Oct. 2, 1928. 1,685,874

H. C. FEIST

MAIL BOX LATCH AND SIGNAL

Filed April 19, 1927

Fig. 1.

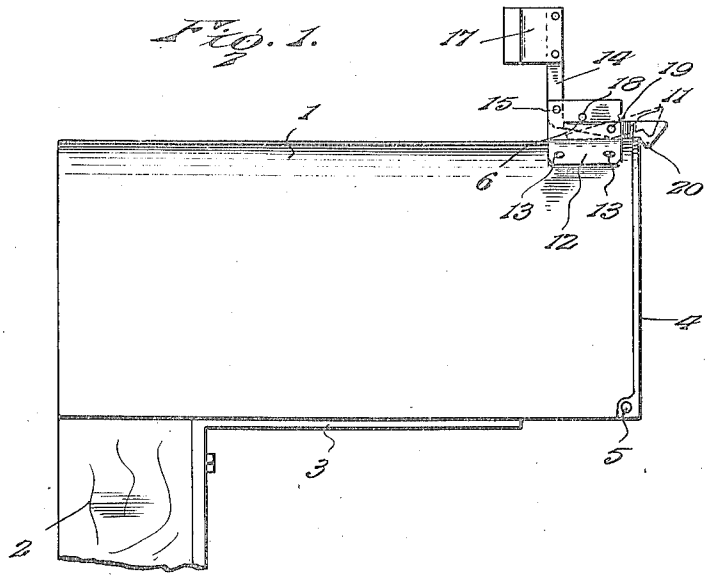


Fig. 3.

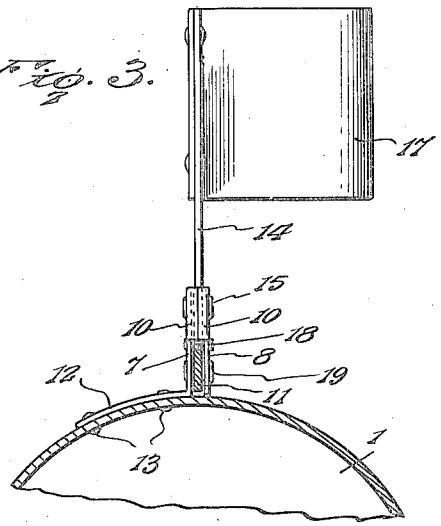
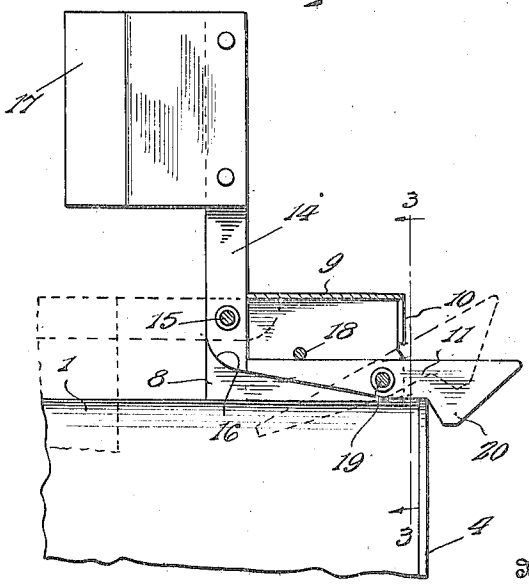


Fig. 2.



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MAIL-BOX LATCH AND SIGNAL.

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This invention relates to mail boxes and more particularly to a mail box of the type employed for rural free delivery purposes.

One object of the invention is to provide the mail box with an attachment which serves not only as a latch for a door to close the open end of the mail box but also as a signal which may be set to indicate that mail has been placed in the box for removal by the mail carrier or owner of the box. It is customary at the present time to provide a mail box of this type with a signal to indicate that mail has been placed in the box but they have been found unsatisfactory as they are often left set to indicate that mail is in the box after mail has been removed therefrom.

Therefore, another object of the invention is to so form and mount the latch and signal that the latch cannot be moved to release the closure door for the open end of the mail box without the signal moving out of a position in which it indicates that mail has been placed in the box.

