May 29, 1928. 1,671,520

H. A. FARRELL

MAIL BOX SIGNAL

Filed June 21, 1927 2 Sheets-Sheet 1

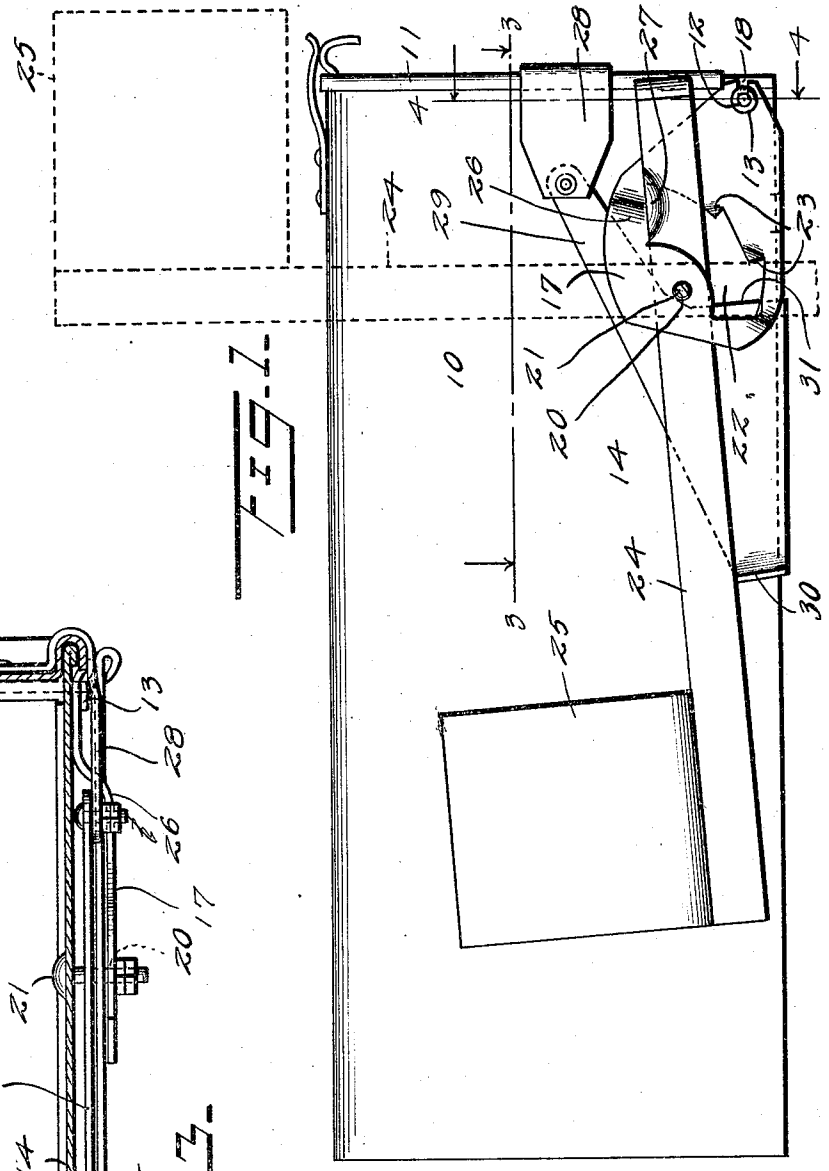


Fig. 1.

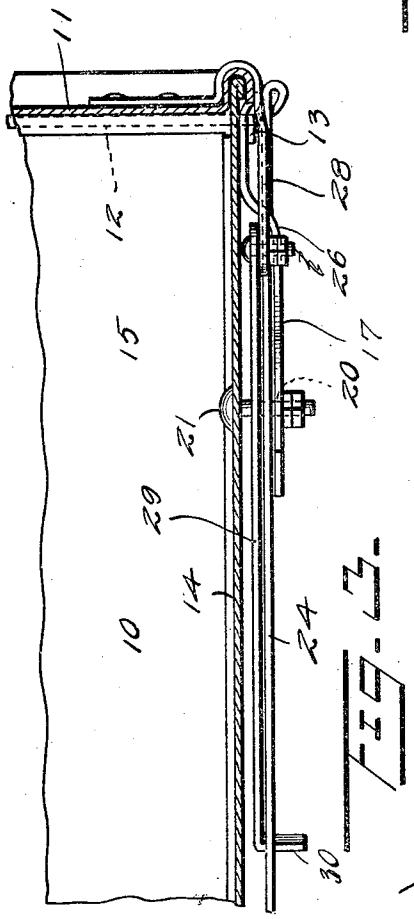


Fig. 4.

