United States Patent

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[54] **SIGNAL FOR MAILBOXES**
3 Claims, 5 Drawing Figs.

[52] **U.S. Cl.** ..... **116/132 R,** 232/35 R
[51] **Int. Cl.** **G08c 5/00**
[50] **Field of Search** 116/132, 28, 173, 174, 175; 232/34, 35

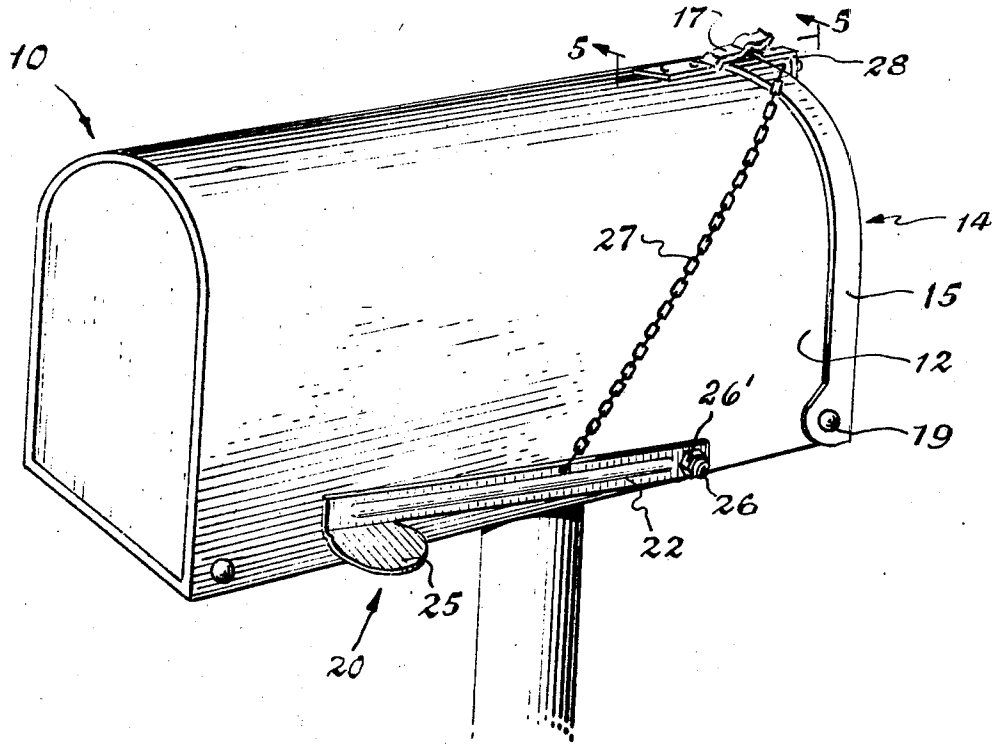
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ABSTRACT: A signal attachment for a mailbox having a hinged door, comprising a lever arm adapted to be pivotally mounted at one end to the base portion of a standard type mailbox and carrying at its other end an angularly bent signal plate, in combination with a chain connected to the mailbox door at a position offset from the door hinge axis. The signal arm is adapted to be manually set in inconspicuous position alongside the base of the mailbox, and the parts are so arranged that when the mailman opens the door to deposit mail in the box, the signal arm is pulled upwardly into an upstanding attitude, whereby the signal plate portion thereof is erected into prominently displayed position.



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Fig. 1.

