

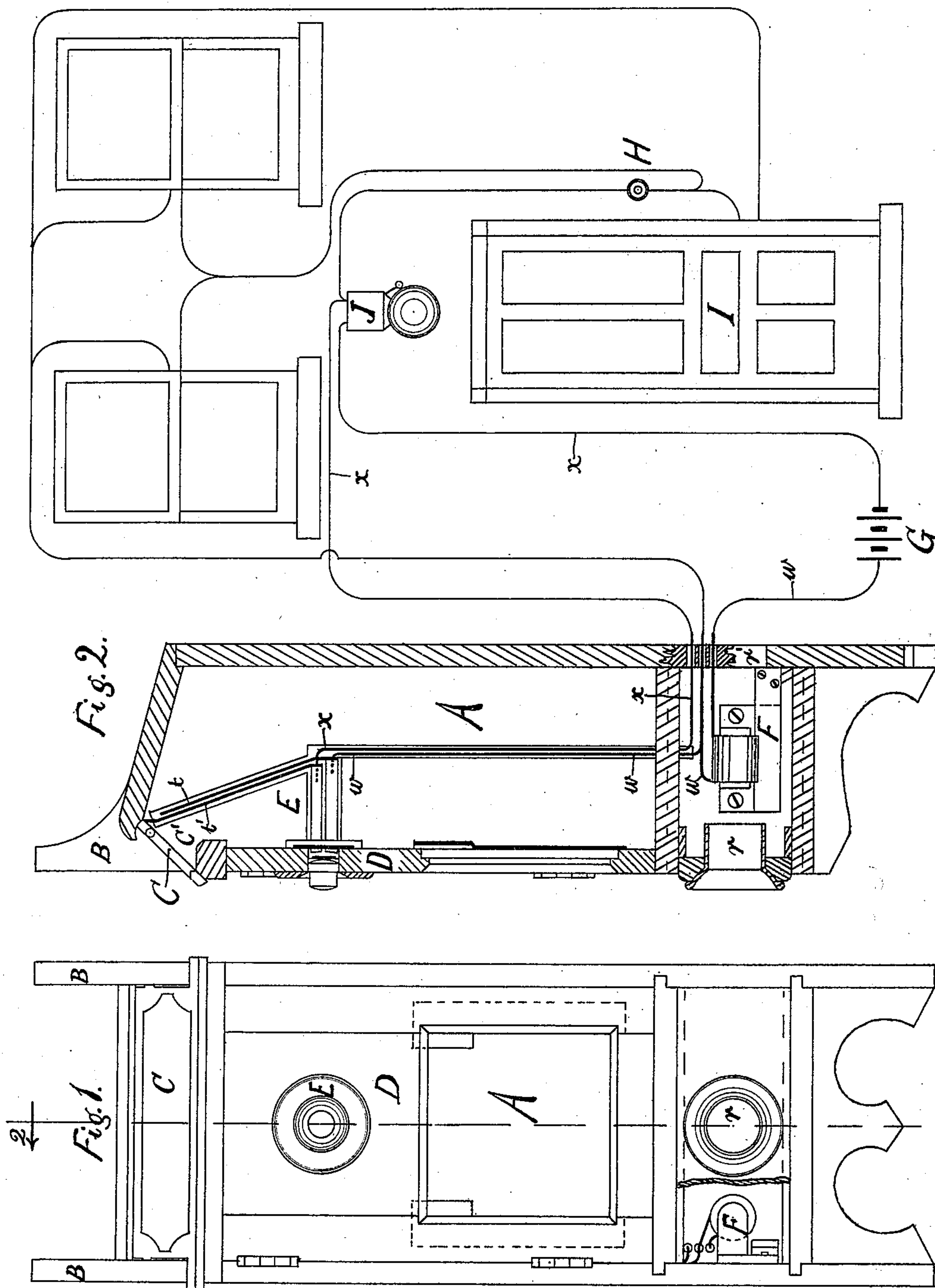
(No Model.)

