

No. 843,805.

PATENTED FEB. 12, 1907.

W. H. GRANGER.
RESIDENCE MAIL BOX.
APPLICATION FILED FEB. 26, 1906.

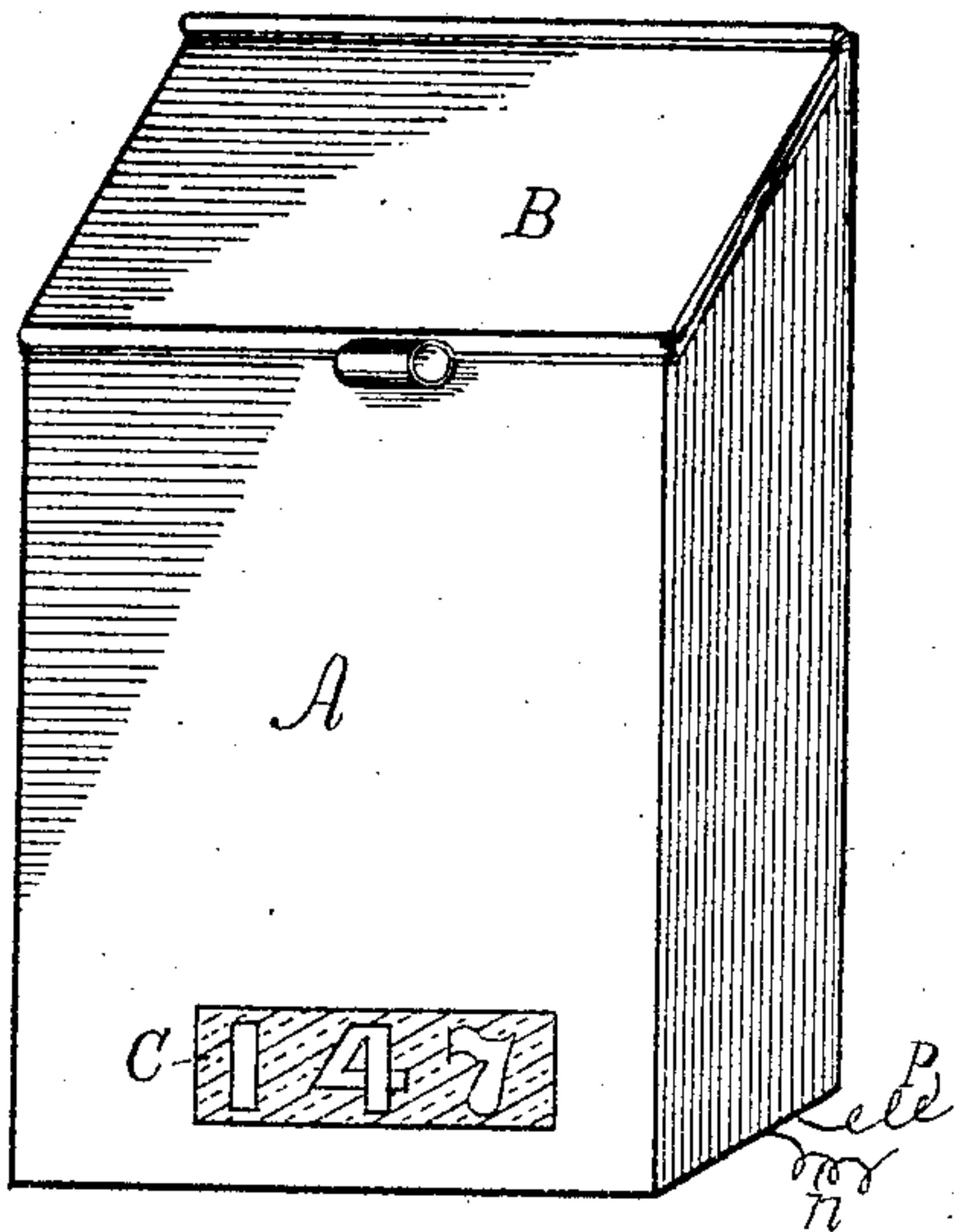


Fig. 1.

