March 2, 1954 H. J. GAGNON 2,670,897

MAILBOX SIGNAL

Filed Feb. 28, 1952

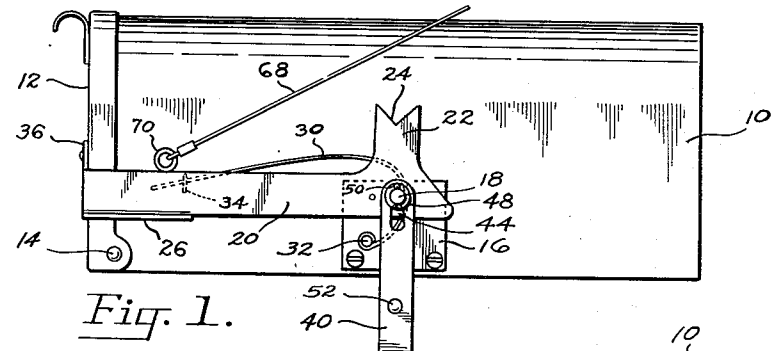


Fig. 1.

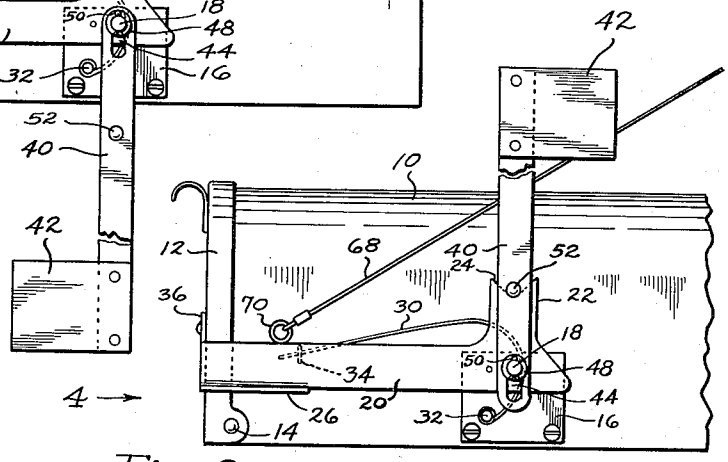


Fig. 2.

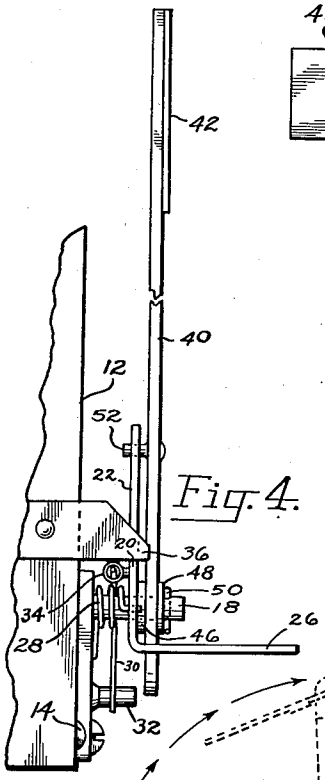


Fig. 4.

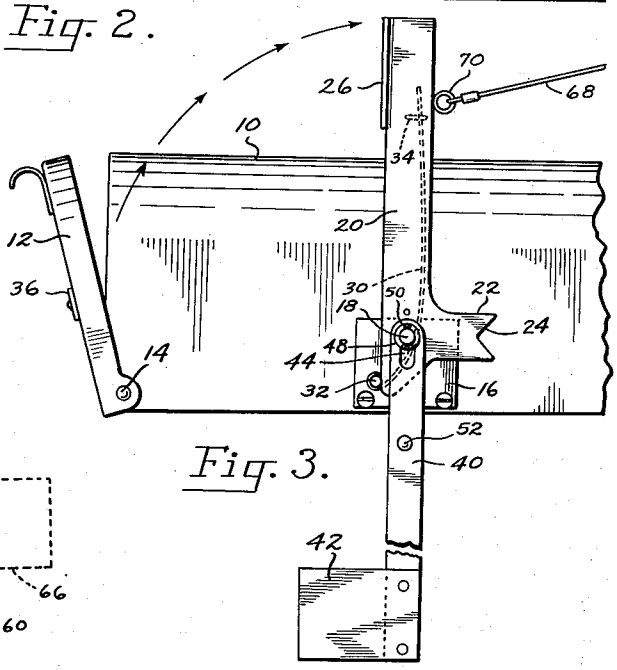


Fig. 3.

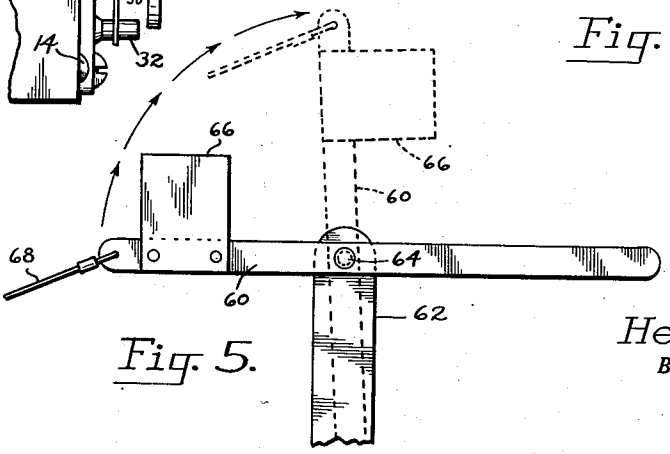


Fig. 5.

