Feb. 17. 1925. 1,526,747

J. B. HANSON ET AL

MAIL BOX WITH AUDIBLE SIGNAL

Filed Oct. 12, 1922 2 Sheets-Sheet 1

Fig. 1.

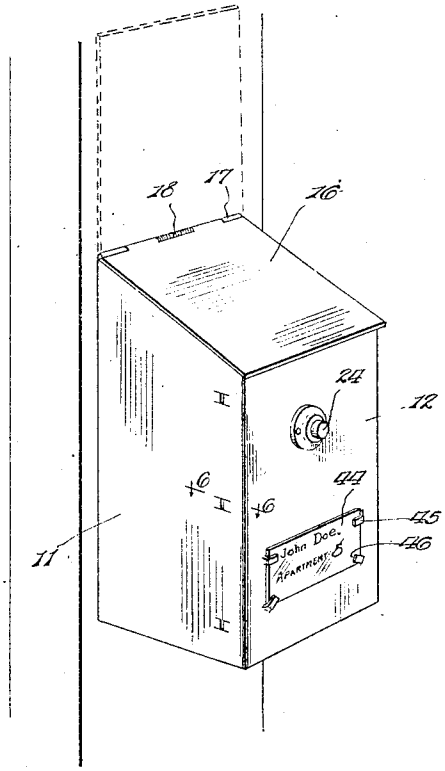


Fig. 3.

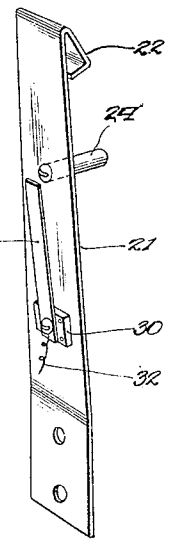


Fig. 5.

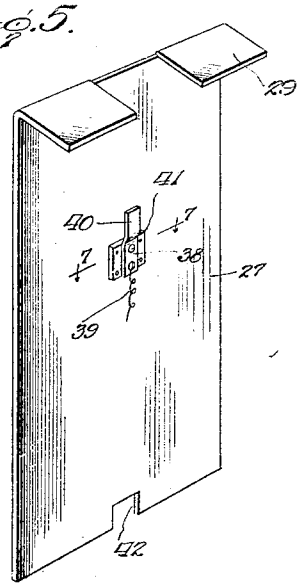


Fig. 6.

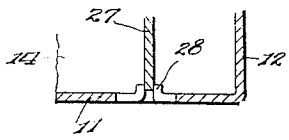
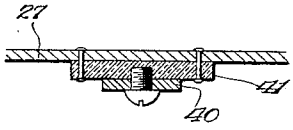


Fig. 7.



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Fig. 2.

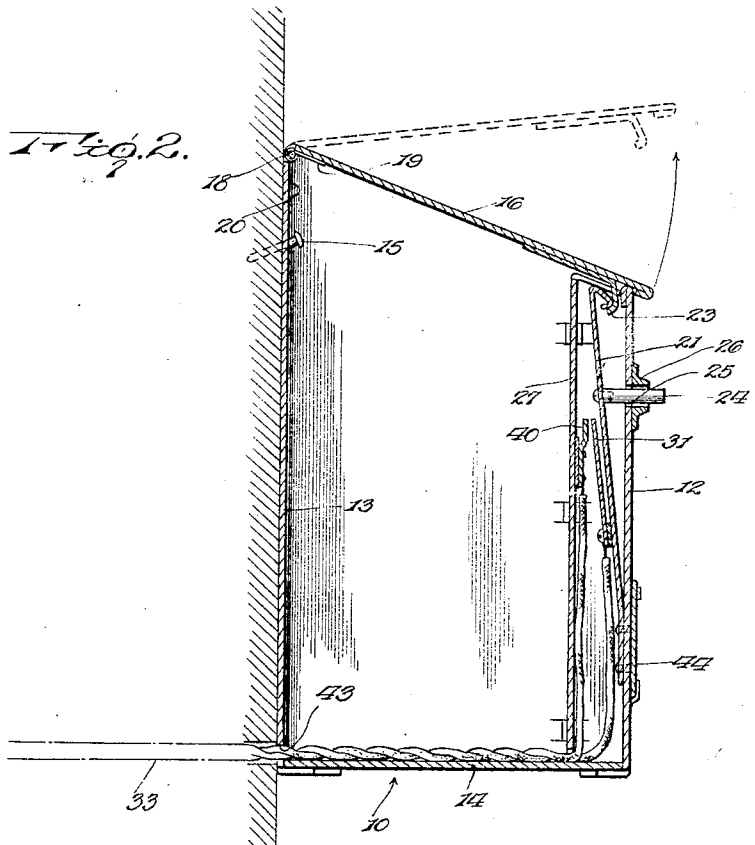
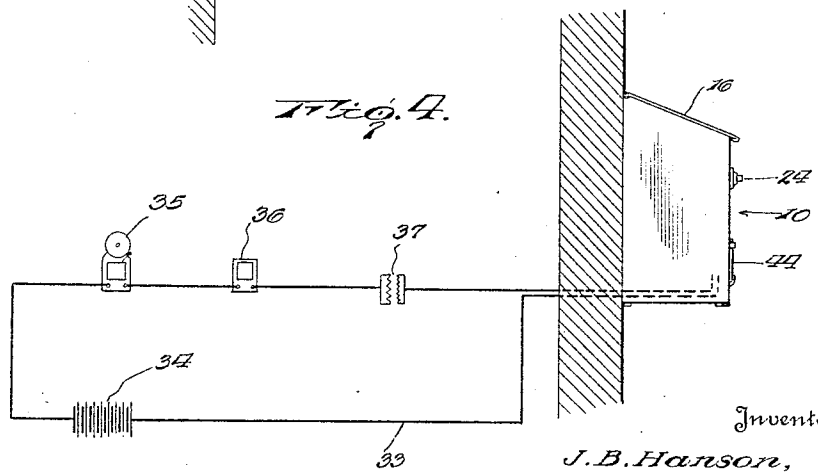


