March 30, 1954 G. HARRISON 2,673,682

MAIL BOX

Filed Dec. 6, 1949 2 Sheets-Sheet 1

FIG. 2

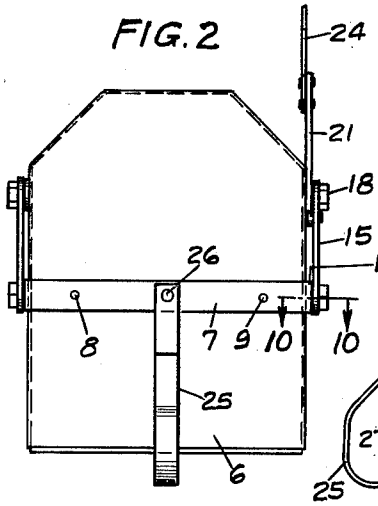


FIG. 1

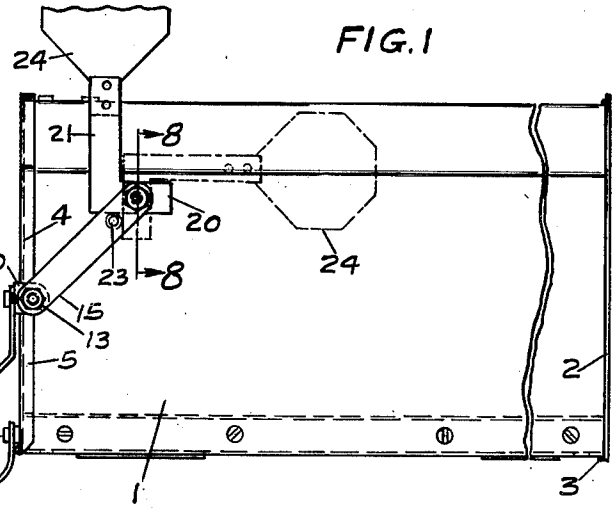


FIG. 4

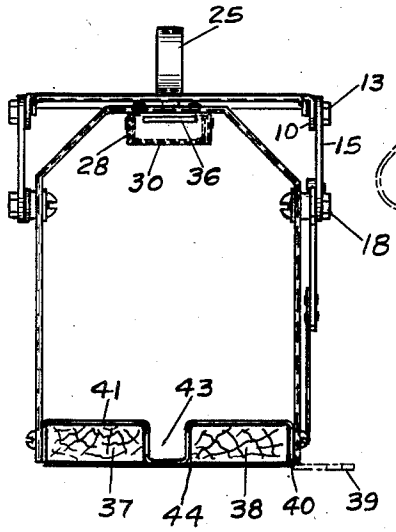
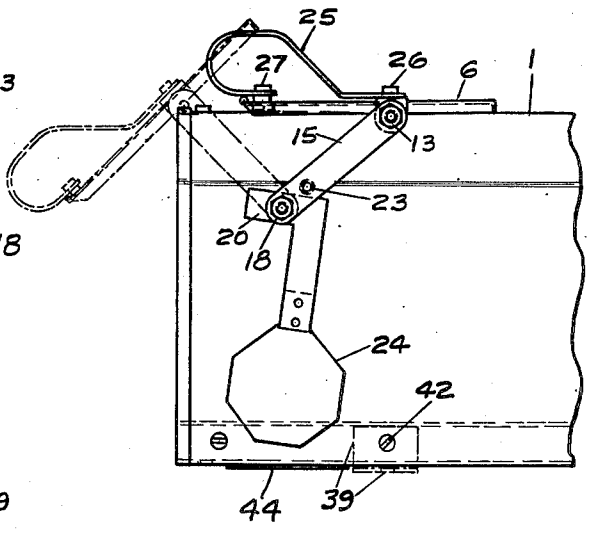


FIG. 3



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March 30, 1954 G. HARRISON 2,673,682

