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SIGNAL ATTACHMENT FOR MAIL BOXES

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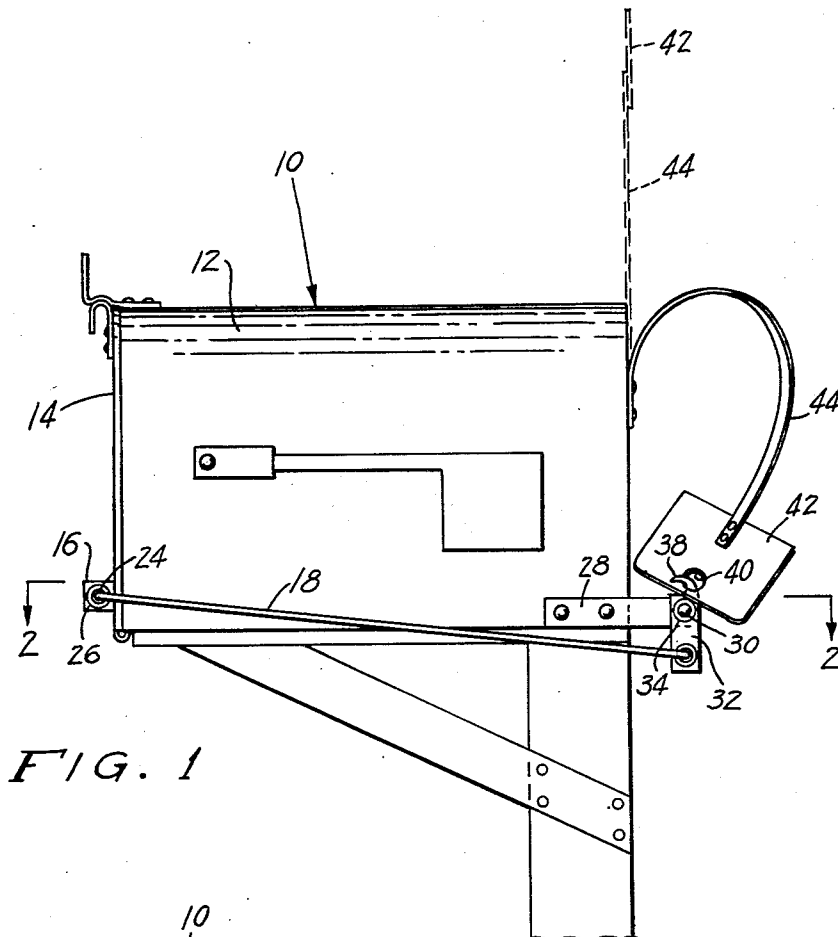


FIG. 1

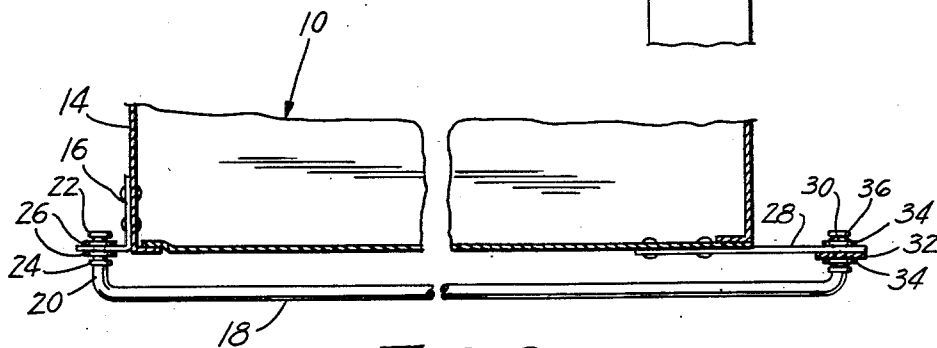


FIG. 2

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SIGNAL ATTACHMENT FOR MAIL BOXES

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1 Claim. (Cl. 232-35)

This invention relates to a signal device attached to a mail box, and triggered to an upright, signalling position responsive to the opening of the mail box door.

Important objects of the invention are to promote sure operation of the signal device at all times, insure against any interference with normal opening and closing of the mail box door, permit attachment of the device to a mail box without requiring modification or redesign of the box, and provide a simplified, inexpensive construction that will permit manufacture and sale at relatively low cost.

Other objects and advantages of the invention will appear from the following description considered in conjunction with the attached drawing, in which:

Figure 1 is a side elevational view of a mail box and associated signal device, the dotted lines showing the release position of the device; and

Figure 2 is an enlarged section on line 2-2 of Figure 1.