2 Sheets—Sheet 1.

E. C. T. BELDING.
ELECTRIC ALARM MAIL BOX.

No. 532,860.

Patented Jan. 22, 1895.



WITNESSES.

J. H. Hanson.
W. J. Frost

INVENTOR
EDWARD CHARLES BELDING.

BY *Dyrenforth & Dyrenforth*,
ATTORNEYS.

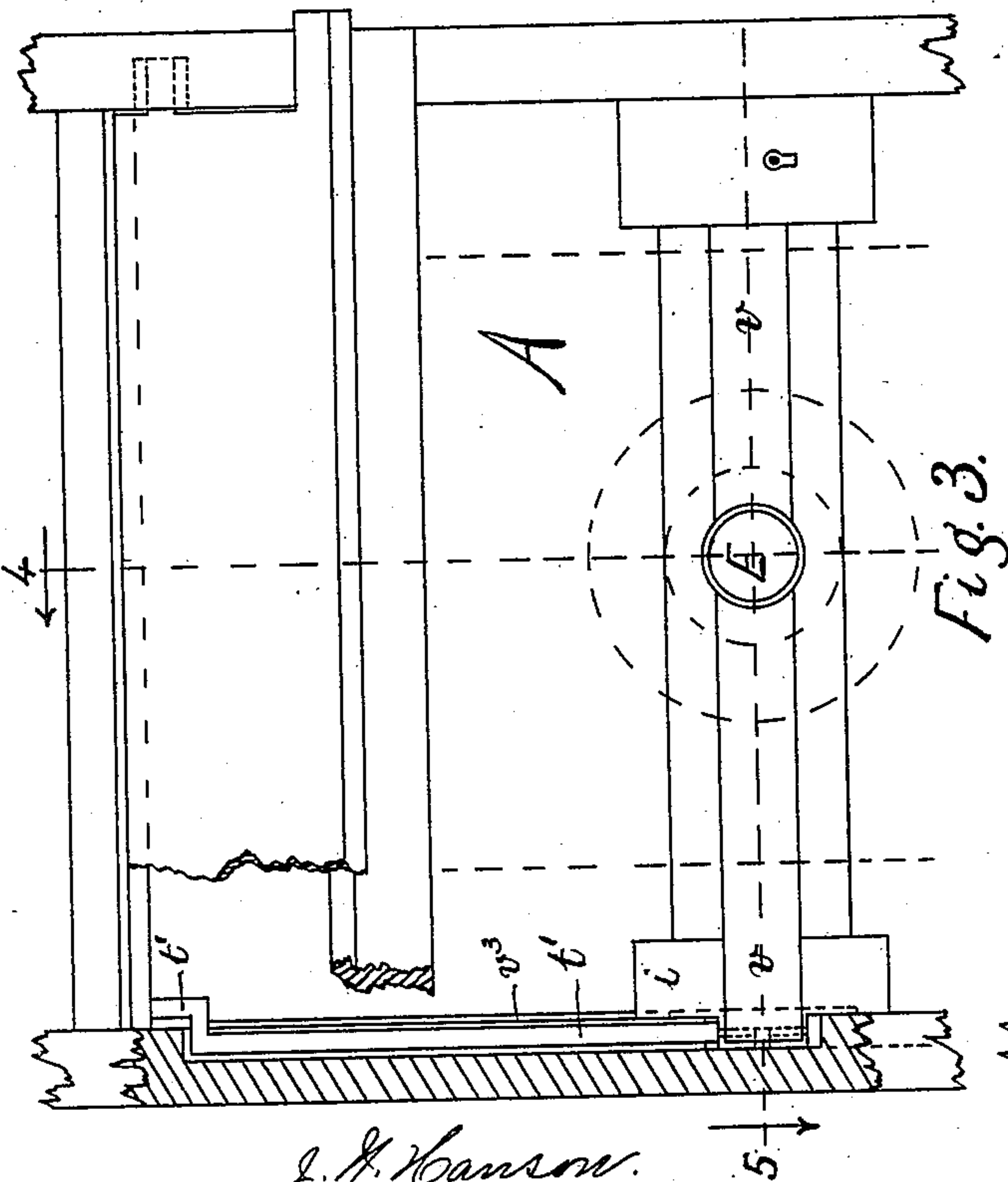
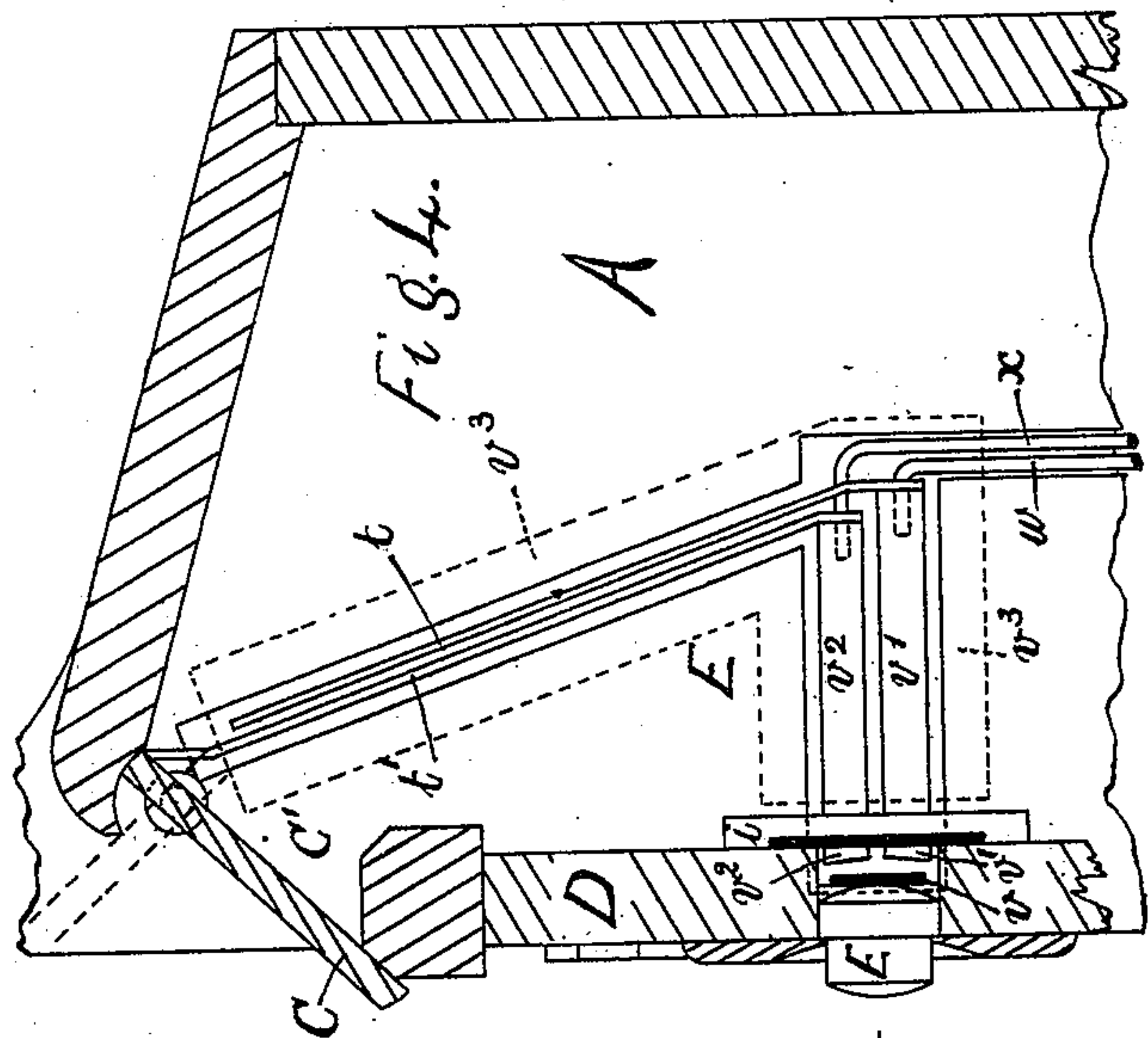
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2 Sheets—Sheet 2

