

(No Model.)

J. P. TIRRELL.
MAIL BOX INDICATOR.

No. 373,207.

Patented Nov. 15, 1887.

Fig. 1,

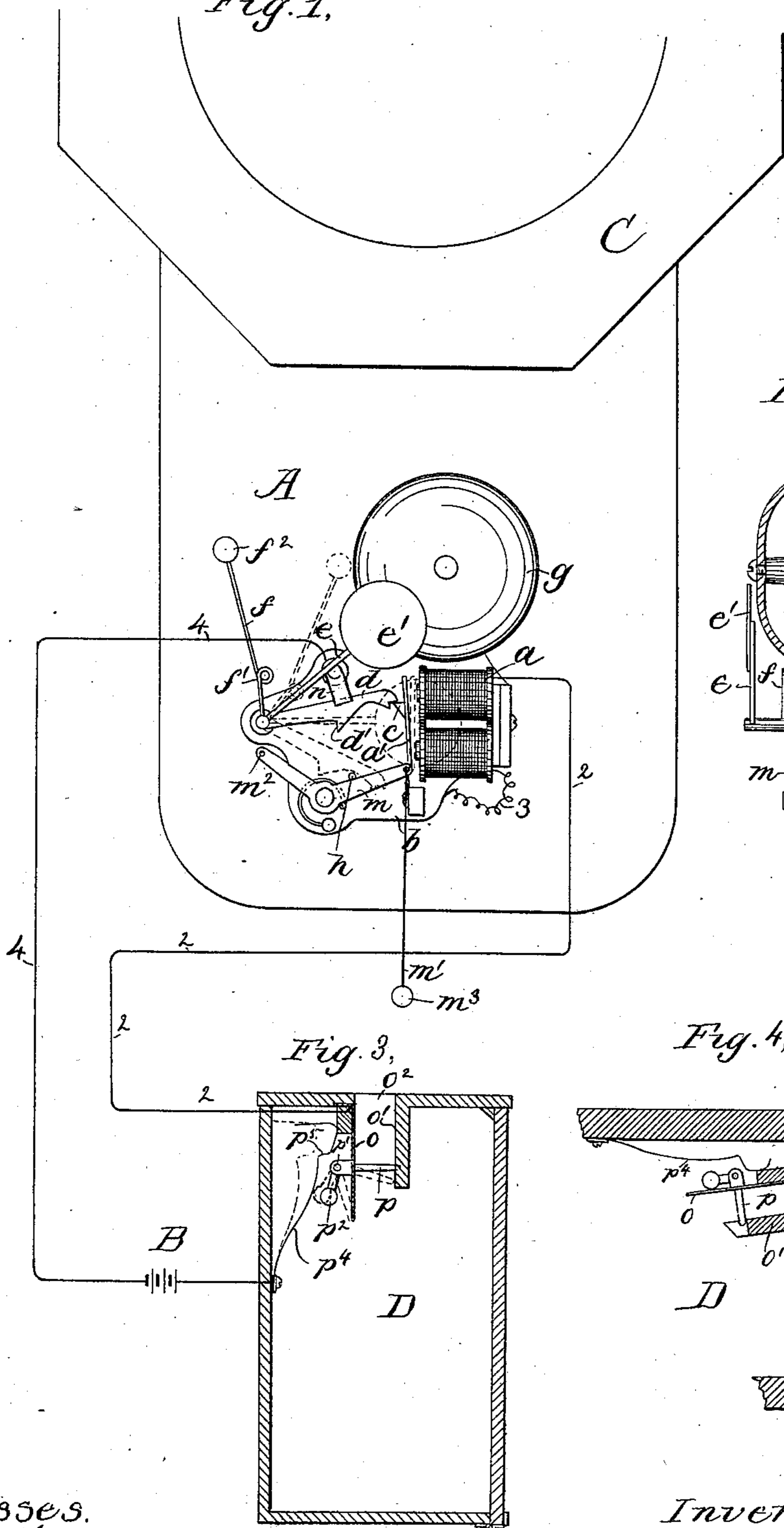


Fig. 2,

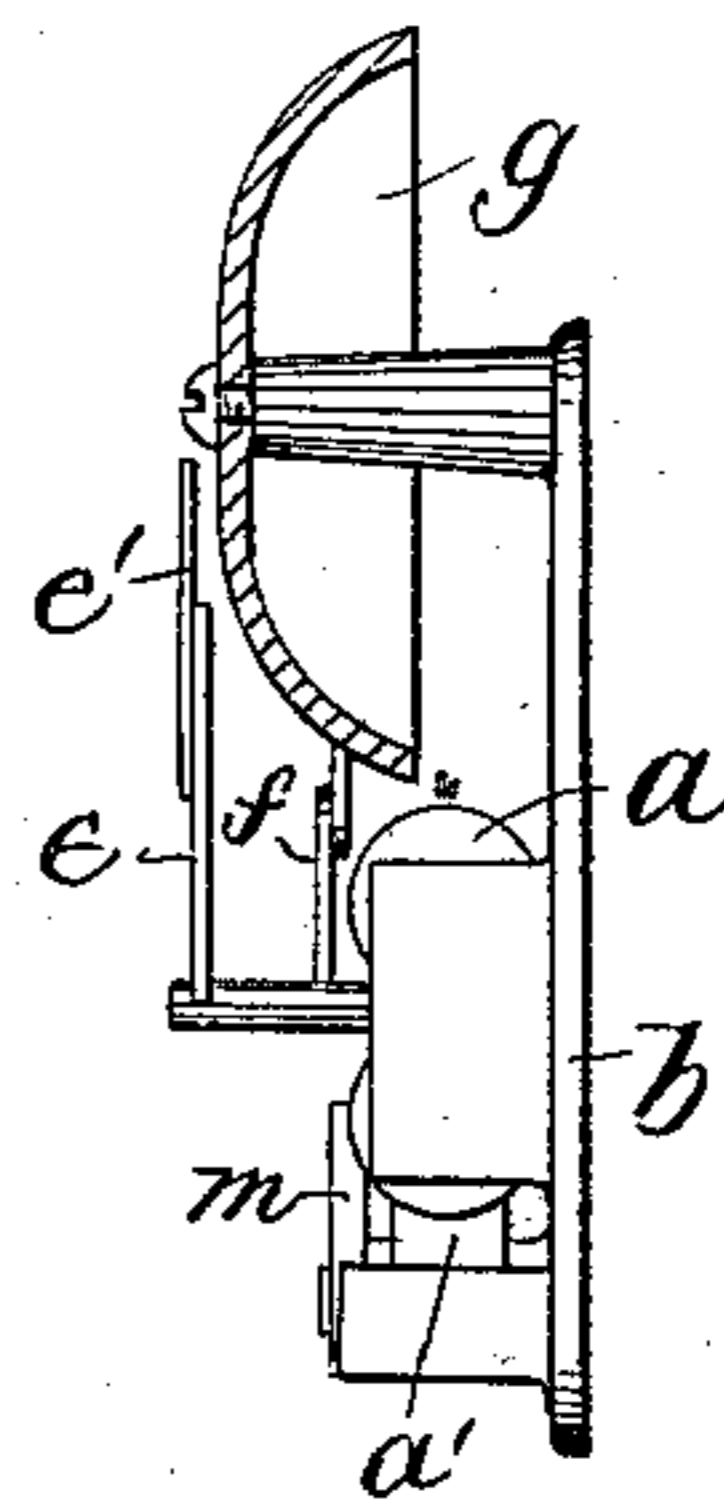


