

July 6, 1954

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2,683,013

MAILBOX SUPPORT

Filed Sept. 15, 1951

3 Sheets-Sheet 1

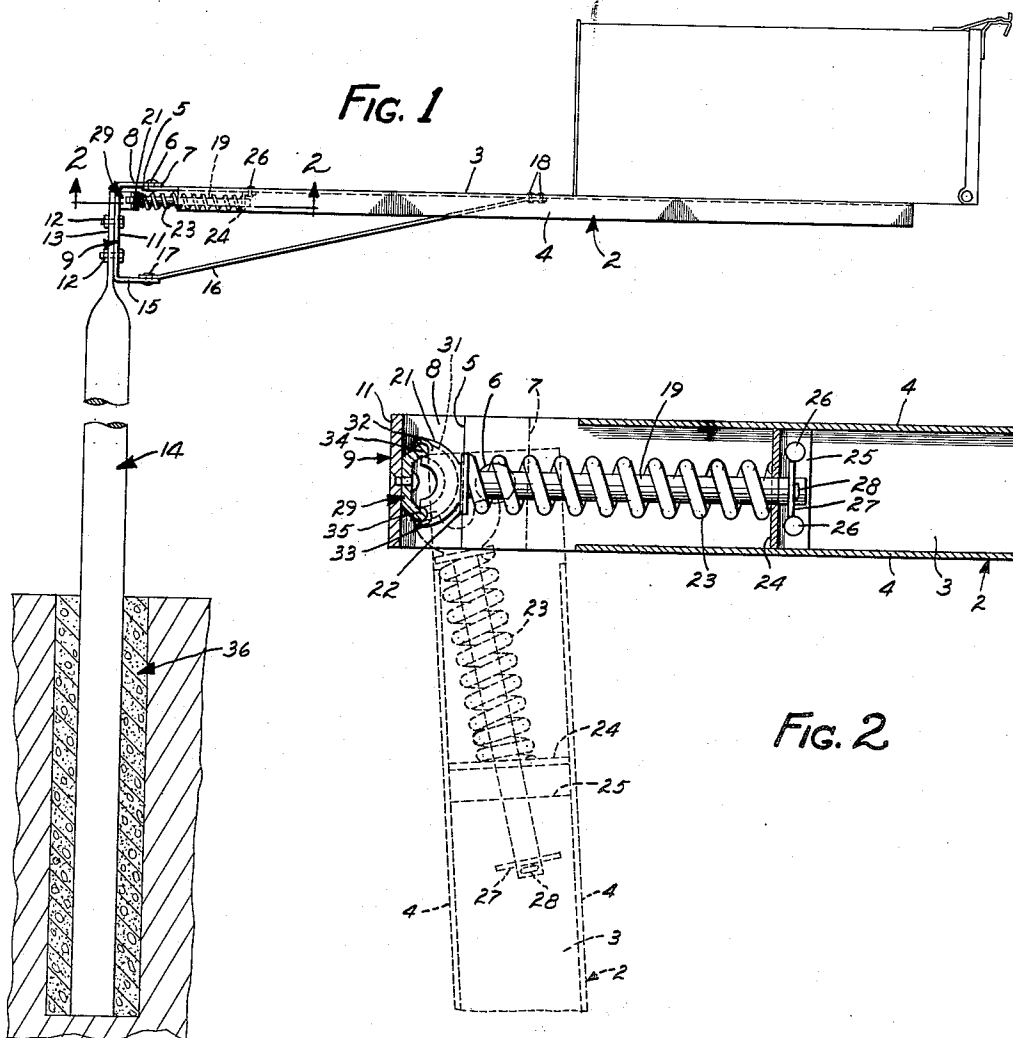
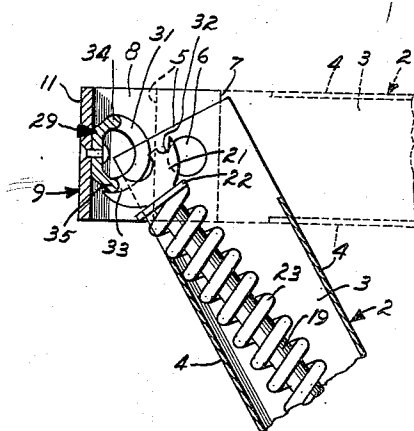


