

A. B. RHODES.

MAIL BOX.

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898,507.

Patented Sept. 15, 1908.

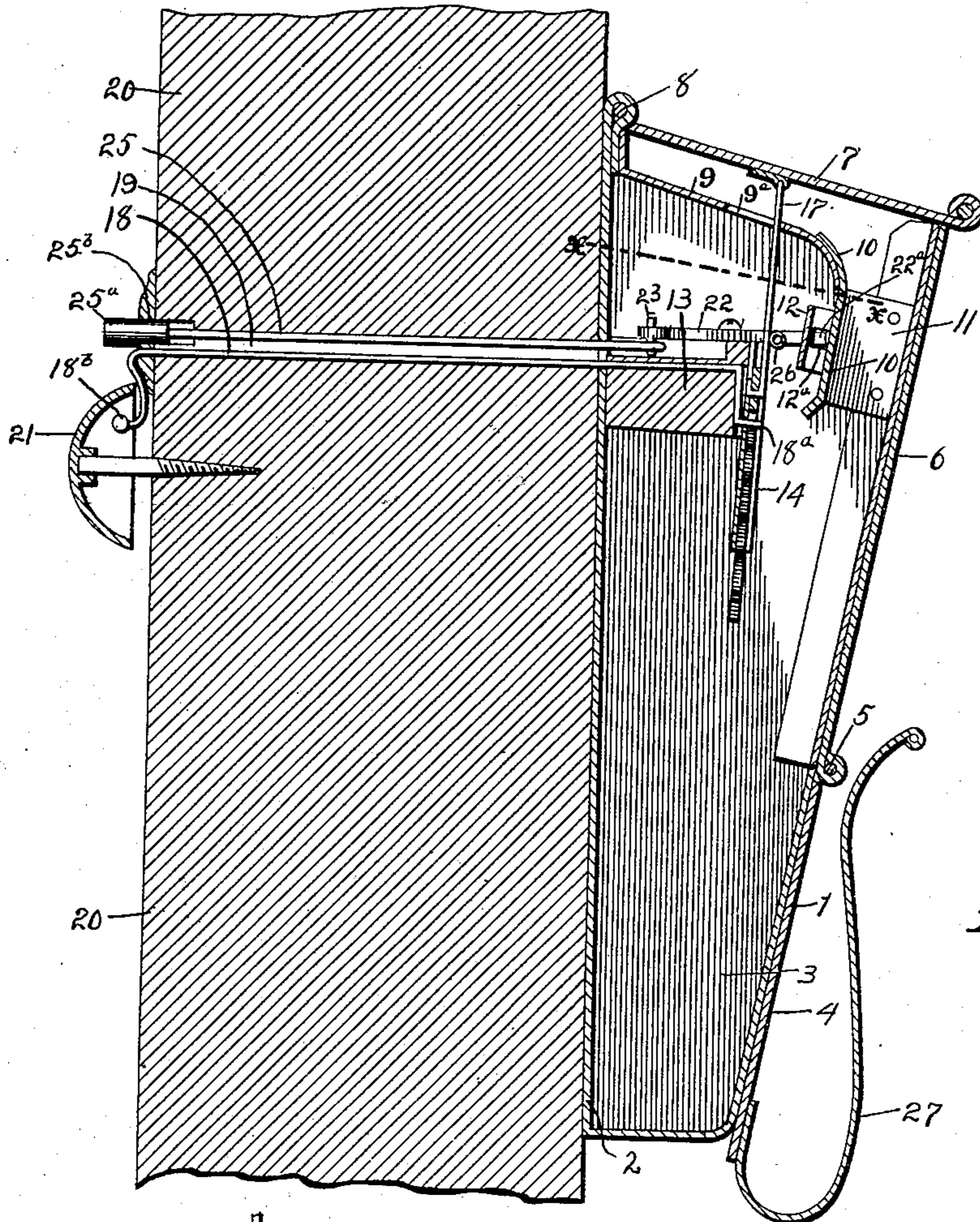


Fig. 1.