Fig. 3,

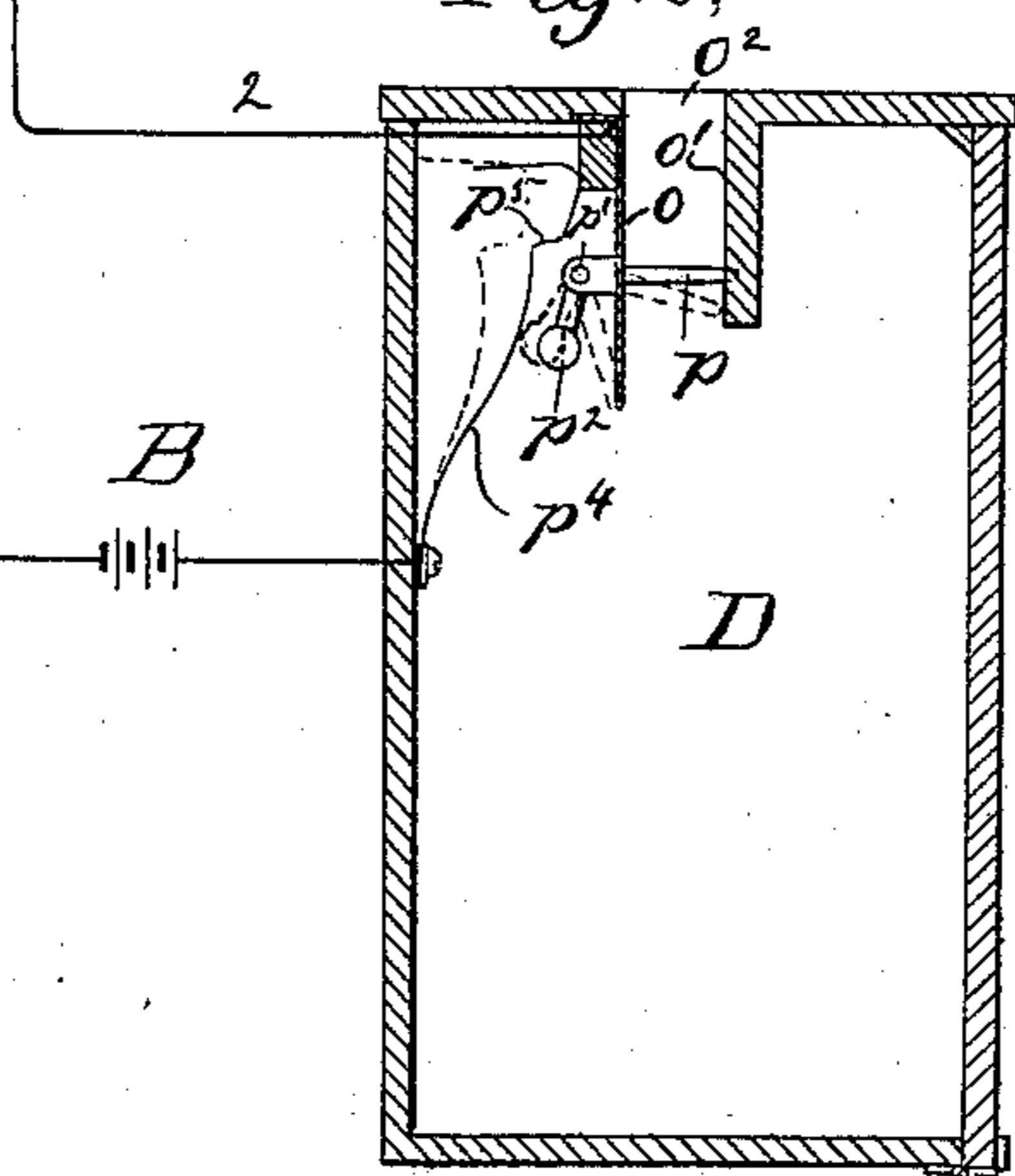
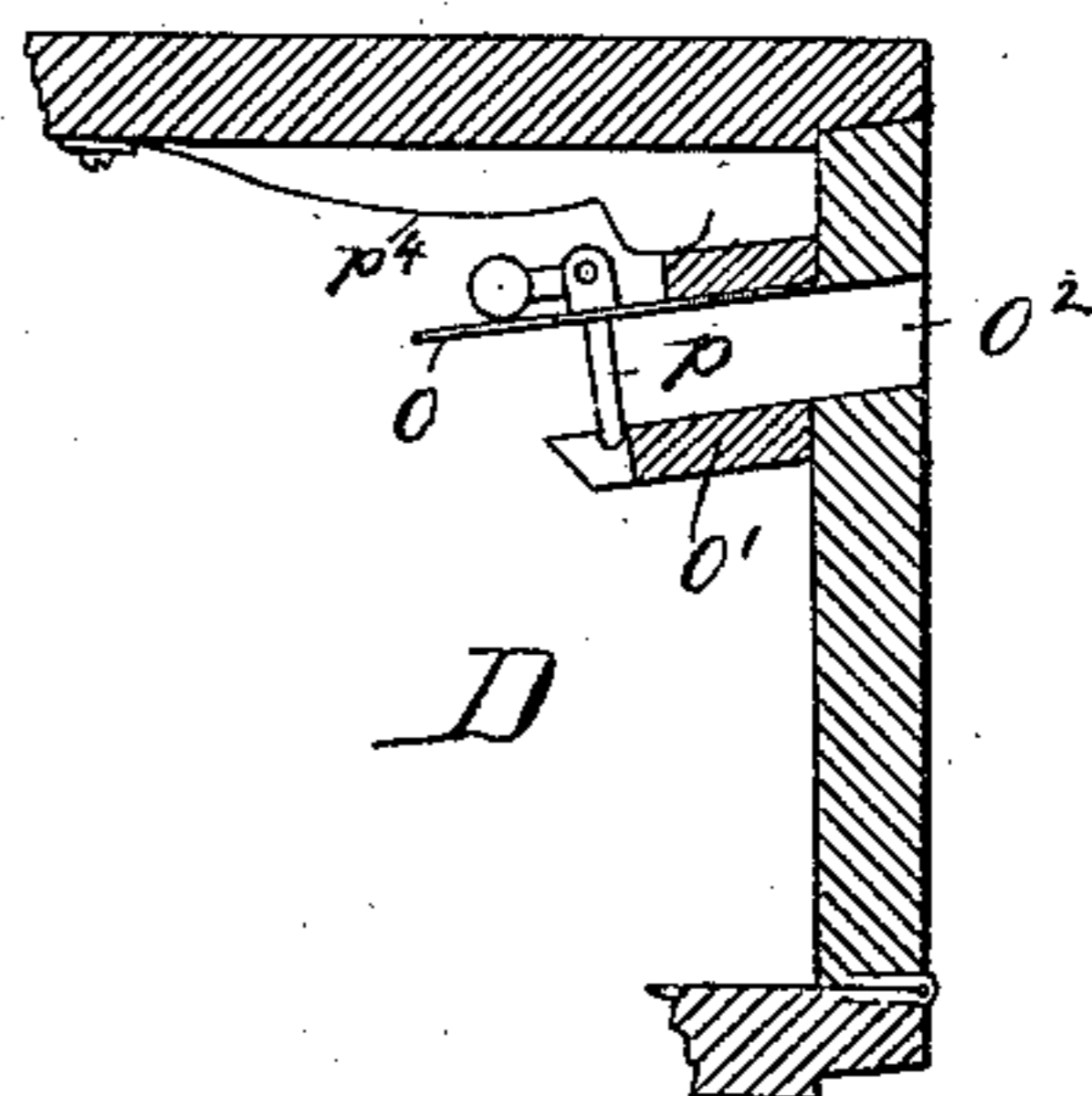


