UNITED STATES PATENT OFFICE.

ALICE H. EWING, OF SALT LAKE CITY, UTAH.

LETTER-BOX.


To all whom it may concern:

Be it known that I, ALICE H. EWING, of Salt Lake City, in the county of Salt Lake, and in the State of Utah, have invented a certain new and useful Improvement in Letter-Boxes, and do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to mail boxes in general, in which letters, parcels, etc., are to be inserted.

The object of my invention is to provide an apparatus in which, when a letter or parcel is inserted in the letter box, the person for whom the same is intended, when located at a distance from the mail box, may be advised of this fact, so that it will not be necessary for the person to go to the mail box, except in the case where he learns that a letter or parcel has been deposited in the same. Another object of my invention is to provide a mail box of this character which will indicate for an indefinite period of time the presence of the letter or parcel in the box when once it has been inserted therein. Further object of my invention is to provide an apparatus of this character which when a letter or parcel is withdrawn from the letter box by the person for whom it is intended, the apparatus will be reset so as to no longer indicate the presence of any article of mail in the box. Another object is to provide a construction of this kind in which the parts are operated electrically, but in which only a small amount of current is consumed so that the apparatus may be used for a very long period of time without the necessity of replacing any of the parts.

While my invention is capable of embodiment in many different forms, for the purpose of illustration I have shown only one form thereof in the accompanying drawings, in which,

Figure 1 is a front elevation with parts broken away of an apparatus made in accordance with my invention;

Fig. 2 is a rear elevation of the same;

Fig. 3 is a vertical section of the same; and

Fig. 4 is a horizontal section taken on line 4-4 of Fig. 2.

In the drawings I have shown a letter box 1, having a door 2 for the removal of the mail having a lock 3 thereon. The letter box 1 has furthermore a slot 4 for the insertion of mail in the box, which slot is normally closed by an inner hinged door 5. A spring 6 on the inner door 5 normally maintains said door in its closed position. Upon the rear of said door 5, there is a bearing 7 to receive a pivoted push rod 8, one end of which is bent over and received within the bearing 7, so as to pivotally connect the rod 8 to the door 5. A stop 9 is located adjacent to the rod 8 so as to prevent the same from being withdrawn from the bearing 7. The other end of the rod 8 passes through an eyelet 10 on a rocker arm 11, pivotally supported upon a bracket 12 attached to the inner face of the letter box 1. On said rod 8 there is furthermore a stop 13 so that when the door 5 is moved inwardly the stop 13 cooperates with the eyelet 10, so as to move the rocker arm 11. A spring 14 is attached to a hook 15 on the rocker arm 11, and said spring is attached at its other end to a hook 16 located on the bracket 12. The hook 15 is located immediately over the pivot of the rocker arm 11, so that said spring operates to retain the rocker arm 11 at either side of the pivot to which it is moved by the operating mechanism in the letter box.

When the rocker arm 11 is moved in the direction of the push rod 8, the end of the arm rests upon a stop 17 attached to the bracket 12, and when the rocker arm 11 is moved to the other side of the pivot, the other end of the rocker arm comes in contact with a screw 18 which is supported upon an insulating block 19, which is supported from the bracket 12 by a screw 20. In approximately the center of the rocker arm 11, there is a slot 21 which receives one end of a push rod 22. The other end of this push rod 22 is pivoted to a lever arm 23 carried in a vertical journal bearing 24 in the corner of the letter box. The lever arm 23 is extended down through the vertical journal bearing 24, and beyond the lower end of the same 25 is bent in a horizontal direction to produce a curved end 25, which is received in an eyelet 26 attached to the inner face of the door 2. A battery 27 supported in any suitable location in any desired manner, provides current for an electric circuit by having one terminal 28 thereof connected by a wire 29 and a metallic strip 29a to the letter box 1. The other terminal 30 of the battery 27 is connected by a wire 31 to a push but-
ton 32 located at some convenient point for the address of the letters, etc., to be inserted in the letter box 1, as for example, in an apartment at a distance from the letter box 1, which may be located at the entrance of the apartment house. This push button 32 is connected by a wire 33 to an electric light 34, preferably located adjacent to the push button, which electric light is in turn connected by a wire 35 to the screw 18.

