J. LOVENGUTH.

COMBINED LETTER-BOX AND DOOR-BELL.

No. 169,558. Patented Nov. 2, 1875.

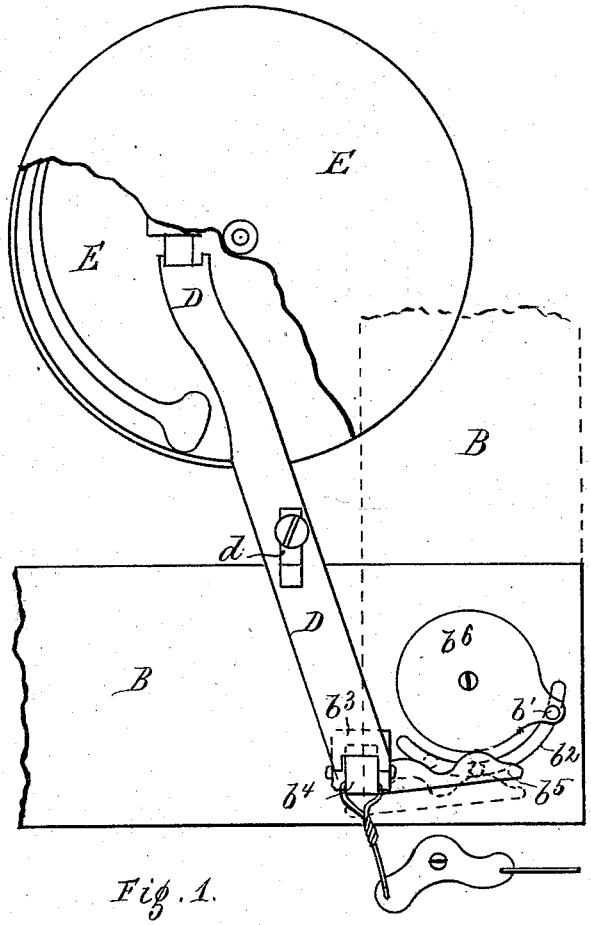

Fig. 1.

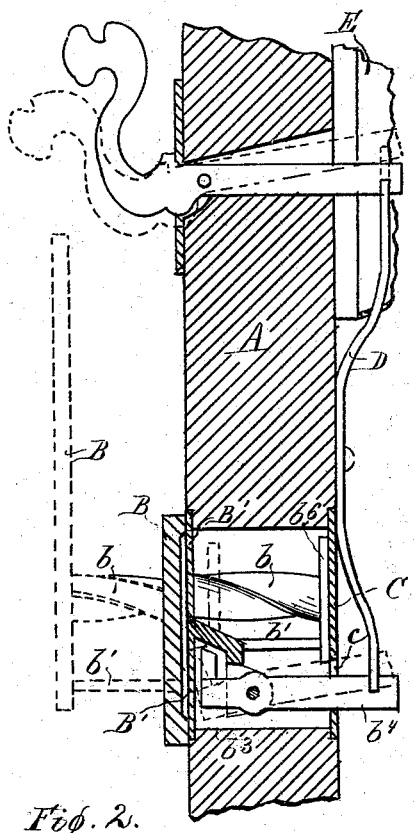

Fig. 2.

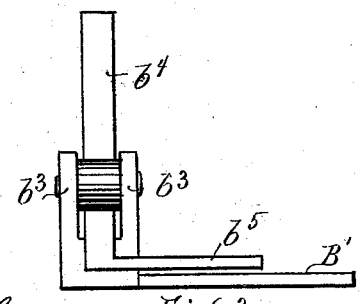

Fig. 3.

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UNITED STATES PATENT OFFICE.

JOHN LOVENGUTH, OF ST. LOUIS, MISSOURI, ASSIGNOR TO HIMSELF AND FERDINAND E. HOFFMAN, OF SAME PLACE.

IMPROVEMENT IN COMBINED LETTER-BOXES AND DOOR-BELLS.

Specification forming part of Letters Patent No. **169,558**, dated November 2, 1875; application filed September 13, 1875.

To all whom it may concern:

Be it known that I, JOHN LOVENGUTH, of St. Louis, Missouri, have invented an Improved Combination Door-Plate and Letter-Carrier's Bell, of which the following is a specification:

This invention is specially designed to be applied in connection with the doors of dwellings, stores, offices, &c., though generally in its application also suited for mail-boxes and to similar devices, the object being to signal the call of the mail-carrier.

My invention, as here presented, shows the same applied in connection with the ordinary visitor's bell, and which can be either on the door or located, as ordinary, in the rooms of the house, or have its own separate bell, as may be desired.

My invention can be stated to consist in the peculiar construction of its operating parts, and the manner of operating said parts by the mail-carrier or other person, so as to produce a signal or call, by means whereof the user of my invention is enabled to accurately know and determine whether the call be that of the mail-carrier, in contradistinction from the signaling of the visitor's bell, and as now will more fully appear.