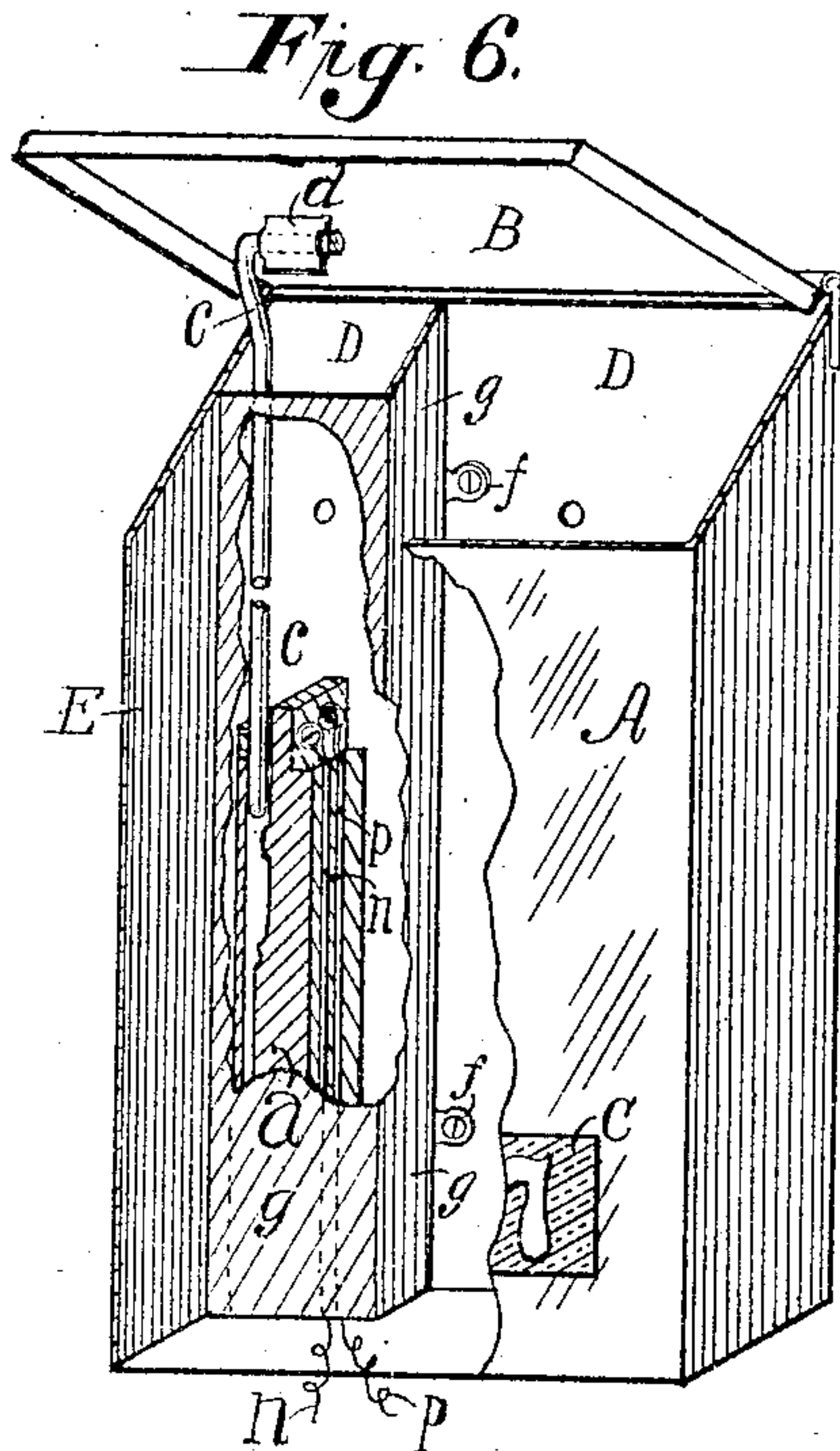


Fig. 6.