Fig. 4,



Witnesses.
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UNITED STATES PATENT OFFICE.

JACOB P. TIRRELL, OF SOMERVILLE, ASSIGNOR TO JOHN Z. ROGERS, OF WINCHESTER, MASSACHUSETTS.

MAIL-BOX INDICATOR.

SPECIFICATION forming part of Letters Patent No. 373,207, dated November 15, 1887.

Application filed June 30, 1887. Serial No. 242,964. (No model.)

To all whom it may concern:

Be it known that I, JACOB P. TIRRELL, of Somerville, county of Middlesex, State of Massachusetts, have invented an Improvement in Mail-Box Indicators, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My invention relates to an apparatus for indicating at a distant point when a letter or other mail-matter has been received in a mail-box, so that, for example, an occupant of an office in a building is notified when a letter is received in a box located at some other point in the building.

The invention is embodied in an apparatus comprising a letter-box to receive the mail-matter, containing a circuit-closer operated by the introduction of the mail-matter into the box and an electrical indicator or annunciator-drop connected in circuit with the said box and located at the point where the information is to be received.

The invention consists, mainly, in details of construction of the circuit-closer in the box, and also in details of construction of the indicator, by means of which the circuit is broken after the indicator has been operated, so that the battery will not run down or become exhausted if the mail-matter is not immediately removed from the box, as has been the case in apparatus of this kind as heretofore made.

Figure 1 is a front elevation of the indicator; Fig. 2, a side elevation thereof, and Figs. 3 and 4 sectional views of different kinds of letter-boxes provided with a circuit-closer to be operated by the introduction of the mail-matter in accordance with this invention.