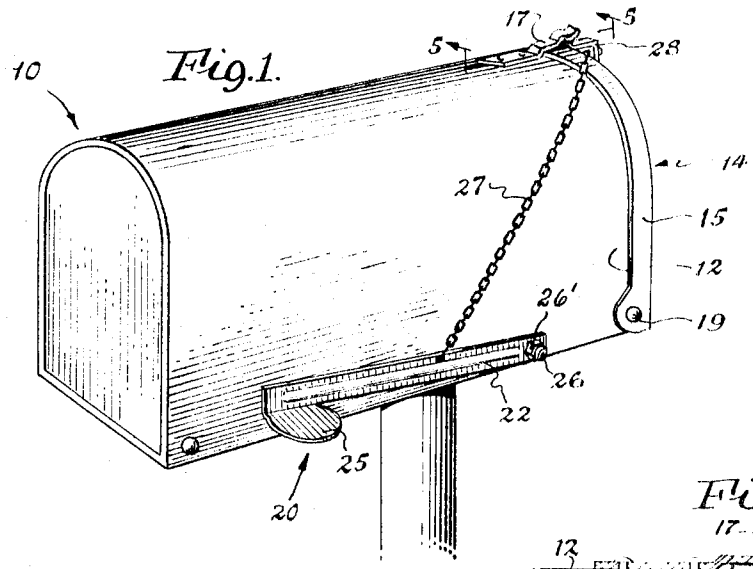


Fig. 5

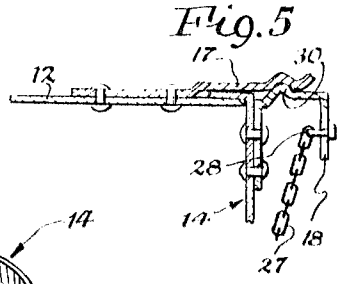


Fig. 2.

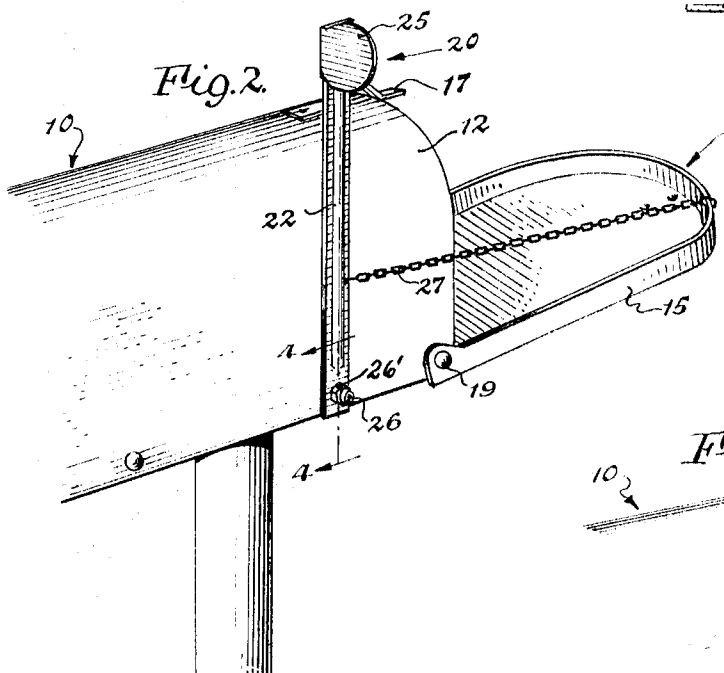


Fig. 3.

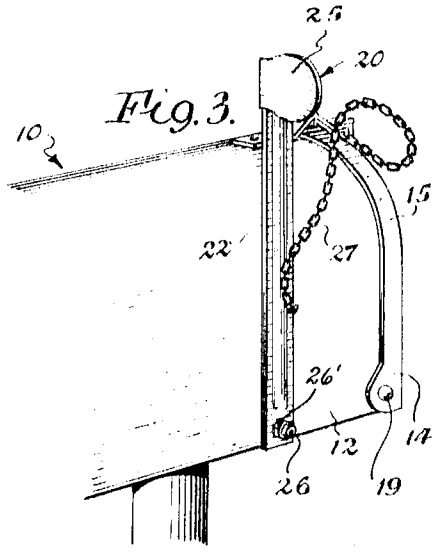
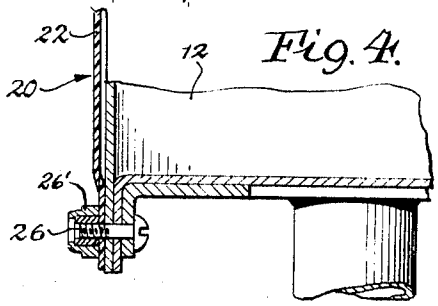


Fig. 4.



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SIGNAL FOR MAILBOXES

BACKGROUND AND BRIEF SUMMARY OF THE INVENTION

This invention relates to an improved signal device for mailboxes; and more particularly to suburban or rural mailboxes such as are roadside located at considerable distances from the corresponding residences. Under such conditions, the home occupant often fails to observe the mail carrier when making his rounds; and as a result it is desirable to provide a signal device which may readily be attached to a conventional mailbox and initially "set" by the householder in an inconspicuous place so that it will later move automatically into a position which is readily visible from the residence when the mailbox door is opened by the mailman. Thus, the signal device will now visibly indicate to the householder that the mailbox now contains mail, packages, messages, or the like.

