May 15, 1962 D. A. WING 3,034,706

SIGNAL FOR MAIL BOXES AND THE LIKE

Filed April 30, 1959 2 Sheets-Sheet 1

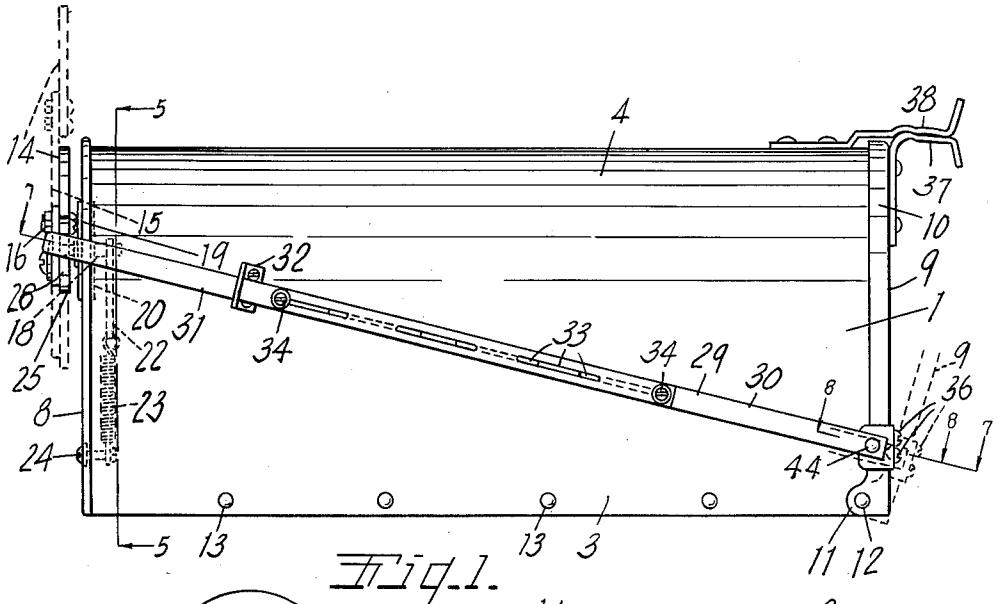


Fig. 1.

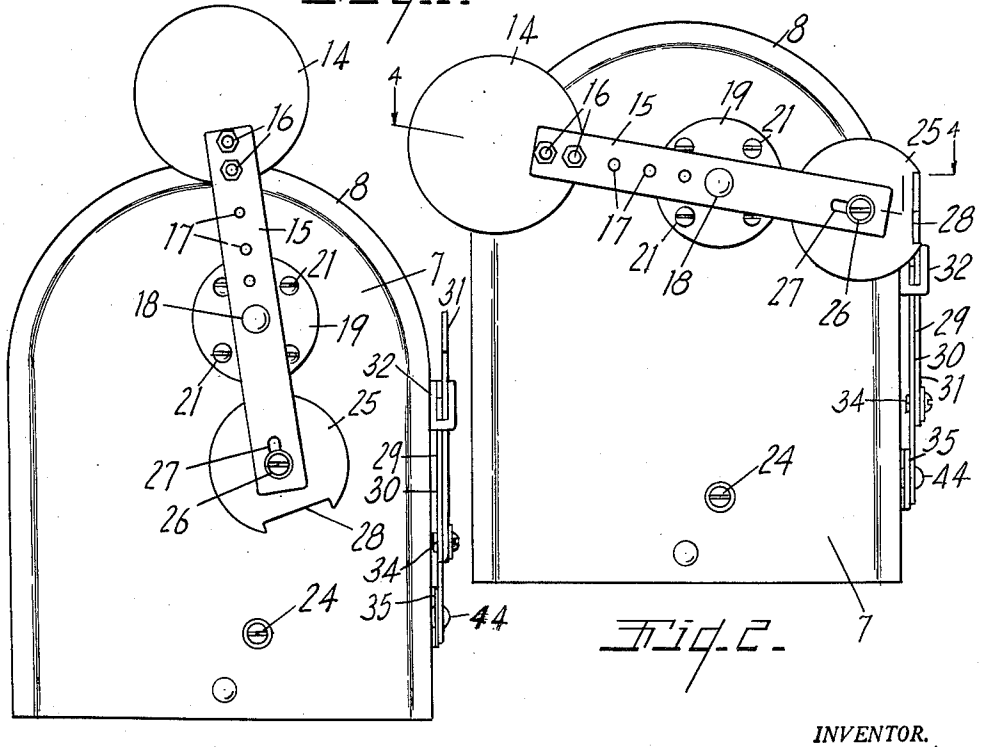


Fig. 3.

Fig. 2.