The indicating-instrument A is herein shown as placed in the lower part of the case of a clock, C, which may be placed in an office of a public building or in any desired room of a residence. The said indicating-instrument comprises an electro-magnet, *a*, supported on the base plate or frame *b*, and co-operating with an armature, *a'*, provided with a catch or shoulder, *c*, that engages a pivoted arm, *d*, having connected with it an arm, *e*, provided with a visual indicator or target, *e'*, and a second arm, *f*, preferably composed of spring-wire, and provided with one or more coils, *f'*, and

carrying on its end a bell-hammer, *f*², which co operates with a bell, *g*, giving a single tap or audible signal when the controlling-arm *d* is released and the target *e'* permitted to fall, as shown in dotted lines, Fig. 1. The said target, when in its elevated position, is concealed behind the front plate of the case or frame-work in which the instrument is inclosed, the said plate being provided with an opening through which the said target is visible when permitted to drop into the position shown in dotted lines. A stop, *h*, limits the downward movement of the arm *d*, which falls by gravity, and the bell-hammer *f*² springs ahead to strike a single blow on the bell when the arm is thus permitted to fall.

The indicator may be restored into its normal position supported by the armature *a'* by means of a restoring device consisting of an elbow-lever, *m*, one arm of which is connected with a cord or wire, *m'*, provided with a suitable handle, *m*³, outside the case, and the other arm of which is provided with a projection, *m*², that engages the arm *d*, so that when the handle *m*³ is pulled down the pin *m*² bears against the under surface of the arm *d* and raises it from the dotted to the full-line position, Fig. 1. A shoulder, *d'*, on the arm *d* limits the movement of the restoring device.

One terminal of the magnet *a* is connected by a wire, 2, with one member of a circuit-closer in the letter-box D, Fig. 3, and the other terminal of said magnet is connected by wire 3 with the metallic frame-work *b* of the instrument, through which the circuit is continued to the arm *d*. When in the normal condition, with the indicator concealed, the said arm *d* is in contact with a metallic strip, *n*, insulated from the frame-work of the instrument and connected by wire 4 with the other member of the circuit-closer in the letter-box D. The circuit is thus complete when the indicator is in its normal position; but when the indicator falls it opens the circuit at *d n*, so that the battery will not be exhausted, even if the circuit-closer at the letter-box should remain closed.

An indicator of this kind may be used with any kind of a circuit-closer in the letter-box adapted to be operated by the introduction of mail-matter to the box. As shown in this instance, the box D is provided with guard-plates

5 o o' , extending in from the slit o^2 , through which the letters are dropped into the box. The guard-piece o is shown as made of metal, and has in metallic connection with it a finger,
 10 p , pivoted at p' , and provided with a counter-weight, p^2 , which tends to hold said finger across the space between the guard-plates, so that a letter cannot be put into the box without turning the said finger on its pivot to some
 15 point between the two dotted-line positions shown in Fig. 3. The counter-weight p^2 cooperates with a spring, p^4 , as shown, that constitutes the other member of the circuit-closer, said parts being separated, as shown in full
 20 lines, when the counter-weight hangs in its normal position, but being brought into contact when the said counter-weight is turned aside by passing anything through the opening in the letter-box. The spring p^4 has a shoulder, p^5 , that forms a stop for the counter-weight p^2 , and the said spring bears against the said weight in such manner as to tend to turn the counter-weight and pivoted finger back toward its normal position.

25 If desired, two or more fingers, p , may be used, placed at different points along the opening in the box, so as to insure operation when any kind of a parcel is placed in the box.

30 Fig. 4 shows a circuit-closer of the same construction as represented in Fig. 3 applied to a box in which the opening for letters is in the side instead of in the top. The operating-

finger p of the circuit-closer may be placed far enough away from the opening to prevent tampering with, so that there is no liability of false signals, as is the case when the circuit-closer is operated by the flap that covers the opening in the box, as is sometimes practiced. 35

A circuit-closer of the kind shown will usually produce only a momentary closure of the circuit; but if it should be retained closed, as by a newspaper or package remaining wedged in the opening of the box, the operation of the circuit-breaker d n at the indicator would prevent running down of the battery. 40 45

I claim—

An electric mail-box indicator comprising a circuit-closer at the mail-box and an indicating-instrument and circuit connecting it with the mail-box, the said indicating-instrument comprising an electro-magnet included in the said circuit, combined with a visual indicator and a circuit-breaker, both controlled by the armature of the said magnet, the said circuit-breaker opening the circuit of said magnet when the indicator is displayed, substantially as and for the purpose set forth. 50 55

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JACOB P. TIRRELL.

Witnesses:

JOS. P. LIVERMORE,
 JAS. J. MALONEY.