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Bishop et al.

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[54] **POSTAL DROP BOX**

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[52] **U.S. Cl.** ..... **232/27,** 232/1 R, 232/24, 312/245

[51] **Int. Cl.** **B65d 91/00**

[58] **Field of Search** 232/17, 24, 25, 26, 27, 232/38, 39, 30, 31, 32, 45, 47, 46, 1; 248/224; 312/245

[56] **References Cited**

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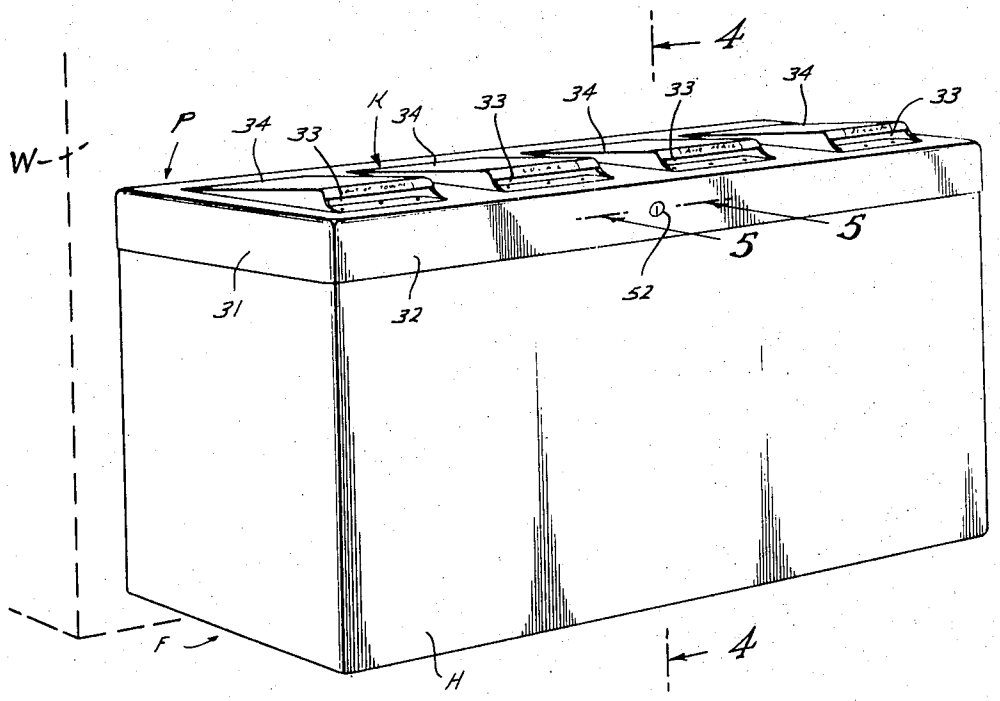
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Assistant Examiner—Peter A. Aschenbrenner

[57] **ABSTRACT**

A postal drop-box having a framework for supporting a plurality of removable mail containers, with a housing enclosing same to provide prevention of unauthorized removal or tampering with mail dropped into the containers.