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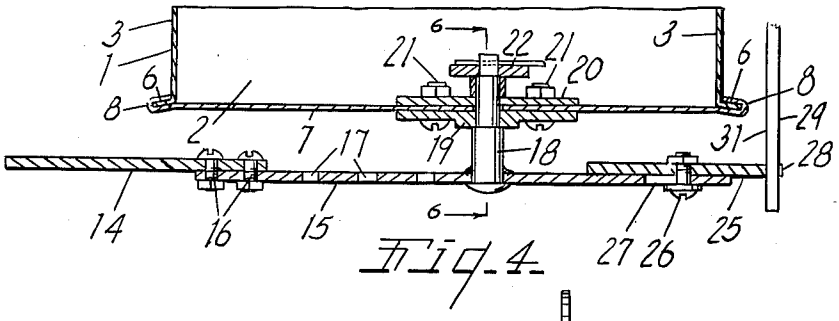


Fig. 4

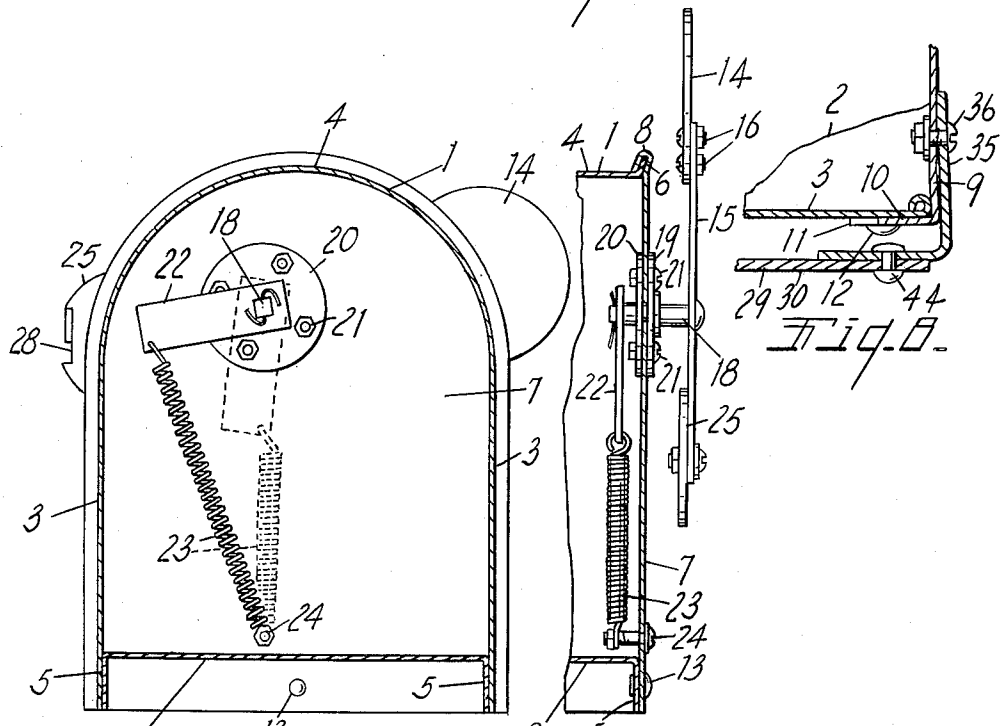


Fig. 5

Fig. 6

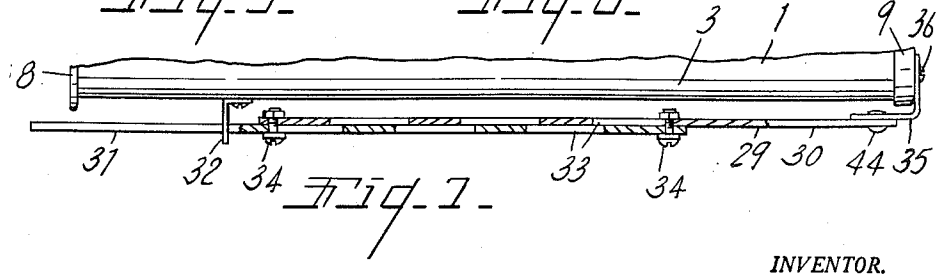


Fig. 7

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SIGNAL FOR MAIL BOXES AND THE LIKE

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6 Claims. (Cl. 232—35)

This invention relates to a signal for mail boxes and the like which is automatically actuated upon the opening of the door.

The main objects of this invention are:

First, to provide a signal for mail boxes or other casing or receptacle which may be readily applied to or be incorporated in boxes or casings of varying sizes and shapes.

Second, to provide a signal for a mail box or like receptacle provided with a door which is automatically actuated to signal position upon the opening of the door and one which may be actuated or retracted to non-signal position by a single stroke.