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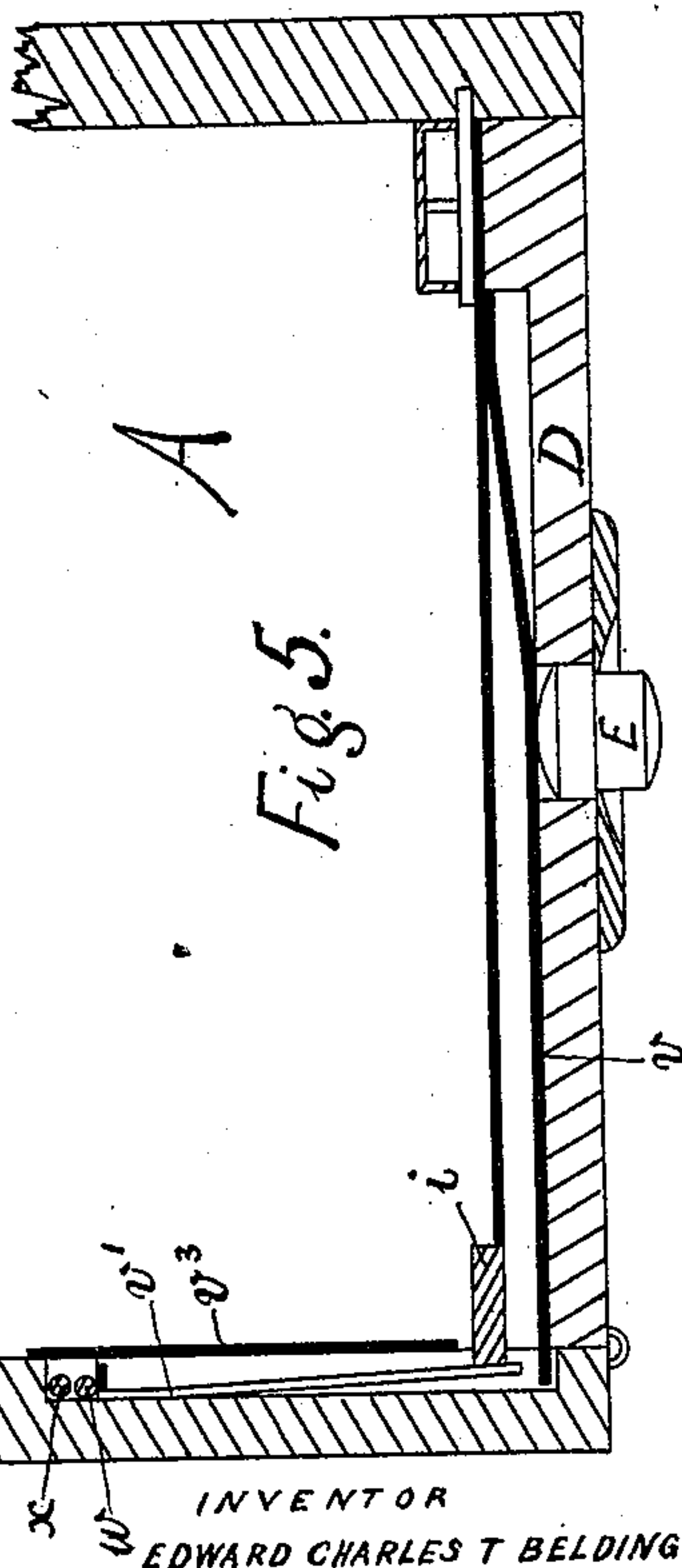