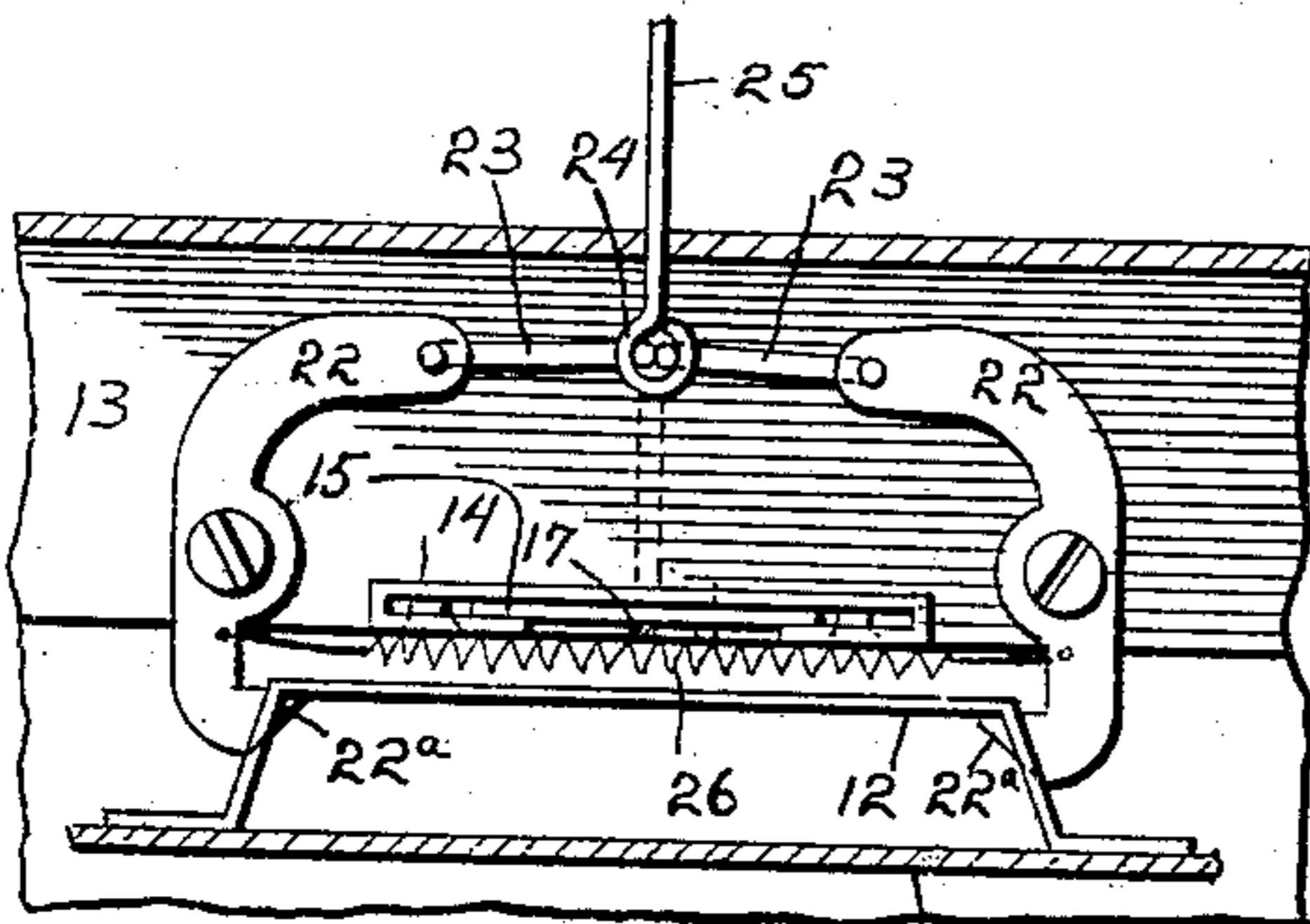


Fig. 3.

