

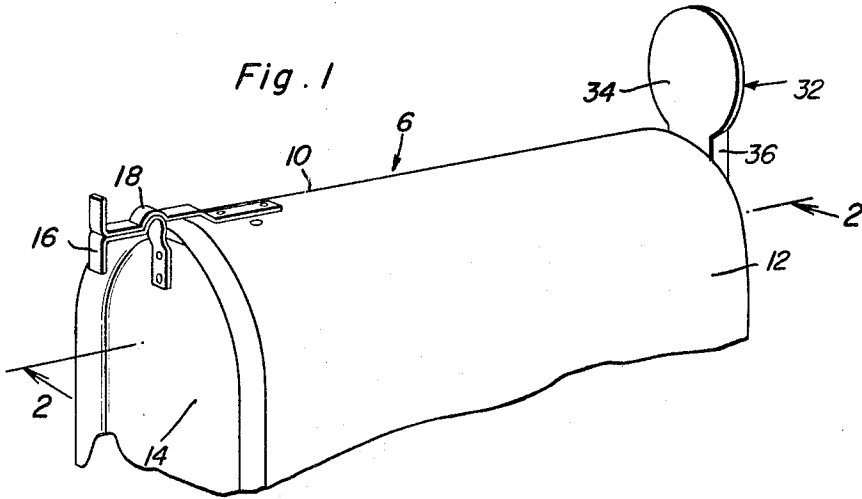
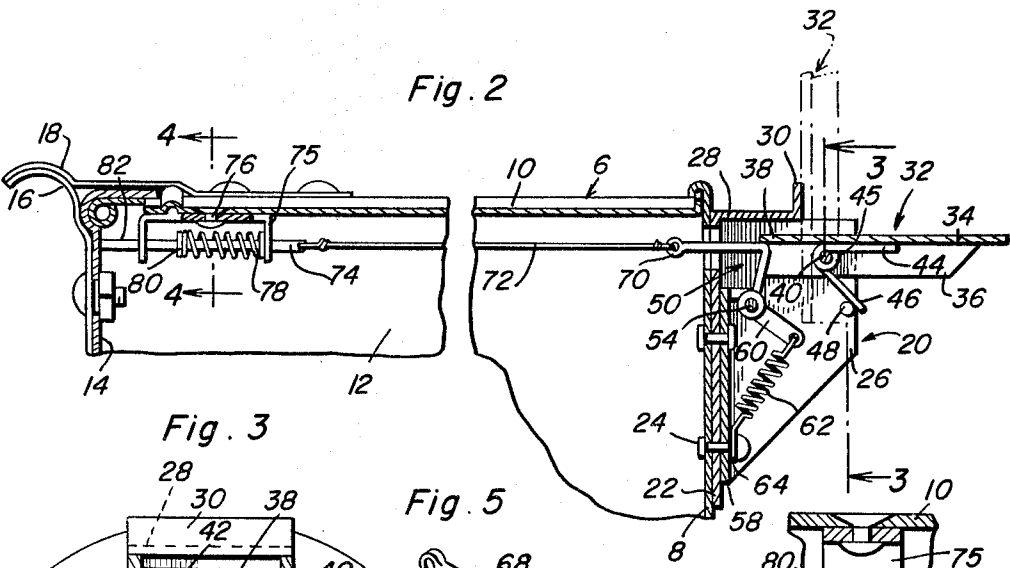
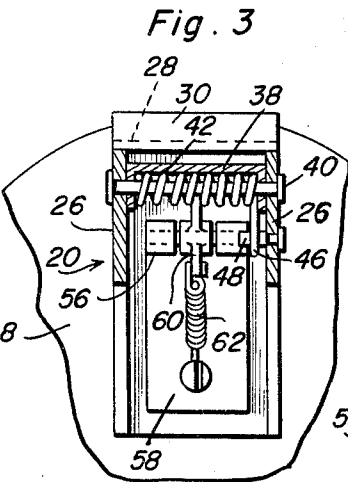
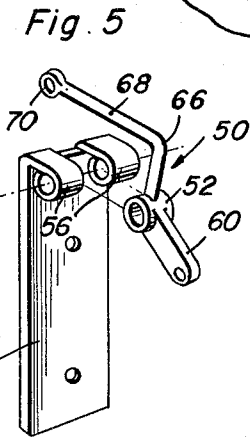
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INCOMING MAIL INDICATING SIGNAL

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INCOMING MAIL INDICATING SIGNAL

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The present invention relates to rural mail box signalling devices and has to do with an improved auxiliary flag-type signal which is supplemental to the usual carrier's pick-up signal and which is such in construction and adaptability that it enables the resident or box owner to quickly and conveniently check and determine when his mail box has been served by the mail carrier.