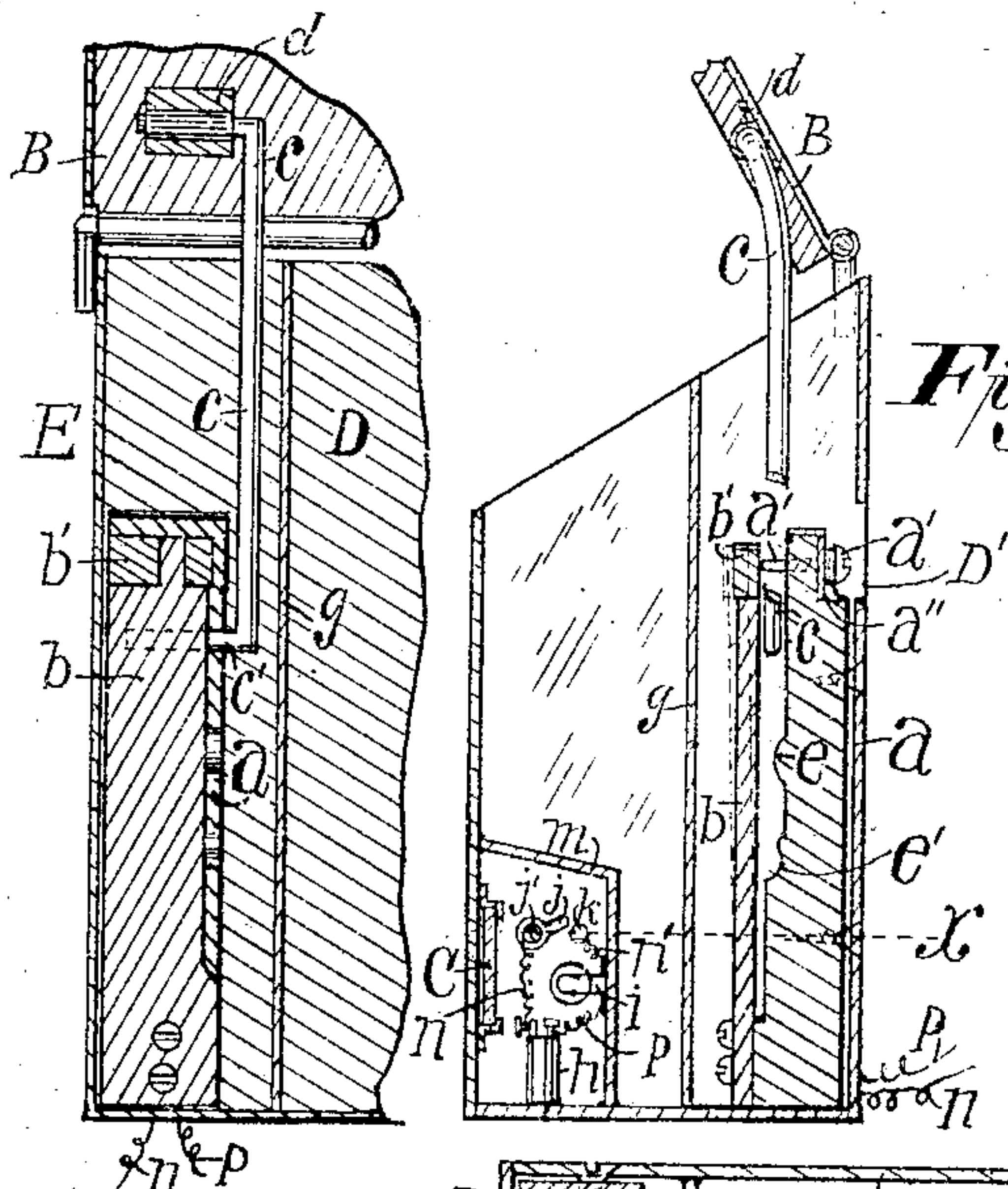


Fig. 4.

Fig. 2.

Fig. 3.