Of the drawing, Figure 1 is a rear elevation of a door, showing my invention applied thereto, and as being connected with the visitor's bell. Fig. 2 shows a sectional elevation of Fig. 1, representing in dotted lines the name-plate as having been lifted to signal the bell, Fig. 3 being a detail plan of casting, with its journal and angle-lever.

A is the door. This is properly mortised to receive my improved parts, which are as follows: As shown in the drawing, my improvements are connected to the ordinary name-plate on doors of dwellings, although a knob, handle, or other suitable device, can be substituted. Hence, B (see dotted lines of the figures) represents such a name-plate. Forming part of the plate B, I provide a spiral-shaped stem, *b*, (see Fig. 2,) and alongside of this is a fixed stem, b^1, (see Figs. 1 and 2,) and running the length of the stem *b*. B′ is a casting, consisting of a face-plate fitted to close the mortise of the door in front, being also slotted to allow the stem *b* of name-plate to pass through it, and at b^2, Fig. 1, having a further slot, curved, as shown, for the play of the stem b^1. Further forming part of the casting B′ is a journal-bearing, b^3, (see figures,) to which is pivoted a right-angle lever, the stem b^4 of which projects through the door, while the curved arm b^5 of which is made to extend within operative reach of the stem b^1. The casting B′ is passed on the stems *b* b^1 of the name-plate, said stems being secured by a bearing-plate, b^6, (see figures,) and thus said parts are ready for insertion in the mortise of the door. When fixed in the door a fastening-plate, C, having an elongated slot, *c*, Fig. 2, for the play of the stem b^4, is attached to close the rear of the mortise.

The parts thus constructed, and arranged in the door, by lifting the door-plate its spiral stem causes said plate to be thrown out or away from the door in the act of opening the letter-port, and same is completely open when said door-plate assumes a perpendicular position, as indicated in Figs. 1 and 2. On the return movement the spiral stem causes the door-plate to be thrown in or nearer to the door in the act of closing the letter-port, and in order to restore said door-plate to its original position. (See Figs. 1 and 2.) This movement on part of the door-plate is for a threefold purpose: First, to signal a bell on the up movement of the door-plate; secondly, to again signal the bell on the down movement of the door-plate; thirdly, to permit the door-plate to pass clear of paneling or ornamental facings which may be on the door. Hence, to accomplish the first purpose stated, it will be noted that the door-plate, in being lifted, performs a part-circular motion, which its stem b^1 is following up, and, as this travels in the curved slot b^2, it comes in contact with the outer end of the curved arm b^5, and in passing over its first curvature depresses said arm, and in so doing raises the projecting stem b^4. The stem b^1, having passed between the curvatures presented by the arm b^5, and to the position indicated in Fig. 1, permits the arms b^5 b^4 (composing the angle-lever) to assume their orig-

inal position, and said parts remain in these positions as long as the downstroke of the door-plate is not made. The second purpose alluded to is accomplished in a similar manner, viz: The stem b^1, returning over the same curvature of the arm b^5, again depresses this, and raises the stem b^4 in the act of restoring the door-plate to its first position. As soon as the stem b^1 has passed back to its first position the angle-lever (parts $b^4\,b^5$) is restored to proper position for a repetition of the same operation. Thus in both lifting or lowering the door-plate the stem b^4 is caused to be raised in order to signal a bell, with which it is connected by the further parts, as follows: Properly connected to the end of the projecting stem b^4 is a connecting-bar, D, (see Figs. 1 and 2,) having a slot, *d*, to allow for the play of said bar. The upper end of the bar D is bent or fitted to connect with the stem of the bell E, and which in the drawings is shown attached to the inside door-facing. It is this connecting-bar D that in both up and down movements of the door-plate causes the striker to signal the bell E. As this signal takes place twice, once on the upstroke of the door-plate and again on the downstroke of same, it is obvious that the signaling thus produced is indicative of the call or operator.

Instead of using the visitor's bell E, suitable wire and bell-crank connections from the stem b^4 can be made to a bell situated in any part of a dwelling, this feature being indicated in Fig. 1.

What I claim is—

1. The spiral stem *b* of the door-plate, in combination with the correspondingly-mortised plate B′, whereby, when the door-plate is raised to open the letter-port, it is carried away from the door, to permit it to pass projecting facings or panelings, as set forth.

2. The spiral stem *b* of the door-plate, stem b^1, and plate b^6, in combination with the mortised and slotted plate B′ and crank-lever b^4, whereby when the letter-port is opened the stem *b* is caused to describe the arc of a circle, during which movement it operates upon one arm of the crank-lever, and depresses it for the purpose of sounding the bell, as set forth.

3. The combination of a door-plate with a bell, by means of the spiral stem *b*, fixed stem b^1, casting B′, having a journaled stem, b^4, and arm b^5, said parts being constructed to operate in the manner and for the purpose set forth.

In testimony of said invention I have hereunto set my hand.

JOHN LOVENGUTH.

Witnesses:

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