MAIL BOX

Filed Dec. 6, 1949 2 Sheets-Sheet 2

FIG. 5

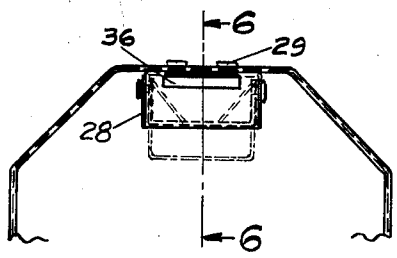


FIG. 6

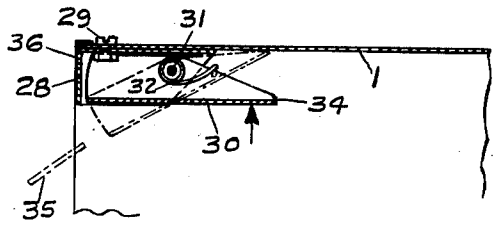


FIG. 7

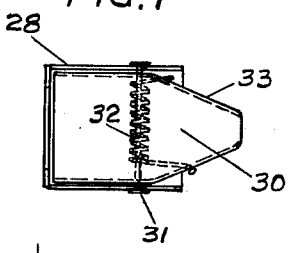


FIG. 8

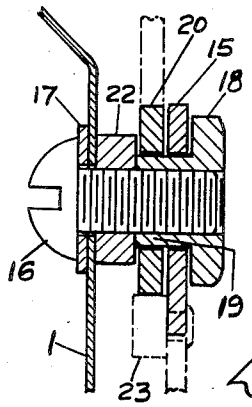


FIG. 9

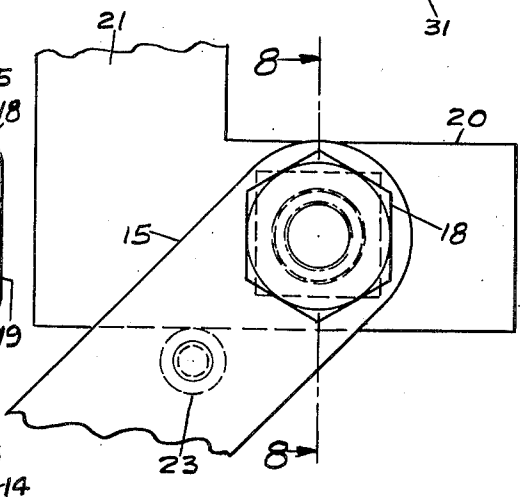
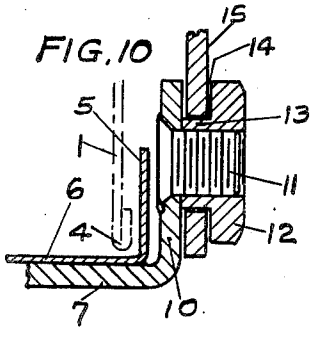


FIG. 10



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MAIL BOX

Gale Harrison, Ivanhoe, N. C.

Application December 6, 1949, Serial No. 131,413

7 Claims. (Cl. 232—35)

1

This invention relates to mail boxes used for what may be generally termed rural delivery. In this type of mail box, they should be substantially water tight but I have found that most of those now in use are not water tight. In present day boxes, I have also found that by continual use of metal boxes as now made that the edge of the box, where the lid or door hits when opened and closed, becomes roughened which is especially true if the boxes are made of aluminum and this interferes with the opening and closing causing the mail delivery person to lose time and some of them carry oil cans to oil up these interfering parts.

Another objection to present boxes is that when the carrier approaches a box he has to allow enough clearance, between his vehicle and the box, to get the lid or door open and most mail boxes have the lid hinged at the bottom. If this precaution is not taken, the lid will hit the vehicle and scratch the paint off. If allowance is made for obviating this, then the carrier has to stretch unduly to take care of the full mailing operation.

Still another objection to present day boxes is that when mail is put into the box for the carrier to pick up, a signal is put up for the carrier to call and he may have to pick up coins for stamps and since many of the boxes have corrugated bottoms, the coins are hard to get out of the box and the carrier has to do quite some reaching. These corrugations are used so water getting into the box will not wet the mail, if the mail carrier is careful as to how he puts the mail into the box. If a carrier has to pick up mail from the box, the flag or signal will be up and he has to reach over or around the box to drop it down if he makes no delivery.

It is therefore the general object of my invention to provide a structure which will overcome all the objectionable features heretofore recited as well as others which will occur to one that has had experience with this type of a mail box.

The manner in which I have overcome these objectionable features will appear from the following description of my new and improved construction shown in the annexed drawings, wherein

Figure 1 is a side view of the mail box with the signal arm in signalling position while its normal position is shown in broken lines;

Figure 2 is an end view of Figure 1 looking from left to right;

Figure 3 is a partial side view of the box with

2

the end cover in fully open position, one position in the opening operation being shown in broken lines;

Figure 4 is an end view of Figure 3 looking from left to right, Figures 1–4 being shown at ⅓ size;

Figure 5 is a view of the top part of Figure 4 without the cover and showing the coin receptacle on a larger scale than shown in Figure 4;

Figure 6 is a view on the line 6—6 of Figure 5 and showing in broken lines a coin being discharged from the receptacle;

Figure 7 is a bottom view of the coin receptacle shown in Figures 5 and 6 which are shown at half size;

Figure 8 is a section on the line 8—8 of Figures 1 and 9;

Figure 9 is a side view of the joint parts where the section 8—8 is taken in Figure 1;

Figure 10 is a section on the line 10—10 of Figure 2 figures 8, 9, and 10 being twice the size of the parts of the original model so as to show clearly the improved construction.