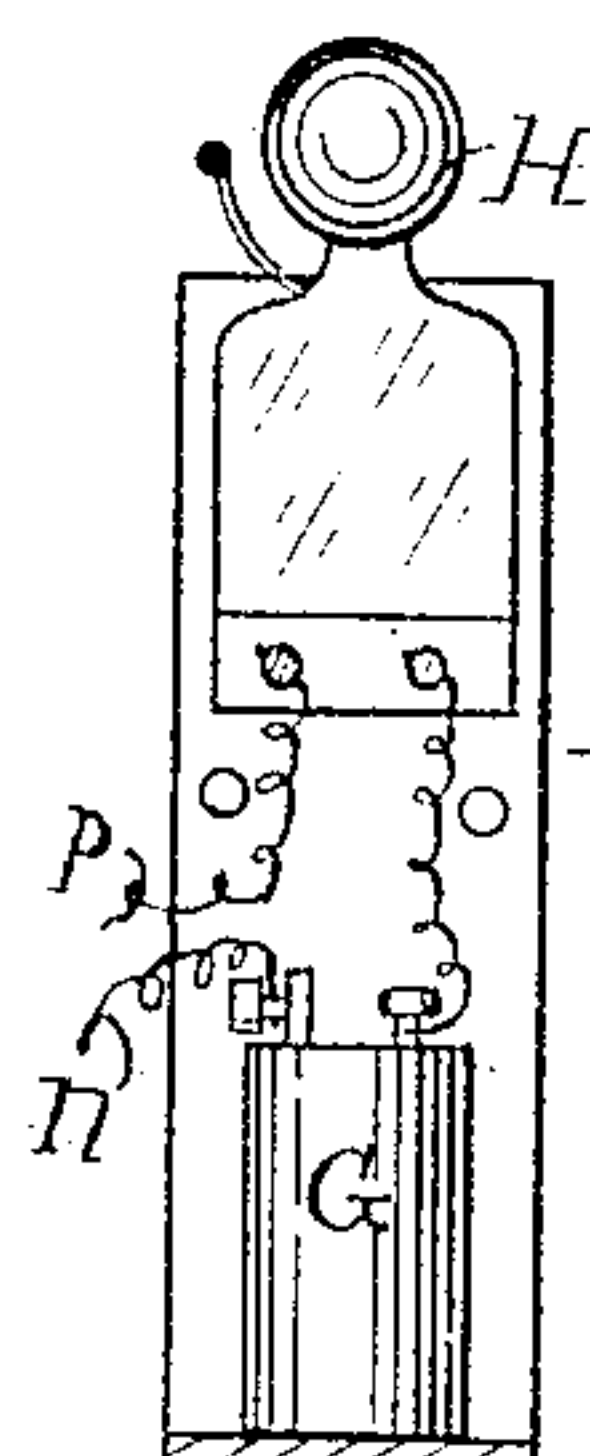
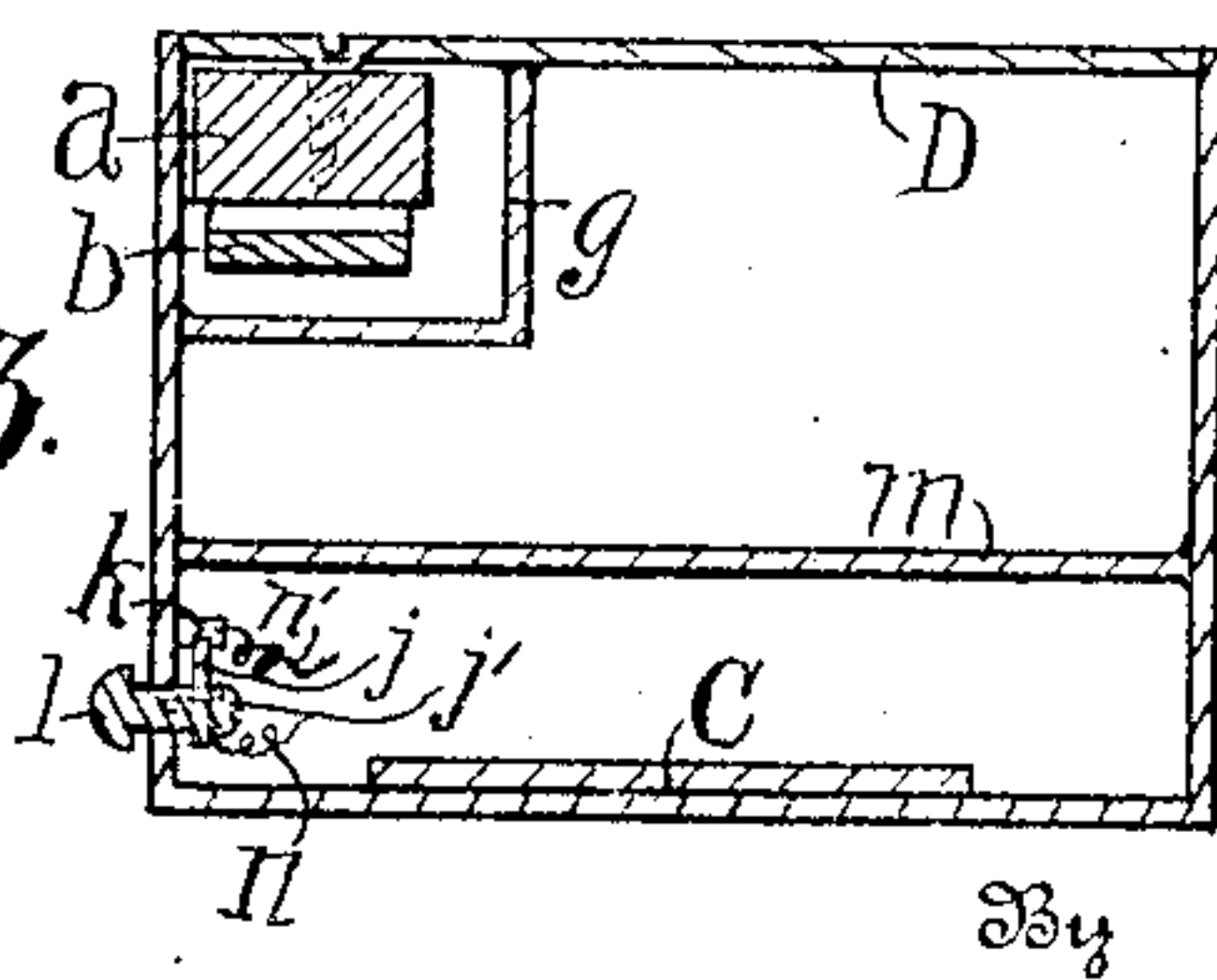


Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM H. GRANGER, OF OKLAHOMA, OKLAHOMA TERRITORY, ASSIGNOR
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RESIDENCE MAIL-BOX.

No. 843,805.

Specification of Letters Patent.

Patented Feb. 12, 1907.

Application filed February 26, 1906. Serial No. 302,899.

To all whom it may concern:

Be it known that I, WILLIAM H. GRANGER, a citizen of the United States, residing at Oklahoma city, in the county of Oklahoma and Territory of Oklahoma, have invented certain new and useful Improvements in Residence Mail-Boxes, of which the following is a specification.

My invention relates to improvements in residence mail-boxes in which an electric alarm is connected with the lid of the mail-box in a manner to announce the fact whenever the lid is raised to insert or to remove mail-matter, all of which will be fully explained in the specification and set forth in the claim.

The objects of my invention are, first, to provide a mail-box for city and rural residences which cannot be tampered with without notifying the occupants thereof; second, to notify the occupants of the fact when mail-matter is being deposited in the box; third, to relieve "carriers" from the use of the whistle in cold weather or other means of announcement. I attain these objects by the mechanism illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of one of my mail-boxes as when secured to a building, a post, or other structure. The structure is not shown, but understood. Fig. 2 is a sectional elevation of the rear left corner as viewed from the front, which is removed and the lid raised, disclosing the annunciating device. Fig. 3 is a plan view on line *z*, Fig. 4. Fig. 4 is a sectional elevation of the box, the right wall or side being removed and the lid raised. Fig. 5 is an elevation of the dry battery and bell used in connection herewith. Fig. 6 is a perspective and illustrates a modified form or location of the operating device, it being turned one-fourth round and secured to the left wall instead of to the back of the box, obscuring parts being removed.

