March 18, 1958 H. E. WIKERT 2,827,228

MAIL BOX

Filed June 12, 1956

Fig. 1.

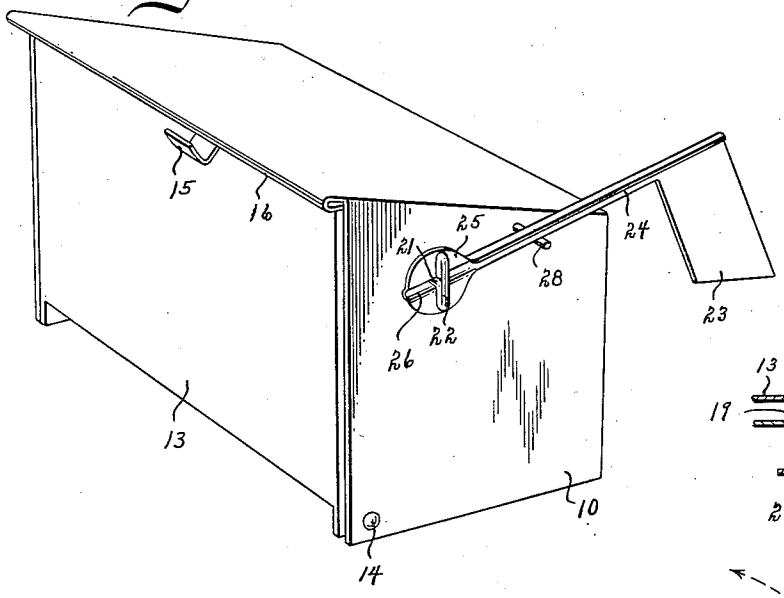
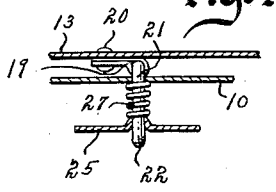


Fig. 4.



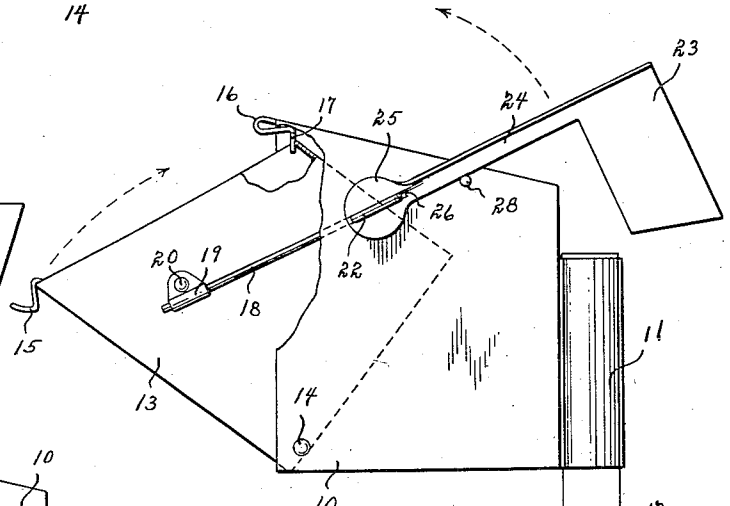
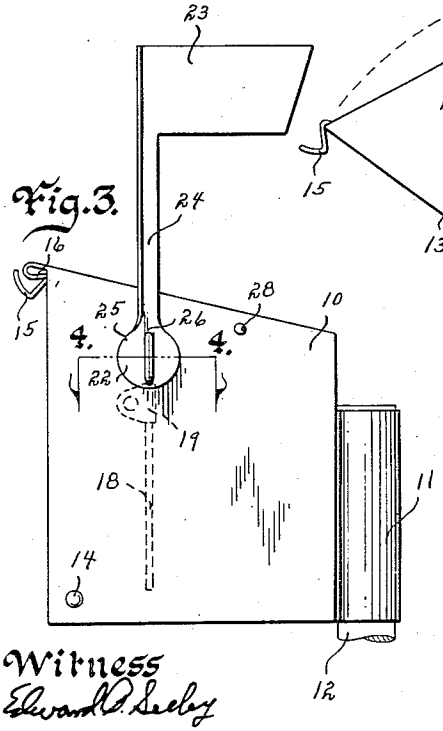


Fig. 2.

Fig. 3.



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MAIL BOX

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3 Claims. (Cl. 232—35)

This invention relates to mail boxes and more particularly to one that will indicate to the user whether or not the mailman has deposited mail in the box.

