J. B. MASERANG.

MAIL BOX SIGNAL AND LATCH.

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1,366,323.

Patented Jan. 18, 1921.

Fig. 5.

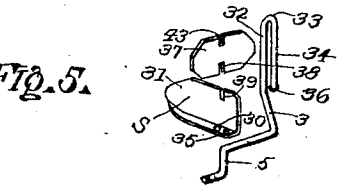


Fig. 1.

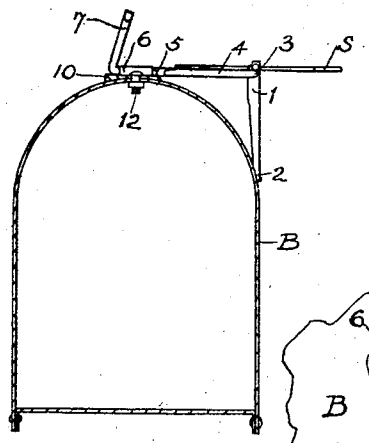


Fig. 2.

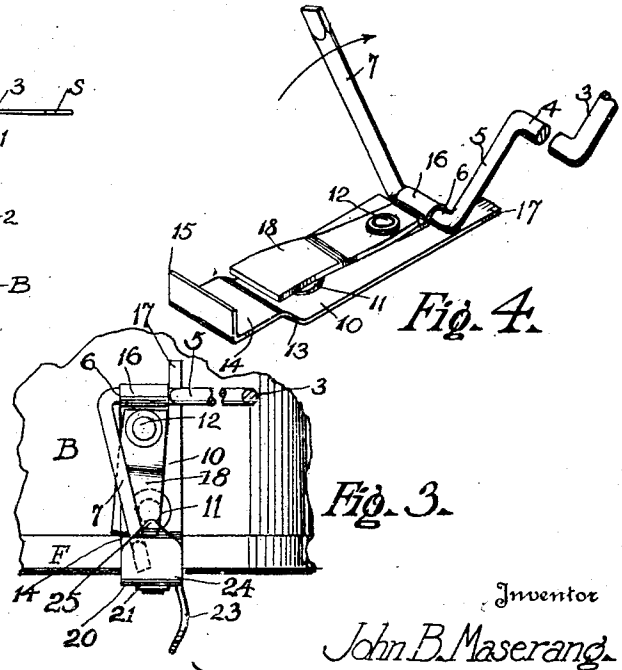


Fig. 4.

Fig. 3.

Inventor

John B. Maserang.

By

Attorneys

UNITED STATES PATENT OFFICE.

JOHN B. MASERANG, OF BELLEVILLE, ILLINOIS.

MAIL-BOX SIGNAL AND LATCH.

1,366,323. Specification of Letters Patent. Patented Jan. 18, 1921.

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To all whom it may concern:

Be it known that I, JOHN B. MASERANG, a citizen of the United States, residing at Belleville, in the county of St. Clair, State of Illinois, have invented certain new and useful Improvements in Mail-Box Signals and Latches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to deposit and collection receptacles, and more especially to letter boxes; and the object of the same is to produce improved mechanism for controlling the signal by the closing and latching of the door.

The invention consists in a rocking signal support mounted on the keeper plate of the latch and having a finger or crank which is held by the hook of the latch to sustain the signal in upright position, the same being released automatically when the door is swung open so that the signal falls unless it is again purposely raised.

Details are set forth below and shown in the drawings wherein:

Figure 1 is a side elevation of this box complete, with the door closed and the signal raised.

Fig. 2 is a cross section on the line 2—2 of Fig. 1, with the signal lowered.

Fig. 3 is a plan view of the latch with its parts engaged with each other, showing the hook as holding the finger depressed.

Fig. 4 is a perspective detail of the keeper plate and a slight modification, showing the finger in the act of swinging to the position where the signal is lowered.

Fig. 5 is a perspective detail of the signal with its plates disconnected from each other and from the staff.

