Sept. 11, 1951 M. J. YODER 2,567,459

OPERATOR FOR FLAG SIGNAL

Filed May 16, 1949

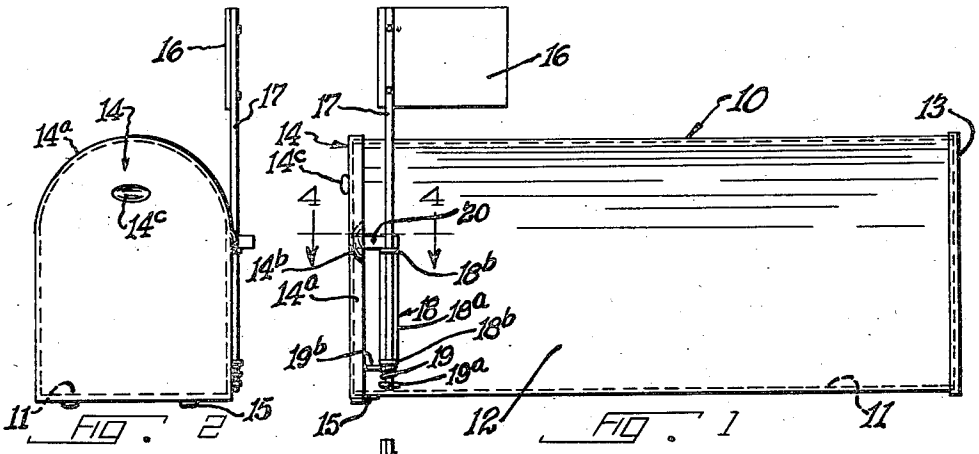


FIG. 2 FIG. 1

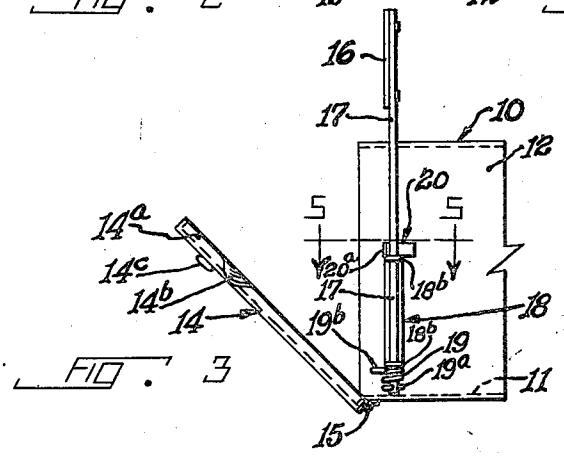


FIG. 3

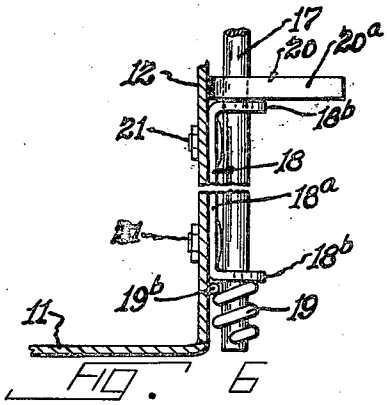


FIG. 6

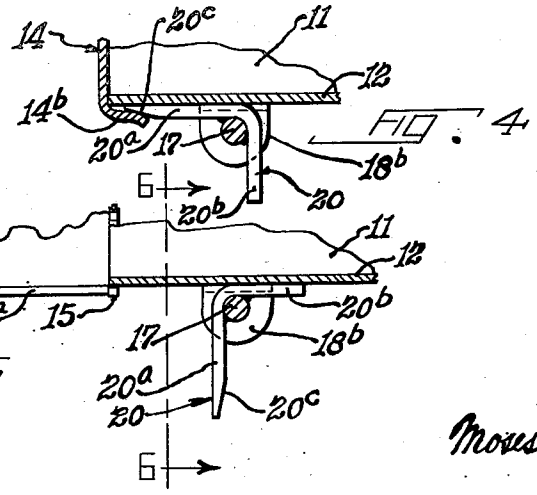


FIG. 4

FIG. 5

INVENTOR.
Moses J. Yoder
BY Frank J. Schraeder Jr.
ATTORNEY

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OPERATOR FOR FLAG SIGNAL

Moses J. Yoder, Hutchinson, Kans.

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2 Claims. (Cl. 232—35)

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The invention disclosed herein, in its preferred exemplification, is directed to an improved operating unit for a signal of the class which is adapted for use in connection with rural mail boxes and includes as an object of the invention means for automatically actuating the signal when the door of the mail box is opened.

Another object of the invention resides in the provision of a flag signal operator of comparatively simple construction thereby affording the production of same at low cost and sale of same at a comparatively low price.

Still another object of the invention is found in the provision of a flag signal operating unit which readily may be applied by the purchaser to various types of mail boxes now in rural use without the use of any special tools.

With the above and other objects in view, my invention consists in the novel combination, construction and arrangement of the parts and members shown in preferred embodiment in the attached drawing, described in the following specification and particularly pointed out in the appended claims.

Referring to the drawing:

Figure 1 is a side elevation of a mail box showing my improved flag signal operator.

Figure 2 is a front elevation of the mail box and signal operator shown in Figure 1.

Figure 3 is a partial side elevation of the front end of the mail box shown in Figure 1 but showing the signal operator automatically turned with the flag disposed transversely to the longitudinal axis of the mail box after the mail box door has been opened.