7 Claims, 5 Drawing Figures



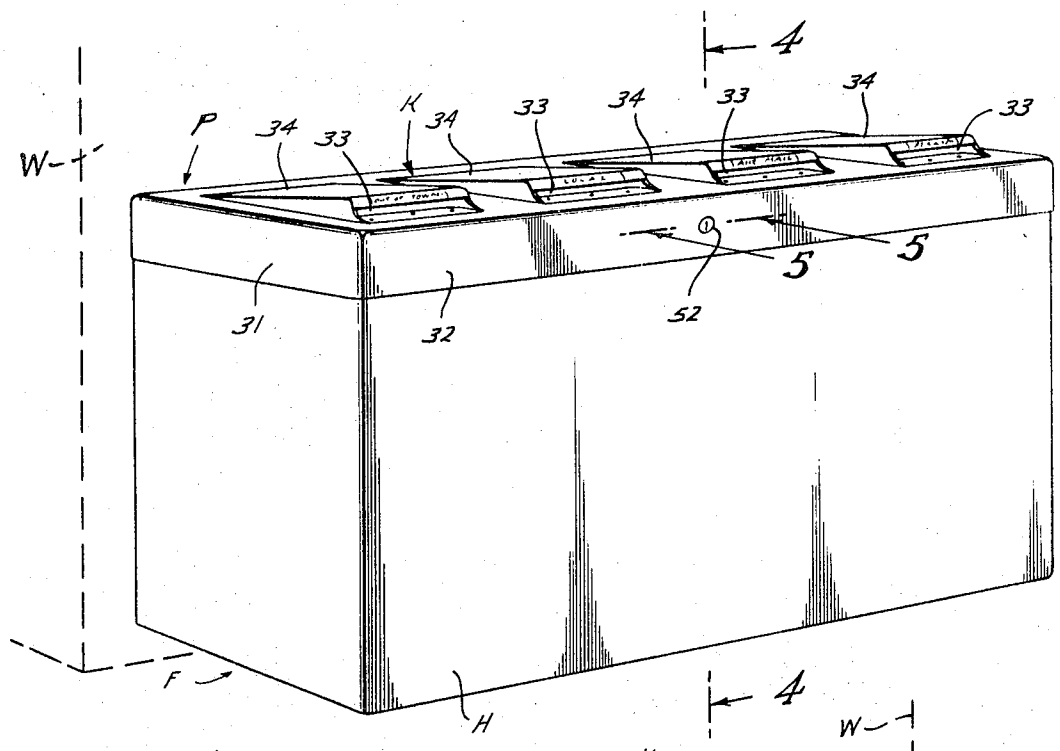


Fig. 1

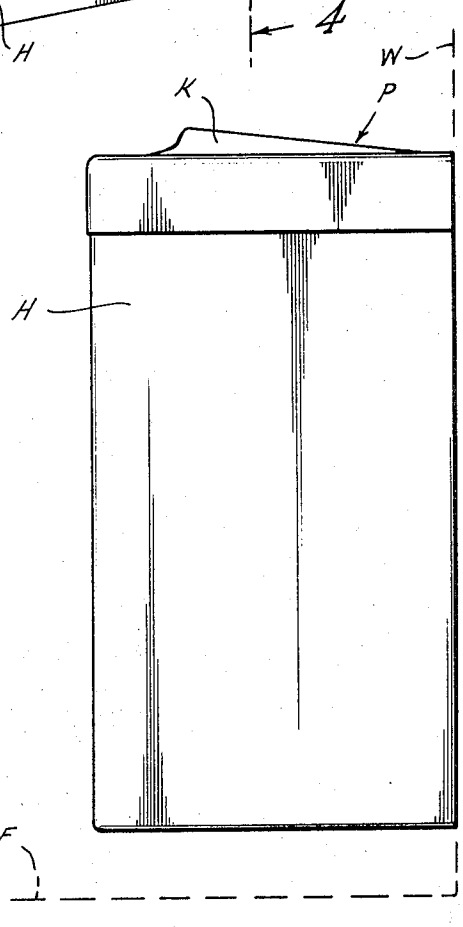


Fig. 2

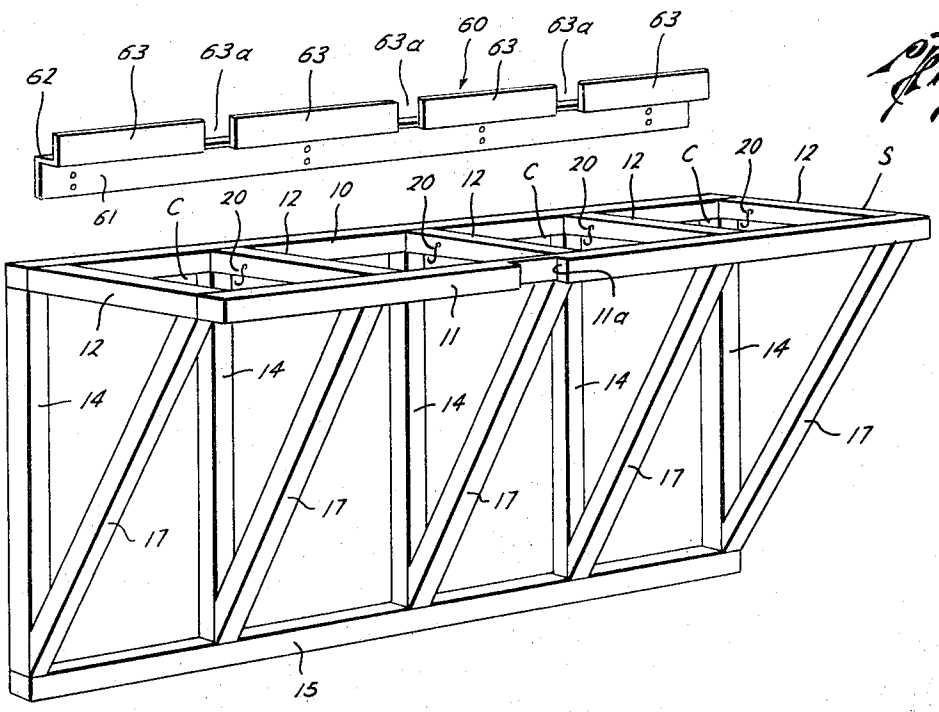