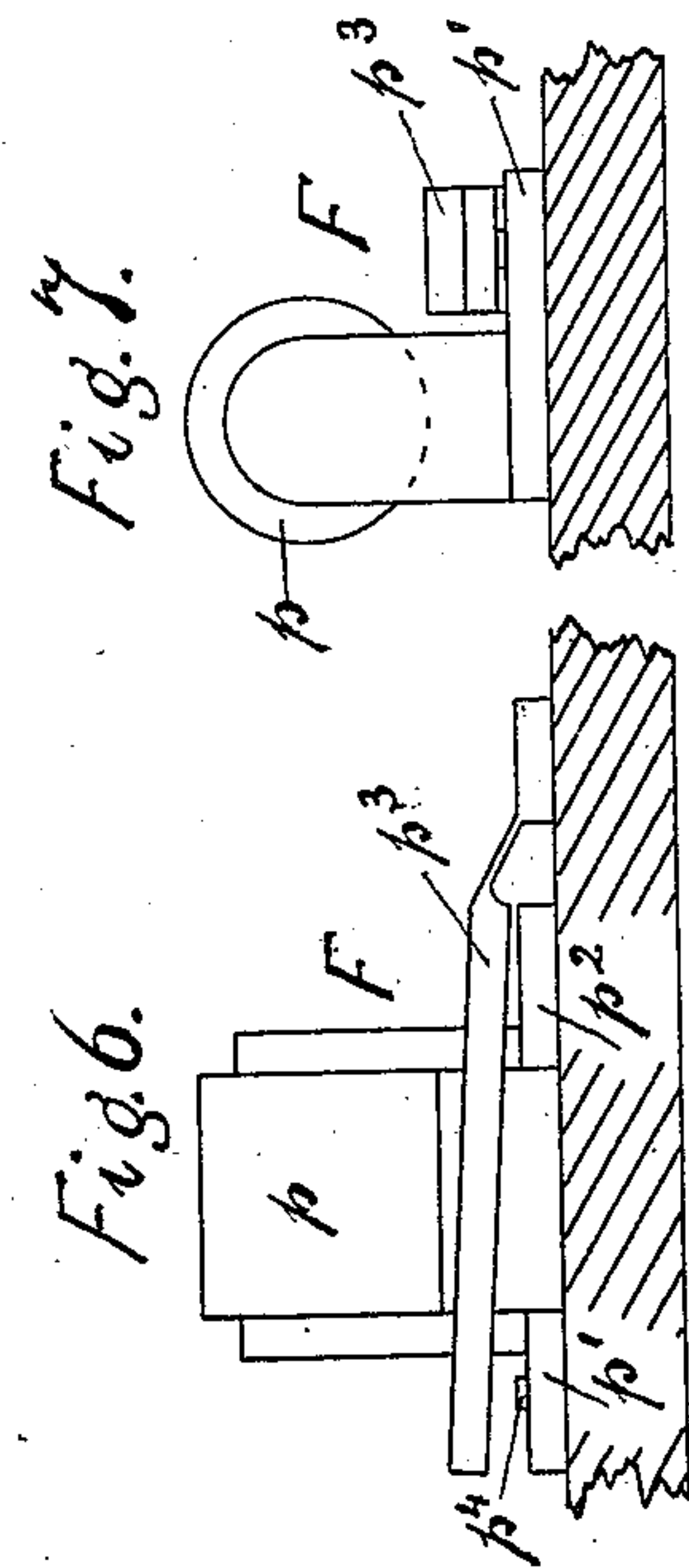
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UNITED STATES PATENT OFFICE.