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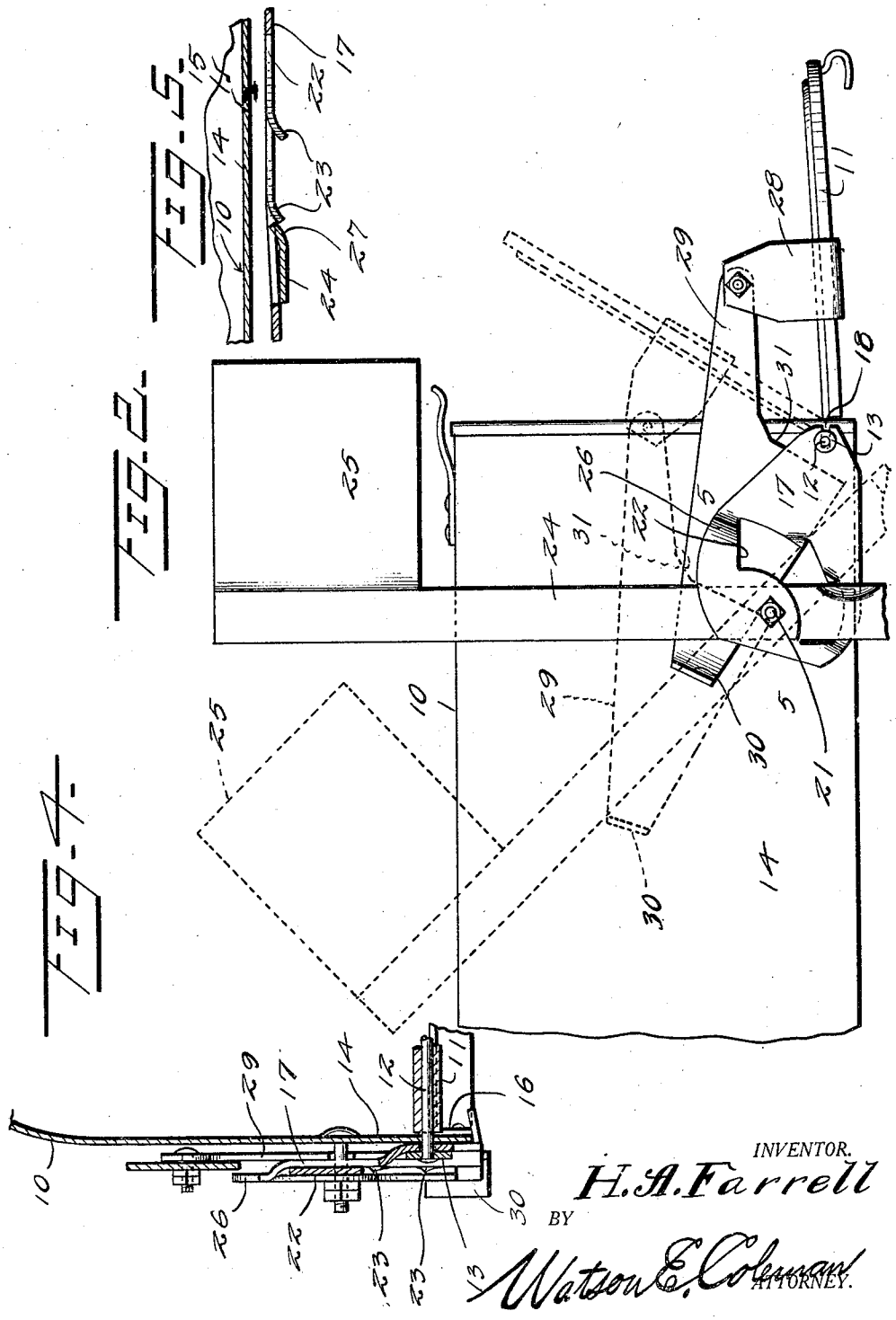
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UNITED STATES PATENT OFFICE.

