

UNITED STATES PATENT OFFICE.

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POSTAL-BOX SIGNAL.

SPECIFICATION forming part of Letters Patent No. 627,635, dated June 27, 1899.

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To all whom it may concern:

Be it known that I, FRANCIS C. BATES, a citizen of the United States, residing at San José, county of Santa Clara, State of California, have invented an Improvement in Postal-Box Signals; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a device which I call a "postal-box signal." It is especially designed for use in connection with boxes for receiving mail-matter in rural districts, where the postmen have to traverse considerable distances and where the boxes are frequently at some distance from the regular line of travel.

It consists, essentially, of one or more signals connected with the box and a means for displaying the signal by the act of introducing postal matter into the box, so that it can be seen from a distance whether there is anything in the box to be collected, and in the same manner a signal is displayed to indicate to those using the box whether any mail-matter has been placed in the box for them by the carrier.

It also comprises details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a general view of the box, showing one signal displayed and the other concealed. Fig. 2 is a longitudinal vertical section of the interior of the box, showing the mechanism by which the signals are actuated.

In the establishment of the postal service in the suburban and rural districts the boxes are necessarily placed at considerable distances apart—oftentimes, for convenience, at some distance from the main traveled road over which the carrier would ordinarily pass. If the carrier is obliged to inspect every box to know whether there is any mail-matter to be collected, or if the people for whom the box is placed are obliged to go to the box in order to find out whether any mail-matter has been deposited for them, there is considerable loss of time; but by arranging some signal which is displayed for the carrier when there is any matter to be collected from the box and another to be displayed for those using

the box to show whether anything has been left for them it will not be necessary to go to the box except when there is something in it to be collected. For this purpose I have designed signals of different colors and mechanism by which one of said signals is displayed to indicate to the carrier that he should visit the box, and the other is similarly displayed if the carrier has left anything for the patrons of the box.

A is a box, which may be of any suitable or desired construction. In the present case I have shown it in the form of a rectangular box having a closed top and above this an arched roof B, which is of sufficient length and size to form a space exterior to the box for the reception of papers and bulky articles which could not be well placed within the box.

C C are openings, of which in the present case I have shown one at each end of the box, one being for the use of the carrier in delivering mail and the other for the use of the box patrons to place mail-matter within the box to be subsequently collected by the carrier. If the box is designed for only one of these purposes, a single opening will be sufficient, and these openings are protected by the usual flaps D, hinged so as to cover the opening. These flaps are movable about their hinges and have connected with them suitable actuating devices, which serve to display signals, as previously described.

These signals may be of any suitable character and movable in various ways, so as to be concealed when not in use and displayed under the necessary conditions.

I do not wish to limit myself to any particular form or style of signal or to particular mechanical devices by which such signals may be operated, the essence of the invention being the display of a signal by the act of introducing mail-matter into the box. In the present case I have shown the signals as consisting of flags or targets E E'. These are mounted upon lever-arms F F', and these arms are either bent to form shafts about which they turn or they may be fixed to shafts, if preferred. These shafts extend through suitable boxes, as at G, in which they are turnable horizontally. The inner ends of these

turnable shafts carry levers II, which in the present case are shown as extending downwardly within the box.

Fulcrumed within the box are vertically-disposed levers I, having spring-plates J fixed to the upper ends and adapted to engage the lower ends of the interior lever-arms, as shown, so that when the levers have been tilted to stand in a vertical direction and display the signals above the box these spring-latches will engage the lower ends and retain the signals in position.

The signals normally lie in an inclined position along the sides of the box. If there are two of them, they may cross each other, as shown, when in this position, and when in this concealed position the inner arms of the levers lie approximately horizontal within the box.

The flaps or covers D of the slots or openings C have inwardly-projecting arms D', and these arms lie above the inner ends of the levers when the signals are concealed.

