Oct. 29, 1957 H. H. KALMOE 2,811,306

MAIL BOX

Filed June 30, 1955

Fig. 1

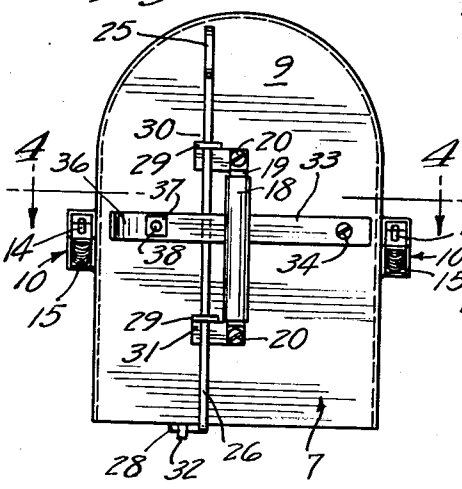


Fig. 2

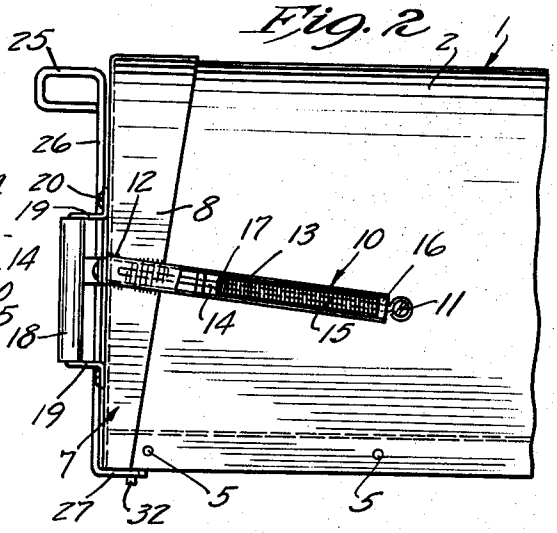


Fig. 5

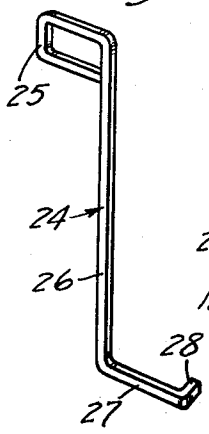


Fig. 3

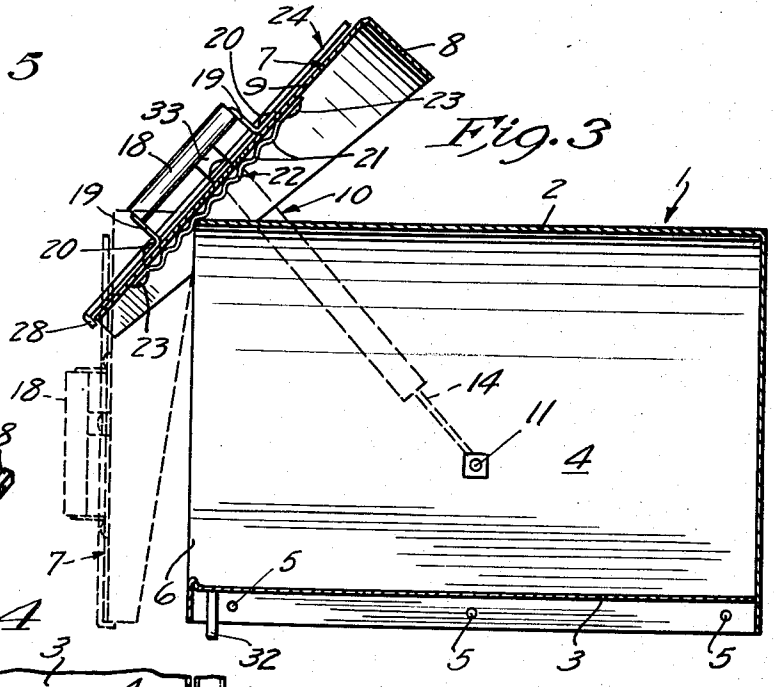
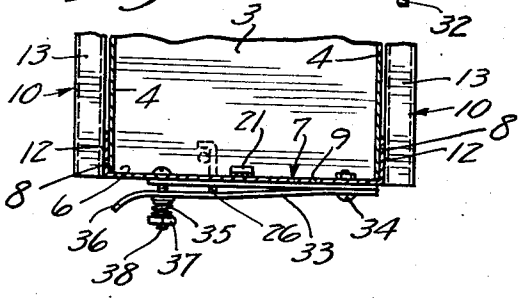