Usually in rural areas the mailbox is installed at considerable distance from the living quarters. It is therefore impossible to tell whether or not the mail carrier has visited the box, and even if the mail carrier has passed it cannot be determined if any mail has been left in the box. Attempts have been made to install mail delivery flags on boxes but the mail carrier usually does not and is not required to actuate the flag. This often results in the owner of the mail box making several trips to the mail box only to find that the carrier has not yet visited the mail box.

Therefore, one of the principal objects of my invention is to provide a mail box construction that will automatically indicate to the user that the mailman has opened the mail box and therefore presumably placed delivered mail therein.

More specifically the object of this invention is to provide a mailbox that has a signal flag capable of being placed in lowered position by the user but when the box is opened by the mailman the signal flag will be automatically elevated and maintained in upright signalling position.

A further object of this invention is to provide a mail box that will not become accidentally opened after mail has been deposited in the same.

A still further object of this invention is to provide a combination signalling means and mailbox that requires no attention from the mailman depositing the mail and one that does not interfere with the normal opening and closing of the mail box.

Still further objects of this invention are to provide a signalling mail box that is economical in manufacture, refined in appearance, and durable in use.

These and other objects will be apparent to those skilled in the art.

My invention consists in the construction, arrangements, and combination, of the various parts of the device, whereby the objects contemplated are attained as hereinafter more fully set forth, specifically pointed out in my claims, and illustrated in the accompanying drawings, in which:

Fig. 1 is a front perspective view of my mail box with the signalling flag in a lowered position,

Fig. 2 is a side view showing the mail box in open condition and with sections cut away to more fully illustrate its construction,

Fig. 3 is a side view of the mail box with the signal flag in elevated position, and

Fig. 4 is an enlarged sectional view of the signal flag mechanism taken above line 4—4 of Fig. 3.

Referring to these drawings, I have used the numeral 10 to designate a substantially rectangular mail box housing, open at its front, as shown in Fig. 2. The top of this box may be flat or upwardly curved as desired. To support the mail box I have provided a vertical tube 11 secured to its back and supported on a post 12. The tubular collar 11 may be rotatably secured on the post 12 or if desired rigidly secured to the post 12. The numeral 13 designates a trough box open at its top and adapted when in a closed position to reside inside the housing 10, as shown in Fig. 1. This rectangular trough box 13 is hinged by rivets, bolts, or like 14 at its lower forward side ends in order that it may swing outwardly and downwardly to an open position, as shown in Fig. 2. This portion 13 is to receive and hold the mail and, after the mail has been placed in the same, it is swung upwardly and rearwardly into a closed position, as shown in Fig. 3. The weight of the mail in the member 13 will yieldingly tend to hold the trough box 13 in a closed position and against accidental movement to an open position. The numeral 15 designates a catch handle member on the center front top of the member 13 to facilitate the opening and closing of the trough box. This handle 15, when the mail box is in a closed position, yieldingly engages the spring catch bar 16 fastened to the front center top of the housing 10 for yieldingly holding the box trough 13 in a closed condition. A tab 17 on the member 16 provides a stop means for limiting the outward swinging movement of the trough box 13 by engagement with the rear wall of the trough box 13, as shown in Fig. 2.

The numeral 18 designates a rod shaft having a major portion of its length between the outer right end of the trough box 13 and the inner right end of the housing 10. The numeral 19 designates a sleeve bearing pivoted to the outer side of the right end of the box 13 by a rivet, bolt or like 20. The rod shaft 18 slidably extends through the bearing sleeve 19 and has its upper portion bent at right angles to form a horizontal shaft portion 21 which extends to the right and pivotally through the right end of the housing 10, as shown in Fig. 4. On the outer end portion of the shaft portion 21 is a bar portion 22 extending parallel with the right end of the housing 10 and also parallel to the main portion 18 of the rod shaft. The numeral 23 designates a flag having a standard 24 and a plate portion 25 on the end of the standard 24 opposite from the flag portion 23. The shaft portion 21 extends through the plate portion 25, as shown in Fig. 1. The numeral 26 designates an elongated concave groove formed in the plate portion 25 and which extends longitudinally to the longitudinal length of the standard portion 24. This groove 26 bisects the point where the shaft portion 21 rotatably extends through the plate 25 and is capable of being engaged by the bar portion 22, as shown in Fig. 3. The numeral 27 designates a coil spring embracing the shaft portion 21 and positioned between the outer right end of the housing 10 and the inner side of the plate portion 25, as shown in Fig. 4. The numeral 28 designates a stop pin on the right end of the housing 10 for limiting the downward swinging movement of the signal flag.

