July 16, 1968 G. W. CLARK 3,392,911

MAILBOX SIGNAL

Filed Nov. 15, 1966

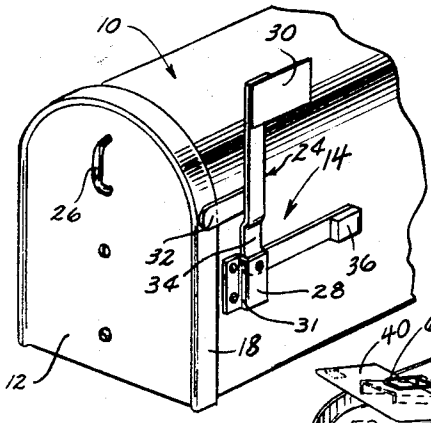


Fig. 1

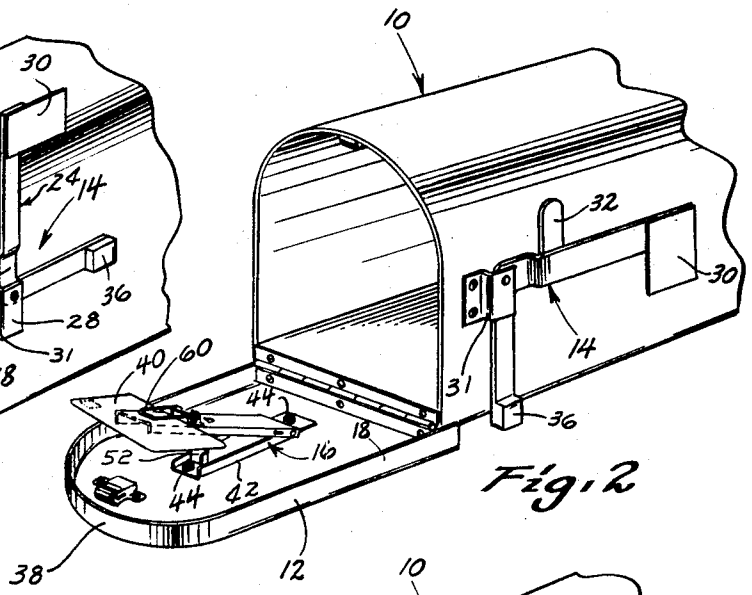


Fig. 2

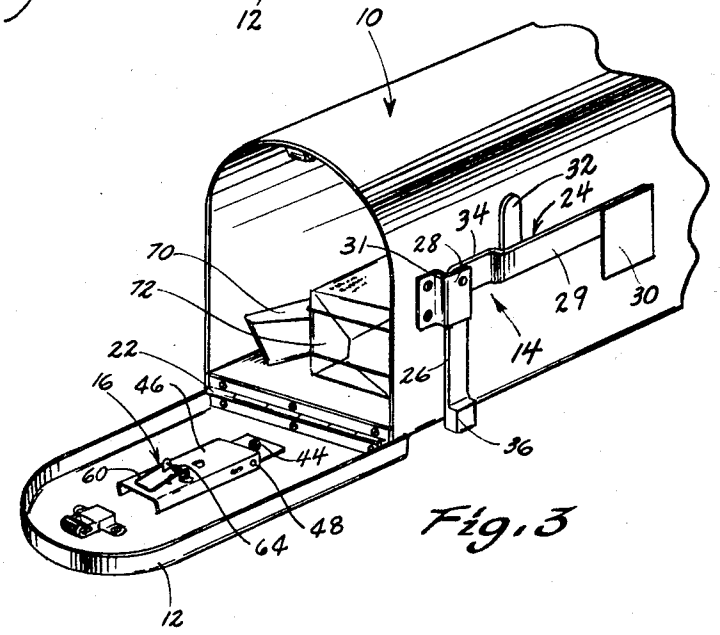


Fig. 3

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MAILBOX SIGNAL

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Continuation-in-part of application Ser. No. 462,550, June 9, 1965. This application Nov. 15, 1966, Ser. No. 594,511
6 Claims. (Cl. 232—35)

ABSTRACT OF THE DISCLOSURE

A mailbox having a door pivotal between open and closed positions and a signal member secured to the side of the box and adapted to move between and up and down positions and when in an up position a latch means carried on the signal member engages frictionally the outside surface of the smooth flange on the door thereby assisting in maintaining the door in a closed condition and the signalling means in an up position. Upon the door being opened the signalling means moves to a down position out of engagement with the door.

This application is a continuation-in-part application of my co-pending application, Ser. No. 462,550, filed June 9, 1965, now Patent No. 3,301,475.

The mailman is greatly handicapped by the conventional mailbox in not knowing whether there is mail to be picked up.

Therefore, it is a principal object of this invention to provide a mailbox which will definitely indicate to the mailman through a trouble-free signalling device that there is outgoing mail in the box to be picked up.