Fig. 3

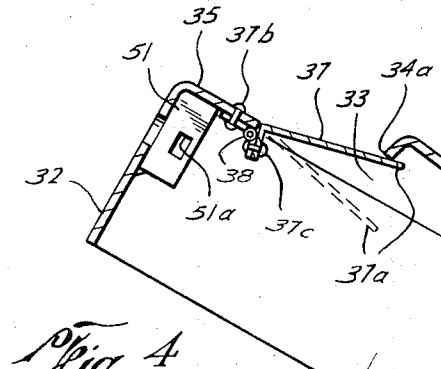


Fig. 4

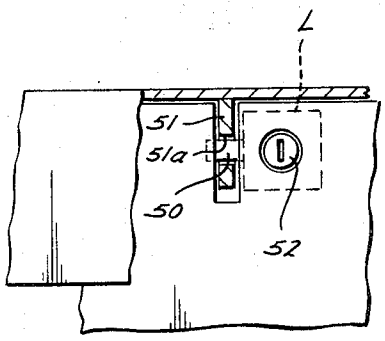
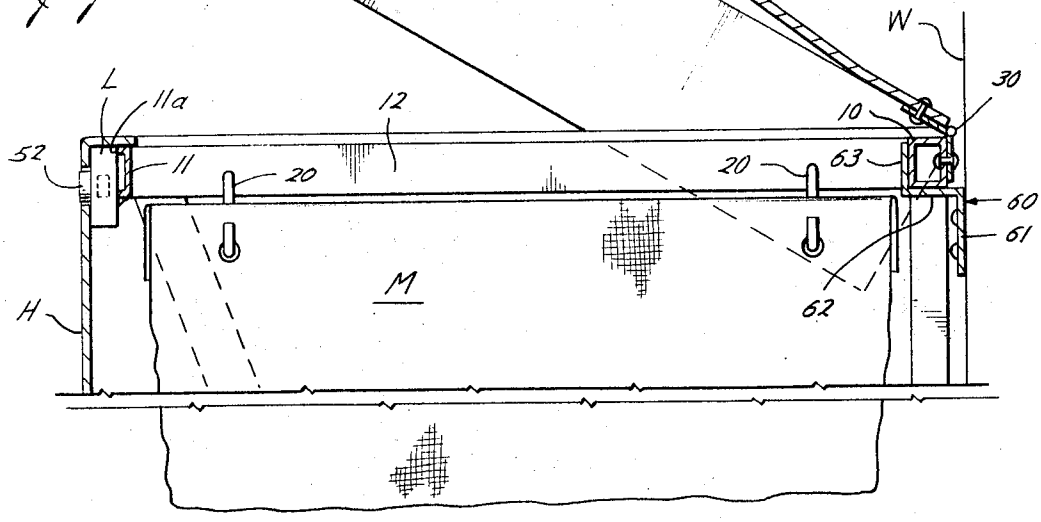


