

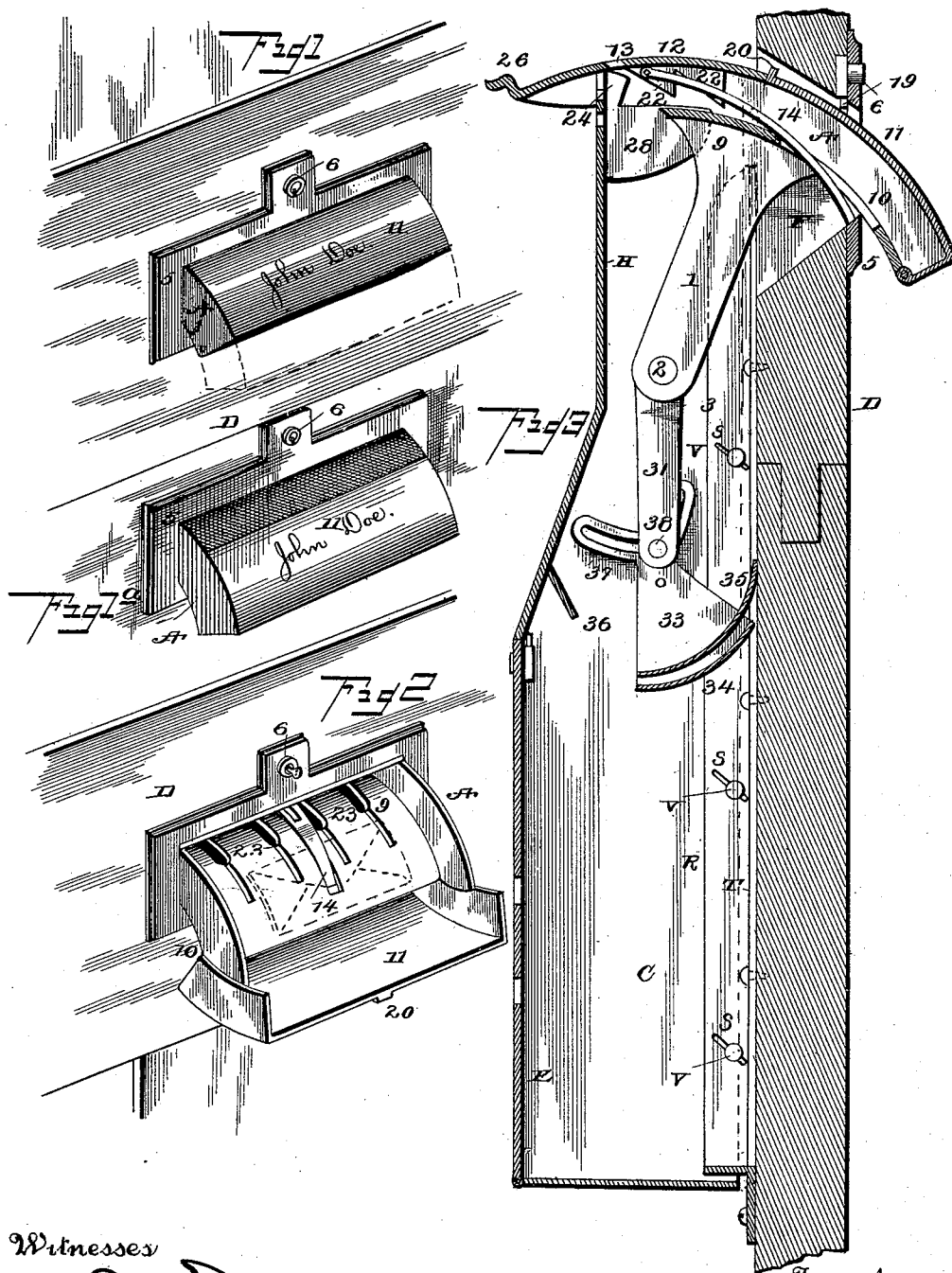
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3 Sheets—Sheet 1.

G. W. HALL.
HOUSE DOOR LETTER BOX.

No. 488,556.

Patented Dec. 27, 1892.