As is known a conventional rural-type mail box is provided at its front end with a forwardly and outwardly swingable latch retained door and is customarily provided one one vertical side with a simple pivotally mounted signalling flag which is raised by hand to a signalling position to let the mail carrier know in advance that outgoing mail has been placed by the resident in the box to be picked up. Supplemental signalling devices, usually referred to as auxiliary signalling flags and the like, have been proposed and patented and supplement the action of the standard flag and enable the owner or resident to quickly glance from the residence to the highway and determine whether the box has been served with incoming mail by the carrier.

Briefly, the present invention is characterized by an appropriately colored disk-like or equivalent plate which is fashioned into and provides the auxiliary incoming mail indicating signal or flag. It is provided with a shank which is pivotally mounted between the walls of a channel-like adapter bracket, that is, a bracket, which is adapted to be mounted on the exterior of the rear closed end of the mail box. The shank is spring biased and provides a simple retaining member. A spring-loaded specially constructed latch is pivotally mounted on the bracket and has a detent cooperating with an adjacent end of the flag. A spring-loaded trip pin is mounted in the box adjacent the front end and has one end cooperable with the door so that when the door, which is normally closed, is opened by the mail carrier to insert the mail in the box, the trip pin comes into play and triggers the latch with the result that the action of the latch releases the normally down signal or flag and permits it to swing to an up signalling position.

An object of the invention is to structurally, functionally and in other ways improve upon similarly constructed and performing prior art auxiliary mail box signals and, in doing so, to provide a reliable and efficient adaptation which well serves the purposes for which it is intended. In carrying out the invention simple, expedient and efficient component parts have been adopted and organized for practical use.

As will be hereinafter more clearly appreciated the signal means herein disclosed when in signalling position is aptly and satisfactorily viewable and visible from a relatively long distance in relation to either the front or back end of the mail box. This is important inasmuch as rural mail boxes are required to be erected or installed on the righthand side of the road in the direction in which the carrier is travelling and, as most routes go out one road and return to the Post Office via another road, it means that, generally speaking, half of the boxes are across the road from the owner's home and accordingly face in a difficult-to-see direction than is the case with those boxes which are on the same, the righthand side, of the road.

The present invention also features an adaptation and arrangement wherein despite the colorful character of the disk-like signalling flag, it is nevertheless virtually out of sight and not likely to cause confusion when it is in its horizontal down or non-signalling position. The details of

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construction which achieve this novel end result will be clarified from the following description.

In addition, the invention features a simple inverted U-shaped bracket which mounts a spring-loaded trip pin on the interior of the top part of the box and which comes into play automatically when the door is opened by the carrier. The action of this pin is transmitted to a spring-loaded pivotally or hingedly mounted trigger-like latch by way of a simple pull wire. The wire used is long enough to be satisfactorily employed in large parcel post boxes which are usually some 23 inches long. On the other hand, it requires no special shipping space inasmuch as when it is coiled it will fit into any convenient space in a small container needed to package the overall signal, that is the parts thereof, for shipping in a feasible and easy-to-handle box or package.

In carrying out the invention the preferred embodiment features a simple and practical adapter bracket which is primarily channel-shaped in cross-section and has an attaching web and a pair of outstanding flanges or walls. The upper end is partially closed and provided with an upstanding flange which constitutes a limit stop or abutment for the upwardly swingable auxiliary signalling flag. The latter is spring biased and pivotally mounted between the side walls or flanges of the bracket. The bracket also serves to accommodate a plate on which a specially constructed spring-loaded trigger latch is mounted.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a view in perspective of a conventional or standard rural-type mail box (the usual carrier flag or signal omitted) and showing, at the right, the added or auxiliary incoming mail indicating or signalling flag constructed and arranged in accordance with the principles of the present invention;

FIGURE 2 is a fragmentary view with parts in section and elevation taken approximately on the plane of the section line 2—2 of FIGURE 1 looking in the direction of the arrows;

FIGURE 3 is a section taken on the plane of the vertical section line 3—3 of FIGURE 2;

FIGURE 4 is a fragmentary detailed section on the section line 4—4; and

FIGURE 5 is a view in perspective of the trigger latch and its supporting and hinging plate or cleat.