Fig. 5



POSTAL DROP BOX

BACKGROUND OF THE INVENTION

The field of this invention is postal drop-boxes.

In the past, it has been customary to locate a rack for holding a plurality of mail bags in many office building lobbies and other public places. Such arrangement had the advantage over conventional mailboxes in that the mail bags were filled directly by the user rather than requiring the transfer of the mail by the postman from the conventional mailbox to the mail bag for transportation.

However, the open mail bags exposed the mail to the danger of unauthorized removal or tampering which has been of concern to many people for a number of years, but so far as is known, no one has heretofore solved such problem.

SUMMARY OF THE INVENTION

The present invention relates to a postal drop-box which has the advantages of removable mail bags or containers, but also overcomes the problem of unauthorized removal or tampering with the mail. The drop-box of this invention supports a plurality of mail bags or containers in a locked housing which has slots for dropping the mail into the mail bags or containers, such slots being positioned and constructed to prevent unauthorized removal of the mail from the mail bags or containers.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is an isometric view of the postal drop-box of this invention mounted on a wall of a building;

FIG. **2** is a side view of the postal drop-box of this invention shown in the mounted position on the wall of the building;

FIG. **3** is an isometric view of the framework and mounting means of the postal drop-box of this invention, with the housing and cover removed;

FIG. **4** is a partial sectional view of the upper portion of the postal drop-box of this invention, particularly showing the cover mounted with the housing and the mounting means on the wall of a building; and

FIG. **5** is a partial sectional view illustrating one type of lock means which may be used for locking the cover of the postal drop-box of this invention to the housing thereof.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

In the drawings, the postal drop-box of this invention is designated generally with the letter P. Such drop-box P is preferably mounted on a wall W of a building and normally is disposed so that its lower part is spaced above the floor F. The postal drop-box P of this invention provides for the housing of a plurality of conventional flexible mail bags M (a portion of one being shown in FIG. **4**). As will be explained in detail, such mail bags M are disposed in compartments or sections of the drop-box P and are covered so that mail may be dropped into such bags, but unauthorized removal of the mail or the bags is prevented. When the officials of the postal department or other authorized personnel unlock the postal drop-box P, the mail bags M are accessible for ready removal with the mail already in the mail bags M in the normal manner.

Considering the invention more in detail, the postal drop-box P of this invention includes a framework S (FIG. **3**) which is preferably constructed of structural steel members of a square tubular construction or of any other suitable material. As illustrated in FIG. **3**, the preferred framework S is formed with a back or inner longitudinal frame member **10**, and a substantially parallel front frame member **11**, which are joined together by laterally extending connecting members **12** which are spaced apart so as to define a plurality of compartments C, each of which is adapted to receive one of the mail bags M. The back portion of the framework S also has vertically extending support members **14** which are welded or are otherwise connected to the longitudinal rear frame member **10** and also to a lower rear frame member **15.** Braces **17** extend upwardly from each of the vertical frame members **14** to the horizontal frame members **12** to provide support for the frame members **12** and the front frame member **11.** It will be appreciated that the framed members **10, 11, 12, 14, 15** and **17** may be joined together by any suitable connecting means such as welding, bolts or other known attaching devices.