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MAIL-BOX SIGNAL.

Application filed June 21, 1927. Serial No. 200,450.

This invention relates to mail box signals and more particularly to a signal for indicating to the occupants of a residence that their mail box has been opened, so that they may determine whether the mail-man has passed or not.

In many instances, the mail boxes in rural districts are located quite a distance from the house, and while a box may be visible from the house or from a point adjacent thereto, there is no means for determining whether the mail-man has passed or not unless he is actually sighted while passing. This very often results in a considerable loss of time or the distraction of the attention of the occupants of the house, particularly where an important communication is awaited. An imporant object of this invention is to provide a signal which will be shifted to signalling position by the opening of the mail box and will remain in this position until manually released.

A further object of the invention is to provide a device of this character which may be very readily attached to existing mail boxes without altering the present construction thereof and without the use of any other tools than those ordinarily possessed by occupants of rural districts.

These and other objects I attain by the construction shown in the accompanying drawings, wherein for the purpose of illustration is shown a preferred embodiment of my invention and wherein:—

Figure 1 is a side elevation of a mail box provided with a signal constructed in accordance with my invention;

Fig. 2 is a fragmentary side elevation showing the parts in different positions in full and dotted lines;

Fig. 3 is a horizontal section on the line 3—3 of Fig. 1.

Fig. 4 is a detail sectional view on the line 4—4 of Fig. 1, and

Fig. 5 is a fragmentary section on the line 5—5 of Fig. 2.

Referring now more particularly to the drawings, the numeral 10 generally designates the usual rural mail box having the usual end door 11 mounted upon a transversely extending pivot 12 at one end of the box. These pivots usually consist of a rod which is offset against a washer 13 arranged at the outer surface of the side wall 14 of the box. These side walls 14 usually extend below the bottom 15 of the box, as indicated at 16.

In accordance with my invention, I provide a plate 17 having at one corner thereof a slot 18 adapted to receive the pivot 12 between the washer 13 at the associated end and the side wall 14 of the box. The bottom edge of this plate has a hooked flange 19 adapted to engage the downwardly projecting end 16 of the side wall and hold the plate against rotation about the pivot 12. This plate has formed therethrough an opening 20 for the passage of a securing element 21 which likewise extends through the wall 14 and serves to anchor the plate against downward displacement. The securing element 21 likewise forms a pivot, which will hereinafter more particularly appear.

The plate 17 is further provided with an arcuate slot 22 extending through approximately 90° and arranged between the pivot and that corner of the plate having the slot 18. The edge of the slot 22 remote from the pivot 21 has shoulders 23 pressed outwardly and forming ratchet teeth, for a purpose presently to appear.

Mounted upon the pivot 21 between the wall 14 and plate 17 is a semaphore arm 24 having at its upper end a flag 25 preferably formed of readily bendable material and positioned after application of the device so that it is disposed at right angles to the dwelling of the owner of the box and extends outwardly from the arm with respect to the box. The lower end of the arm is extended through the slot 22, the plate 17 being slightly offset at the ends of the slot, as indicated at 26, to provide space for accommodation of the arm. This lower end of the arm preferably has one edge thereof bent to form a tooth 27 for coaction with the ratchet teeth 23, although this structure may be dispensed with and the edge of the arm employed to engage the ratchet teeth, if so desired.

