United States Patent

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[54] **SIGNAL FLAG DEVICE**
4 Claims, 5 Drawing Figs.

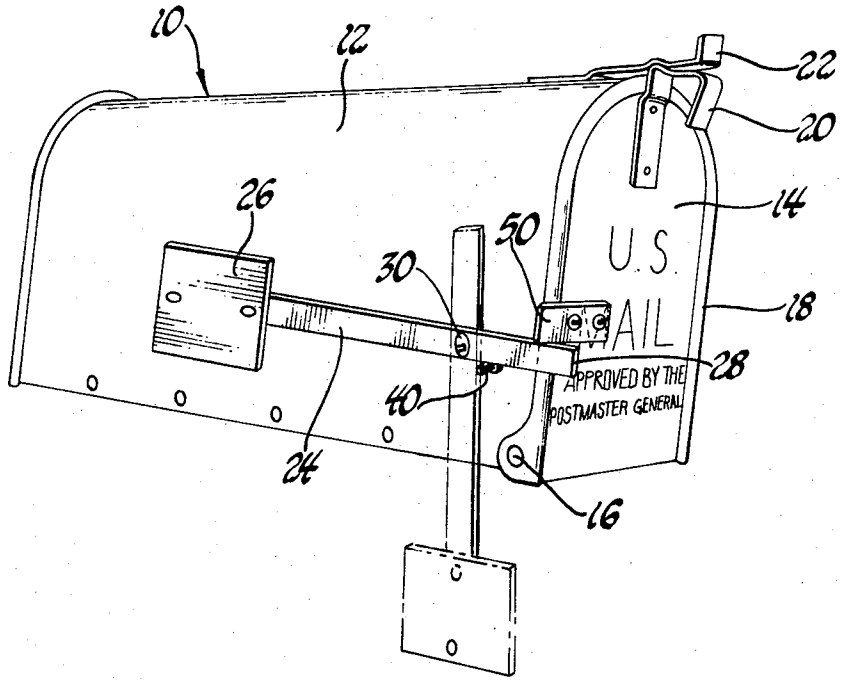
[52] **U.S. Cl.** **232/35**
[51] **Int. Cl.** **A47g 29/12**
[50] **Field of Search** 232/35, 34, 17

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ABSTRACT: A signal flag device for rural mail boxes and the like, including a signal flag arm pivotally mounted to the side of a mailbox, held in a horizontal position by the cover door, and weighted to drop the flag end of the arm when the cover door is opened.



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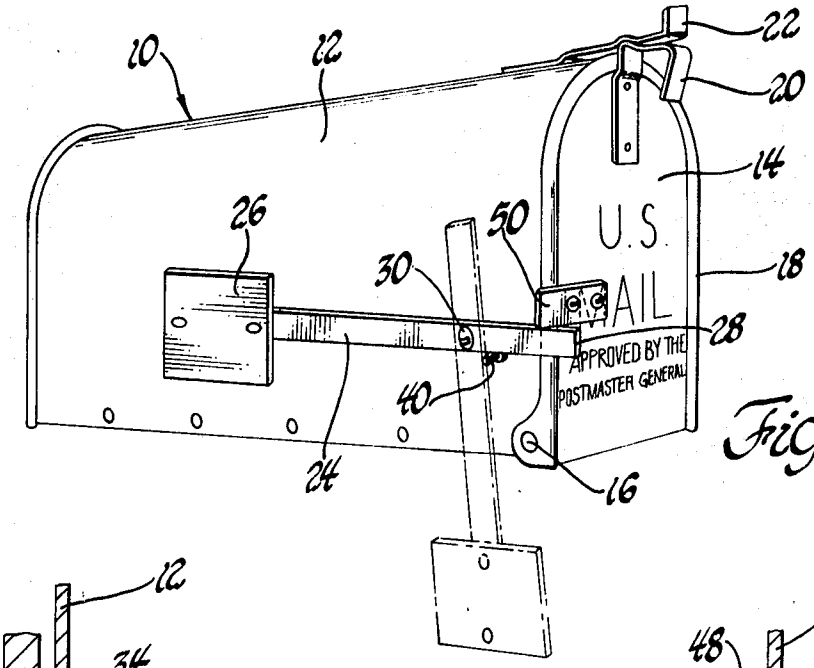