Fig. 3

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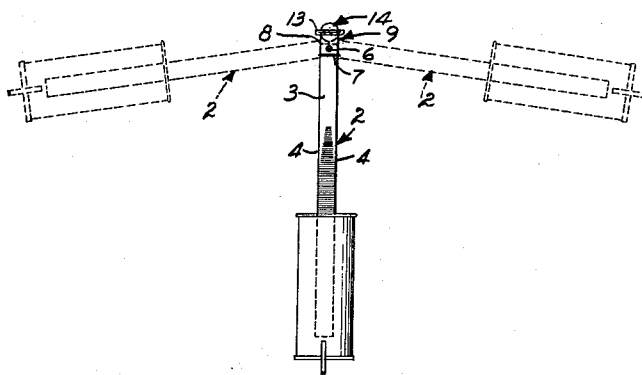


FIG. 4

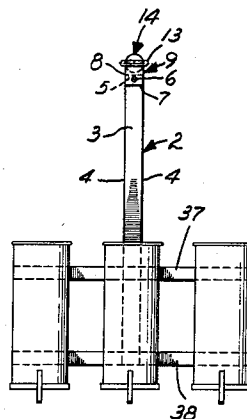


FIG. 5

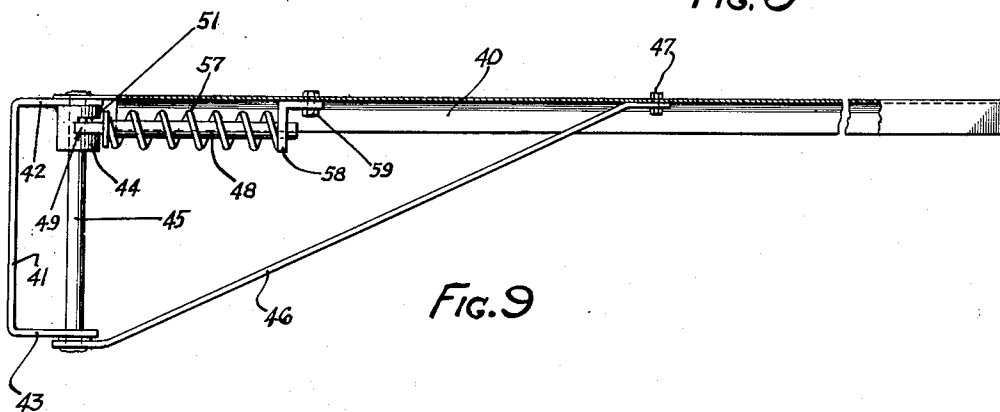


FIG. 9

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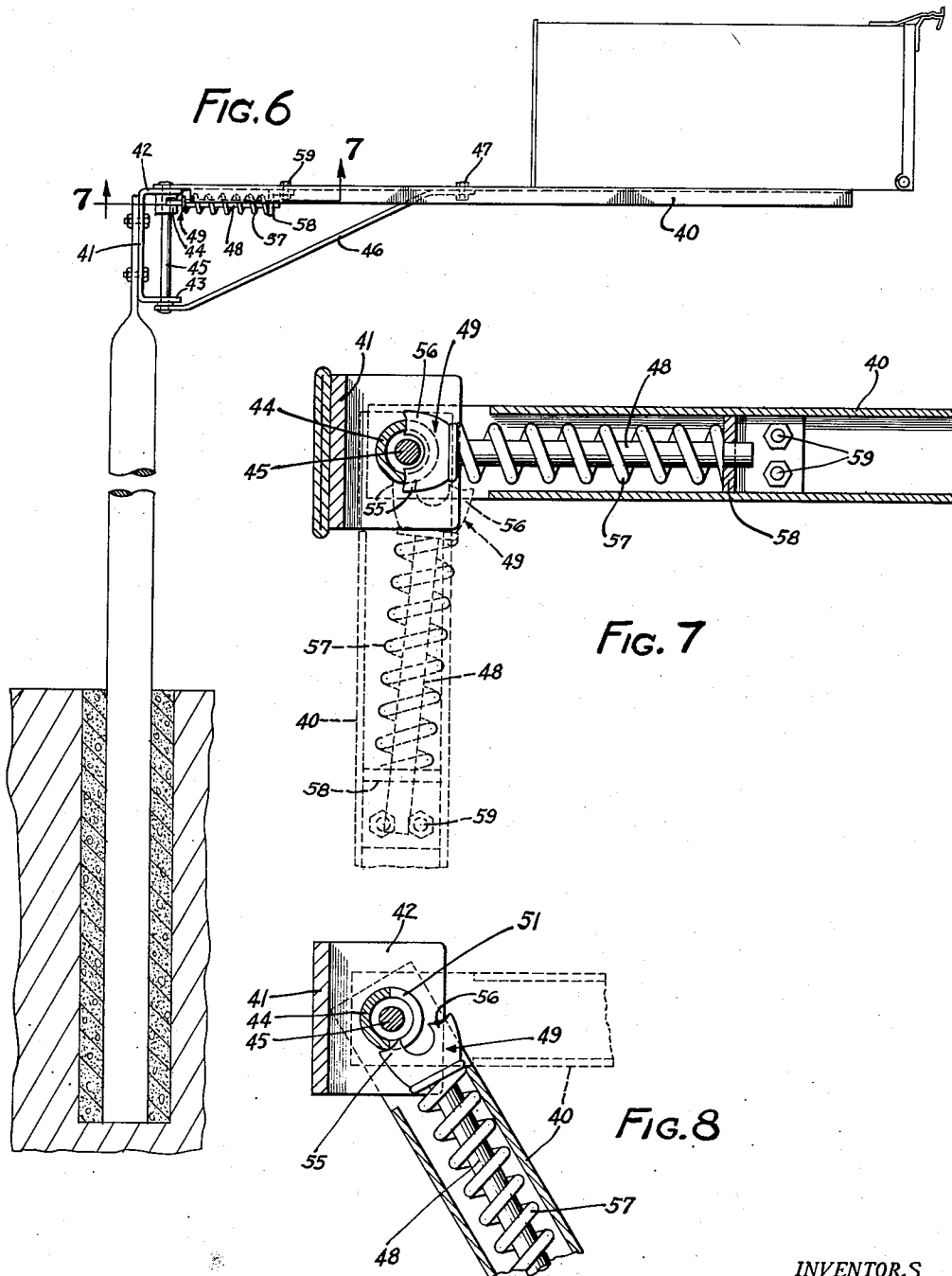
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UNITED STATES PATENT OFFICE

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MAILBOX SUPPORT

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5 Claims. (Cl. 248—145)

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This invention relates to new and useful improvements in mail box supports, and more particularly to such a support comprising a horizontal arm having one end mounted upon a suitable upright spaced outwardly from the adjacent edge of a roadway for vehicular traffic, and the opposite end of said arm being positioned adjacent or over the edge of the roadway and carrying a mail box which is readily accessible for the delivery of mail therein by a mail carrier without requiring the mail carrier to leave his vehicle or drive off the roadway.

It is well known that rural mail boxes, particularly those supported upon a rigid support along a roadway, are always in constant danger of becoming damaged from passing vehicles, snow plows, and the like, and may even present a hazard to traffic passing over the roadway. The present invention contemplates mounting a mail box on a yieldable, horizontally disposed support having one end arranged for swinging movement about a vertical axis carried by an upright post or standard, said arm being sufficiently long to permit the upright to be spaced outwardly from the edge of the roadway whereby it is out of the normal path of vehicles traveling over the thoroughfare, and spring means being provided in conjunction with the pivotal mounting of the arm for normally retaining the arm in its operative position adjacent to the edge of the roadway, whereby the supporting arm and mail box may readily yield, when accidentally engaged by a vehicle, thereby to prevent damage to the mail box and its supporting means, and also to the vehicle.

An important object of the present invention therefore is to provide a very rugged and substantial swingable support for a mail box, whereby a single mail box, or group of mail boxes secured to said arm may readily yield and swing out of the path of a vehicle or other passing object, when engaged thereby, to thus greatly minimize the danger of damaging the mail box and its supporting means.