With reference to FIGS. 1 and 2 in particular it will be noted that the numeral 6 designates, generally speaking, a conventional or standard rural mail box characterized by a vertical rear end wall 18, a curvate top wall 10, vertical side walls 12, a bottom wall (not shown) and a vertical front end wall 14 which is hingedly mounted and fashioned into and constitutes the customary downwardly openable mail accommodating door. As usual, the upper portion of the door is provided with a finger-operated latch or keeper 16 cooperable with a relatively fixed but yieldable catch or detent 18. It will be understood that these are all conventional components of the regular mail box. It may be added that in practice the usual simple pivoted hand-operated carrier's flag (not shown) is provided. In the instant case it is supplemented with the auxiliary or supplemental flag which is the substance of the subject matter herein under advisement. Starting with the aforementioned adapter bracket this is denoted generally by the numeral 20 and is of general channel-shaped form and embodies a flat bight portion 22 which is superimposed on the exterior of the wall 8 and bolted or otherwise fastened thereto as at 24. The vertical spaced parallel side flanges or walls of the bracket are denoted at 26.

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There is a top wall 28 providing a simple hood and which is in turn provided with an upstanding lip or flange which constitutes a limit stop or abutment 30 for the auxiliary signalling flag 32 when it is in its vertical or up and signalling position as shown in full lines in FIG. 1 and phantom lines in FIG. 2. The signal comprises a simple circular or disk-like plate which constitutes a flag and which in practice is colored some bright color (not detailed). This plate portion is denoted at 34 and it is provided on a rearward side with spaced parallel reinforcing flanges 36 and is also provided at one end with a relatively narrow extension or shank 38 which is pivotally mounted on a horizontal cross pin 40 extending between the upper corner portions of the flanges 26. It will be noted that a coil spring 42 encircles the pin between the flanges and has one terminal end 44 residing in pressure contact with the disk 34, the other end 46 resting upon and being supported by a lug 48 carried by one of the side flanges 26 as brought out in FIG. 3. With this pin and spring arrangement it will be obvious that the tendency of the spring is to swing the flag 32 from its non-signalling horizontal or down position shown in full lines in FIG. 2 to the up position shown in phantom lines in the same figure.

The aforementioned trigger latch is denoted by the numeral 50 and comprises a one-piece unit embodying a hinging knuckle or hub 52 which is hingedly mounted on a hinge pintle 54 (FIG. 2) supported in a pair of spaced knuckles 56 on a supporting plate or cleat 58 fixedly mounted on the exterior side of the web of the channel bracket. The hub is provided with a depending crank 60 to which a coil spring 62 is connected and which in turn is anchored at 64 on the cleat in the manner shown in FIGS. 2 and 3. The hub also carries an L-shaped finger having a short limb 66 and a long limb 68 terminating in an eye 70 to which one end of a pull wire 72 is connected. This arrangement is shown in FIG. 2 and it will be noted, in this connection, that the other end of the wire is connected to a spring loaded linearly straight trip pin 74 slidable in the arm portions of an inverted U-shaped bracket 75 which is riveted or otherwise fastened on the top of the box at 76 inwardly of the door. This pin is provided with a loading spring 78 and a shoulder or stop washer 80. The free end portion 82 of the pin resides in contact with the latched door 14.

It will be assumed that the box is empty, that the door 14 is closed and the signalling flag 32 is set in its full line down or non-signalling position as illustrated in FIG. 2. The spring 45 is tensioned to impose a spring-biasing action on the signal 32 as soon as it is released. It is cocked and held in the non-signalling position by the L-shaped detent or finger made up of the parts 66 and 68. The finger is in the position shown beneath the shank 38 of the signal and the lightweight coil spring 62 maintains the trigger latch in this assembled relation. It follows that when the door 14 is opened by the carrier to deposit mail,

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the trip pin 40 is actuated by the spring 78 and the trigger is released and the signal 32 is also released and under the action of the spring and hinge means it swings upwardly to the position shown in FIG. 1.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. An attachment for a mail box comprising a channel shaped bracket, a plate mounted in said bracket, a spring loaded L-shaped trigger latch pivotally mounted on said plate and provided at one end with a crank, said crank being provided with a coil spring which is attached at one end thereto and anchored at the other end on said plate, an incoming mail signal comprising a disk-like member provided with a radial marginal shank, said shank being interposed between the flanges of said channel-shaped bracket and being pivotally mounted with one end arranged for releasable engagement with a cooperating part of said trigger latch, a coil spring having one end engaging said signal and the other end engageable with shoulder means provided on one of the flanges of said bracket, and actuating means for tripping said trigger latch.

2. The structure defined in claim 1 and wherein said actuating means comprises a U-shaped bracket, a spring-loaded trip pin slidably mounted in said bracket, and a flexible operating connection between one end of said trip pin and a cooperating end portion of said trigger latch.

3. The structure defined in claim 1 and wherein said channel-shaped bracket is provided at a top portion thereof with a web defining a hood overlying component portions of said trigger latch and releasable end portion of the shank of the signal and being provided with an upstanding flange constituting a limit stop abutment with which a portion of said signal is engageable when the signal is in its vertical signalling position.

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