Witnesses
John Danie
W. A. Falconer

Inventor.
G. W. Hall
By *W. A. Barlett*
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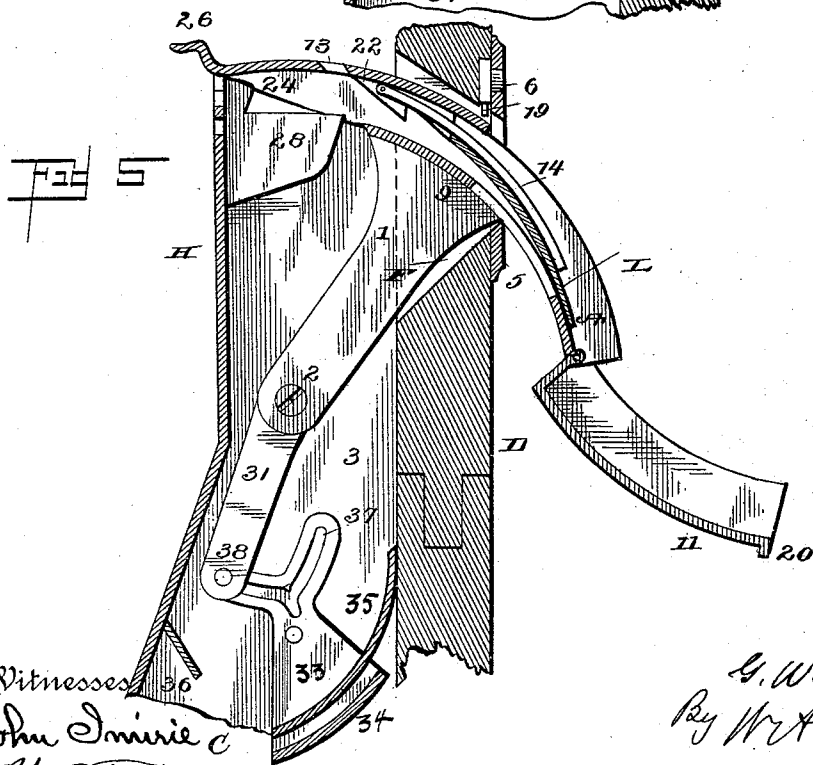
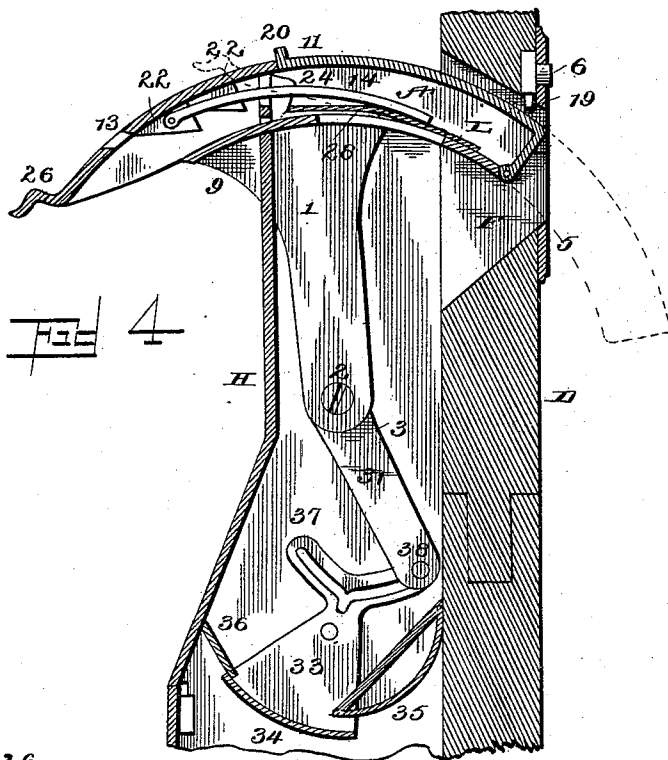