Third, to provide a signal device which is not likely to be rendered inoperative by accumulation of snow, ice or the like.

Objects relating to details and economies of the invention will appear from the description to follow. The invention is defined and pointed out in the claims.

A preferred embodiment of the invention is illustrated in the accompanying drawing, in which:

FIG. 1 is a side elevational view of the mail box embodying my invention, the signal being shown in retracted position by full lines and in actuated position by dotted lines.

FIG. 2 is a rear elevational view thereof with the signal in retracted position.

FIG. 3 is a rear elevational view with the signal in actuated position.

FIG. 4 is an enlarged fragmentary view mainly in section on a line corresponding to line 4—4 of FIG. 2.

FIG. 5 is a transverse section on a line corresponding to line 5—5 of FIG. 1.

FIG. 6 is a fragmentary view partially in section on a line corresponding to line 6—6 of FIG. 4.

FIG. 7 is a fragmentary view partially in section on a line corresponding to line 7—7 of FIG. 1.

FIG. 8 is an enlarged fragmentary view on a line corresponding to line 8—8 of FIG. 1.

In the accompanying drawing I have illustrated my invention as applied to a mail box as that is one of the main objects of my invention although it is desired to point out that it is adapted for use on receptacle for various uses where signals might be of advantage.

The receptacle or casing designated generally by the numeral 1 comprises a bottom 2, side walls 3 and top wall 4 formed integrally with the side walls and curvedly merging into the side walls. The side walls overlap and are secured to the downwardly projecting flanges 5 on the bottom wall 2. The side walls 3 are provided with out-turned flanges 6 over which the edges of the rear wall 7 are seamed or folded at 8.

The door or closure 9 has flanges 10 on its side and top edges embracing the side and top walls when the door is in closed position and provided with hinge members or ears 11 which are pivoted or hinged at 12. The side walls are further secured to the downturned flanges on the bottom by the rivets 13.

The signal member 14 is adjustably secured to the arm 15 by means of the bolts 16, the arm being provided with a longitudinal series of holes 17 with which the bolts may be selectively engaged to adapt the signal for mail boxes or other receptacles of varying sizes. The arm 15 is fixedly secured to the spindle 18 which is rotatably mounted on the bearing member 19 disposed on the

rear side of the rear wall 7. A disc like clamping and wall reinforcing member 20 is arranged on the inner side of the wall 7 and the bearing member and the disc are secured together by the bolts 21. This provides a stiffening means for the relatively thin wall 7, that is, the spindle is supported so that the rear wall is not distorted or bent by the retracting manipulation of the signal member which is commonly done with a single stroke or sweep of the hand.

The inner end of the signal spindle is provided with laterally projecting arm 22 to which one end of the coil spring 23 is connected, the other end of the spring being anchored to the rear wall 7 at 24. The signal arm 15 is provided with a keeper member 25, desirably in the form of a disc, is adjustably secured to the arm by means of the bolt 26 engaging the longitudinal slot 27 in the arm.

The keeper is provided with a detent receiving recess 28. The detent member is in the form of a light bar or rod of flat section designated generally by the numeral 29 and comprises sections 30 and 31. The detent member is slidably supported by the support member 32 mounted on one of the side walls. The sections of the detent member are longitudinally slotted at 33 to provide for longitudinal adjustment, the sections being secured in their adjusted positions relative to each other by the bolts 34. The section 30 is connected to the door 9 by means of the bracket 35, one arm of which is secured to the front side of the door adjacent its lower end by the bolt 36, the other arm projecting rearwardly and the detent section 30 is secured thereto by the pivot 44. This detent member projects rearwardly of the rear wall into the path of the keeper on the signal member arm 15 and the rearwardly projecting end is laterally springable so that the keeper may be engaged therewith merely by a swinging movement of the signal arm. The keeper and detent members are illustrated in engaged position in FIGS. 1 and 2, the signal being shown in actuated position by dotted lines.

The door is provided with a combined latch member and finger piece 37 engageable with the keeper 38 on the body of the casing or receptacle.

One of the advantages of my invention is that it may be readily applied to mail boxes or like receptacles of substantially varying sizes and designs.

The signal is automatically released on the opening of the door and to reset it is merely necessary to swing it downwardly. The adjusting means provided are such as to permit the application of the signal device to receptacles such as a mail box of varying sizes now in extensive use. It will be understood that a greater range of adjustment could easily be provided and my invention is readily adapted for use on receptacles other than mail boxes where it is desirable to indicate some article has been placed therein.

I have illustrated and described my invention in a highly practical embodiment thereof. I have not attempted to illustrate or adapt other embodiments as it is believed this disclosure will enable those skilled in the art to embody the same as may be desired.