INVENTOR.
Henry J. Gagnon
BY Eugene D. Farley
Atty.

Patented Mar. 2, 1954

2,670,897

UNITED STATES PATENT OFFICE

2,670,897

MAILBOX SIGNAL

Henry J. Gagnon, Olalla, Wash.

Application February 28, 1952, Serial No. 273,816

1 Claim. (Cl. 232—35)

1

This invention relates to signals for rural mailboxes.

It is a primary object of the present invention to provide a signal for rural mailboxes which automatically will assume its signaling position when mail is placed in the mailbox.

It is another object of the present invention to provide a signal for rural mailboxes which is operative at a station remote from the mailbox where it is visible to the boxholder even though the mailbox itself, from which the signal is operated, may be concealed from view.

Still another object of the present invention is the provision of a signal for rural mailboxes which serves the dual purpose of signaling the mailman when the box contains mail to be collected and of signaling the boxholder when the mail has been collected.

It is another object of the present invention to provide a signal for rural mailboxes which signals to the boxholder the collection or receipt of mail without interfering with the normal use of the mailbox.

The manner in which the foregoing and other objects of this invention are accomplished will be apparent from the following specification and claim, considered together with the accompanying drawing wherein like numerals of reference indicate like parts and wherein:

Figure 1 is a view in side elevation of the presently described mailbox set to receive mail, there being no outgoing mail;

Figure 2 is a fragmentary view in side elevation similar to Figure 1 but indicating the signal set to receive mail when there is outgoing mail;

Figure 3 is a fragmentary view in side elevation similar to Figures 1 and 2 but illustrating the position of the signal when the outgoing mail has been collected, or the incoming mail has been deposited;

Figure 4 is a fragmentary view in front elevation with the signal set as in Figure 2 to receive incoming mail when outgoing mail is to be collected and showing a variant resilient element; and

Figure 5 is a view in side elevation of an auxiliary signal for use at a remote station with the signal of Figures 1 to 4 to signal the arrival of the mail carrier.

Referring now more particularly to the drawings:

The presently described mailbox signal is adapted for attachment to a conventional mailbox 10 of the type used on R. F. D. routes. The box customarily opens at its front end, a door 12 hingedly mounted on pin 14 being provided for this purpose.

2

The signal comprises a base plate 16 adapted to be bolted to the side of the mailbox a spaced distance from the door. Extending outwardly from the base plate is a pivot pin 18. Pivotally mounted on pin 18 is a first signal arm 20 adapted to move between lowered or horizontal and raised or vertical positions. A standard 22 having a notched upper surface 24 is rigid to arm 20 and preferably is formed integrally therewith.

Arm 20 is dimensioned to project beyond the plane of door 12 when the arm is in its horizontal position. It carries at its outer end a flag or signal 26 which preferably extends in the plane of the door so as to be visible to the boxholder from a station behind the mailbox. Flag 26 may be painted any suitable color or bear any suitable indicia calculated to attract the attention of or to be readily visible by the holder of the box.

Arm 20 is urged continuously to its raised or vertical position by tensioning means which preferably comprise a resilient element interconnecting it with base plate 16. In the drawings two such resilient elements are illustrated, although it is to be understood that either one may be employed singly.

Thus, in one of its forms, the resilient element may comprise a coil spring 28 interposed between base palte 16 and arm 20 and arranged to penetrate perforations in these two members at its respective ends, encircling pin 18.

In an alternate and preferred form, the resilient element may comprise a strip of spring metal 30 which is anchored at one of its ends to a pin 32 on base plate 16. Strip 30 is then brought around the rear side of pin 18 and slidably extends through guide means comprising in the illustrated form the eye 34.

Thus, when arm 20 is in its lowered or horizontal position, it is maintained under tension urging it to its raised or vertical position. Such movement is restrained, however, by trip means comprising, for example, the horizontal bar 36 attached to door 12 and extending laterally therefrom. It will be apparent that when door 12 is opened, bar 36 is removed from arm 20, which then is elevated by spring 28 or spring 30. The upward motion of arm 20 is arrested when the arm is fully elevated, however, by contact of its lower terminal portion with stop means such as pin 32.

The operation of arm 20 with flag 26 attached thereto thus serves to signal the boxholder when the mail carrier opens the door of the box to remove or deposit mail. Signaling means also are

provided, however, for signaling the carrier that outgoing mail has been placed in the box. To this end, there is provided a second signal arm 40 having at its outer extremity the flag 42 and at its inner extremity a slot 44.

Arm 40 is pivotally mounted on pin 18 by inserting the latter pin through slot 44, spacing it by means of a pair of washers 46, 48 and locking it on the arm with a cotter key 50.