Fig. 1

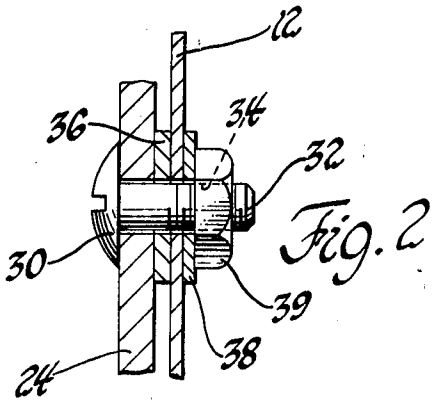


Fig. 2

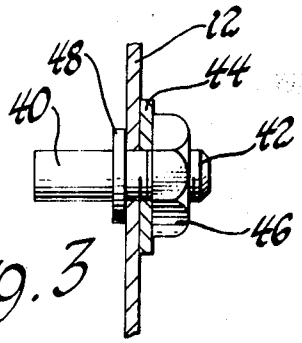


Fig. 3

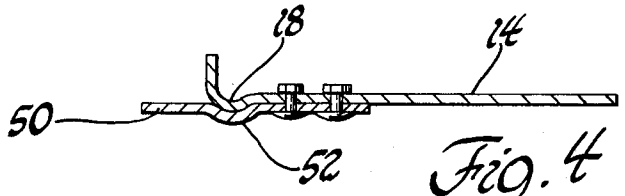


Fig. 4

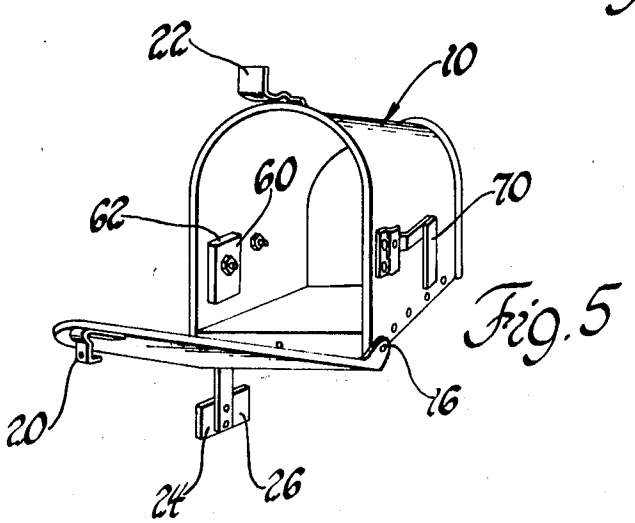


Fig. 5

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SIGNAL FLAG DEVICE

BACKGROUND OF THE INVENTION

This invention relates to signal flag for rural mailboxes and the like.

Although rural mailboxes are provided with a signal flag to indicate mail that is being sent out, when one wishes the postman to pick it up, very few include any sort of signal flag to indicate when mail has been delivered. Moreover, those which do include a delivery flag are expensive and difficult to repair, if damaged. They are not made with the average person in mind, who has neither the mechanical aptitude nor the necessary tools to make repairs, and certainly not for older people in ill health who are unable to do such things for themselves, and cannot afford to hire someone to do it for them.

Simplicity in design and the utmost assurance of continued proficiency in operation, without the need for repairs, is thus essential for a delivery flag on a rural mailbox.

Another important thing is that the delivery flag should be such as can be added to a regular rural mailbox later, and need not be purchased with the mailbox in the first instance. People do not want to change mailboxes and some cannot afford the extra cost, however small, that the box and flag might cost if bought together. However, they might wish to add the flag later. And, this means that the installation of the delivery flag must be extremely simple, require no special tools and be practically foolproof.

While there have been some suggestions that take some of these things into consideration, there are no rural mailbox delivery flags which satisfy all of these requirements and, it is believed, that this is in large part due to trying to have the delivery flag rise up and stand above the mailbox, like the pickup flag does.

If the delivery flag is raised, there is a possibility of confusion for the postman. Older people with poor eyesight would have the same problem. Such a flag would require a counter weight or to be counterbalanced, which adds to cost and/or installation problems. If the delivery flag is set back or otherwise located differently from the pickup flag, as has been tried, the mechanism to operate the flag is more involved and many of the problems of cost and maintenance, which were mentioned earlier, are present.

There is need for a simple signal device indicating mail deliveries, which is inexpensive to make, so that the retail price will be reasonable, which is easy to install, so that it can be purchased separately and used on existing mailboxes, which is automatically activated when the postman leaves mail, and which is clearly a distinctive signal that will not be confused with the postman's pickup flag.

SUMMARY OF THE INVENTION

The present invention relates to a signal flag for rural mailboxes, and the like, which is activated when the mailbox door is opened to make delivery and which drops down and shows below rather than above the box, in addition to including all of the other advantages previously mentioned.

