H. E. GUSTAFSON.

MAIL BOX SIGNAL.

APPLICATION FILED DEC. 8, 1920.

1,405,583. Patented Feb. 7, 1922.

Fig. 1.

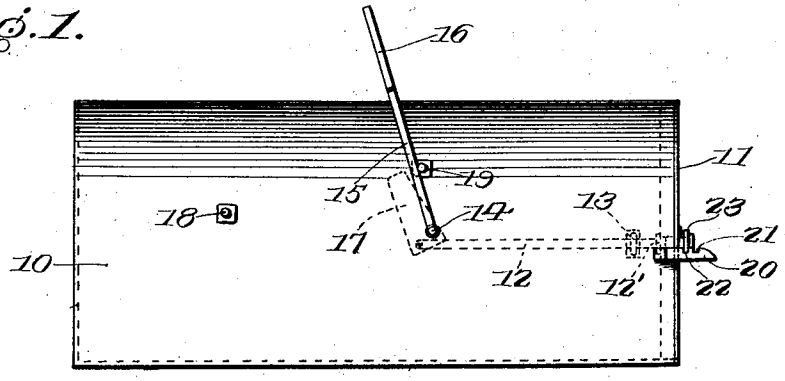


Fig. 2.

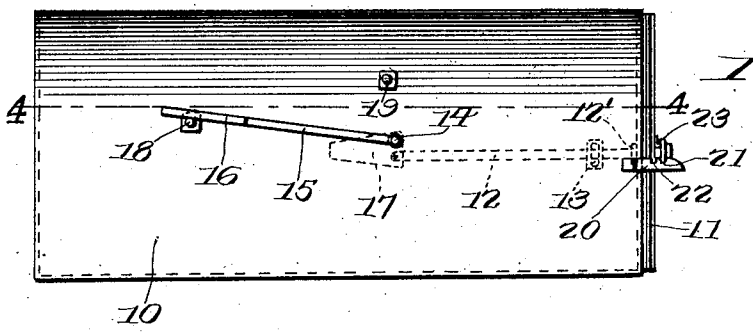


Fig. 3.

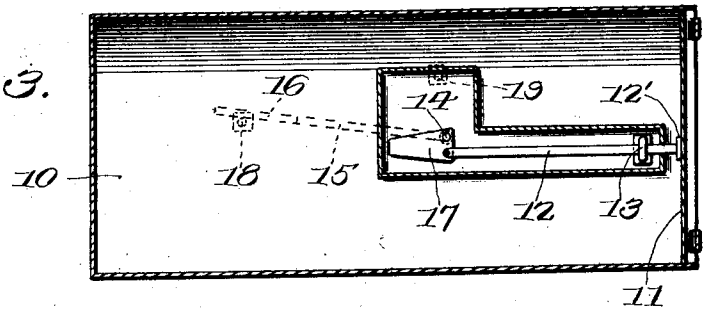
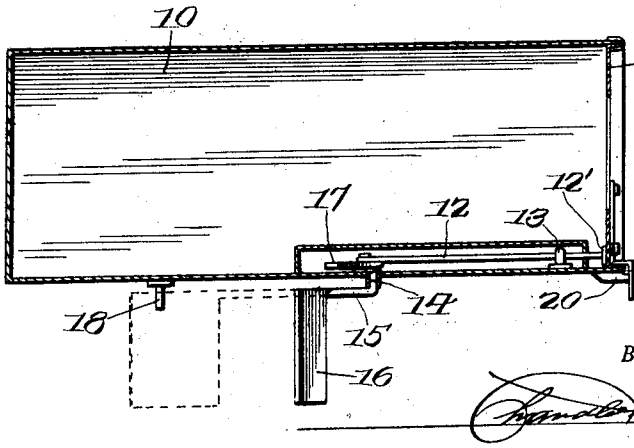


Fig. 4.



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MAIL-BOX SIGNAL.

1,405,583. Specification of Letters Patent. Patented Feb. 7, 1922.

Application filed December 8, 1920. Serial No. 429,121.

To all whom it may concern:

Be it known that I, HAROLD E. GUSTAFSON, a citizen of the United States, residing at Harcourt, in the county of Webster, State of Iowa, have invented certain new and useful Improvements in Mail-Box Signals; 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 new and useful improvements in rural mail boxes, and particularly to signals therefor.

One object of the invention is to provide means operable by the door of the mail box which will elevate the signal to indicating position.