A conventional mail box 10 includes a container 12 and a door 14 swinging about a horizontal axis extending transversely of one end of container 12. Riveted to the outer surface of door 14, at one side of the door near the lower end thereof, is a right angled bracket 16 the free leg of which projects outwardly from the door in a plane normal to the hinge axis of the door, said plane being substantially common to that of the adjacent container 12.

An elongated, rigid, straight connecting rod 18, spaced a short distance outwardly from said side of the container and extending beyond opposite ends of the container, is parallel to the plane of the free leg of bracket 16, and at one end is integral with a short, inwardly projecting, lateral extension 20 extending through an opening formed in said leg of the bracket and rotatable in the bracket opening. Extension 20 has spaced collars 22, 24 at opposite sides of the bracket leg, which collars may be formed by peening of the extension, and washers 26 are confined between the collars and bracket legs.

Riveted to the other end of the mail box, at the bottom thereof and at the same side of the mail box, is a straight, flat trigger support bar 28 projecting beyond its associated end of the mail box in parallel relation to rod 18. In the projecting end of bar 28 is an opening receiving a rivet 30 passing loosely through an opening formed in the upper end of a short trigger 32 depending from bar 28, washers 34 being confined between the rivet heads and bar 28 and trigger 32 respectively.

Rod 18, at the end thereof adjacent bar 28 and trigger 32, has a short, lateral extension 36 loosely engaged in an opening formed in the lower end of trigger 32, washers being provided on the extension at opposite sides of the trigger and the extension 36 having spaced collars similar to the collars 22, 24 to hold the washers in place.

The upper end of the trigger, above the pivot pin or rivet 30 thereof, has a hook 38 projecting at its free end horizontally toward the adjacent end of the mail box, when the trigger 32 is vertically positioned as in Figure 1. The hook 38 is widest at its lower end, being reduced progressively in width toward its free end, and is curved through substantially ninety degrees of a circle. Hook 38 loosely engages in a circular, large diameter opening 40 formed in one end of a rectangular, metallic signal flag 42 painted a suitable color, and riveted to the other end of the flag is the outer end of an elongated, spring

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steel strip 44, bent approximately into an inverted J-shape when the flag is engaged with the hook. Strip 44 is riveted at its inner end to the adjacent end of container 12, and is so tensioned as to normally spring to an upright, vertical position as shown in dotted lines in Figure 1.

In use, with door 14 closed, flag 42 is engaged with hook 38 as shown in full lines in Figure 1. When door 14 is opened, rod 18 will be shifted in the general direction of its length to the left in Figure 1, the door-connected end of the rod traveling in an arcuate path about the hinge axis of the door. This causes the other end of rod 18 to travel in an arcuate path about the trigger axis 30, turning the trigger in a clockwise direction about its axis, so that trigger 38 moves outwardly from the container 12, to a position in which its free end points upwardly and becomes disengaged from flag 42, thus permitting spring strip 44 to spring upwardly to its upright position. The flag will now be conspicuously disposed above the mail box, where it can be seen from a substantial distance to signal the arrival of mail to the box owner.

It is believed apparent that the invention is not necessarily confined to the specific use or uses thereof described above since it may be utilized for any purpose to which it may be suited. Nor is the invention to be necessarily limited to the specific construction illustrated and described, since such construction is only intended to be illustrative of the principles it being considered that the invention comprehends any minor change in construction that may be permitted within the scope of the appended claim.

What is claimed is:

A signal attachment for a mail box of the type including a container having a hinged door at one end swinging on a horizontal axis extending transversely of said one end between closed and open positions, and an end wall closing the container at the other end thereof, said attachment comprising: an elongated connecting rod extending alongside the container beyond said ends thereof; a pivotal connection between the door and one end of the rod spaced from and paralleling the axis of swinging movement of the door, for longitudinal movement of the rod in one direction from a normal position responsive to swinging of the door to an open position; a trigger support bar fixedly mounted on the container at the other end thereof; a trigger in the form of a short bar pivoted intermediate its ends on the trigger support bar for rocking movement in a vertical plane about an axis parallel to the axis of the pivotal connection of the door and connecting rod, said trigger being pivotally attached at one end to the other end of the rod for rocking of the trigger by the rod on said movement of the rod, the trigger being normally in an upright position and being rocked from said position by the rod; a spring strip anchored at one end to said end wall and flexible to a substantially inverted J-shape from a normally straight, upwardly projecting position on said end wall; and a flag affixed to said strip and having a large opening, the trigger having an arcuate hook extendable through said opening on said flexure of the strip, the flag being twisted obliquely to the plane of rocking movement of the trigger against the spring tension of the strip to exert a continuous pressure on the trigger in a direction having both a horizontal and a vertical component tending to firmly yet releasably engage the trigger with the flag.

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