Referring now to the details wherein like numbers refer to corresponding parts, 1 is a box preferably made of steel with a suitable weather proof finish and having its top with slanting sides as shown in Figure 2. The rear end of the box is preferably welded at 3 all the way around so as to make a water tight joint. The front end of the box has the metal crimped or folded over at 4 as shown by the broken lines Figure 10, so that the flange 5 of the cover 6 will fit over this fold and will cause any water being driven under the flange 5 to run down and off the bottom without getting into the box. The cover 6 has a cross bar 7 fastened thereto as by welding or studs 8 and 9. The ends 10 of the bar 7 are turned inwardly to provide a support for a screw stud at each end of the bar. As shown in Figure 10 the head of the screw stud 11 sets in a counter-sunk hole in the bent over end 10 and a nut 12 has preferably an integral collar 13 long enough so as to form a slot 14 wider than the thickness of the link 15 so that the link can turn about this collar 13 with perfect freedom.

The other end of each of the links 15 is pivoted on a screw stud 16 that is locked to the interior of the vertical wall of the box by a lock washer 17. A nut 18 made similar to the nut 12 has a collar 19 similar to the collar 13 but longer in order to accommodate the thickness of the link 15 as well as the short arm 20 of a signal

or flag arm 21 which carries a signal or flag member 24. From Figure 8 it will be noted that the collar 19 on the nut 18 engages a lock nut 22 that holds the screw 16 in firm engagement with the wall of the box 1. The link 15 carries a stud 23 which acts as a positioning and stop member for the flag as will be seen from Figure 1. From Figure 8 it will also be seen that the flag arm 20 and the link 15 are freely carried on the collar 19 of the nut 18. The cross bar 7 is preferably fastened to the cover 6 a little distance below the central median line through the box whereby the cover or lid 6 may be raised by means of a handle 25 that is fastened to the bar 7 in a satisfactory manner as by means of a stud 26 or by welding, while the lower end of the handle is fastened as by a stud 27 to the lower portion of the cover. From this construction it will be seen that the lid or cover can be moved outwardly only a short distance from the end of the box 1. This distance being determined by the length of the links 15 which are pivoted to the box 1 far enough from the forward end so that the cover or lid 6 need only be far enough away from the end to allow the lid to be passed over the upper corner of the box as shown in Figure 3, whereby the lid 6 can be moved over and down onto the top of the box as shown in Figure 3, all in one movement. When the cover has been moved to the position as shown in Figure 3 the flag or signal 24 will automatically be moved to the position shown in Figure 3 but when the door is moved to closed position the stud 23 will come in contact with the short arm 20 of the signal and move it to its normal position as shown by the broken lines in Figure 1. When mail is put in to the box or taken out by the mail carrier, the signal 24, which is preferably made of red plastic material, is moved to the vertical position as shown in full lines in Figure 1. But when the carrier or other person raises the door by means of handle 25 without moving it onto the top of the box, as shown in Figure 3 the stud 23 will move the flag or signal over so that it will fall into the position as shown in dotted lines in Figure 1.

In order to overcome the objections of getting coins or stamps from the box I have provided a receptacle 28 which is preferably made of sheet material and fastened to the top of the box 1 in a satisfactory manner as by screws or rivets 29. The bottom 30 of the coin receptacle is U shaped and has its sides pivoted to the side walls of the receptacle by a stud 31. The spring 32 is used to maintain the bottom of the receptacle in closed position but the inner ends of the sides of the U are tapered at 33 so that pressure on the bottom by one's fingers at a point as indicated by the arrow in Figure 6 will tilt the bottom of the receptacle upward so that its extreme end 34 will hit the top of the box 1 and any coin or stamps within the receptacle will be ejected from the receptacle, as indicated by the broken lines 35, it being understood that the forward end of the receptacle has a slot 36 therein to allow an insertion of coins or stamps, which may be put in by the carrier or owner. With this device it will be seen that any stamps put into the receptacle by the carrier will be free from getting wet and the carrier can very easily and quickly get any coin that may be put into the receptacle without clawing around on the inside of the bottom as in the present day boxes.

It is to be noted from Figure 4 that the bottom of the box is formed with a channel or relatively narrow groove 43 to take up any water that may for some unforeseen reason get into the box. However, the bottom may have holes therein so any water getting into the channel will run out quickly. Any mail put into the box will easily span the channel 43 and the channel will also serve an additional purpose by allowing the finger or thumb of the user to reach in and grasp the mail therein from both top and bottom.