On the inner surfaces of each of the lateral support members **12,** a plurality of hooks **20** or other bag attaching means are provided for securing a mail bag M in each compartment C so that it may be readily attached to such hooks **20** and thereafter removed when the bag M is filled with the mail.

The framework S is completely enclosed on the sides, front and bottom by a housing H which is made of fiberglass, metal or any other suitable rigid material and which is attached to the framework S by rivets, adhesive or any other permanent securing means. The rear of the framework S does not have to be covered or enclosed by the housing H because the postal drop-box P is preferably mounted against the wall such as the wall W which provides the closure for the back portion of the framework S. However, it will be understood that the housing H could have a back portion which would also enclose the back portion of the framework S if desired under some circumstances of installation or use.

The housing H is open at the top so that the compartments C are accessible for the insertion and removal of the mail bags M. A pivoted cover K is pivotally mounted at a longitudinal hinge **30** to the longitudinal frame member **10** (FIG. **4**) so that the cover K may pivot from the closed position (FIGS. **1** and **2**) to an open position (FIG. **4**) and also to an even further opened position so as to provide full access to the compartments C and the mail bags M which are disposed therein.

The cover K is provided with overhanging sides **31** and an overhanging from portion **32** which are adapted to extend downwardly over the upper part of the housing H so as to make entry into the housing H difficult when the cover K is in the closed position. The cover K is also preferably formed in a specific manner to provide a mail slot **33** for each of the compartments C. Such slots **33** are preferably identical to each other and therefore only one of same is described hereinafter. Thus, each slot **33** is preferably formed by providing a raised portion **34** on the cover K with a downwardly terminating lip **34*a*** which terminates above the surface **35** opposite such lip **34*a*** at each of the slots **33.** Thus, there is a vertical space or clearance from the surface

35 to the lip 34*a* which is relatively small and is not sufficient in itself for a person to pass his hand and arm therethrough. To further restrict the opening of the slot 33 to a size which will prevent unauthorized retrieval of mail from the bags M when the cover K is in the closed position, each of the slots 33 has a restricting plate 37 therewith which is pivotally connected by a conventional spring loaded hinge 38 to the cover K so that it is urged upwardly to cause the inner end 37*a* to contact the lip 34*a* to close the slot 33. The hinge 38 for each slot 33 is secured to the cover K in the vicinity of the surface 35 by a rivet or rivets 37*b*, or any other suitable attaching means. The restricting plate 37 may be made of relatively rigid metal or other materials which will not bend to any extent so that when the plate 37 is pivoted downwardly to its open position (dotted lines in FIG. 4), its inner end 37*a* is disposed substantially directly below the lip 34*a* to define the maximum vertical extent of the opening for the slot 33, which normally is about five inches. The size of such slot 33 can be adjusted for different types of mail by changing the mounting of the restricting plate 37. In some cases the plate 37 may be mounted without the hinge 38 so as to provide a fixed vertical space from the end 37*a* to the lip 34*a*. In any event, a person cannot stick his hand directly down into any mail bag M because of the restricted opening at the slot 33.

Any suitable lock means L, and preferably one approved and authorized by the U.S. Postal System, is utilized for securing the cover K to the housing H. As shown in the drawings, the lock L is mounted with the front frame 11 in a slot or recess 11*a* (FIGS. 3–5) by welding or any other suitable attachment. The lock L has a locking pin 50 therewith which is adapted to extend into a lock opening 51*a* in a lock plate 51 secured to the cover K. The lock L has a key receiving portion 52 which projects through the front of the housing H for access by authorized personnel to unlock such lock means L when it is desired to gain access to the compartments C.