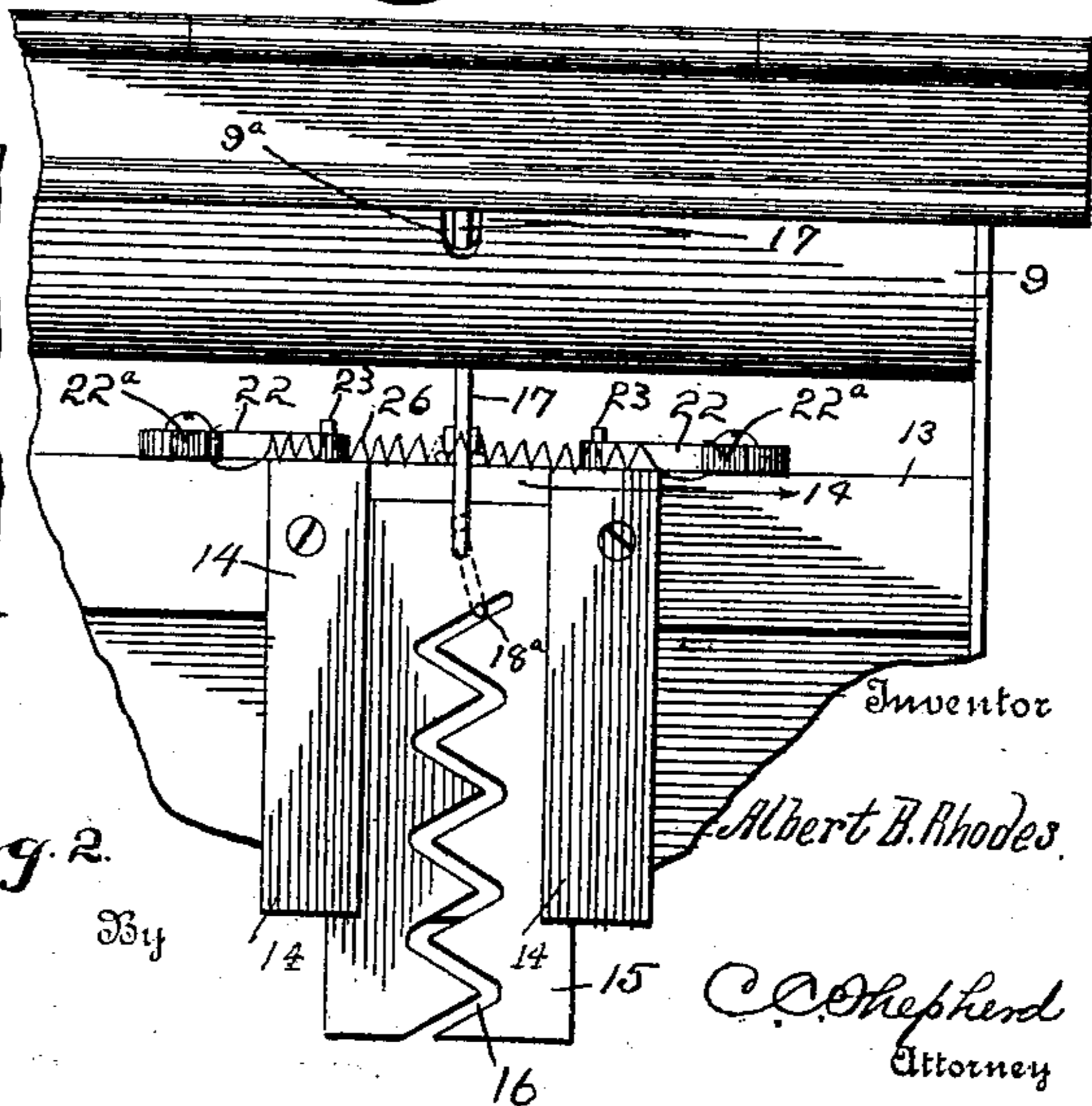


Fig. 2.

