retained by a spring 24 against the underside of the inner door 14, this spring being coiled about the bolt and interposed between tension nuts 24' and the lower bearing flange 22 of the plate 23, and it will be apparent that the tendency of the spring is to urge the spring bolt upwardly against the pressure of the spring 12 of the outer door. The spring 12 is of greater power than the spring 24 and therefore the inner door is held closed by the spring 12 and the spring bolt is held depressed as in Figure 2 when the outer door is closed.

The lower end of the spring bolt is provided with a U-shape or contact end 25 for contact with a screw 26 that is adjustable in the insulated block 27 secured within the box. The U-shaped end and the screw form a normally open circuit maker which is automatically closed by action of the spring 24 when the outer door is opened to release pressure on the inner door. When the inner door is released by opening the outer door, the spring 24 bearing against the nuts 24' of the bolt and the lower flange 22 elevates the bolt and lifts the inner door a sufficient distance to permit the circuit making points to contact. Excessive movement of the inner door is prevented by action of the hook 17 and latch-hook 18 as heretofore described.

A terminal 28 for wire 29 is connected to the screw 26 and a terminal 30 for wire 31 is connected to the plate 23, and the circuit is completed through the bell 32 as indicated

in Figure 4, when the door 10 is opened, as heretofore described.

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

1. The combination with a mail box having a normally closed, spring pressed, outer door and a slotted inner door, and means for limiting the opening movement of the inner door, of a circuit maker within the box normally open when the outer door is closed, and means for closing the circuit maker when the outer door is opened.

2. The combination with a mail box having a normally closed spring pressed, hinged outer door and a slotted inner door supported on the same hinge, of a normally open circuit maker within the box, and means for automatically closing said circuit maker when the outer door is opened, a retaining hook on the inner door and a latch-hook within the box for co-action with said retaining hook to limit the opening movement of the inner door.

3. The combination with a mail box having an inner, slotted and hinged door and an outer, spring pressed door on the same hinge, of means for limiting the opening movement of the inner door, a spring pressed bolt within the box engaging the inner door, a U-shaped end to said bolt, and a stationary screw supported within the box in the path of movement of said U-shaped end.

In testimony whereof I affix my signature.

AMBROSE E. DEIBERT.