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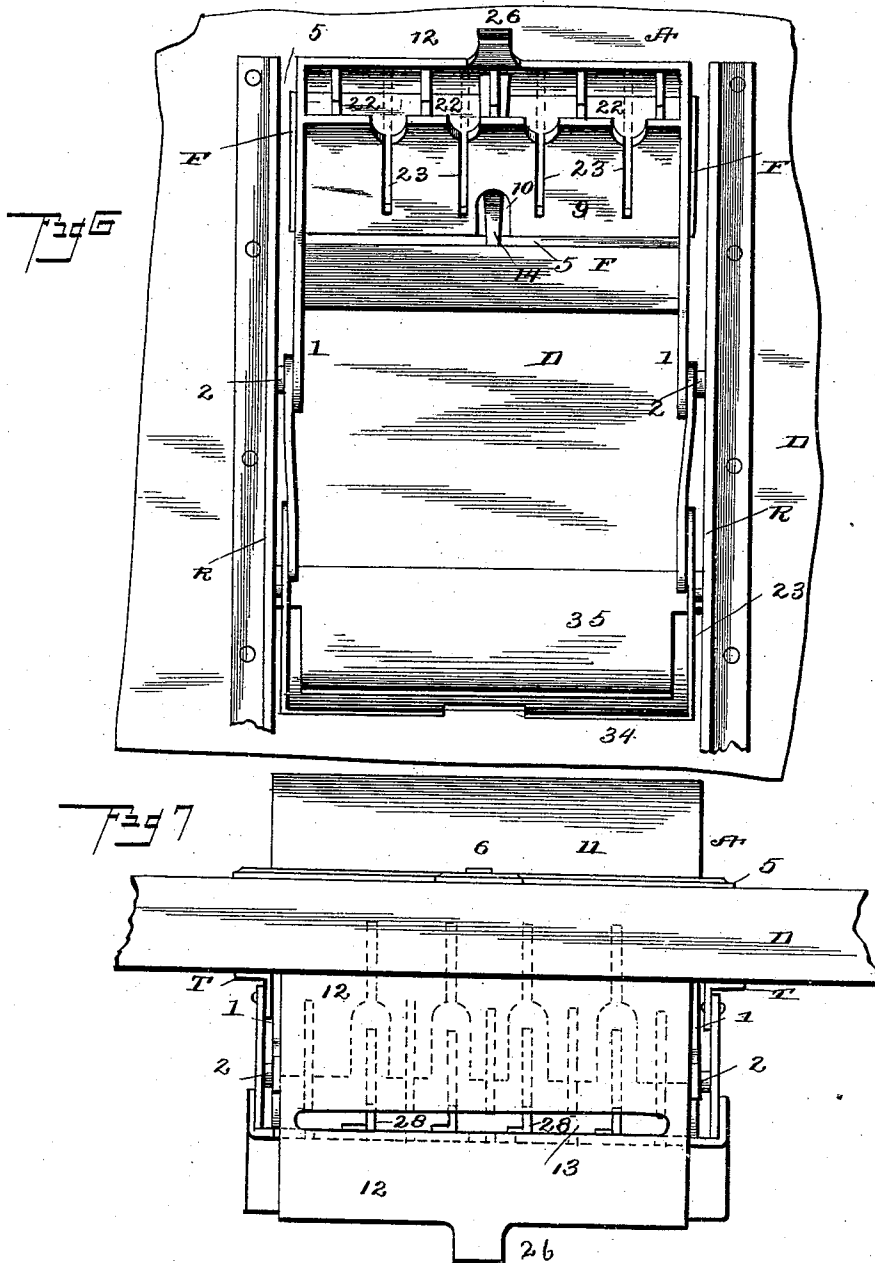
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UNITED STATES PATENT OFFICE.