To the door 11, I secure a plate 28 to which is pivoted an arm 29 which extends between the semaphore arm 24 and the adjacent surface of the wall 14 of the box. The free end of this arm has a revert 30 forming a hook which will engage the arm 24 as the arm 29 is drawn forwardly by opening of the box and swing the arm 24 to signalling position. To increase the movement imparted to the arm 24 by the arm 29, the under surface of this arm is provided with a cam face 31 which engages with the pivot 21 and causes the arm 29 to elevate and to move

forwardly. It will be obvious that as the door 11 is moved to open position to inspect the interior of the box or to deposit mail therein, the arm 29 will move the semaphore arm to its signalling position. During this movement, the lower end of the arm swings over the ratchet teeth 23 which will effectually serve to prevent its return movement until its lower end is engaged with the hand and flexed outwardly sufficiently to permit its return by the teeth 23. The arm 29 may, of course, make the return movement which is imparted thereto by the closure of the box without in any manner interfering with the arm 24 or changing the position thereof.

Attention is directed to the fact that the flange 19 not only serves to prevent rotation of the plate 17, but likewise greatly facilitates application of this plate to the mail box. In this application, all that is necessary is that the slot 18 be engaged over the rod 12 behind the washer 13 and the plate rotated until its flange comes into engagement with the bottom of the side wall of the box. The opening of the plate 17 then forms a guide for the formation of the pivot opening in the side wall of the mail box, so that an error in the application of the plate becomes impossible and practically anyone can attend to the installation.

Since the construction hereinbefore set forth is capable of a certain range of change and modification without materially departing from the spirit of the invention, I do not limit myself to such specific structure except as hereinafter claimed.

I claim:—

1. The combination with a rural mail box having the usual door shiftable from open to closed positions, of a signal arm pivoted to the mail box and movable from non-signalling to signalling position, an operating arm pivoted to the door and engaging the signal arm as the door is opened to move the signal arm from non-signalling to signalling position and a ratchet with which the signal arm coacts to prevent its return to non-signalling position, said signal arm being manually flexible to disengage it from said ratchet.

2. The combination with a rural mail box having the usual door shiftable from open to closed positions, of a signal arm pivoted to the mail box and movable from non-signalling to signalling position, an operating arm pivoted to the door and engaging the signal arm as the door is opened to move the signal arm from non-signalling to signalling position and means from which the signal arm is manually releasable for retaining the signal arm in signalling postion, said operating arm in the closed position thereof resting upon the pivot of the signal arm, the under surface of said arm having a cam face for engagement with said pivot whereby the free end of the arm is elevated as the door is opened, the free end of said arm having an angular portion engaging the signal arm to shift the same.

3. The combination with a mail box having the usual pivoted end door movable to open and closed positions, of a plate, means securing the plate against the side face of the mail box adjacent the end thereof having the door including a member forming a pivot, a signal arm rotatably mounted upon said pivot and extended through a slot formed in said plate, an edge of the slot having ratchet teeth for coaction with the signal arm and an arm pivoted to the door and operatively engaging the signal arm during opening movement of the door to shift the signal arm from non-signalling to signalling position.

4. The combination with a mail hox having the usual pivoted end door movable to open and closed positions, of a plate, means securing the plate against the side face of the mail box adjacent the end thereof having the door including a member forming a pivot, a signal arm rotatably mounted upon said pivot and extended through a slot formed in said plate, an edge of the slot having ratchet teeth for coaction with the signal arm and an arm pivoted to the door and operatively engaging the signal arm during opening movement of the door to shift the signal arm from non-signalling to signalling position, the arm pivoted to the door having its under surface in engagement with the pivot and being provided upon such under surface with a cam face engaging the pivot to elevate the free end of the arm during longitudinal movement thereof resulting from opening of the door of the mail box.

5. The combination as claimed in claim 3, wherein the door of the mail box is pivoted upon a rod the ends of which extend beyond the outer faces of the sides of the mail box and are offset against washers to retain the same and a plate provided with a slot receiving the pivot rod between the washer at one end of the rod and the adjacent face of the mail box side.

6. The combination as claimed in claim 3, wherein the door of the mail box is pivoted upon a rod the ends of which extend beyond the outer faces of the sides of the mail box and are offset against washers to retain the same and a plate provided with a slot receiving the pivot rod between the washer at one end of the rod and the adjacent face of the mail box side and the lower edge of the plate has a hooked flange engaging the bottom of the side wall of the mail box.

In testimony whereof I hereunto affix my signature.

HORACE ALBERT FARRELL.