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# UNITED STATES PATENT OFFICE.

ALBERT B. RHODES, OF MARION, OHIO.

## MAIL-BOX.

No. 898,507.

Specification of Letters Patent.

Patented Sept. 15, 1908.

Application filed February 10, 1908. Serial No. 415,042.

*To all whom it may concern:*

Be it known that I, ALBERT B. RHODES, a citizen of the United States, residing at Marion, in the county of Marion and State of Ohio, have invented certain new and useful Improvements in Mail-Boxes, of which the following is a specification.

My invention relates to the improvement of mail boxes and has particular relation to that class of mail boxes with which are connected means for operating a signal when mail is placed in the box and the objects of my invention are to provide an improved mail box of this class of superior construction and arrangement of parts; to provide improved means for ringing a signal bell when the lid of the box is opened for the insertion of mail; to provide improved means for unlocking the front door of the box from the interior of the house on the outer side of which said box is supported and to produce other improvements which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawing, in which:

Figure 1 is a central vertical section of my improved mail box and a section of the house wall to which the same is secured, Fig. 2 is an enlarged front elevation of the bell ringing mechanism as displayed when the front door of the box is opened, and, Fig. 3 is an enlarged sectional view on line  $x-x$  of Fig. 1.

Similar numerals refer to similar parts throughout the several views.

1 represents a mail box which is formed of any suitable material and which is provided with a vertical back plate 2 which is adapted to be secured to the wall of a building or suitable exterior framework.

3 represent the sides of the box and 4 the front plate thereof which extends upward from the bottom of the box to a point in the lower half thereof, at which point said box front has hinged thereto as indicated at 5, a front door plate 6 which extends upward to the top of the box.

The upper side of the box is provided with a cover or lid 7 which is hinged at its inner end as shown at 8 to the upper end of the rear wall plate 2. Beneath the lid 7 and in the upper part of the box, I provide a fixed shield plate 9 which extends from the rear wall or back plate of the box forward and thence downward, being in contact in its outer portion with the curved upper portion of a plate 10 which is supported in the direction of the

width of the box by suitable bracket arms 11, one of which is shown in Fig. 1 of the drawing and which bracket arms are connected with the front door 6 of the box. With the inner face of the plate 10 is connected the end portions of a keeper-shaped bracket 12, the opposite ends of said bracket being provided with openings, one of which is indicated at 12<sup>a</sup>. Extending between the sides 3 of the box and projecting forwardly from the rear wall thereof is a fixed cross piece 13 and supported in a front recess of said cross piece is a vertical sheath or casing 14, the latter having the central portion of its forward side open, as shown more clearly in Fig. 3. Within this sheath or guide casing, I provide a vertically sliding plate 15, this plate having formed centrally therein a zigzag mortise or slot 16 which extends from the bottom of the plate to a point in the upper portion thereof. The plate 15 is supported by the lower end of a rod 17, the upper end of which has a pivotal connection with the underside of the box lid 7, said rod 17 passing through a slotted opening 9<sup>a</sup> in the shield plate 9.

18 represents a bell ringing rod, which passing loosely through an opening 19 formed through the house wall 20 has its inner portion bearing rotatably in an opening formed in the upper portion of the cross piece 13. The outer end portion of the rod 18 is provided with a terminal crank bend, as shown, the outwardly projecting terminal arm 18<sup>a</sup> of which enters the zigzag slot or mortise 16 of the plate 15. The inner termination of the rod 18 which is on the inner side of the house wall, is in the form of a bell crank and carries a bell tapper 18<sup>b</sup>, the latter projecting within a suitable bell body 21 which is supported from the inner wall surface of the house.