For mounting the postal drop-box P on the wall W, a mounting bracket or support 60 is provided which has a lower flange 61 therewith which is bolted or otherwise fastened to the wall W. The flange 61 extends substantially vertically and is joined with a substantially horizontal flange 62 which is then joined with another substantially vertical series of flanges 63 which are separated by slots 63*a*. The flange 63 is thus offset away from the wall W a distance great enough to receive the longitudinal frame member 10. The slots 63 are wide enough to receive the vertical frame members 14 so that the entire drop-box P is supported and retained against the wall W by positioning the frame member 10 on the horizontal flange 62 and inwardly of the flange plates 63. Lateral shifting of the framework S is also prevented because of the interlocking of the vertical frame members 14 in the slots or spaces 63*a* between the flange members 63. In the mounting of the longitudinal frame member 10 in the support member 60, rivets or other attaching means may be used to extend through the flange sections 63 into the longitudinal frame member 10, but in most instances, the weight of the entire drop-box P will be sufficient so that no one can remove or gain access to the interior thereof without creating such a disturbance that the entry or removal of the box P would be detected.

The use of the postal drop-box P is believed evident from the foregoing description. Primarily, it will be used in office buildings and other locations where it is desired to have a convenient postal drop-box available in an attractive manner while providing the advantages of the use of the mail bags M which may be readily picked up by the postal authorities.

The foregoing disclosure and description of the invention are illustrative and explanatory thereof, and various changes in the size, shape, and materials as well as in the details of the illustrated construction may be made without departing from the spirit of the invention.

We claim:

1. A postal drop-box, comprising:
a generally rectangularly-shaped framework formed into a plurality of compartments disposed lengthwise side-by-side, each of which is adapted to receive a mail bag;
a housing enclosing said framework on the front and sides and secured thereto for preventing access to said compartments from the front and sides of said framework;
means for mounting said framework on the wall of a building for closing off the back of said framework and with the bottom close to the floor to prevent access thereto;
a cover having hinge means therewith secured to said framework and closing said top of said framework to prevent access to said compartments when said cover is secured to said housing;
said cover having a limited access slot for each of said compartments for the entry of mail but restricted in size to prevent retrieval of mail therethrough from said compartments; and
said means for mounting said framework on the wall including a mounting bracket adapted to be secured to a wall and having a pocket therein which is open at its upper end, and a rear framework section to which said hinge means is connected and having at least portions of said section adapted to drop into said pocket to prevent its movement downwardly or outwardly from the wall to thereby support the entire drop-box on the wall while permitting pivoting of said cover to and from its open and closed positions.

2. The structure set forth in claim 1, wherein:
said cover has a raised portion in proximity to each of said slots, with a lip terminating above the surface of said cover opposite thereto at each said slot to provide a vertical height to each said slot; and
each said slot has therewith a movable restricting plate secured to said cover for movement to an open position for inserting mail into said compartments but preventing access to said compartments directly downwardly through any of said slots.

3. The structure set forth in claim 1, wherein:
said cover has an overhang only on the front and sides thereof which extend below and cover the upper edges of the sides and front of said housing only, leaving the rear of said cover flush with the top of said framework for pivotal movement at said hinge means without interfering with the wall upon which said mounting bracket is mounted.

4. The structure set forth in claim 3, including:
lock means on said overhang on the front of said cover and said framework for releasably locking

said cover in the closed position to prevent pivoting of said pivotal connection means and thereby unauthorized access to said compartments.

5. The structure set forth in claim **1**, including:

bag attachment means mounted on said framework at the sides of each of said compartments for releasably supporting a mail bag at each compartment.

6. The structure set forth in claim **1**, including:

a restricting plate with each said slot, and

a spring-loaded hinge pivotally connecting each of said restricting plates to said housing for urging each said plate to a closed position but permitting the movement thereof to an open position for the deposit of mail in each of said compartments.

7. The structure set forth in claim **1**, wherein:

said framework has substantially horizontal frame members at its upper end secured to said rear framework section and extending between each of said compartments; and

said mounting bracket having notches therein through which said horizontal frame members extend for preventing lateral movement of said framework relative to said mounting bracket and the wall.

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