GEORGE W. HALL, OF WASHINGTON, DISTRICT OF COLUMBIA.

HOUSE-DOOR LETTER-BOX.

SPECIFICATION forming part of Letters Patent No. 488,556, dated December 27, 1892.

Application filed October 7, 1891. Serial No. 407,998. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. HALL, residing at Washington, District of Columbia, have invented certain new and useful Improvements in Mail-Boxes, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to letter or mail boxes, for houses or places of business.

The object of the invention is to produce a mail box having a locked receptacle which the carrier can unlock and collect the mail, and a receptacle into which he may drop the mail intended for such deposit; also to provide the receptacle with an indicator which will show when mail is in the box or receptacle for collection; also to provide the box or receptacle with guards to prevent the removal of mail matter by unauthorized parties; also to make the letter box serve as a stopper for the opening in the door or partition; also to improve various details in this character of mail boxes or receptacles.

Figure 1 is a perspective of part of a door or partition, showing the front of the letter receptacle projecting, in the position it occupies when no mail is in the receptacle. Fig. 1^a is a similar view showing the position when a letter is in the box for collection. Fig. 2 is a perspective view of the parts shown in Fig. 1, with letter receptacle open, as for collection by the carrier. Fig. 3 is a vertical section of part of door, with box applied. Fig. 4 is a vertical section of door and upper part of box, showing position for receiving mail. Fig. 5 is a similar section showing position when the letter receptacle is opened, as by the carrier in collecting mail. Fig. 6 is a rear elevation with the rear casing removed. Fig. 7 is a top plan with the inside top casing removed.

The mail box has a collection compartment or box A, into which letters may be placed for collection by the carrier. This box A projects more or less into or through a hole F in the door or partition D. It also has a casing C, which receives the mail deposited by the carrier through said opening in the door. This casing C may be without a bottom, so that mail dropped therein will fall to the floor, or it may be a complete box provided with a door E, which may be opened by the householder by means of a proper key. The recep-

tacle C may be made of sheet metal, perforated to show when there is anything within, or it may be of woven wire, or of wood, or other suitable material. The whole device is applied to a door or partition and secured by screws or other suitable retaining devices. The hole F through the door has a suitable frame, 5, to which the lock is secured, and said frame may form the pawl rest or abutment hereinafter referred to. The opening F is usually closed by the projecting portion of the letter receptacle A, but the opening may be exposed by pushing back the box A, as shown in Fig. 4.

The box A is in form of an arc, and is supported by levers 1 1, which are pivoted at 2, inside the upper portion of the side plates 3, 3, of casing C. The box A is curved at top and bottom on circles struck from the pivot 2, and is of such thickness as to neatly close the opening F in the door when the box A is not pressed backward. The box A, being hung in rear of its center of gravity, tends to rock forward through the opening in the door.

The box A has a bottom plate 9, which has a hole 10 therein. The top of the box has a hinged cover 11, which may also form the outer end of the projecting portion of the box. The top plate 12 of box A is extended inside the door, and has a letter slot 13 therein, into which slot a letter or letters may be passed.

A pawl or catch 14 is hung to the top of box A, just forward of the letter slot 13. When box A is empty, this pawl 14 falls down, and its front end drops through the hole 10 in the bottom plate 9, and the front end of the pawl, engaging the abutment 5 as in Fig. 3, prevents the box A from swinging forward, so that the upper end of cover 11 remains within the aperture F, and thus box A cannot be opened. This position of box A, with the pawl engaging its abutment, shows that box A is empty.

When letters are pressed into the slot 13, they necessarily lift the pawl 14, so that it cannot fall down to engage its abutment. Consequently the box A, not being held back by the pawl, will rock forward, so that a boss 20 on the upper inner end of cover 11 is brought against the bolt 19 of lock 6. This extended position of box A shows to the observer outside the door that there is a letter in box A,

waiting for collection. Any suitable indicator on the upper edge of cover 11 may be used, as a band of color, or any object to catch the eye of the carrier, should the position alone of box A be deemed an insufficient indicator.

Lock 6 should be of such character that it can be opened only by an authorized person having the proper key. When this is unlocked the cover of box A falls forward into the open position shown in Figs. 2 and 5, and the letters are taken out by the carrier, or the cover may swing far enough to permit the letters to drop into a bag. After removing the letters the carrier closes box A, and pushes it inward, when it takes the normal position shown in Figs. 1 and 3.

To prevent the removal of letters in box A from the inside of the door, said box is provided with suitable guards. Thus the top plate 12 has fingers or teeth 22, projecting downward, and having inclined faces at the rear and substantially perpendicular faces at the front, as well shown in Figs. 3 and 4. The rear plate H also has fingers 24 projecting upward between the fingers 22, or between the planes of travel described by said fingers 22 in moving forward and back with box A.