The delivery flag includes a simple arm member with a flag signal on one end, a mounting hole through which a mounting screw goes, to fasten it to the side of a rural mailbox, and which allows it to be pivoted thereon, and a stop fastened to the mailbox door. The flag serves as its own counter weight and the stop on the mailbox door is located to keep the flag from dropping until the mailbox door is opened.

Installation is simply by making a nail hole punch through the side of the mailbox, near the door, for the mounting screw for the flag and a couple of nail holes in the door for fastening the stop to it. The location of the mounting screw or the stop requires no template or other precise measurement and can easily be done by eye and the use of ordinary common sense.

A more thorough discussion of a preferred embodiment is given in the detailed description which follows.

DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of a rural mailbox having a delivery signal flag, in accord with the present invention, mounted thereon.

FIG. **2** is an enlarged cross-sectional view of the mounting arrangement for the signal flag shown on the mailbox in the first drawing figure.

FIG. **3** is an enlarged cross-sectional view of the flag stop on the mailbox, as used and shown in the first drawing figure.

FIG. **4** is an enlarged cross-sectional view of the flag holding stop on the mailbox door.

FIG. **5** is a perspective view of an alternate form of stop, for the signal flag, seen looking into a mailbox on which provided.

DETAILED DESCRIPTION OF THE ILLUSTRATED EMBODIMENTS

The first drawing figure shows one form of the present invention as mounted on a rural mailbox **10**.

The mailbox **10** is of the conventionally known type, of galvanized sheet metal, with a domed or rolled part **12** that forms its sides and top, a back end closure and bottom (which are not visible in the drawing figure) and a closure door **14** that is hinged near its bottom edge, as at **16**, to swing up and close the mailbox. The edge of the closure door is rolled, as at **18**, for structural strength, and it has a handle **20** at its top edge which cooperates with a leaf spring latch member **22**, mounted on the box, to keep the door closed.

The signal device that is mounted on the mailbox **10** includes an arm **24** that has a visual signal flag **26** provided at one end and which, in the present instance, weights the arm so that it will normally hang in the dotted line position shown.

The signal flag **26** may be fastened to the arm member **24**, or made as a part of it, and either or both may be of metal or plastic.

The arm member **24** is pivotally mounted on the side of the mailbox **10** as by the means shown in FIG. **2**.

All that is required is to make a nail hole punch through the side of the mailbox **10** sufficiently near the closure door **14** so that the free end **28** of the arm extends slightly beyond the door when it is closed. The relative height of the nail hole punch isn't critical. As long as it is in the relatively vertical part of the sidewall it will cause the signal flag to drop below the bottom of the box, which is the end objective, as will later be appreciated.

A bolt fastener **30** serves as both the attachment means and the pivot pin for the signal device. It may have a slightly more conical end **32** so that it may be used to enlarge the nail hole punch, if desired, and/or it it can include self tapping threads **34**, if desired, to work its way through the sidewall of the mailbox. However, it is preferable, for simplicity, to use a large enough nail to provide a hole to easily receive the bolt **30** therethrough.

A spacer **36**, lock washer **38** and nut **39**, on the bolt **30**, complete the assembly and require no special tools or even much more than hand tightening.

After the signal flag arm is mounted on the mailbox, it is held in a horizontal position, as shown, and a nail hole punch is made for a shoulder stop member **40** under the forwardly extending end of arm **24**.

As shown best in FIG. **3**, the shoulder stop **40** has a threaded end **42**, that receives a lock washer **44** and nut **46**, to fasten it to the mailbox, and has a collar **48** that assures an interference extension of its other end for its intended purpose.

With the signal flag arm disposed horizontally, as shown, and on the shoulder stop **40**, the member **50**, that is to be mounted on the closure door, is held against the door so that the location for two more nail hole punches, to mount it, can be determined. The lower edge of member **50** should be located to hold the free end **28** of the signal flag arm on the stop **40** and, actually, its position is easy to determine by simply sighting down the side of the mail box, when the flag is left free in the dotted line position, and being sure that the member **50** has its lower edge reasonably above the pivot pin fastener **30**.

As shown in FIG. 4, the member **50** is formed, as at **52**, to match the roll **18** on the edge of the door **14** so that its free end **54** will extend a known and proper amount beyond the side of the mailbox to serve its intended purpose.

In use, the mailbox signal flag device shown in FIGS. **1–4** operates as follows:

The flag end of arm **24** is raised until its free end **28** engages the shoulder stop **40**. The mailbox door **14** is then closed, causing the shoulder stop member **50** to swing, with the door, over the free end of the arm and into a position where it will hold the arm horizontally disposed and with its signal flag **26** next to the side of the mail box.