In order to display one of the signals by the present mechanism, the person depositing mail-matter in the box must first raise the flap D to uncover the opening C. This action tilts the inner arm D' downwardly, and this pressing upon the inner end of the lever pushes it down, thus throwing the signal up into view. As the inner arm of the lever is thus pushed down, it passes the spring-catch J, depressing it temporarily until the end of the lever has passed, when the catch springs up and prevents the return of the lever-arm. This leaves the signal displayed until some person opens the door K of the box for the purpose of removing its contents.

The door is hinged, as here shown, to one end of the box, and it has a link or rod L connected with it near the hinge and extending to a point where it connects with the lower end of one of the fulcrum-levers I. From a point above the fulcrum of this lever another rod L' extends along the side of the box and connects with the bottom of the other fulcrumed lever I, so that when the door is opened the link pulling upon the first-named lever I will cause it to tilt about its fulcrum, and this in turn acts upon the other lever to tilt it in unison. This is in case that two signals are employed, as here shown. If only one signal were employed, then only one of the levers and the connecting-links would be needed. When the door is thus opened to remove mail-matter, the tilting of the lever withdraws the upper end until the spring-latch J disengages the lower inner end of the lever-arm, and this allows the signal to drop out of sight by gravitation. The same action takes place if the other signal has been elevated, and if both signals should be elevated at the same time then both signals would be dropped by the act of opening the door.

As here constructed the box is intended equally for deposit of mail-matter for the residents by the carrier or by the residents for

the carrier to take away. This necessitates two of the doors D with their operating-levers, and one of these is lifted and the signal displayed when the resident places a letter in the box which is to be removed by the carrier. A signal can be seen by the carrier at a considerable distance, and if such signal is not displayed it will not be necessary for him to go near the box. If the carrier has mail-matter for the resident, he deposits it through the opening at the opposite end of the box, and this raises the other signal, which is to notify the resident that there is mail-matter for him.

It will be understood that these signals instead of turning about hinges may be raised vertically by bell-crank or other suitable lever connections with the box-door, the operation being essentially similar.

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

1. A letter-box having one or more slots or openings for the introduction of mail-matter, hinged flaps normally covering said slot having inwardly-projecting levers which are movable when the flaps are lifted, signal-targets mounted upon shafts turnable in the sides of the box having lever-arms projecting interior thereto adapted to be pressed by the action of the flap-lever whereby the signal is thrown up into view.

2. A postal box having one or more openings for the reception of mail-matter, hinged flaps covering said openings having levers projecting inwardly, signals mounted upon arms which are fixed to shafts turnable in the sides of the box, levers interior to the box connecting with the signal-carrying arms and normally lying in the path of movement of the interior arms of the flaps whereby the raising of the flap will act to throw the signal up into view, and latching devices which engage the inner ends of said levers to retain the signal in view after the flap has been released.

3. In a letter-box, openings for the reception of mail-matter with hinged flaps covering said openings and having interiorly-projecting arms, fulcrumed lever-arms carrying signals upon the outer ends having the inner ends extending within the box so that the opening of the flap engages said ends and throws the signal up into view, pivoted levers within the box having spring-catches which engage the signal-carrying levers and retain them in position, rods connecting said levers with a hinged door which is opened to remove mail-matter from the box whereby the opening of said door disengages the latch and allows the signal to fall.

4. A postal box having openings at opposite ends for the reception of mail-matter and a hinged door through which said mail may be removed, hinged flaps normally covering the openings and having inwardly-projecting arms which are movable when the flaps are

raised, a plurality of signals mounted upon levers, one end of each of which projects within the box within reach of one of the arms carried by the flaps whereby the opening of
5 either of said flaps will display a signal, levers fulcrumed within the box having spring-catches, each adapted to engage one of the signal-carrying levers to retain it in view, a link or rod having one end connecting with
10 the door, and the other end with the lower part of one of the levers, a corresponding link connecting the upper part of said lever with the bottom of the other lever so that the levers move in unison, and either or both of them will be operated to disengage its signal. 15

In witness whereof I have hereunto set my hand:

FRANCIS C. BATES.

Witnesses:

FRANCES H. BULLER;
JOSEPH R. PATTON.