Having thus described the invention what is claimed as new and desired to secure by Letters Patent is:

1. A structure of the class described comprising a casing open at its front end and including a rear wall, a closure for said casing hingedly connected at its lower end thereto, said casing and closure being provided with coacting detent and keeper members, a signal member provided with a supporting arm disposed rearwardly of and provided with a spindle disposed through said rear wall, an arm on the inner end of said spindle, a spring disposed on the inner side of said rear wall and connected to said casing and to said spindle arm and acting

to urge said signal member to actuated position, a keeper member mounted on said signal member supporting arm for longitudinal and rotative adjustment thereon and having a curved peripheral portion provided with a detent engaging recess, and a signal detent member disposed at the side of said casing and comprising overlapping adjustably connected front and rear sections, the front section being pivotally connected to said closure member, and a signal detent support member on said casing spaced forwardly from the rear end thereof and with which the rear end of said detent member is slidably engaged with the rear end of the detent member projecting rearwardly of said rear wall and when said closure is closed into the path of said keeper mounted on said signal member supporting arm, said detent being disengaged from said keeper member on said signal member on the opening of the closure.

2. A structure of the class described comprising a casing open at its front end and including a rear wall, a closure for said casing hingedly connected at its lower end thereto, said casing and closure being provided with coacting detent and keeper members, a signal member provided with a supporting arm disposed rearwardly of and provided with a spindle disposed through said rear wall, an arm on the inner end of said spindle, a spring disposed on the inner side of said rear wall and connected to said casing and to said spindle arm and acting to urge said signal member to actuated position, a keeper mounted on said signal member supporting arm, a detent member disposed at the side of said casing and pivotally connected to said closure member, and a detent support member on said casing spaced forwardly from the rear end thereof and with which the rear end of said detent member is slidably engaged with the rear end of the detent member projecting rearwardly of said rear wall when said closure is closed into the path of said keeper of said detent and being disengaged from said keeper member on said signal member on the opening of the closure.

3. A structure of the class described comprising a casing open at its front end and including a rear wall, a hinged closure for said casing, a signal member provided with a supporting arm disposed rearwardly and provided with a spindle disposed through said rear wall, an arm on the inner end of said spindle, a spring disposed on the inner side of said rear wall and connected thereto and to said spindle arm and acting to urge said signal member to actuated position, a keeper member mounted on said signal member supporting arm and provided with a detent engaging recess, and a detent member slidably supported on said casing and connected at its front end to said closure member to be actuated by the opening and closing thereof, said detent member including a laterally springable rear end portion projecting into the path of said keeper member on said signal arm when the closure is in closed position and being laterally springable to permit the engagement of said keeper on said arm therewith.

4. A structure of the class described comprising a casing having a hinged closure at its front end and being otherwise closed and including a rear wall, a signal supporting arm pivotally mounted on the outer side of said rear wall to swing transversely of the casing, a signal

member mounted on one end of said arm to project laterally from the casing when the arm is in its actuated signal position, spring means for actuating said arm to signal position, the other end of said arm having a keeper adjustably mounted thereon and which projects laterally from said casing when said arm is in its signal retracting position, a springable detent operatively connected to said closure and reciprocatingly mounted on the side of said casing to project rearwardly relative to its said rear wall and into the path of travel of said keeper when said closure is in its closed position, said detent being springably yieldable laterally relative to said casing permitting engagement of said keeper therewith with said closure in closed position when said signal member is adjusted from its retracted to signal position.

5. A structure of the class described comprising a casing having a hinged closure at its front end and being otherwise closed and including a rear wall, a signal supporting arm pivotally mounted on the outer side of said rear wall to swing transversely of the casing, a signal member mounted on one end of said arm to project laterally from the casing when the arm is in its actuated signal position, spring means for actuating said arm to signal position, the other end of said arm having a keeper mounted thereon and which projects laterally from said casing when said arm is in its signal retracting position, a springable detent operatively connected to said closure and mounted thereon to project therefrom and into the path of travel of said keeper when said closure is in its closed position, said detent being springably yieldable laterally relative to said casing permitting engagement of said keeper therewith with said closure in closed position when said signal member is adjusted from its retracted to signal position.

6. A structure of the class described comprising a casing having an opening provided with a hinged closure and being otherwise closed, a spring biased signal supporting arm pivotally mounted on the outer side of said casing to swing transversely thereof, a signal member mounted on said arm to project laterally from the casing when the arm is in its actuated signal position, said arm having a keeper mounted thereon and which projects laterally from said casing when said arm is in its signal retracting position, and a detent operatively connected to said closure and slidably mounted on said casing to project into the path of travel of said keeper when said closure is in its closed position, said detent being laterally springable permitting engagement of said keeper therewith when said closure is in closed position and said signal member is adjusted from its signal to its retracted position.

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