The leaf spring latch **22** holds the mailbox door closed and the shoulder stop member **50**, on the door, keeps the signal flag up.

When the mail box door is opened, as by the postman in making a mail delivery, the shoulder stop member **50** swings out with the door, releasing the signal flag arm, and being weighted by the flag, and/or its pivotal fulcrum, being so disposed for a like effect, the arm swings into the dotted line position shown with the signal flag **26** clearly visible below the mail box.

A second signal flag variation encompassed within the scope of this invention is shown in FIG. **5**.

The structure is essentially the same as that previously described and so like reference numerals have been used. However, the closure door for the mail box has been removed to better shown a significant innovation.

In this instance, a square block **60**, or like means, is mounted on the pivot pin **30**, inside the mail box, and is made to turn with the signal flag arm **24**. It is located, by so mounting the signal flag arm **24**, so that its flat side **62** will be parallel and engaged by the mailbox door, when closed, to hold the signal flag horizontal. Thus, it eliminates the need for a shoulder stop member on the closure door, but it serves essentially the same purpose.

Although not mentioned before, it will be appreciated that neither the previously described structure, nor this one, require the prepositioning shoulder stop **40** for the functional operation intended. It serves principally as a means to preclude a full circle swinging of the arm, and, where desired, as a means to fix the signal flag in its ready position against rattling by the wind, if this should be a problem.

The standard pickup flag, to signal the postman to stop for mail, is shown in FIG. **5** and is identified as **70**. Since it is no part of the present invention, no description is necessary, other than to comment on the fact that the different signal flags are nonconflicting, separate and distinct from each other.

I claim:

1. The combination of a rural mailbox, first signal means moveable from a first nonsignaling position to a first signaling position for indicating to a mail carrier that said mailbox contains mail to be taken by said mail carrier, and second signal means separate from said first signal means and moveable from a second nonsignaling position to a second signaling position for indicating to the owner of said mailbox that mail has been deposited within said mailbox by said mail carrier, said mailbox comprising a housing having an open forward end, side and top wall portions, a door hinged at its lower end on a lower part of said mailbox for closing said open end, said first signal means comprising a manually positionable signal flag device including a first arm member pivotally secured to a part of said sidewall portion so as to have a swingable end carrying a first flag portion, said first arm member being rotatable from said first nonsignaling position whereat said first arm member is generally horizontally disposed to said first signaling position whereat said first arm member is generally vertically positioned with said first flag portion being disposed upwardly at said swingable end, said first flag portion when moved to said first signaling position being effective for indicating to said mail carrier that said mail box contains mail to be taken by said mail carrier, said second signal means comprising a manually positionable second signal flag device including a second arm member pivotally secured by cooperating pivot means to a part of said side wall portion, said second arm member comprising third and fourth arm portions, said third arm portion having a second swingable end carrying a second flag portion, said second signal flag device being so weighted with respect to said cooperating pivot means as to tend to freely rotate about said cooperating pivot means from said second nonsignaling position whereat said third arm portion is generally horizontally disposed to said second signaling position whereat said third arm portion is generally vertically positioned, and fixed latching means carried by said door, said latching means being effective only when said door is in a closed position to operatively engage said fourth arm portion and thereby hold said third arm portion in said second nonsignaling position, said latching means also being effective when said door is moved from said closed position toward an open position to unlatch said fourth arm portion and release said second signal flag device to rotate about said cooperating pivot means to said second signaling position, said latching means being ineffective to again operatively engage said fourth arm portion until said second signal flag device is first manually rotated to said second nonsignaling position and said door is moved to said closed position; abutment means carried by said sidewall portion, said abutment means being so located as to be in the general path of travel of said third arm portion in order to abutably determine the attitude of said third arm portion when said second signal flag device assumes said second signaling position, and said abutment means is so located as to also serve as a prepositioning abutment effective for engaging said fourth arm portion when said third arm portion is manually rotated toward said second nonsignaling position.

2. The combination according to claim **1**, wherein said first signal means and said second signal means are situated on opposite sides of said mailbox.

3. The combination according to claim **1**, wherein said fourth arm portion is of a length as to extend beyond said door when said door is in said closed position, and wherein said latching means comprises an abutment arm carried by said door, said abutment arm being of a length as to extend beyond the sidewall portion of said mailbox when said door is in said closed position.

4. The combination according to claim **1**, wherein said second flag portion is disposed in a downwardly depending position when said second signaling means is moved to said second signaling position.