Between the channel sides I propose to use wooden strips 37 and 38 which may be utilized for mounting the mail box on a suitable support. Also I prefer to fasten to the wood strips as by nails, thin metal strips 44 across the front and rear ends of the box. The mounting of the box may be done in various ways such as by the use of brackets 39, only one being shown and one arm of these may be inserted between the side edge of the box and the downwardly extending edge 40 of the member 41 which forms a major portion of the bottom of the box. The arm of the bracket 39 may be fastened into position by screws 42, one of which is shown in Figure 3. Various other ways of mounting the box may be utilized but since these features form no part of my invention a further description thereof does not seem to be necessary.

While certain of the details may be varied, I believe I am the first one to make a mail box having all the advantages heretofore pointed out.

Having thus described my invention what I claim is:

1. A mail box comprising a casing of suitable metal, the casing having a door at one end normally held in vertical position, the door being substantially flat and hinged by means of a pair of links pivotally connected directly to the door and directly to the casing by two pivot studs fastened to opposite sides of the casing above a horizontal median plane through the casing and a relatively short distance from the door end, said links being of a length which will permit the door to be lifted upwardly a substantial distance in parallel vertical planes and then back over the end of the casing and down onto the top of the casing and a handle on the door for operating it.

2. A mail box especially adapted for rural service including, a casing formed from suitable sheet metal, the casing having a door at one end attached to the casing by a pair of pivoted links, one on each side of the casing, the door having an inturned flange to overlap at least the top and sides of the casing, the door also having a rigid transverse cross bar located preferably just below its horizontal median line and a handle for the door preferably located below said cross bar, said cross bar having its ends inturned past the opposite edge flanges of the door, each of said links having one end pivoted to said inturned bar end while its opposite end is pivoted to a stud fastened to the casing inwardly a relatively short distance from the door end and above the bar pivot each pivot including a collar forming part of a lock nut which engages a screw stud fastened to its respective part, the length of the collars being a little more than the thickness of the parts carried on the collars to give free and smooth action.

3. A mail box as set forth in claim 2 further defined in that the link pivot on one side of the casing carries the short arm of an L-shaped flag member, this link having a stud for locating the flag member for service attention, said stud also acting on the short arm of the flag member to

move said member to non-flagging position when the door is raised after the flag member has been set for service attention, said pivot being located in the short arm of the flag member so when the flag member is in service position its center of gravity will be located so it will not be wind blown to non-service position.

4. A mail box as set forth in claim 2 further defined in that the link pivot on one side of the casing carries the short arm of an L-shaped flag member, this link having a stud for locating the flag member for service attention, said stud also acting on the short arm of the flag member to move said member to non-flagging position when the door is raised after the flag member has been set for service attention.

5. A mail box as set forth in claim 2 further defined in that said links are pivoted on collars preferably forming part of the nuts which hold the links in position on threaded screw studs fastened to their respective parts, the length of the collars being a little more than the thickness of the parts carried on the collars to give free and smooth action.

6. A mail box including a casing of suitable metal, the casing having a substantially flat door at one end, the door having a handle for operating it and an inwardly extending weather protecting flange around the periphery of its sides and top and being hinged by means of a pair of links disposed one on each side of the casing and each link being pivotally mounted at both ends directly to the door and casing by two pivot studs including collars forming extension parts of lock nuts carried by the casing and door, through the means of screw threaded studs fastened respectively to the casing and door, the length of the

collars being longer than the thickness of the parts carried on them, said mail box being further defined in that a signal arm is also pivoted on one of said collars with a stud carried by the link on the same collar, said stud serving to engage a part of the signal arm to hold it in signalling position when moved thereto, the stud also adapted to act on the signal arm to automatically move it to non-signalling position when the door is lifted.

7. A mail box as set forth in claim 1 further characterized in that the bottom of the box has an interiorly centrally located channel formed by a non-metallic strip extending along the length of each side of the interior of the box and a suitable metallic plate fitting over said strips and dipping down between them forming said channel.

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References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
415,065	Rung	Nov. 12, 1889
810,961	Miller	Jan. 30, 1906
844,435	Wolf	Feb. 17, 1907
965,020	Schneider	July 19, 1910
1,199,581	Luckett	Sept. 26, 1916
1,292,050	Raney	Jan. 21, 1919
1,353,585	Halley	Sept. 21, 1920
1,681,585	Hedrick	Aug. 21, 1928
1,792,821	Cook	Feb. 17, 1931
1,848,995	Coleman	Mar. 8, 1932
1,895,912	Bowers	Jan. 31, 1933
2,505,309	Sprick	Apr. 25, 1950
2,578,486	Pedersen	Dec. 11, 1951