Another object of the invention is to so mount the latch and signal that, when the signal is moved to a position in which it indicates that mail has been placed in the box, it cannot be released until the latch has been moved to allow the closure door of the box to be opened and, therefore, is not liable to accidentally move from a set position.

Another object of the invention is to provide a combined latch and signal which may be applied to mail boxes of a conventional construction and, therefore, capable of being applied to boxes already in use.

The invention is illustrated in the accompanying drawing, wherein

Figure 1 is a view showing a mail box in side elevation with the improved latch and signal applied thereto;

Fig. 2 is an enlarged view showing the improved latch and signal applied to a fragment of a mail box and disclosed partially in longitudinal section and partially in elevation, and

Fig. 3 is a transverse sectional view taken on the line 3—3 of Fig. 2.

The mail box or receptacle 1 is of a conventional construction and has been shown mounted upon a post 2 and supported thereon by a bracket 3. The receptacle is open at one end and at this open end is provided a door or closure 4 which is hinged at its lower end, as shown at 5, so that it may be swung vertically into and out of a closed position.

The improved latch and signal includes a mounting member, indicated in general by the numeral 6. This mounting member consists of a strip of sheet metal which is bent intermediate its length to provide side walls 7 and 8 joined at their upper ends by a narrow wall 9 which terminates in spaced relation to the rear ends of the side walls. Small flanges 10 project from the forward ends of the walls and are bent to extend towards each other, as shown in Fig. 3. By referring to the drawing, it will be seen that these flanges cooperate to provide an abutment which will limit upward movement of the outer end portion of the latch 11 beyond the position indicated by dotted lines in Fig. 1. After the strip of sheet metal has been bent to form the walls 7 and 8 it is again bent in alinement with the free end of the wall 8 to form an attaching flange 12 which has been shown curved so that it may fit flat against the walls of the receptacle. Rivets 13 may be employed to secure the attaching flange to the receptacle or small bolts or the like substituted if so desired.

The signal employed to indicate that mail has been placed in the mail box includes a shank or staff 14 consisting of a flat strip of metal of proper thickness to fit between the walls 7 and 8 of the mounting. A rivet 15 is passed through the walls and shank to pivotally mount the same so that it may be swung from the elevated position shown in full lines to a lowered position indicated by dotted lines in Fig. 2. It should be noted that at its inner end the staff is formed with a curved edge 16 constituting a cam surface adapted to engage the inner end portion of the latch 11 and thereby allow the shank to be swung upwardly to a vertical position in which the metal flag 17 carried by the shank will be displayed and indicate that mail has been placed in the box. When the signal is swung upwardly to the operative position, it has abutting engagement with the inner end of the latch and since upward movement of the inner end portion of the latch is limited by its engagement with the pin or rivet 18 the signal will be securely held in a raised position. When, however, the latch is rocked upon the pin 19 to swing its inner end por-

tion downwardly away from the abutment pin 18 and out of engagement with the end of the staff 14, the weight of the flag will cause the staff to swing downwardly and the signal will remain in the lowered position until manually returned to an elevated position. The bill 20 formed at the outer end of the latch not only serves to engage the door 4 and retain the door closed but also forms a weighted portion which will cause the latch to normally remain in the position shown in Fig. 2 with its inner end disposed in such position that it may engage the shank or staff of the signal and secure the signal in a raised position.

When mail is placed in the mail box, the door is swung upwardly to a closed position and is engaged by the bill of the latch. The signal is then swung upwardly and is engaged by the latch, as shown in Fig. 2, and retained in the elevated position. In order to remove mail from the box, it is necessary to swing the outer end portion of the latch upwardly to the position indicated by dotted lines in Fig. 1 and thereby move the bill out of position to engage and secure the door. In doing so the inner end portion of the latch is moved downwardly out of engagement with the shank of the signal and the weight of the flag causes the signal to swing downwardly to a lowered position. After the mail has been removed the door may be closed and engaged by the latch but the signal will remain in the lowered position until it is manually swung upwardly to a raised position. It will thus be seen that a letter carrier may remove mail from a box and close the door and there will be no danger of the signal remaining in an elevated position and causing a person to think that mail has been placed in the box by the letter carrier. When mail is placed in the box and the signal swung upwardly, it will be very firmly supported and there will be no danger of its accidentally moving to a lowered position. I have, therefore, provided a combined latch and signal which will serve to very securely retain a door of a mail box closed and the latch portion of which cannot be moved to permit the door to be opened without the signal being released and allowed to drop of its own weight to a lowered position.