To the upper side of the cross piece 13 and on opposite sides of the sheath 14 are pivoted opposing catch fingers 22, the rear ends of said catch fingers which are turned toward each other being pivotally connected with the outer ends of short rods or links 23, the remaining ends of which are hooked into the eye-piece 24 which is formed on the outer end of a rod 25, said rod 25 extending rearward through the wall opening 19 and carrying on its inner or rear end a suitable push button 25<sup>a</sup> which is reciprocally mounted in a button supporting plate 25<sup>b</sup> attached to the inner wall surface of the house. The outer

terminals of the catch fingers 22 are in the form of inturned hooks 22<sup>a</sup>, these hooks normally engaging the openings 12<sup>a</sup> in the ends of the keeper 11, said hooks being assured in  
 5 this connection through the medium of a spring 26 which connects the finger pieces 22 and tends to draw their outer ends toward each other.

To the lower part of the box front, I may  
 10 secure a suitable form of newspaper engaging hook 27.

In inserting the mail in the box, the carrier lifts the lid 7 depositing the mail matter in the box in such manner that it will travel  
 15 downward between the plate 10 and the front door of the box. In thus raising the lid 7, it is obvious that the rod 17 will be moved upward, with the result that a corresponding upward sliding movement will be imparted  
 20 to the plate 15 and the further result that the end 18<sup>a</sup> of the bell ringing rod will be transferred successively from one arm to another of the zigzag slot 16, resulting in a vibratory motion being imparted to the rod 18 and in a  
 25 consequent tapping action of the bell tapper 18<sup>b</sup> against the bell 21, thus ringing an alarm on the interior of the house, indicating that the lid of the mail box has been raised and that mail matter has been deposited therein.

30 It is obvious that when the lid is returned to its closed position, the plate 15 will slide downward and the end 18<sup>a</sup> of the rod 18 will be returned to its position in the upper portion of the zigzag slot. The occupant of the  
 35 house thus being informed that mail matter has been deposited within the box, presses the button 25<sup>a</sup> inward with the result that the rod 25 is moved inward and the inner ends of the catch fingers 22 are swung inward  
 40 and forward, resulting in a disengagement of the catch finger hooks 22<sup>a</sup> with the openings of the keeper 12 thereby permitting the front door 6 of the box to drop open to permit the removal of the mail therefrom. When said  
 45 front door is again closed, it is obvious that the inclined ends of the keeper 12, will come into contact with the inclined hook members

22<sup>a</sup> forcing said hook fingers apart until they are through tension of the spring 26 again drawn into engagement with the openings of 50 said keeper.

It will readily be seen that my improved means for sounding an alarm on the raising of the lid of the box and for locking and  
 55 unlocking the front door of the box, are simple in construction and such as to insure a positive operation of the parts.

What I claim, is:

1. In a mail box, the combination with a box having a movable lid and door, of a 60 slidably supported plate having a zigzag slot therein, a rod depending from said lid and engaging said plate, and a bell ringing rod rotatably mounted and having one of its ends engaging loosely said zigzag slot. 65

2. In a mail box, the combination with a box having a movable lid and a door hinged to the front of the box, and a catch projection on the inner face of said door, of spring 70 actuated pivoted catch fingers the outer ends of which are adapted to engage said door catch projection, and a rod having a jointed connection with the inner ends of said catch fingers and extending through the rear wall 75 of the box.

3. In a mail box, the combination with a box having a movable lid and door, a catch projection on said door, spring actuated catch fingers pivoted within the box and adapted to engage the catch projection of the 80 door, and means for releasing said catch fingers, of a slidably supported plate having a zigzag slot therein, a rod connecting said plate and box lid, and a rotatably mounted bell ringing rod extending through the back 85 of said box and having one end engaging said zigzag slot.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT B. RHODES.

Witnesses:

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 A. L. PHELPS.