A further object is to provide a swingable mounting for rural mail boxes which is extremely simple and inexpensive in construction, is highly efficient in operation, and which operates normally to retain the mail box in a position adjacent the edge of a roadway with its fixed supporting means or standard spaced laterally outwardly from the edge of the roadway, whereby it is out of the path of moving traffic, and the swingable mounting of the mail box and its supporting arm permitting said parts to yield when

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accidentally engaged by a vehicle, thereby to minimize damage thereto.

Other objects of the invention reside in the unique construction of the spring pressed member carried by the arm and the means coacting therewith to yieldably retain the mail box in its normal position adjacent to the side of the roadway; in the provision of such a supporting arm wherein all of the parts thereof may be assembled as a complete unit to facilitate handling and erection, and whereby an inexperienced person may quickly erect the mail box supporting means with the assurance it will function as intended, when completed; and in the unique construction of the pivotal mounting of the supporting arm whereby a triangular truss-like structure is provided which offers maximum strength with a minimum of weight; and in the provision of a swingable support for mail boxes which is capable of supporting two or more such boxes.

These and other objects of the invention and the means for their attainment will be more apparent from the following description taken in connection with the accompanying drawings.

In the accompanying drawings there has been disclosed a structure designed to carry out the various objects of the invention, but it is to be understood that the invention is not confined to the exact features shown, as various changes may be made within the scope of the claims which follow.

In the drawings:

Figure 1 is a side view of the novel swingable support herein disclosed;

Figure 2 is an enlarged detailed sectional view substantially on the line 2—2 of Figure 1, showing the means for yieldably retaining the supporting arm in its normal position;

Figure 3 is a view showing the position of the arm retaining means when the arm is swung out of its normal position;

Figure 4 is a top view of Figure 1, showing in full lines the supporting arm when in normal position, and the dotted lines indicating the positions of the arm when engaged by a vehicle or other passing object;

Figure 5 is a view similar to Figure 4 but showing a support capable of carrying three mail boxes;

Figure 6 is a view similar to Figure 1 showing a supporting arm mounted in a slightly different manner;

Figure 7 is an enlarged detailed sectional view on the line 7—7 of Figure 6, showing the sup-

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porting pivot of the arm and the spring means for returning the arm to its normal position, when engaged by a passing object;

Figure 8 is a view similar to Figure 7 with the supporting arm in an intermediate position; and

Figure 9 is a view showing the supporting arm of Figure 6 detached from the supporting posts and having the mail box removed therefrom.

The novel swingable support herein disclosed is shown comprising a horizontally disposed arm 2, preferably of channel cross-section, having an upper wall 3 and spaced side walls 4, as will be understood by reference to the drawings. The side walls 4—4 are shown terminating short of the end 5 of arm 2, which is apertured to receive a pivot pin 6 received in aligned apertures provided in the upper horizontal leg 8 of a U-shaped bracket 9, which preferably has its upright portion 11 apertured to receive suitable bolts 12 for securing the bracket 9 to the upper flattened end 13 of an upright supporting post or standard 14, as illustrated in Figure 1. The supporting post may, for convenience, be made of tubular stock such as pipe, having its upper end flattened to facilitate securing the bracket 9 thereto.

Bracket 9 has a lower horizontal leg 15 shaped to correspond substantially to the upper leg 8, and has one end of a brace 16 pivoted thereto by a pivot pin 17. The opposite end of brace 16 is secured to the upper wall 3 of the supporting arm 2 by such means as rivets 18. The axes of the pivot pins 6 and 17 are axially aligned whereby the supporting arm 2 may swing freely on the bracket 9, when the apparatus is in use.

Means is provided for normally retaining the supporting arm in its normal position, shown in full lines in Figure 3. Such means resides in a spring-pressed rod 19 having a flat head 21 at one end, preferably shaped as shown in Figure 3. A collar 22 is provided on the head 21 and forms a seat for one end of a suitable spring 23, the opposite end of which is seated against an abutment plate 24, shown of angular cross-section and having its upper horizontal flange 25 secured to the top wall 3 by such means as rivets 26. It is to be understood that the abutment plate 24 may be otherwise secured to the arm 2 without departing from the scope of the invention. The spring 23 is coiled about the rod 19, and a washer 27 is preferably fitted onto the outer end of rod 19 and is retained thereon by suitable means such as a cotter pin 28.