Fig. 4.



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UNITED STATES PATENT OFFICE.

JAMES B. HANSON AND LEON S. MARVIN, OF ATLANTIC, IOWA.

MAIL BOX WITH AUDIBLE SIGNAL.

Application filed October 12, 1922. Serial No. 594,082.

To all whom it may concern:

Be it known that we, JAMES B. HANSON and LEON S. MARVIN, citizens of the United States, residing at Atlantic, in the county of Cass and State of Iowa, have invented certain new and useful Improvements in Mail Boxes with Audible Signals, of which the following is a specification.

The present invention relates to mail boxes in general and more particularly to mail boxes for dwelling houses or apartments.

The main object is to provide a mail box of this class which is normally closed, but opened for removing or depositing mail by pressing a button on the box. Another object is to furnish an electric circuit with an alarm situated in the dwelling house or apartment to which the mail box belongs and which circuit will be closed to sound the alarm simultaneously with the pressing of the button to open the box.

As soon as the mail box is closed, the alarm will be silenced and it will now be evident, that the mail box cannot be opened without an alarm being given and that for this reason no mail can be deposited in or removed from the mail box without the occupants of the house or apartment being notified.

When used in apartment houses, each apartment will be provided with one of these boxes situated on the ground floor or basement. This will save the mail carrier considerable time and work. A circuit runs from each box and to the corresponding apartment in which a bell or buzzer will be situated connected with that circuit.

Another object of the invention is to furnish the box with a name plate for the mail carrier's information.

The invention is also suitable for rural delivery as the box may be positioned any distance from the house provided the electric connection runs from the same into the owner's house.

The device is a considerable time saver not only for the mail carrier but also for the owner of the box as he does not need to frequently inspect the box to ascertain whether mail has arrived, but will now be informed thereof at the instant the box is opened and the mail placed therein.

The mail box is very simple in construction allowing access to all parts and is very inexpensive.

In the accompanying drawings one embodiment of the invention is illustrated, and—

Fig. 1 shows a perspective view of the box attached to a wall;

Fig. 2 is a vertical section thereof;

Fig. 3 is a perspective view of an operating lever;

Fig. 4 is a diagrammatical view of the electric circuit;

Fig. 5 is a perspective view of a partition in the box;

Fig. 6 is a fragmentary horizontal section along line 6—6 of Fig. 1, and

Fig. 7 is a section along line 7—7 of Fig. 5.