Fig. 4



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MAIL BOX

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3 Claims. (Cl. 232—35)

My invention relates to improvements in mail boxes, and more particularly to improvements in the covers for mail boxes.

The primary object of my invention is the provision of a novel cap-like cover for an open-ended mail box which is mounted for swinging movements from its closed to a partially open position.

A further object of my invention is the provision of a device of the class immediately above described wherein the cover is pivotally secured to the box by means of longitudinally extensible and retractable means and which said cover is yieldably biased toward engagement with the open end of said box.

A further object of my invention is the provision of a device of the class described which is provided with a novel combination signalling and locking device and in further combination with novel and simple means for retaining said combination locking and signalling device in a desired set position.

A further object of my invention is the provision of a device of the class above described which is relatively inexpensive to produce, which is easy to manipulate, which is rugged and durable, and which retains the contents of the box against damage by moisture and the like.

The above and still further objects of my invention will become apparent from the following detailed specification, appended claims, and attached drawings.

Referring to the drawings, wherein like parts are indicated by like characters throughout the several views:

Fig. 1 is a view in front elevation of my novel box;

Fig. 2 is an enlarged fragmentary detail in side elevation;

Fig. 3 is a view partly in vertical axial section;

Fig. 4 is a fragmentary sectional view taken substantially on the line 4—4 of Fig. 1; and

Fig. 5 is a perspective view of the combination signalling and locking device of my novel structure.

Referring with greater particularity to the drawings, the numeral 1 indicates in its entirety a conventional mail box formed from sheet metal or the like and having a dome-shaped top 2 and a flat bottom 3 riveted or otherwise secured to the opposite sides 4 by means of rivets or the like 5. The open end of the box is identified by the numeral 6. The box 1 is provided with a cap-like cover 7 having an unbroken flange 8 which projects axially inwardly at right angles to the plate 9. Skirt 8 extends only along the opposite edges of the cover 7 and top thereof and overlaps the adjacent portion of the box 1 adjacent the open end 6 thereof.

Cap 7 is secured to opposite sides 4 of the box 1 through the medium of a pair of arms 10. The inner ends of the arms are pivotally secured to the intermediate portions of the sides 4 as at 11 whereas the outer ends are rigidly secured one each to an opposite side of the flange 8 of the cap 7, as indicated by the numeral 12. Arms 10 comprise arm sections 13 and 14 the former of which is channel-shaped and the latter of which is

rod-like. As shown particularly in Figs. 1 and 2, the rod-like sections 14 are slidably received within the channel-shaped sections 13, coil compression springs 15 interposed between the closed outer ends 16 and shoulders 17 on the rods 14, serving to bias the cap-like cover 7 toward a position to engage the open end 6 of the box 1.

To the exterior surface of the plate 9 of the cover 7 a handle 18 is rigidly secured through the medium of U-shaped bracket 19 and screws or the like 20. It will be noted that the coil compression spring biases the cap-like cover 7 toward the closed position of Fig. 2 wherein the skirt 8 overlaps the opposite sides and upper end portion of the box 1 adjacent the opening 6. Because of the nesting relationship of the cap and cover as indicated by Figs. 1 and 2, the contents of the box 1 are secured against moisture from without caused by weathering and the like. When it is desired to open the box so as to gain access to the contents, the operator pulls outwardly on the handle 18 so as to extend the arm sections 13 and 14 against the bias of the coil compression spring 15. Upward movements of the cover 7 on the pivots 11 result in placement similar to that illustrated in Fig. 3, whereupon release of the hand from the handle 18 causes the inner surface of the plate 9 to engage the top edge 2 of the open end 6, under bias of the compression springs 15. To facilitate maintaining the cover 7 in this partially open position, I provide a plurality of vertically spaced detents 21, preferably and as shown, in the nature of a corrugated metallic strip 22 secured to the interior of the plate 9 by means of rivets or the like 23.