EDWARD CHARLES T. BELDING, OF CHICAGO, ILLINOIS.

ELECTRIC-ALARM MAIL-BOX.

SPECIFICATION forming part of Letters Patent No. 532,860, dated January 22, 1895.

Application filed February 17, 1894. Serial No. 500,586. (No model.)

To all whom it may concern:

Be it known that I, EDWARD CHARLES T. BELDING, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Electric-Alarm Mail-Boxes, of which the following is a specification.

My invention relates to an improvement in the class of mail-boxes (and more particularly those for private use) in which a box is equipped with electrical contacts in circuit with an alarm—such as an electric bell—with- in the house to the exterior of which the mail- box is applied, and adapted to be intention- ally actuated to close the circuit, as by one properly seeking admission to the house or by way of announcement of an insertion into the mail-box, or unintentionally, as in case of an attempt to rifle the mail-box.

One of the more important objects of my improvement is to provide in the mail-box a sounder in the circuit containing the alarm within the house, whereby any operation of the latter from the box shall actuate the sounder therein by way of informing the operator that the alarm in the house had responded to his operation thereof and the inmates, if at home, have been accordingly notified of his presence to seek admission; or by way of frightening off any one while attempting to tamper with the mail-box.

Another such object is to enable the burglar-alarm in the house to be readily included in the circuit containing the house-bell or alarm, referred to, and the box-sounder, thereby to insure arousing the inmates or police-department in case of any one tampering with the mail-box.

My further object is to provide a novel and peculiarly desirable construction of my improved alarm mail-box, whereby it shall be portable and readily adjustable into any new situation, as upon an outside door, or elsewhere, and particularly to include an already provided ordinary speaking-tube, whereby tenants of a house, which they may have equipped with my improved device, shall be enabled in moving to another residence to carry the box with them for use in the new situation.

My object is also to provide a novel and pe-

culiarly desirable construction of contact in the box, adapted to be maintained open when the door of the box is shut, and to be closed by opening the door; which construction of contact will also be found of great use on other than mail-box doors, as those of rooms or the outside doors of houses.

Referring to the accompanying drawings— Figure 1 shows my improved alarm mail-box by a view in front elevation partly broken. Fig. 2 is a section of the same taken at the line 2 on Fig. 1 and viewed in the direction of the arrow, and showing, diagrammatically, the circuits in the house and their connections with the box, as also the front door to which the box may be fastened. Fig. 3 is an enlarged broken and partly sectional front view of the mail-box. Fig. 4 is a sectional view of the box like that presented by Fig. 2, but broken and enlarged and taken at the line 4 on Fig. 3 and viewed in the direction of the arrow. Fig. 5 is a broken section taken at the line 5 on Fig. 3 and viewed in the direction of the arrow; and Figs. 6 and 7 show the box-sounder respectively by a view in side elevation and a view in end elevation.

A is the box, of any desired form and material, but preferably of the general shape of an ordinary house mail-box and formed of wood. The top of the box should be formed with a rack B, for newspapers or packages too bulky to permit of their insertion; and in the front are an insertion-slot C' covered by a hinged lid C, and a hinged door D adapted to be locked. Below the plane of the door, in the front side of the box, is provided a speaking-tube section r , to align with an opening r' in the back of the box for receiving the outer end of a speaking-tube (not shown) should the latter be in a position at which it may be desired to adjust the box for use.

In the door D, near its upper end, is a push-button device E; and in the base portion of the box is an electric sounder F, which may involve any of various well known constructions, but is shown in Figs. 6 and 7 as an electro-magnet p having pole-pieces p' and p^2 and a spring armature p^3 to be actuated, by energizing the magnet, to vibrate against and thus produce a rattling sound with, a stud p^4 , or knocker, of non-magnetic material on the pole piece p' .