The head 21 is retained in operative engagement with an element 29 having a slot 31 therein for receiving the head 21, as will be understood by reference to Figures 2 and 3. The head is provided with laterally spaced notches 32 and 33, respectively, adapted normally to engage abutments 34 and 35, formed at the ends of the slot 31, and spaced apart laterally relative to the axis of rod 19 to cause the spring to be placed under tension, when the arm is swung from its normal full line position, shown in Figure 2, to the dotted line position shown in said figure, or to the opposite side. See also Figure 3.

It will also be noted by reference to Figures 2 and 3 that the pivot pin 6 is spaced inwardly from the abutments 34 and 35 of element 29, or to the right, when viewed as shown in said figures, whereby the distance between the outer abutment plate 24 and the adjacent abutment 35 of the element 29 is decreased, when the arm is in the dotted line position shown in Figure 2, thereby placing the spring under sufficient tension to

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enable it to readily return the arm 2 to its normal full line position, shown in Figures 2 and 4, when the arm is released from the dotted line position shown in these figures.

From the foregoing it will be noted that the head 21 of rod 19 is constantly retained in operative engagement with element 29 by the action of the spring 23 in such a manner that the spring will always return the arm to its normal operative position, whenever the arm is swung out of said position. The upright or standard 14 is preferably anchored in the ground, as indicated at 36 in Figure 1.

The novel mail box support herein featured is preferably assembled for distribution in the form shown in Figure 1, but without the post 14. The bracket 9 may be secured to any suitable fixed support or standard applicable for the purpose. When the mounting is so assembled, any novice or inexperienced person may readily erect a swingable support for a conventional mail box in a comparatively short space of time without the use of special tools. If desired, means, not shown, may be provided for varying the tension in the spring 23, but under ordinary conditions, this has been found unnecessary.

In Figure 5 there is illustrated an installation comprising three mail boxes. Such installations have been found highly desirable and practical in certain rural areas where a plurality of mail boxes may be arranged in a compact group at a highway junction, or the like, to facilitate the work of the mail carrier in distributing the mail to the various mail boxes in a group. When a plurality of mail boxes are to be so grouped, the work of the carrier may be greatly facilitated and expedited by mounting two or more mail boxes upon a single swingable support as illustrated in Figure 5.

To thus mount the mail boxes, a pair of suitable cross-members 37 and 38 are fixedly secured to the arm 2 for direct movement therewith, and upon these cross members, two or more mail boxes are mounted, preferably in spaced parallel relation, as shown in Figure 5. When a plurality of mail boxes are so mounted and grouped upon a single support, a mail carrier may readily service all boxes in a given group from one place, by simply swinging the boxes into servicing position adjacent to his vehicle, as will readily be understood, thus reducing the number of stops usually necessary to service a group of mail boxes, when mounted in the usual manner.

Figures 6, 7, 8 and 9 illustrate a supporting arm 40 having a pivotal mounting which differs somewhat from the one shown in the preceding figures. As best illustrated in Figure 9, a U-shaped member, generally designated by the numeral 41, is provided with upper and lower horizontal legs 42 and 43, respectively. A tubular bearing element 44 is secured to the upper leg 42 to support the upper end of an upright shaft or rod 45 having its lower end rotatably supported in a bearing provided in the leg 43. The upper end of rod 45 is secured to the adjacent end of arm 40 by suitable means such as riveting, and the lower end of rod 45 is similarly secured to one end of a diagonal brace 46 having its other end suitably secured to the arm 40 by such means as a bolt 47. Arm 40 is in the form of an inverted channel, similar to the one illustrated in Figure 1.

The means provided for constantly urging the arm 40 to its normal extended position, similar to the full line position shown in Figure 4, com-

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prises a rod 48 having a head 49 at one end supported in a slot 51 provided in the wall of the tubular bearing element 44, as illustrated in Figures 8 and 9. The head 49 is provided with forked or spaced terminals 55 and 56 adapted normally to engage the end walls of the slot 51, as shown in Figure 7, when the arm is in its normal position shown in full lines in Figure 7. The end walls of the slot 51 thus provide abutments for the terminals 55 and 56 of the rod 48, to position the arm at substantially right-angles to the highway.

When the arm is thus positioned, it may readily be swung to either side, as indicated by the dotted lines in Figure 4, when accidentally engaged by a passing vehicle.