A further object of this invention is to provide a mailbox having a signalling device which is held in an up position by the door of the mailbox and upon opening the door of the mailbox the signalling device moves to a down position.

A still further object of this invention is to provide a mailbox having a signalling device which is provided with a latch means for engaging the outer smooth edge of the door to thereby frictionally hold the signalling device in its up position and hold the door in its closed position in mating engagement with the mailbox.

Another related object of this invention is to provide a signalling device having a latch means which frictionally engages the outside surface of the flange on the mailbox door which in turn is in mating engagement with the adjacent side wall of the mailbox.

Yet another related object of this invention is to provide a signalling device having a latch means which frictionally engages the outside surface of the flange on the mailbox door and upon the signalling device beginning to move downwardly the latch means moves upwardly to a point adjacent and spaced from the arcuate end of the door thereby quickly reducing the frictional forces between the latch means and the door whereby the door may be easily opened.

Yet another object of this invention is to provide a mailbox having a signalling arm which includes a first portion for pivoting the signalling arm to the mailbox and a second portion offset outwardly from the plane of the first portion and from the box extending outwardly from the first portion and a latch means secured to the second portion adjacent its connection to the first portion.

A further object of this invention is to provide a mailbox signal which is simple in design, economical to manufacture and refined in appearance.

These and other objects will be apparent to those skilled in the art.

This invention consists in the construction, arrangements, and combination of the various parts of the device, whereby the objects contemplated are attained as hereinafter more fully set forth, specifically pointed out in the claims, and illustrated in the accompanying drawings, in which:

FIG. 1 is a fragmentary perspective view of the mailbox in its closed position with the signalling device in its up position;

FIG. 2 is a perspective fragmentary view of the mailbox with the door in its opened position, the signalling device in its down position, and the mailholder unit in its position of use holding letters for pickup by a mailman; and

FIG. 3 is a view similar to FIG. 2 but showing the mailholder unit after the letters have been removed and the unit has moved to its collapsed position against the mailbox door and thereby eliminating any obstruction to the placing of incoming mail into the mailbox.

The mailbox of this invention is illustrated in FIGS. 1, 2 and 3 as including a conventional box **10** having a door **12**. A signalling unit **14** is mounted on one side of the box **10** and a letter holding unit **16** is secured to the inside face of the door **12**.

The door **12** is provided with a flange **18** which is adapted to matingly engage the outer surface of the box **10**. A handle **26** is provided on the outer side of the door **12** for pivoting the door on a hinge **22** connecting the door to the lower front of the box **10**.

The signal unit **14** includes a pair of arms **24** and **26** disposed at 90 degrees to each other and are pivotally secured to the side of the box **10** by a bracket **28**. The arm **24** has an outer portion **29** provided with a flag **30** on its outer free end and a latch plate element **32** on its inner end. The inner end is integrally connected to an inwardly offset portion **34** which is pivotally connected to the bracket **28**. The arm **26** is provided with a counterweight **36** on its outer free end while the inner free end is pivotally connected to the bracket **28** is adapted to bear against the lower end of a vertical portion **31** of the bracket to limit its downward pivotal movement as illustrated in FIGS. 2 and 3. As seen in FIG. 1, the inner end **34** of the signal arm **24** is adapted to bear against the upper end of the vertical portion **31** to limit the forward pivotal movement of the signal unit **14**.

As seen in FIG. 1, the signal unit **14** is held in its operative position of use by the latch **32** frictionally engaging the outer smooth side of the flange **18** on the door **12** and thereby additionally assist in holding the door **12** in its closed position by forcing the flange **18** into frictional engagement with the adjacent outer surface of the box **10**. It is seen that upon opening the door **12** against the frictional action of the latch **32**, the counterweight **36** causes the signalling unit **14** to pivot to its down position of FIGS. 2 and 3.

As the signal member or unit **14** begins to pivot rearwardly away from the door **12** the plate latch element **32** moves upwardly out of engagement with the smooth side flange **18** into the area of the rounded end **38** of the mailbox door **12** which thereby spaces the latch plate element **32** from the flange **18**. Accordingly, the frictional forces between the plate element **32** and the flange **18** are almost instantaneously reduced upon a slight pivotal movement of the signal member **14** and thus the door **12** may be easily and quickly opened. At the same time, when the door is closed the frictional forces are substantial to assist in maintaining the door in its closed condition and hold the signal unit **14** in its up position.

The letter holding unit **16** is shown and described in detail in my co-pendnig application, Ser. No. 462,550. It is seen that upon opening the door **12** to its horizontal position of FIGS. 2 and 3 that the letter holding unit **16** is exposed and extends outwardly within easy reach

of the mailman, a letter **40**. The letter holding device **16** includes a channel-shaped base portion **42** which is secured by bolts **44** to the inside surface of the box door **12**. A downwardly facing channel member **46** is pivotally connected by a pin **48** to the inner end of the base channel member **42** and a spring (not shown) is provided on the pin **48** to normally bias the channel member **46** downwardly towards the door **12**.