A signal element 24 includes a signal head 25 an elongated rotary stem 26 and a locking element 27 having an angular hook 28. Preferably and as shown, the lock element 24 is formed from rectangular wire stock and is journalled for partial rotation in a pair of vertically spaced bearing brackets 29. Vertical sliding movements of the stem 26 in the bearings 29 is prevented by any suitable means such as shoulders 30 and 31. It will be noted that the signal head 25 on the upper end of the stem 26 projects radially outwardly therefrom in a direction diametrically opposite to that of a lock element 27 on the lower end. Therefore, when the signal head 25 is in the operative position of Figs. 1 and 2 (whereby to indicate to the mail carrier that the box contains contents for pick-up, etc.), the lock element 27 underlies the unflanged lower end portion of the cover 7 and the bottom 3 of the box 1. Note that when in such position the hook element 28 engages a locking pin 32 depending from the bottom 3 adjacent the open end 6.

With this arrangement one must of necessity rotate the stem 26 in the bearing brackets 29 so as to position the signal head 25 flat against the plate 9 of the cover 7, as indicated in Fig. 3, before opening the cover 7. Note that when the head 25 has been so positioned, the locking element 27 and hook 28 carried thereby is swung away from engagement with the locking pin 32.

To retain the lock element 24 in the operative position of Figs. 1 and 2 or the inoperative position of Fig. 3, I provide a horizontally disposed metallic tongue 33 preferably resilient and which is secured to the exterior surface of the plate 9 of the cover 7 by means of a nut-equipped screw or the like 34. Tongue 33, as shown particularly in Fig. 1, overlies the intermediate portion of the stem 26 of the lock element 24 and is biased toward frictional engagement with its flat sides through the medium of a coil compression spring 35 interposed between the free outer end 36 and a nut 37 carried by a bolt 38 which projects loosely therethrough and with its head on the interior of the plate 9.

My invention has been thoroughly tested and found to be completely satisfactory for the accomplishment of

the above objects, and while I have disclosed a preferred embodiment thereof, it should be obvious that same is capable of modification without departure from the scope of the appended claims.

What I claim is:

1. In a mail box having an open end, a cap having a skirt portion along all but one edge adapted to overlap the adjacent open end of said box, a pair of arms one each pivotally secured to an opposite side of said box on their inner ends and rigidly secured to an opposite side of said cap at their outer ends, said arms comprising pairs of arm sections mounted for longitudinally extensible and retractable movements, spring means biasing said sections toward their retracted positions whereby to yieldingly hold said cap against said open end, extending movements of said arms permitting swinging movements of said cap about the axis of pivotal movement thereof to gain access to the interior of said box, said skirt being of a length to positively limit downward swinging movement of said cap from its closed position during extending movements of said arms, and vertically spaced detents on the inner face of said cap adapted to selectively engage the upper edge of said box whereby to retain said cap in a desired partially open position.

2. The structure defined in claim 1 in further combination with a signal element mounted on the outer face of said cap, said signal including a stem mounted for pivotal movement on a vertical axis, a signalling head projecting radially from the upper end of said stem and a hook-shaped locking element projecting radially from the lower end of said stem in a direction diametrically opposite to said head, said locking element underlying the open end portion of the box when said signal head is in its operative position, and a locking pin projecting downwardly from the bottom of the box adjacent the open end thereof and engageable with said hook-shaped locking element when said head is moved to a position at right angles to said cap.

3. The structure defined in claim 2 in which said stem is provided with a pair of relatively flat surfaces disposed 90 degrees with respect to each other and in further combination with yielding means engageable alternately with said flat surfaces to frictionally maintain said signal and locking elements in their set positions.

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