Figure 4 is an enlarged cross-section of the signal operating mechanism taken on line 4—4 of Figure 1.

Figure 5 is an enlarged cross-section of the signal operating mechanism taken on line 5—5 of Figure 3.

Figure 6 is a still further enlarged vertical section taken on line 6—6 of Figure 5 showing the support for the flagstaff, the actuating spring therefor and the releasable retainer.

As illustrated in the drawing, the mail box 10 is fabricated from sheet metal and consists of a bottom plate 11, a single plate 12 forming the top and opposite sides of the box, a rear closure plate 13, and a front door 14.

The door 14 as shown is formed with flanged edges 14^a which closely embrace the top and side wall portions of box and is hinged, as at 15, to the bottom plate 11.

The flag 16, preferably made of a suitable material such as sheet metal, is riveted or spot-welded to the upper end portion of a metallic staff 17 preferably in the form of a cylindrical rod.

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A suitable bracket generally designated by numeral 18 is provided for supporting the flagstaff or rod 17 on one side of the box 10 near the door 14. The bracket 18 preferably consists of a flat elongated metallic bar portion 18^a disposed vertically and provided with end portions 18^b bent outwardly at a right-angle and constituting perforated ears through the perforations of which the rod 17 extends.

The bracket 18 is adapted to be rigidly secured in place on and to the side of the box in any suitable manner as, for example, by flat-headed screws 21.

The flagstaff 17 extends through the perforations in the ears 18^a and is rotatably carried therein; the lower end of the rod 17 extending a suitable distance below the bottom face of the lower one of the ears 18^a to receive thereabout a helical spring 19; however, any other suitable spring may be used.

One end 19^a of the spring 19 extends through a perforation in the lower end of the rod 17 and the opposite end 19^b of the spring 19 is adapted to engage the outer side wall of the box 10.

Secured to the flagstaff 17, in any suitable manner as, for example, by welding, is a retainer generally designated by numeral 20.

The retainer 20 is angular in shape and is fashioned from a flat, narrow, metallic bar. It is preferably of right-angular form and is secured to the cylindrical bar 17 just above the upper face of the upper ear 18^b and supports the flagstaff 17 on the upper ear 18^b.

One leg 20^a of the retainer 20 is preferably beveled, as at 20^c, for engagement within the crimped portion 14^b of the flange 14^a of the door 14 as shown more clearly in Figure 4, the other leg 20^b is adapted to function as a stop when the latter comes into engagement with the side of the mail box 10 as shown in Figure 5.

When the flag signal 16 is rotated into the position shown in Figures 1, 2 and 4 the rotation of the flagstaff 17 will wind up the spring 19 so that when the retainer is released, the flagstaff will be rotated to the position shown in Figures 3, 5 and 6, however, when the door 14 is closed while the flag signal 16 is held in the position shown in Figures 1, 2 and 4, the leg 20^a of the retainer 20 will be engaged within the crimped portion 14^b of the door flange 14 to thus retain the flag signal 16 in the position shown in Figures

1, 2 and 4, in parallel alignment with the longitudinal axis of the mail box 10.

It is obvious that if the door handle 14c is grasped in hand and the door 14 is opened, as shown in Figures 3 and 5, the retainer will be released and the spring 19 will simultaneously cause an automatic rotation of the flag signal to the position shown in Figures 3, 5 and 6 wherein the flag signal 16 is disposed transversely to the longitudinal axis of the mail box 10.

I claim:

1. An operating unit for a flag signal comprising a vertically disposed rotatable cylindrical rod carrying said flag at its upper end portion, a stationary U-shaped bracket for said rod secured to a stationary support comprising a vertically disposed elongated flat bar having its opposite ends thereof bent right-angularly outwardly to constitute perforated ears, said flag-carrying rod extending through and being rotatable in the perforations of said ears and a lower end portion of said rod extending beyond the bottom face of the lower one of said ears through the convolutions of a helical spring carried on said lower end portion of said rod, one end of said spring extending through an opening in said rod and the other end of said spring engaging said stationary support, and a right-angularly bent L-shaped signal retainer secured to said rod and arranged to support said rod on the upper face of the upper one of said ears, said flag and rod being rotatable against the resistance of said spring to position said flag in parallel alignment with the longitudinal axis of the mail box to thereby tension said spring and present one leg of said retainer into position for engagement by a manually movable element on said support, the other leg of said retainer adapted to function as a stop to position said flag transversely to said selected position when said element is manually moved and said first-mentioned leg is released therefrom to permit said spring to rotate said rod to thereby cause said other leg to engage said stationary support and thereby retain said flag in said transverse position.

2. An operating unit for a flag signal comprising a rotatable rod carrying said flag, a stationary bracket for said rod secured to a stationary support comprising spaced vertically aligned perforated ears, said flag-carrying rod extending through both of said ears and being rotatable therein, a spring adapted to actuate said rod, and an angularly bent L-shaped retainer fixed to said rod, said flag and rod being rotatable as a unit against the resistance of said spring to position said flag in a selected position and present one leg of said retainer into position for retainment by a manually movable element, the other leg of said retainer adapted to function as a stop to position said flag transversely to said selected position when said element is manually moved and said first-mentioned leg is released therefrom to permit said spring to rotate said rod to thereby cause said other leg to engage a stationary support and thereby retain said flag in said transverse position.

MOSES J. YODER.

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