The box consists of a casing 10 having side walls 11, front wall 12, back 13 and bottom 14, which all may be cut out of a single sheet of metal and joined in any suitable manner along the corners. The back 13 is preferably higher than the front 12 and has provision for securing the box by means of nails or screws 15 to a wall of the house or post as the case may be. The side walls 11 have their top edges slanting forward to coincide with the back and front walls and the opening at the top of the box is covered by a lid 16 hinged as at 17 to the back wall 13 of the box. A coiled spring 18 is wound around the hinge-pin and having its straight ends 19 and 20 engaging respectively with the lid 16 and the back wall 13 in such a manner that, when the lid is free, it will be swung upwards by the spring. The size of the lid is, of course, such as to entirely cover the opening in the box and substantially prevent the entering of moisture and dust into the same, in this manner effectively protecting the contents of the box.

To the front wall 12 is rigidly secured a lever 21 made of flexible material such as spring steel or hard brass. This lever terminates with a bent-over nose 22 at its upper end, which is adapted to engage with a hook 23 furnished on the under side of the lid 16. The lever tends to press forwardly in the box and in this manner engage firmly with the hook 23, when the lid is closed. A button 24 is fastened to the lever 21 and extends forwardly therefrom through an aperture 25 in the front wall 12 and around the aperture is preferably placed a washer 26 for guiding the button 24. The button 24 projects sufficiently far out beyond the end of the washer 26, so that the mail carrier

who generally has both his hands occupied does not need to use his fingers to press the button 24, but can use the back of his hand or his elbow to push it inwardly. In doing so, the lever 21 swings back into the box thereby releasing the hook 23 and the spring 18 will then swing the lid 16 open so as to permit the depositing or removing of mail.

At a sufficient distance from the front wall 12 is inserted a partition 27, which reaches from top to bottom of the box and permits the swinging of the lever 21 to release the hook 23. This partition 27 may be secured to the box in any suitable manner, but if made of plate as shown in the drawings, a simple manner of securing the same is to punch slits in the side walls 11 of the box and press the resulting fingers 28 inwardly. These fingers 28 will then be made to grip in front and rear of the partition 27 and hold it firmly in place. At the upper end of the partition a pair of flanges 29 are provided by the top edge of the partition being bent forward to the same angle as the slope of the side walls 11. The length of these flanges is equal to the distance between the partition in the front wall 12 and the flanges are intended to close up the space between the partition in the front wall, so that no mail matter may fall in between the two. The flanges also serve as supports for the lid when closed. The flanges 29 are placed sufficiently far apart to permit free operation between the nose 22 of the lever and the hook 23 of the lid.

At 30 in Fig. 3 is shown an insulating plate attached to the lever 21 and to which is secured a metallic tongue 31, the lower end of which carries a wire 32 forming one terminal of the circuit 33 leading to the house or the apartment occupied by the owner of the box. This circuit contains a battery 34, a bell 35 or a buzzer 36 and a transformer 37. The other terminal of the circuit is formed at 38, where the wire 39 is attached to a contact finger 40 secured on an insulating plate 41 secured to the partition 27 as best seen in Figs. 5 and 7.

At the bottom of partition 27 is provided a cut 42 and likewise an aperture 43 at the rear of the box is furnished for permitting the passing of the wires of the circuit 33.

Directly the button 24 is pushed to release the hook 23 on the lid 16 to throw the box open, the movement of the lever will cause the tongue 31 to contact with the finger 40 and in this manner close the circuit. An alarm will now be given by a bell 35 or buzzer 36 and this alarm will continue to be sounded as long as the lid 16 stays open. The mail carrier may after depositing the mail in the box leave the lid open and an occupant of the house or apartment will subsequently remove the mail and close the lid, when the alarm will be stopped as the contact is broken. If on the other hand, the mail carrier is instructed to close the lid after delivery of the mail, only a momentary alarm would be given as long as the lid stands open. It is evident that any unauthorized person tampering with the box will set the alarm going to notify the owner thereof.

At 44 is shown a name plate, which is preferably attached to the front wall 12 of the box by means of a pair of side fingers 45 and a pair of bottom fingers 46, which are formed by stamping slits in the wall of the box. The name plate as best seen in Fig. 1 may easily be slid down between the side fingers 45 to rest on the bottom fingers 46.

Having thus described the invention, what is claimed as new is:

A mail box comprising a cabinet open at the top, a hinged lid covering its opening, a catch on the lid, a flexible lever secured on the front wall of the cabinet and provided with a nose adapted to engage with the catch on the lid when closed, said lever being provided with a button projecting through the front wall of the cabinet, a partition secured in the cabinet in spaced relation to said wall, said partition having flanges, said nose and flanges adapted to close the opening between the partition and said front wall.

In testimony whereof we affix our signatures.

JAMES B. HANSON. [L. S.]
LEON S. MARVIN. [L. S.]