When box A is in its normal position, Fig. 3, a letter pressed sidewise into slot 13 will slide forward, under the pawl 14. As soon as the rear edge of the letter is past the teeth 24, the box A should be drawn back into position shown in Fig. 4. The letters will be held from moving back, by teeth 24, and the box will thus be drawn back relatively to the letters, so that the rear edges of the letters will be pressed forward of teeth 22, and as the curved form of the box tends to lift the rear side of the letters, the teeth 24 will hold them from being withdrawn backward through slot 13. A wide letter will lift pawl 14 when first inserted; a narrow one when the box is drawn back.

The bottom plate 9 of box A is slotted, as shown at 23, to permit teeth 24 to project through said slots during this backward movement of box A. Teeth 24 have fingers 28, projecting forward, and forming a continuation of the box bottom.

The top plate 12 of box A should project over the teeth 24 in all positions of box A, and plate 12 preferably has a small handle or turned up edge 26, by which the box A may be moved. The bottom plate 9 extends far enough to the rear to guide letters forward from slot 13, but by reason of the guard fingers 24 28 a perpendicular rear side for box A is not essential.

The cover 11 of box A is hinged to the box proper in rear of its center of gravity, so that the cover will fall forward and open whenever it projects to its extreme position outside the door, and the lock is unlocked.

As the levers or supports 1 are firmly attached to box A and move with said box, said levers can be readily utilized to operate a

guard or cut off, to prevent the abstraction of letters through opening F.

When box A is swung forward, it closes the opening F, and no cut-off is needed at that time. When it is swung back it might be possible to reach in a wire or hook and abstract letters.

It is evident that the movement of levers 1 may be utilized in more than one way to cut off communication below. One way which I have devised is herein illustrated. The levers 1 lie close against the end plates 3, of the main casing C. Each arm 1 has a rigid extension 31 below the pivot 2. A cam plate 33 is pivoted to each end piece 3, inside the main casing C, and below the pivot 2. The cam plates 33 are connected together by a curved plate 34, which plate is about half as wide as the receptacle 3. An inclined guard plate 35, rigid with the box, also extends about half way across the box, C, from rear to front, or a little more than half way. When cam plates 33 are rocked on these pivots, the guard plate 34 may be swung under the plate 35, as in Figs. 3 and 5, or may be swung in reverse direction, as in Fig. 4, thus forming a partition entirely across the box. Ribs 36 may be provided on the box to further strengthen the partition. Piece 35 should be inclined so that the letters will fall from it when plate 34 is swung open. The cam plates 33 have slots 37, with which pins 38 on the arms 31 engage. When the box A and its arms 1 are rocked forward, as in Figs. 1, 3, and 5, the engagement of the pin 38 with the cam slot 37 serves to rock the cam plates 33, and carries the guard plate 34 under the fixed guard 35, so that there is a passage between the upper and lower parts of receptacle C. But when the box A is rocked back to the position of Fig. 4, so that the mail matter may be dropped from the outside into opening F, then lever 31 swings the cam plates and guard 34 into position to complete the partition, and there is no access below the guard to the lower part of casing C, by means of a wire or hook passed through opening F. Mail matter may be dropped into the opening, and will fall onto the plates 34—35, and rest there until box A is again swung forward to normal position, which opens the passage, permitting the packages to fall. The slot 37 is of such shape as to permit a lost motion, so that the cam plates 33 and guard 34 will be moved as described, to close the passage when levers 1 are moved back, but will leave an opening when levers 1 swing forward. Of course it is immaterial at which side of the box the fixed guard 35 may be, and the movable guard 34 can be made to correspond in its movements to the position of the fixed guard; the object is to close the passage to the bottom of casing C or below the guard whenever passage F is open.

The outer projection of box A may be utilized as a name plate. The receptacle C may

be a complete box, or the side next the door may be omitted if the door itself be utilized to form that side of the box, or all may be omitted below the guard 34 35. The metallic portions may be of wrought, rolled, or cast metal, and the parts held together in any usual manner. In fact many mechanical details may be changed without departing from the spirit of the invention. The position of the lock and the boss or abutment against which the lock bolt engages might be reversed. The movement of box A might be sliding instead of aswinging movement, by omitting the arms 1 and substituting tracks or supports.