Arm 40 thus is free to rotate about pin 18. To maintain it in elevated position when arm 20 is lowered, it is provided with means for releasable interengagement with standard 22. In the illustrated embodiment such means comprise the laterally projecting pin 52 positioned intermediate the ends of arm 40 and adapted to rest in notch 24 on standard 22. Hence, arm 40 may be raised to signal to the mail carrier that outgoing mail has been deposited in the box by placing pin 20 in notch 24. However, the engagement is purely gravitational and when arm 20 is raised upon opening the box, standard 22 will assume its horizontal position and no longer support arm 40, which therefore drops to its lowered position.

Since in many instances the mailbox is located at a station remote from the home of the boxholder at which station it is not readily visible, means also are provided for operating a signal remote from the mailbox. To this end there is provided a third signal arm 60 pivotally mounted on a support member 62 through pivot pin 64. This installation may be located, for example, adjacent the home of the boxholder.

Arm 60 is provided with tensioning means for maintaining it normally in a raised position. In the illustrated form, this result is achieved by mounting the arm unsymmetrically with respect to pin 64, thereby providing a weighted free end which overbalances the end bearing flag 66. Flag 66 may be of any suitable form and painted a characteristic color or inscribed with characteristic insignia calculated to be readily visible when the flag is raised.

Arm 60 is interconnected with arm 20 through flexible interconnecting means which may comprise, for example, a cord or wire 68. This is connected at one of its ends to the extremity of arm 60 and at the other of its ends to arm 20 through eye 70 thereon. It normally is maintained taut and may traverse suitably located guide means such as eyes and pulleys disposed on stationary objects along its course. Thus, when arm 20 is lowered, it will lower arm 60. However, when arm 20 is elevated, arm 60 also will assume an elevated position.

Operation

The operation of the herein described mailbox signal is as follows:

When the signal is set to receive mail, there being no outgoing mail, arms 20, 40 and 60 are set in the positions of Figures 1 and 5, with arm 20 maintained horizontal beneath trip 36 against the tension of springs 28 and 30. Arm 60 likewise is maintained horizontal but is constantly urged to a raised position by its weighted terminal portion. If the carrier opens door 12 to deposit mail, trip 36 will become disengaged from arm 20, which then will be elevated by springs 28, 30 to assume the position of Figure 3. During this operation, arm 60 will assume the dotted outline position of Figure 5, thereby indicating to the boxholder that mail has been deposited in the box.

If outgoing mail has been placed in the box, the signal is set in the position of Figures 2, 4 and 5, wherein arm 20 is lowered and arm 40 is elevated, pin 52 in arm 40 resting in notch 24 on standard 22. As before, arm 60 will be in lowered position corresponding to the position of arm 20.

When the mail carrier opens door 12, the sequence above described will occur, arms 20 and 60 rising to their elevated positions. The motion of arm 20 will, however, place standard 22 in a horizontal plane so that arm 40 becomes disengaged therefrom and swings freely downwardly until it assumes the position of Figure 3. The boxholder thus is advised that the mail carrier has called and has either removed outgoing mail from the box or placed incoming mail therein.

It is to be understood that the form of my invention, herewith shown and described, is to be taken as a preferred example of the same, and that various changes in the shape, size and arrangement of parts may be resorted to, without departing from the spirit of my invention, or the scope of the subjoined claim. For example, the pivot support for the second signal arm 40 is illustrated in the drawing to be pin 18. This is a simplified and preferred arrangement, although it will be recognized that arm 40 may be pivotally supported upon the first arm 20 instead. In any event the second arm 40 is supported for pivotal movement independent of arm 20 for setting the second flag 42 in vertical position, but the set second flag arm 40 is rotated to lowered tripped position with and by the first arm 20 through engagement of pin 52 with the notch 24 in standard 22.

Having thus described my invention, I claim:

A mailbox signal for use on a mailbox provided with a door, the signal comprising a pivot pin adapted to be affixed to the side of the mailbox and to extend outwardly therefrom, a first signal arm pivotally mounted on the pivot pin, a notched standard rigid to the first signal arm and substantially normal thereto, trip means adapted to be fastened to the door in a position for engagement by the first arm, thereby maintaining the first arm in a horizontal position, stop means for engaging the first arm when the first arm is in a vertical position, tensioning means connected to the first arm for urging the same to a vertical position against the stop means, a second signal arm having a slot in the lower portion thereof, the pivot pin extending through the slot, thereby pivotally mounting the second arm on the mailbox while permitting its longitudinal movement, a laterally extending pin on the second arm intermediate its ends, the second arm being operable between a raised position wherein the standard is vertical and the pin rests in the notch and a lowered position wherein the standard is horizontal and the pin is released from the notch.

HENRY J. GAGNON.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
384,964	Voss	Apr. 14, 1908
1,102,977	Carver	July 7, 1914
1,458,836	McDowell	June 12, 1923
1,925,227	Black	Sept. 5, 1933
1,929,965	Black	Oct. 10, 1933