In the operation of my invention, it will be assumed that the parts are in such position that the rocker arm 11 is supported by the stop 17. In this position of the parts, the circuit including the battery, 27, the push button 32 and the electric light 34 is broken at the letter box 1. If now a letter or other article of mail is inserted in the letter box through the slot 4, the inner door 5 is moved so that the stop 13 on the push rod 8 comes into contact with the eyedet 10 on the rocker arm 11, thereby moving the rocker arm 11 into its other position, that is to say, with the other arm of the rocker arm supported by the screw 18. As soon as the rocker arm is moved into this position, it completes the electric circuit at the letter box 1. The electric circuit is now, therefore, closed except at the push button 32.

When the addressee of the letters in whose neighborhood the push button 32 and electric light 34 are located, wishes to find out whether or not any article of mail has been deposited for him in the letter box 1, it is merely necessary for him to operate the push button 32, whereupon if an article of mail has been inserted in the box 1, the electric light will be lighted, and if, on the contrary, no article of mail has been inserted in the box 1, the electric light 34 will not be lighted when the push button 32 is operated. When any article of mail has been inserted in the box 1, this fact can be discovered at any time through the agency of the push button 32 and the electric light 34, while at the same time, only a small amount of energy is required to indicate this fact, as the electric light 34 only burns for a moment of time, that is to say, during the momentary operation of the push button 32. When the addressee now comes to the letter box 1 to remove his mail, upon opening the door 2, the lever arm 20 is operated thereby moving the push rod 22 so as to throw the rocker arm 11 into its former position in which one end thereof rests upon the stop 17. This breaks the electric circuit at the letter box 1, and upon closing the door 2, the parts are now in their original position for a subsequent operation of the same by the insertion of mail, etc., in the letter box 1.

While I have described my invention above in detail, I wish it to be understood that many changes may be made therein without departing from the spirit of my invention.

I claim:
1. In combination, a mail box having a door for the insertion of mail, a door for the removal of mail, an electric circuit controlled by the same, means for closing the circuit at the mail box when the mail insertion door is moved and breaking it when the mail removal door is moved, comprising a spring-pressed rocker arm directly connected to the two doors.
2. In combination, a mail box having a door for the insertion of mail, a door for the removal of mail, an electric circuit controlled by the same, means for closing the circuit at the mail box when the mail insertion door is moved and breaking it when the mail removal door is moved, comprising a spring-pressed rocker arm adapted to be moved in opposite directions by the two doors, and a push rod having a lost motion connection between the rocker arm and the mail removal door.
3. In combination, a mail box having a door for the insertion of mail, a door for the removal of mail, an electric circuit controlled by the same, means for closing the circuit at the mail box when the mail insertion door is moved and breaking it when the mail removal door is moved, comprising a spring-pressed rocker arm adapted to be moved in opposite directions by the two doors, and a push rod connecting the rocker arm to the mail removal door by means of a slot located in the rocker arm.
4. In combination, a mail box having a door for the insertion of mail, a door for the removal of mail, an electric circuit controlled by the same, means for closing the circuit at the mail box when the mail insertion door is moved and breaking it when the mail removal door is moved, comprising a spring-pressed rocker arm adapted to be moved in opposite directions by the two doors, and a push rod connecting the mail insertion door with the rocker arm.
5. In combination, a mail box having a door for the insertion of mail, a door for the removal of mail, an electric circuit controlled by the same, means for closing the circuit at the mail box when the mail insertion door is moved and breaking it when the mail removal door is moved, comprising a spring-pressed rocker arm adapted to be moved in opposite directions by the two doors, and a push rod connecting the mail insertion door with the rocker arm.
6. In combination, a mail box having a door for the insertion of mail, a door for the removal of mail, an electric circuit controlled by the same, means for closing the
circuit at the mail box when the mail insertion door is moved and breaking it when the mail removal door is moved, comprising a spring-pressed rocker arm adapted to be moved in opposite directions by the two doors, a push rod connecting the rocker arm to the mail removal door by means of a slot located in the rocker arm, and a push rod connecting the mail insertion door with the rocker arm.

In testimony that I claim the foregoing I have hereunto set my hand.

ALICE H. EWING.

Witnesses:
MRS. E. L. EBELL,
GEO. A. COLE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D.C."