The practical operation of my mail box is as follows:

After the user of the mail box obtains his mail from the box trough 13, he closes the mail box by manually moving the box trough 13 upwardly and rearwardly, and then manually lowers the signal flag to a position shown in Fig. 1. This action rotates the plate 25, and inasmuch as the rod 18 and bar 22 are stationary, the bar will be forced out of the groove 26 and against the yielding force of the spring 27. With the box closed and the signal flag lowered, the bar 22 will be positioned transversely of the groove 26, as shown in Fig. 1. With the signal flag in such lowered position the user of the mail box will know that the mailman has not again visited and deposited mail in the mail box. However, when the mailman does next visit the box to deposit mail therein he will normally open the mail box in the usual manner, as shown in Fig. 2. The movement, however, of the box trough 13 will move the rod shaft 18 upwardly thereby

rotating the shaft portion **21** to the right. The bar **22** on the outer end of the shaft **21** will rotatably slide over the face of the plate **25** until it is moved into the groove **26** by the action of the coil spring **27**. During this action the signal will be held from rotary movement to the right by virtue of the stop **28** and thus the plate **25** will remain stationary until the box trough is being closed. When this happens, the trough box **13** will be in open position and the shaft rod **18**, bar portion **22**, groove **26**, and standard **24** will all be in parallel relationship, as shown in Fig. 2. When the mailman closes the box, however, the rod shaft **18** will move downwardly and slide through the sleeve bearing **19** to a position shown by dotted lines in Fig. 3. Obviously this action will rotate the shaft portion **21** and the bar **22**, bringing the bar **22** to vertical position. Inasmuch as the bar **22** is yieldingly held in the groove **26** of the plate **25**, the plate **25** will accordingly be rotated thereby bringing the signal flag to an operative upright signalling position, as shown in Fig. 3. With the flag in such elevated position, the user of the mail box will know that the mailman has passed by and has opened the mailbox and presumably placed mail therein.

Thus, the mailman without any effort on his part has automatically caused the mailbox to signal the owner that the mailman has been by and has opened and closed the mail box. To reset the signal, it is merely necessary to manually lower the flag, thereby bringing the bar portion **22** to a position crosswise of the groove **26**.

Some changes may be made in the construction and arrangement of my mail box without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims, any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim:

1. In a mail box, a housing open at its front side, a trough box open at its top adapted to reside inside said housing when in a closed condition and having its forward bottom portion hinged to said housing whereby it may have its upper portion swung outwardly from inside said housing, a rod shaft extending between one end of said trough box and one end of said housing and having one end portion bent at a right angle to pivotally extend through that end of said housing, a means for slidably pivotally securing said rod shaft to said trough box, a bar on said rod shaft located at the outer end of said bent portion, a plate adjacent said bar and rotatably mounted on said rod shaft, a groove in said plate capable of being engaged at times by said bar, a spring means for yieldingly holding said plate toward said bar, and a signal member secured to said plate.

2. In a mail box, a housing open at its front side, a trough box open at its top adapted to reside inside said housing when in a closed condition and having its forward bottom portion hinged to said housing whereby it may have its upper portion swung outwardly from inside said housing, a rod shaft extending between one end of said trough box and one end of said housing and having one end portion bent at a right angle to pivotally extend through that end of said housing, a means for slidably pivotally securing said rod shaft to said trough box, a bar on said rod shaft located at the outer end of said bent portion, a plate adjacent said bar and rotatably mounted on said rod shaft, a groove in said plate capable of being engaged at times by said bar; said groove when engaged by said bar, said bar, and said rod shaft being parallel with each other, a spring means for yieldingly holding said plate toward said bar, and a signal member secured to said plate.

3. In a mail box, a housing open at its front side, a trough box open at its top adapted to reside inside said housing when in a closed condition and having its forward bottom portion hinged to said housing whereby it may have its upper portion swung outwardly from inside said housing, a rod shaft extending between one end of said trough box and one end of said housing and having one end portion bent at a right angle to pivotally extend through that end of said housing, a means for slidably pivotally securing said rod shaft to said trough box, a bar on said rod shaft located on the outer end of said bent portion, a plate adjacent said bar and rotatably mounted on said rod shaft, a groove in said plate capable of being engaged at times by said bar, a coil spring embracing said rod shaft having one end bearing on said housing and its other end bearing on said plate for urging said plate toward said bar, and a signal flag secured to said plate.

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