As herein shown the letter box B has a door D hinged at H to and adapted to close one end of the same, and this door has a marginal flange F which when it is closed embraces the sides and the rounded top of the box to exclude the elements. The signal S may be of any appropriate construction but is preferably composed of metal plates standing in planes at an angle to each other and painted in a bright color so that they may be seen from all directions when raised, and by preference I provide one plate with a flange 1 beveled off at its end as at 2 so that when the signal is lowered as in Fig. 2, this flange strikes the rounded top of the box B and prevents rattle. The signal is mounted on a staff 3 which is by preference a wire rod whose upright stretch carries the signal in a plane relative to the box about as shown in Fig. 2. At the lower end of the staff the rod is bent in a horizontal stretch 4 leading over the top of the box, then bent into a double elbow 5, then carried across the keeper plate in what might be called a rock shaft 6, and then turned up into a finger or crank 7. As will be seen in Fig. 1, this crank stands at a slightly obtuse angle to the elbow which fact, added to the weight of the signal itself, imparts a tendency to the shaft to rock so that the entire staff and signal may swing rearward and downward unless it is sustained in practically upright position by something engaging the crank 7. It is the primary feature of the present invention to so construct the latch mechanism for the door D as to hold this crank down and therefore the signal raised when it is desired to indicate that the box contains mail matter, whereas at other times the signal is allowed to drop and both the postman and the owner are thereby informed that there is nothing in the box.

A keeper plate 10 is secured upon the top of the box near its open end by means of bolts or rivets 11 and 12, its forward end is upbent at 13 and then formed into a shoulder 14 under which passes the flange F on the door, and the forward end of the shoulder is upturned into a lip 15 constituting a catch as described below. At its rear end the plate is rolled to form a bearing 16 for the rock shaft 6, and at one side of the bearing the plate is continued into a rest 17 to support the elbow 5 when the signal is down. This rest is intended to sustain the weight of the signal, whereas the flange 1 on the signal is only to prevent rattle. However, it is possible that either element might be omitted and the other permitted to perform both functions.

In Fig. 4 there is shown secured upon the plate, as by the rivet 12, a spring 18 whose free end underlies the crank or finger 7 when the latter is depressed and lies on the shoulder 14, at which time said spring is under a little tension which is useful to start the crank upward and cause the signal to drop. However, it is possible that the obtuse angle between the elbow and crank and the weight of the signal S may be sufficient to cause the

rise of the crank without the spring, though I may employ the spring to make certain of the action and to prevent rattle.

A latch plate 20 is secured to the door D as by bolts or rivets 21 and 22, and the lower portion of this plate may be bent outward into a finger piece or handle 23 by means of which the door can be opened and closed. This latch extends for some little distance above the flange F, and its upper end is formed into a hook 24 projecting over the flange and upturned at its extremity as seen at 25, whereas a crimp 26 is made in the hook near its juncture with the plate as seen.

Let us assume that the owner has put a piece of mail in the box and set the signal as seen in Fig. 1. The postman approaches and sees the signal. He grasps the finger piece 23, pulls open the door, takes out the mail, closes the door, and passes on. As he opens the door the hook moves away from its position over the catch 15 and the tip of the crank 7, and the latter being released is thrown upward by the spring or by preponderance of weight of the signal, so that the shaft 6 rocks in its bearing 16 and the signal falls to the position seen in Fig. 2. When the postman closes the door, the upturned extremity 25 of the hook snaps over the lip 15 until the crimp 26 engages with it, and this holds the door D closed with its flange F inclosing the end of the box B. The signal is down and there is nothing in the box. The same operation would have taken place if the postman had put mail in the box and set the signal, excepting that the owner would then come and take the mail out. To set the signal, the door is pulled open, the staff 3 raised to rock the shaft 6 and swing the crank down until it depresses the spring 18 and rests on the shoulder 14, and then the door closed so that the hook 24 engages the catch and passes over the crank to both hold the door closed and the crank depressed. The act of opening and closing and latching the door is the same at all times, but when the person doing so has put something into the box and desires to set the signal to indicate that fact, he will simply hold the signal raised while he closes and latches the door, and the latch then engages the crank and sustains the signal in its raised or set position.

Obviously this invention can be applied to mail boxes of a variety of sizes and constructions, the signal itself may be any which will answer, and it is possible to have means for locking the door in addition to the latch, if desired. Other changes in or elaborations of details of the structure may be made without departing from the principle of the invention.