Although numerous such devices have been previously developed, they have involved certain disadvantages and/or inadequacies; and it is an object of this invention to provide an improved signaling device as aforesaid which is simple and inexpensive in construction; and which may readily be applied to any standard-type mailbox without requiring use of any special tools or any alteration of the standard mailbox construction.

More specific objects and advantages of the invention will be apparent from the following description and the accompanying drawing.

BRIEF DESCRIPTION OF THE DRAWING FIGURES

FIG. 1 is a rear end side view perspective of a standard mailbox having a device of the invention applied thereto; illustrating the signaling portion thereof as having been "set" by the householder in an inconspicuous nonoperative position;

FIG. 2 is a view corresponding to FIG. 1 but shows how the signaling device is elevated into a conspicuous view as the door is being opened and mail is being deposited in the mailbox;

FIG. 3 is a view corresponding to FIGS. 1, 2, showing the remaining position of the signaling device after the door has been reclosed;

FIG. 4 is an enlarged scale fragmentary sectional view taken on line 4–4 of FIG. 2 showing how the signaling device is mounted on the mailbox; and

FIG. 5 is an enlarged scale sectional view taken on line 5–5 of FIG. 1.

DETAILED DESCRIPTION OF THE INVENTION

The invention as illustrated herein is shown as being mounted on a conventional-type mailbox which is generally designated by the numeral **10** and comprises a combination sidewall and roof sheet metal member **12** and a door **14** forming the front end wall of the box. The door **14** is formed with a rearwardly extending flange **15**. The door **14** is typically held in closed position by a spring metal keeper device **17** extending forwardly of the mailbox, and a spring metal strike device **18** extending forwardly of the top end of the door **14**; the door **14** being hinged to the box **10** as indicated at **19**.

The signaling device per se is designated generally by the numeral **20**, and comprises an arm **22** having at its free end a tab or flag portion **25**. The flag portion **25** and the arm **22** may be fabricated or molded of plastic or metal, or the like. Preferably, the member **25** will be colored red, or may be otherwise ornamented as desired so as to render it visually conspicuous when it stands above the mailbox as shown at FIGS. 2, 3. The arm **22** is pivotally mounted at one end on the mailbox by means of a suitable adjustable member such as the bolt **26** and nut **26**; and is also engaged as shown by one end of a chain **27** formed of brass or other suitable material. The other end of the chain **27** is connected as indicated at **28** to the spring strike member **18**.

Thus, it will be appreciated that the unit comprising the arm **22** and the chain **27** and the bolt or screw **26** may be easily fabricated and assembled as a single package for retail sale; and that the average "do-it-yourselfer" may easily attach it to a mailbox as shown herein, without any special tools or difficulty of any kind. The complete attachment may be made by simply inserting the bolt **26** through the aperture furnished in one end of the arm **22** and then through one of the holes which is typically provided by the mailbox manufacturer along the bottom edge of the box (FIG. **4**) and then affixing the nut **26**. One end of the chain **27** is then hooked onto the arm **22** and its other end is then connected to the door spring keeper **18** by means of the bolt or S-hook **28**, thereby completing the installation.

To "set" the device for automatic operation, the mailbox door **14** is closed and the arm **22** is simply swung downwardly into position shown at FIG. **1**, whereupon it is frictionally held by the compression bolt connection **26** against the sidewall portion of the box **10**. The most color-prominent part **25** of the arm is thus disposed horizontally and closely alongside the mailbox in an inconspicuous position, until such time as the mailman subsequently opens the door to deposit mail therein. Such operation of the door causes the arm **22** to be elevated to the position shown at FIGS. **2, 3**; whereupon the signal portion **25** thereof stands up above the box **10** so that the entire color-prominent portion of the device is disposed in clear long distance view therefrom.