15 The pawl 14 might operate by a spring as well as by gravity. It is not specially material where the part which engages the abutment is located. By a slight change the holding part of pawl 14 might be at one side of the box A instead of within the box.

20 To adapt the box for use on either thick or thin doors, the casing C is made to attach to a rib R, instead of to the door direct. This rib R is a flange which projects at a right angle from the door, and has inclined slots S therein. The rib or flange R is at right angles to the base T which is held to the door by screws or otherwise. The flange R is attached to the door, and casing C is adjusted out or in relatively to the door to such position as to bring the center of motion 2 of levers in proper relation to the casing C. The casing C is then firmly held by screws, or rivets, passing through the slots S and holes in the turned in sides of the casing.

35 What I claim is:—

1. In a mail box, a movable letter receptacle having a holding pawl attached, and an abutment against which said pawl bears, said pawl being in position to be lifted when a letter is inserted to permit the box to move to another position, substantially as described.

2. A letter receptacle supported on pivoted arms, a pawl partially within the receptacle engaging an abutment outside thereof, said pawl in position to be lifted and held out of engagement by a letter inserted in the receptacle, substantially as described.

3. The combination with an opening or frame, of a curved letter receptacle supported on arms, pivoted at a distance from the opening corresponding to the curve of the receptacle, so that the receptacle may swing through said opening, and open or close the same, substantially as described.

4. The movable letter box, the casing having an opening through which said box moves, a cover hinged to the outer end of the box and closing toward the casing so that the end of the cover is within the opening in the casing when the box is in its inner position, and a lock on the casing engaging said box to prevent the opening of the cover when in said position, all in combination.

5. The movable letter receptacle, the casing having an opening through which said recep-

tacle moves and having a cover which extends into and is retained closed by the casing until said cover is projected beyond the casing, and a lock engaging the box to limit the movement thereof relatively to the casing, in combination substantially as described.

6. The combination with the fixed casing, of the movable letter receptacle, and a catch automatically operated by the deposit of a letter to permit a change of position of the letter receptacle relatively to the casing, substantially as described.

7. The combination with the door or partition having a hole therein, of the letter receptacle constructed to project a greater or lesser distance from the hole, and indicate by its position the presence or absence of contents therein, and means in position to be actuated by the insertion of a letter in the box, acting to retain the box in one of its positions, all substantially as described.

8. The movable letter box having a catch therein, and a support for said box with which said catch engages, said catch in position to be detached by the deposit of a letter in the box, so that the box may then move to a new position, the parts in combination substantially as described.

9. The movable letter box having a receiving slot and a pawl in front of said slot, and a hole through which the end of said pawl drops, and an abutment with which said pawl engages until raised by the insertion of a letter, in combination, substantially as described.

10. The combination with the slotted letter box A, of the fingers 22 therein, and the fingers 24 on the casing which project through the slots in the box when the box is moved toward said fingers.

11. The combination of the casing C, the slotted box A supported on arms pivoted to said casing, the teeth 24 and fingers 28 on the casing in line with slots in the box, and the retaining teeth in the box, substantially as described.

12. The inclosing casing, the letter receptacle supported on levers within said casing and movable to various positions, so as to project from an opening in the door or partition to which the casing is attached to a greater or lesser extent as described, the levers connected to said casing, and the cut off pivoted within the casing and acting to close the passage below the receptacle when the same is swung inward, all combined and relatively arranged substantially as described.

13. The casing C having pivoted plates 33 and cut off 34 connected to said plates, the box A having levers 1 connected thereto and pivoted to the casing, said levers having pins engaging cam slots in plates 33, all combined substantially as described.

14. The combination with perforated door D of the box A having a cover on its upper face, having its outer edge hinged outside the door and movable through the hole in the

door, so that the cover may fall open on the outside of the door while the body of the box is in the opening, substantially as described.

15. The combination with the casing having the letter box supported thereon by levers pivoted to the casing of the strips R secured to the door or partition and adjustably connected to the sides of the casing.

16. The combination with the casing C having an attached part to project through a hole

in the door, of extension strips at the sides of the casing, whereby the casing is adapted for use with doors of different thicknesses, substantially as described.

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

GEORGE W. HALL.

Witnesses:

W. A. BARTLETT,

W. A. FALCONER.