A latch plate **52** is pivotally connected to the outer end of the base member **42** and is adapted to pivot to a substantially perpendicular position as shown in FIG. 2 wherein its outer free end engages the under side of the arm **46**.

On the outer end, on the upper surface of the arm **46**, a jaw or mouse trap type wire spring member **60** is provided and is pivotally connected to the member **46**. A spring **64** is mounted on a pin extending through the free ends of the wire clamp **60** to hold the clamp **60** in a normally down position engaging the top surface of the arm **46**.

Thus it is seen that as the mailman approaches the mailbox **10** he will be immediately notified that there is mail to be picked up if the flag **30** is in its raised position of FIG. 1. Accordingly, when he opens the door **12** to its position of FIGS. 2 and 3 he will find a letter or the like **40** held outside of the box by the letter holder unit **16** mounted on the lid **12**. As he lifts the letter **40** from between the clamps **60** and the arm **46**, he will raise the arm **46** such that the latch **52** may fall down against the member **42** and thus permit the arm **46** to fall to the position in FIG. 3. Now, the inside of the box **10** is fully exposed and he may insert letters **70** and packages **72** as shown in FIG. 3, without any obstruction whatsoever. It is apparent therefore that the inconvenience of reaching into the rear of the mailbox to obtain outgoing mail has been completely eliminated and instead the letters to be picked up are conveniently placed within easy reach.

It is to be stressed that both the signalling unit **14** and the letter holding device **16** are for the benefit of the mailman as the signalling unit lets the mailman know that he has mail to pick up and the letter holding unit **16** facilitates the efficient handling and pickup of the outgoing mail and moreover readily permits incoming mail to be placed in the box **10**.

Some changes may be made in the construction and arrangement of my mailbox signal without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims, any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim:

1. A mailbox, comprising,

a unit having a door hingedly connected to one end and adapted to pivot between a vertical closed position to a horizontal open position, said door having a smooth flange extending along at least one side and adapted to matingly engage an adjacent side of said box,

a signal member pivotally secured to the side of said box and adapted to move from an up position to a down position,

latch means carried by said signal member for releasably engaging said door when said signal member is in said up position, said latch means only frictionally bearing against said outside surface of said smooth flange for holding said door in its closed position and said signal member in its up position,

said latch means carried by said signal member being adapted to be disengaged from said door upon said door being pivoted to said open position whereby said signal member is moved to its down position,

and means for limiting the pivotal movement of said signal member forwardly towards and with said door,

means for normally yieldably pivoting said signal member rearwardly of said door when said signal is in said up position whereby said signal is pivoted to said down position upon said door being moved to said open position and said latch being disengaged from said outside surface of said smooth flange, said signal member is L-shaped and includes a signal arm and counterweight arm and said signal member being pivotally connected to said box at the juncture of said pair of arms, said means for normally yieldably pivoting said signal member rearwardly of said door is further defined as being said counterweight arm, and said latch means being a plate element secured to said signal arm and extending in the opposite direction of said signal arm from said counterweight arm, said signal member being arranged for said signal arm to extend upwardly and said counterweight arm horizontally away from said door when said signal member is in its up position, and

said signal arm includes a first portion for pivoting said signal member to said box, a second portion offset outwardly from the plane of said first portion and from said box extending outwardly from said first portion, and said latch means plate element being secured to said second portion adjacent its connection to said first portion.

2. The structure of claim **1** wherein said latch means plate element is positioned in a plane between the plane of each of said first and second portions of said signal arm.

3. The structure of claim **2** wherein said door has an arcuate outer end and straight sides, said smooth flange extending along said one side and around said arcuate outer end, and said latch means plate element being positioned to engage said flange closely adjacent said arcuate end of said door whereby as said signal member pivots rearwardly away from said door said plate element moves outwardly along said smooth flange on the side of said door to a point adjacent and spaced from said arcuate end of said door thereby frictionally disengaging said latch means plate element from said smooth flange.

4. The structure of claim **1** wherein means is provided for limiting the downward pivotal movement of said signal member to a position with said signal arm extending horizontally rearwardly along said box and said counterweight arm extending vertically downwardly.

5. The structure of claim **4** wherein said means for limiting the pivotal movement of said signal member forwardly and said means for limiting the downward pivotal movement of said signal member are further defined as a bracket secured to said mailbox and having a vertically disposed portion positioned bewteen said door and the axis of pivotal movement of said signal member, said vertical portion extending above and below the axis of pivotal movement of said door for engagement with said signal arm and when said signal member is in said up position and for engagement with said counterweight arm when said signal member is in said down position.

6. The structure of claim **5** wherein said bracket includes a rearwardly extending portion from said vertical portion and extending over the juncture of said pair of arms, and a pin interconnecting said signal member at the juncture of said pair of arms to said rearwardly extending portion.

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