Thus the householder may readily recognize when and if mail has been left in the box, simply by looking out from the house from time to time. Needless trips to the mailbox are thus avoided, such as when the mailman is late on his route, and/or when there is no mail for the householder on any routine delivery trip. Thus, an important safety device is provided for householders such as where the mailbox is required to be located across a roadway from the residence. In such situations fatal traffic accidents often occur simply because of useless multiple pedestrian trips of householders across adjacent highways. Also, such householders are thereby often necessarily exposed to the rigors of inclement and unhealthy weather conditions on such trips. It is therefore obvious that many lives and illnesses may be spared by eliminating any needless trips to such mailboxes; in proportion to the number of necessary trips which are so saved.

It is a particular feature of the invention that the means effecting pivot connection of the arm is of compressional and friction inducing nature. Thus, the signal arm **22** is at all positions frictionally held in place against any accidental dislodgements. However, note that the pivotally mounted end portion of the arm **22** is laterally offset relative to the major portion of the arm, whereby the major portion of the arm is disposed in substantially parallel and spaced relation from the sidewall of the mailbox. This arrangement obviates any mechanical interferences with operation of the device and/or incidental scraping disfigurations of the mailbox sidewall. Also, because the chain **27** pulls upon the arm **22** in a direction out of line with the pivot joint **26**, the system provides the mailman with an ample mechanical advantage when opening the door. Hence, friction forces attendant weathertight fittings between the box and door parts are easily overcome, and constitute no disadvantages from the standpoint of the mailman.

Thus it will be appreciated that the invention provides a structurally simple, durable, and inexpensively made device for its specific purpose. In addition to the advantage of being so uncomplicated and trouble free in its installation and use, the device features long life and maintenance-free smooth operation. Furthermore, throughout its operative range, the movable parts of the device never protrude to any substantial extent away from the mailbox such as would be dangerous to passersby, such as nearby playing children, pets, or the like.

It is still another feature and advantage of the invention that because of the geometrical relationship of the operative parts, when the spring member is initially pulled upon by the mailman to open the door **14**, the pull of the chain **27** against the

arm **22** reacts to draw downwardly upon the spring member **18**, thereby assisting in release of the abutment portion **30** of the strike **18** (FIG. **5**) from within the complementary dwell portion of the keeper **17**. Thus, manual opening of the door **14** is facilitated, whereas the keeper normally operates with unimpaired efficiency to maintain the door against any accidental opening.

What I claim as my invention is:

1. A signal attachment for a mailbox of the type having a body portion open at one end, a door for selectively closing said one end, hinge means hingedly connecting the lower edge of said door to said body, and spring latch means for holding the door in closed position, said latch means comprising a spring strike device extending forwardly of the upper level of said door and a spring keeper device extending forwardly of the said mailbox body portion;

said signal attachment comprising in combination;

an elongate arm having one end portion laterally offset and apertured and adapted to be rotatably fastened to a bottom sidewall portion of the mailbox,

a screw device for rotatably interengaging said arm offset end portion and the sidewall portion of a mailbox rearwardly of and at substantially the same level as said hinge means thereby to position said arm generally in spaced parallel relation to said mailbox sidewall while frictionally engaging said arm offset end portion and the sidewall of the mailbox,

pull means attached at one end to said arm intermediately of its ends and at its other end to the front end of said strike device and being of such length as to permit said arm to lie horizontally alongside said mailbox when said door is closed and to pull upon and raise said arm to an upstanding attitude upon opening of the door,

said arm having a signal tab portion at its free end which extends upwardly and above the side view profile of said mailbox when said arm is in upright standing position, said strike device including a generally horizontal portion projecting beyond the outer end of said keeper device and also including a generally vertical portion at the outer end of said generally horizontal portion, said generally horizontal portion having an abutment portion extending therefrom, said keeper device having a dwell portion receiving said abutment portion, said pull means being attached to said generally vertical portion of the strike device whereby said strike device is arranged to elastically deform responsive to pulls thereon by said pull means upon initiation of manual opening of said door when said arm resides in horizontally disposed nonsignaling position.

2. A signal attachment for a mailbox according to claim **1** wherein said screw fastener device is of the compression force applying type, whereby to frictionally engage said arm offset end portion against the mailbox sidewall and to maintain said arm at any manually adjusted attitude against accidental dislodgements therefrom.

3. A signal attachment for a mailbox according to claim **1** wherein said signal tab portion is colored so as to be visually prominent when said arm is in an upright standing position.