G is a generator (battery), in any suitable location. From one pole of the battery leads the wire x through an electric-bell J in the house; thence to the push-button device, from which its branch-terminal t' proceeds to the lid C of the insertion-slot. From the opposite pole of the generator leads the wire w through the sounder F and thence to the push-button device E, from which its branch-terminal t (springy like the terminal t') extends and bears at its upper end resiliently against the lid C behind its hinge.

The burglar-alarm system of the house, represented by the diagram in Fig. 2, may also be included in the circuit containing the sounder F, as indicated, a switch-device H, of any ordinary or suitable construction, being provided for cutting out the burglar-alarm during the day and cutting it in at night.

As will thus be seen, when either the push-button device E is operated upon or the lid C is raised (the latter operation pressing the terminal t' against the terminal t) the circuit containing the bell J and the sounder F is closed, thereby ringing the former and actuating the latter to notify the operator that his action has sounded the house bell, or in the case of an intruder, to tend to frighten him off, and, when the burglar-alarm system is in the circuit, arousing the inmates of the house or notifying the police, according to the arrangement of the system.

The construction of the contact-mechanism of the push-button device E is most clearly illustrated in Fig. 5. The button bears against a spring v let into the inner side of the door D and extending beyond the hinged edge thereof where the door carries a projection i of insulating material which, when the door is closed, bears against the spring-terminal v' and v^2 of the wires x and w and holds them away from a metal plate v^3 on the side of the box, their contact with which, however, would cause it to act as a bridge to electrically connect the two terminals $v'v^2$. By opening the door, the projection i releases the terminals v' and v^2 , whereby they spring into contact with the bridge-plate v^3 ; and with the door shut, by pressing the push-button the spring v bridges the terminals v' and v^2 and closes the circuit.

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

1. In combination, a mail-box containing electrical contact-mechanism in circuit with the electric-alarm apparatus in a house, a push-button device controlling said contact-mechanism, and a secondary electric sounder inside the box in the circuit of said contact-mechanism, whereby operating the push-but-

ton device to close the circuit actuates the house-alarm and the secondary sounder in the mail-box, substantially as and for the purpose set forth.

2. In combination, a mail-box provided with a movable insertion-slot cover, a secondary electric sounder, and a push-button device, all in normally open circuit with each other and in circuit with the electric-alarm apparatus in a house, whereby closing the circuit by operating either the push-button or cover actuates the house-alarm and also the sounder in the mail-box, substantially as and for the purpose set forth.

3. In combination with a door, a push-button device having a bridging button-spring, an insulating projection on the door, a pair of terminals adjacent to the door, and a lateral connecting-bridge therefor, said terminals being engaged by said projection in the closed condition of the door to maintain them normally out of contact with said lateral bridge and released to contact with said lateral bridge by opening the door, said button-spring extending into position to bridge across said terminals by operating the push-button and the terminals being included in an electric circuit arranged for connection with the electric-alarm apparatus in a house, substantially as and for the purpose set forth.

4. An electric-alarm mail-box comprising, in combination with the casing having a door and an insertion-slot provided with a movable cover, a push-button device having a spring v , terminals v' and v^2 , an insulating projection i , normally engaging said terminals, a terminal t' in position to be engaged by said cover and a companion terminal t , said terminals being included in an electric-circuit in the box arranged for connection with the electric-alarm circuit in a house, and an electric-sounder in the casing in said box-circuit, substantially as and for the purpose set forth.

5. A portable electric-alarm mail-box comprising in combination, with the casing having a door D and an insertion-slot C' provided with a movable cover C, a push-button device E, terminals v' and v^2 and terminals t and t' , in an electric-circuit in the box arranged for connection with the electric-alarm circuit in a house, an electric sounder F in the casing in said box-circuit and a speaking-tube section r in the casing in alignment with an opening r' in the back thereof, the whole being constructed and arranged to operate substantially as and for the purpose set forth.

EDWARD CHARLES T. BELDING.

Witnesses:

W. BELLANGER,
WM. D. EVANS.