In Fig. 5 the signal S is disclosed with its parts separated, the better to show its construction. The rod or staff 3 passes up through a hole 30 in the flange 1 at the lower edge of a plate 31, is carried upward at 32 alongside this plate to a point considerably above its upper edge, is there bent back on itself as at 33, extends again downward as at 34, passes through a second hole 35 in the flange 1, and is headed or upset as at 36 to hold it in place. The plate 31 lies alongside the two stretches 32 and 34 of this rod, while the plate 37 stands at right angles to the first plate and extends between said stretches. The lower edge of the upper plate 37 is notched at 38 at about its midlength to engage a notch 39 in the upper edge of the lower plate 31 near the inner end of the latter, and the upper edge of the upper plate is notched as at 43 at about its midlength to be engaged by and under the band 33 in the wire or staff 3. By this construction the plates are held at right angles to each other and against dislocation in any direction. In proportion and in shape they may follow the illustration—by preference they are of metal painted or treated to render them bright so as to be discernible from a distance. A signal of this character is especially useful on a mail box structure wherein the staff is an upstanding piece of wire or small rod which can be bent and headed as described.

What is claimed is:

1. The combination with a mail box having a door, a latch on the door, and a keeper plate on the box having a catch engaged by the latch to hold the door closed; of a bearing on said plate, a rock shaft mounted therein and having at one end a finger underlying the latch, a staff carried by the other end of the shaft, and a signal on the staff, the latter standing substantially upright when the finger is depressed and the signal automatically depressing the staff when the finger is released.

2. The combination with a mail box having a door, a latch on the door, and a keeper plate on the box having a catch engaged by the latch to hold the door closed; of a bearing on said plate, a rock shaft mounted therein and having at one end a finger underlying the latch, an elbow at the other end of the shaft standing in a plane at an obtuse angle to that occupied by the finger, a staff rising from the elbow, and a signal carried by the staff.

3. The combination with a mail box having a door, a latch on the door having a hooked end, and a keeper plate on the box having an upstanding lip forming a catch to be engaged by the hook; of a rock shaft journaled across the plate and having a finger adapted when depressed to stand in rear of said lip, the shaft also having a staff rising therefrom at an obtuse angle to the finger, and a signal carried by said staff.

4. The combination with a mail box having a door, a latch on the door having a hooked end, and a keeper plate on the box having a shoulder and adjacent the same an upstanding lip forming a catch to be engaged by the hook; of a rock shaft journaled across the plate and having a finger adapted when depressed to stand in rear of said lip and rest on said shoulder, the shaft also having a staff rising therefrom, and a signal carried by said staff.

5. The combination with a mail box having a door, a latch on the door having a hooked end, and a keeper plate on the box having a shoulder and adjacent the same an upstanding lip forming a catch to be engaged by the hook; of a rock shaft journaled across the plate and having a finger adapted when depressed to stand in rear of said lip and rest on said shoulder, a spring carried by the plate and pressing upward on said finger when the latter rests on the shoulder, the shaft also having a staff rising therefrom, and a signal carried by said staff.

6. The combination with a mail box having a door, a latch on the door having a hooked end, and a keeper plate on the box having at one end an upstanding lip to be engaged by said hooked latch, on its body a transverse bearing, and at its other end a rest; of a shaft mounted for oscillation in said bearing, a finger on one end of the shaft adapted to be engaged by the hook of the latch, an elbow on the other end of the shaft standing at an obtuse angle to said finger and adapted to fall onto said rest when the finger is released and the shaft rocks in its bearing, a staff carried by said elbow, and a signal on the staff.

7. The combination with a mail box having a rounded top and open at one end, and a hinged door having a flange for coaction with the sides and top of said box; of a latch and a keeper plate on the door and the top of the box, a support pivotally mounted on the keeper plate and having at one end a finger to be engaged by the latch and at the other end an elbow and a staff rising from the elbow, and a signal on the staff, the same including a flange adapted to make contact with the top of the box to prevent rattle when the signal falls.

In testimony whereof, I affix my signature in the presence of two witnesses.

JOHN B. MASERANG.

Witnesses:
F. W. PUDERER,
LOUIS F. EIDMANN.