Another object is to provide a signal actuating mechanism, operative by the door of the box whereby the door may be closed with the signal in elevated or lowered position, without the necessity of manual manipulation.

Other objects and advantages will be apparent from the following description when taken in connection with the accompanying drawing.

In the drawing:

Figure 1 is a side elevation of a mail box equipped with the improved signaling mechanism, the signal arm being in elevated position.

Figure 2 is a similar view showing the signal arm in lowered position.

Figure 3 is a vertical longitudinal sectional view through the box, in a plane disposed inwardly of the operating rod, on the side of the box.

Figure 4 is a horizontal longitudinal sectional view above the operating rod, on the line 4—4 of Figure 2, the lowered position of the signal arm being shown in dotted lines.

Referring particularly to the accompanying drawing, 10 represents a metallic mail box which is of the ordinary rural type having the door 11 hinged at one end thereof, for controlling the opening through which mail is introduced and removed from the box.

Disposed longitudinally of the box, and in close proximity to one of the vertical side walls thereof, is a longitudinally slidable bar 12, the outer end of which is formed with a transverse head 12′, for a purpose which will presently appear. A loop guide 13 is mounted on the said side of the box and receives the said bar 12 slidably therethrough. Disposed transversely through the said side wall of the box, and rotatably supported therein, is a shaft 14, said shaft having on its outer end a radially extending arm 15 carrying on its outer extremity a flag 16, which forms the signal of the box. The inner end of the shaft 14 is rigidly secured to one of the inner corners of an approximately triangular plate 17, the inner end of the rod or bar 12 being pivotally connected to the other inner corner of said plate. The portion of the plate 17, remote from the said connections serves as a weight to rock the shaft 14, and lower the signal arm 15. On the outer side of the wall of the box are disposed the two stop pins 18 and 19 for limiting the lowering and raising movements of the signal arm 15.

Secured to the said side wall of the box, outwardly of the outer end of the rod 12, is a keeper 20, the same having a pair of notches 21 and 22 in its upper edge face for reception of the outer end of the pivoted latch bar 23, carried by the door 11, to retain the door in closed position. As seen in the drawing, the latch 23 is arranged to engage in either notch 21 or 22, and that the door will be held in closed position in either case. Also, it will be noted that when the latch is disposed in the notch 21 the door engages with the adjacent end of the rod 12 and forces the same inwardly, with the result that the plate 17 is rocked, and the flag arm 14 moved into elevated position. When the latch is disposed in the notch 22, the weighted plate 17 is free to swing down and lower the signal arm 14, sufficient space being produced between the door and the notch 21 to permit the rod 12 to slide into normal position. Thus the door can be held in closed position to protect the contents of the box whether the signal is elevated or lowered.

It will be noted that the latch bar 23 is offset outwardly, to permit the door to enter the opening in the end of the box whether the latch engages in the notch 21 or the notch 22. The signal arm can be used to indicate to the collector or to the owner whether or not mail is in the box. If the owner places mail to be collected in the box he closes the door completely, and engages the latch in the inner notch 22, thus raising the signal arm to a position to indicate to the collector that mail is in the box. When the collector removes the mail he closes the

door and places the latch in the notch 21. If, however, the postman places mail in the box, he closes the door completely, placing the latch in the notch 22, thus raising the signal arm and indicating to the owner that mail has been deposited in the box.

What is claimed is:

1. The combination with a wall and swinging door of a mail box, of a pivoted signal arm on the wall, a weight carried by the signal arm inwardly of the wall of the box, a longitudinally slidable rod mounted inwardly of the wall and operatively connected with the said weight, and means for holding the door in closed position to move the rod inwardly and elevate the signal arm at times, and in closed position out of engagement with the rod to permit the signal arm to remain in lowered position.

2. The combination with the side wall and hinged door of a mail box, of a shaft disposed transversely through the said wall, a signal arm on the outer end of the shaft, a weight on the inner end of the shaft, said arm and weight being movable with the shaft, a longitudinally slidable rod mounted on the wall and arranged to be engaged by the door and pushed inwardly to rock the shaft and elevate the signal arm, a pivoted latch on the door, and a keeper on the wall having a pair of notches arranged to receive the latch to hold the door in closed position with the rod pushed inwardly and the signal arm elevated, at times, and to hold the door in closed position out of contact with the rod to permit the signal arm to gravitate to and remain in lowered position.

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

HAROLD E. GUSTAFSON.

Witnesses:
CYRUS V. NORDBLOM,
C. H. SWANSON.