Similar letters refer to similar parts in the several views.

Referring to the drawings, A is the mail-box complete and closed.

B is the lid.

C is the residence or box number.

D is the back or rear wall of the box, to

which is secured the operating device, consisting of the post *a*, the spring *b*, and the operating-rod *c*, having its upper end hinged to the under surface of the lid B by soldering an eye *d* to the lid B and bending the said rod *c* at a right angle and passing the bent end through the eye *d*. The rod *c* is normally vertical and has its lower end turned at a right angle, forming a short arm adapted to slide vertically between the spring *b* and the adjacent side or face of the post *a*, which, being cut away, permits the free movement of the said rod *c* except at face elevation *e* and the place of rest *e'* when the lid is closed, at which time the lateral arm *c'* of rod *c* forces the spring *b* outward to the position indicated by the dotted lines. To the upper end of said spring is secured a strip of copper *b'*, its office being to complete the circuit when permitted to come in contact with the screws *a'*, which extend through the upper portion of the post *a* and around which are wrapped the ends of the battery and alarm wires *p* and *n*, which have their insulation removed at their ends. For convenience in using shorter screws the post *a*, which is of wood, is cut away at *a''* and has two grooves cut in its back to receive the insulated wires *p* and *n*. To permit access to the screws *a a'*, a portion of the back D of the box is cut away at D'. The housing or casement *g* of the annunciating or operating device, a strip of tin or like metal, is angled and soldered by its edges to the back and left side walls D and E of the box, or it may be removably secured by means of ears and screws, as at *f*.

It is understood that proximity of the annunciating device within the mail-box and the battery and bell is not necessary, as the latter may be placed remotely at any desired distance or locality.

The material to be used in the construction of these mail-boxes is galvanized iron or similar material, and to fully protect their contents the top should have a "quarter-pitch" or more, and the lid should have a downwardly-projecting flange adapted to close down outside the box, the lid being hinged by its rear edge encompassing a staple-like rod having its legs soldered to the rear upper corners of the box upon the outside thereof.

5 In operation, as the lid B of the box A raises the operating-rod *c* raises also and its lateral arm *c'*, passes up out of its seat *e'* into the free space above, which permits the copper *b'*, secured to the upper end of the wood-spring *b*, to come in contact with the points of the screws *a'*, completing the circuit between the battery G and the bell H by means of wires *p* and *n*, causing the bell to ring until the face elevation *e* is reached by the arm *c'*, which in passing breaks the circuit, thus causing an instant of silence until the said arm *c'* has entered the free space at the upper portion of its channel, completing the circuit and causing the bell to ring again and continue to do so until the lid is lowered to the point of the face elevation *e* is being passed, then again until the lid is returned to its normal position and the arm *c'* is at rest at *e'*.
 20 The signal in the present case is one short, one long, and one short period of ringing of the bell. This can be varied by the number and place of the face elevations on the post *a* to distinguish the signal from that of others.
 25 Be it understood that I do not confine myself to the precise form and construction herein shown and described; but that various modifications may be made without departing from the spirit of my invention,
 30 which having thus described.

What I claim as new and useful, and desire to secure by Letters Patent, is—

In combination with a mail-box; the announcing device consisting of the vertical post *a*, secured within the box A, and within a housing or casement, the said post having upon its face one or more swells or elevations *e*, its back having two longitudinal grooves with insulated wires *p* and *n*, embedded therein, their upper ends being secured to the screws *a'*, which penetrate said post from the rear having their points project beyond the post's face adapted to engage the copper *b'* secured to the upper end of the vertical spring *b* secured to the lower end of said post in a manner to leave an open space, indefinite and irregular, between the post and spring, the said open space being adapted to the vertical movement of the arm *c'* of the rod *c*, having its upper end secured to and operated by the box-lid B, the said device being properly connected by wires *p* and *n*, to the battery G, and the bell H, for the purposes set forth.

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

WILLIAM H. GRANGER.

Witnesses:

CHAS. EDWARD JOHNSON,
A. P. CROCKETT.