A spring 57 is coiled about the rod 48, and has one end seated against the head 49 and its opposite end against a bracket 59, suitably secured to the arm 40 by welding or by such means as bolts 59. The form of arm illustrated in Figures 6 to 9, inclusive, is particularly well suited for heavy duty work in that the unique arrangement of the rod or vertical shaft 45 provides in effect, an elongated bearing for the arm 46 which greatly strengthens its pivotal mounting and assures free swinging movement thereof under all conditions. Because of the ends of the rod 45 being fixedly secured to the adjacent ends of the arm 40 and brace 46, respectively, said rod rotates as a unit with the arm and brace 46, and cooperates therewith to form a triangular truss-like structure which offers the utmost in strength and rigidity with a minimum of weight.

The foregoing detailed description has been given for clearness of understanding only, and no unnecessary limitations should be understood therefrom, but the appended claims should be construed as broadly as permissible in view of the prior art.

We claim as our invention:

1. A swingable mounting for rural mail boxes, comprising a U-shaped bracket having vertically spaced laterally extending legs, an arm pivoted to said legs and adapted for swinging movement in a horizontal plane about a vertical axis, a rod having one end slidably supported in said arm and provided at its opposite end with an enlarged head, a pair of abutment elements on said bracket between the legs thereof and spaced apart laterally relative to the axis of said rod, said head having laterally spaced notches in the ends thereof for normally receiving said abutments, a spring coiled about said rod and having one end seated against a fixed portion of said arm and having its opposite end engaging said head whereby the spring is placed under tension to yieldably retain said head in engagement with said abutments, said abutments being offset from the vertical axis of said arm whereby said arm, when swung laterally from a normal position places the spring under relatively greater tension, whereby said spring will automatically return the arm to its normal position, when the arm is released.

2. A swingable mounting according to claim 1, wherein the spaced abutments provided on said bracket are formed in an element having a slot therein for receiving and guiding said head.

3. A composite swingable mounting for rural mail boxes, comprising a U-shaped bracket having vertically spaced legs and provided with means for securing it to a fixed support or standard,

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an arm having one end pivoted to the upper leg of said bracket, a brace member having one end secured to an intermediate portion of said arm and having its opposite end pivoted to the lower leg of said bracket, said pivotal connections being axially aligned and cooperating to support said arm in horizontal load carrying position on said bracket, an elongated member having one end slidably supported in said arm and having a head at its opposite end engaged with laterally spaced abutments fixed to said U-shaped bracket adjacent to the upper leg thereof and offset from the axis of said arm in a direction away therefrom, a spring having one end anchored to said arm and having its opposite end seated against said head and constantly urging said elongated member into engagement with said abutments, thereby to retain said arm in a normal position, and permitting it to yield, when engaged by a passing vehicle.

4. A composite swingable mounting for rural mail boxes, comprising a U-shaped bracket having vertically spaced laterally extending legs, means for securing said bracket to a fixed support or standard, a horizontally disposed arm having one end pivoted to the upper leg of said bracket, a brace member having one end secured to an intermediate portion of said arm and having its opposite end pivoted to the lower leg of said bracket, said pivotal connections being axially aligned and cooperating to support said arm in load-carrying position on said bracket, means for yieldably retaining said arm in its normal position, including a rod having one end slidably received in a guide secured to said arm, the opposite end of said rod having an enlarged flat head provided with laterally spaced notches, a tubular element secured to said bracket and having an elongated slot in a wall thereof for receiving the flat head on said rod, the ends of said slot forming abutments for engagement with the notches in said head, and whereby said head is guidingly supported in said head, a spring mounted on said rod and having one end seated against the guide on said arm and having its opposite end engaging the head on said rod and constantly urging the notches portions of said head into engagement with the abutments at the ends of said slot, and the axis of said arm being offset from said abutments in a direction away from said U-shaped bracket to cause said spring to be placed under increased tension, when the arm is laterally swung to either side from a normal position, and whereby said arm will be automatically returned to its normal position by the action of said spring, when accidentally engaged by a passing vehicle.

5. A swingable mounting according to claim 4, wherein spaced bars are secured to the swingable end of said arm to facilitate mounting a plurality of mail boxes thereon.

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