Having thus described the invention, I claim:

1. A receptacle, a closure for said receptacle movable into and out of a closed position, a signal carried by said receptacle and movable into and out of a set position, and a movably mounted latch carried by said receptacle and having a portion engageable with said closure and another portion movable into and out of position to engage said signal whereby the latch may releasably retain the closure shut and the signal in a set position.

2. A receptacle, a closure for said receptacle movable into and out of a closed position, a bearing carried by said receptacle, a signal carried by said bearing and movable into and out of a set position, and a latch pivoted intermediate its length to said bearing with one end adapted to engage said signal and releasably retain the same in a set position and its other end portion adapted to engage said closure and releasably retain the closure shut.

3. A receptacle, a closure for said receptacle movable into and out of a closed position, a signal movable into and out of a set position, and a latch pivotally mounted intermediate its length with one end adapted to engage said signal and releasably retain the same in a set position and its other end portion formed with a bill to engage said closure and releasably retain the closure shut and constituting a weighted end portion to yieldably retain the latch in an operative position.

4. A receptacle open at one end, a closure for the open end of said receptacle having its lower end hinged to the receptacle, a pivotally mounted latch having one end adapted to engage said closure and releasably retain the closure shut, and a movably mounted signal having a portion engageable by the other end of said latch to releasably hold the signal in a set position, the latch normally remaining in position to engage the closure and signal.

5. A receptacle open at one end, a closure for the open end of said receptacle having its lower end hinged to the receptacle, a pivotally mounted latch extending longitudinally of the receptacle and having one end adapted to engage said closure and releasably retain the closure shut, and a pivotally mounted signal having a portion engageable with the other end of said latch to releasably retain the signal in a set position.

6. A receptacle open at one end, a closure for the open end of said receptacle having its lower end hinged to the receptacle, a bearing carried by said receptacle and projecting upwardly therefrom, a latch pivoted to said bearing and extending longitudinally of the receptacle with one end projecting therefrom and formed with a depending bill to engage said closure and releasably hold the closure shut, and a signal having a shank pivoted to the bearing for vertical swinging movement and engageable with the other end of said latch whereby the latch may releasably retain the signal elevated.

7. A receptacle open at one end, a closure for the open end of said receptacle having its lower end hinged to the receptacle, a bearing extending longitudinally of said receptacle and having vertically disposed spaced side walls, an attaching member extending from one side wall and secured to said receptacle, an upper wall connecting said side

walls terminating in spaced relation to their inner ends, a latch pivotally mounted between said side walls and having an outer end portion projecting from the bearing and provided with a depending latch to engage the upper end of said closure and retain the closure shut, and a signal having a shank pivotally mounted between the inner end portions of said side walls for vertical swinging movement, the inner end of said latch being disposed to engage said shank and releasably retain the signal elevated.

8. A receptacle open at one end, a closure for the open end of said receptacle having its lower end hinged to the receptacle, a bearing extending longitudinally of said receptacle and having vertically disposed spaced side walls, an attaching member extending from one side wall and secured to said receptacle, an upper wall connecting said side walls terminating in spaced relation to their inner ends, a latch pivotally mounted between said side walls and having an outer end portion projecting from the bearing and provided with a depending latch to engage the upper end of said closure and retain the closure shut, and a signal having a shank pivotally mounted between the inner end portions of said side walls for vertical swinging movement and when lowered having a portion overhanging the inner end portion of said latch and formed with a cam to permit the signal to be swung past the latch to a set position, the inner end of said latch being disposed to abut the shank and releasably retain the signal elevated.

In testimony whereof I affix my signature.

HERMAN C. FEIST. [L. S.]