

No. 824,411.

PATENTED JUNE 26, 1906.

F. W. COLE.

GUARD FOR DOOR KEYS OF FIRE ALARM BOXES AND FOR OTHER THINGS.

APPLICATION FILED FEB. 8, 1906.

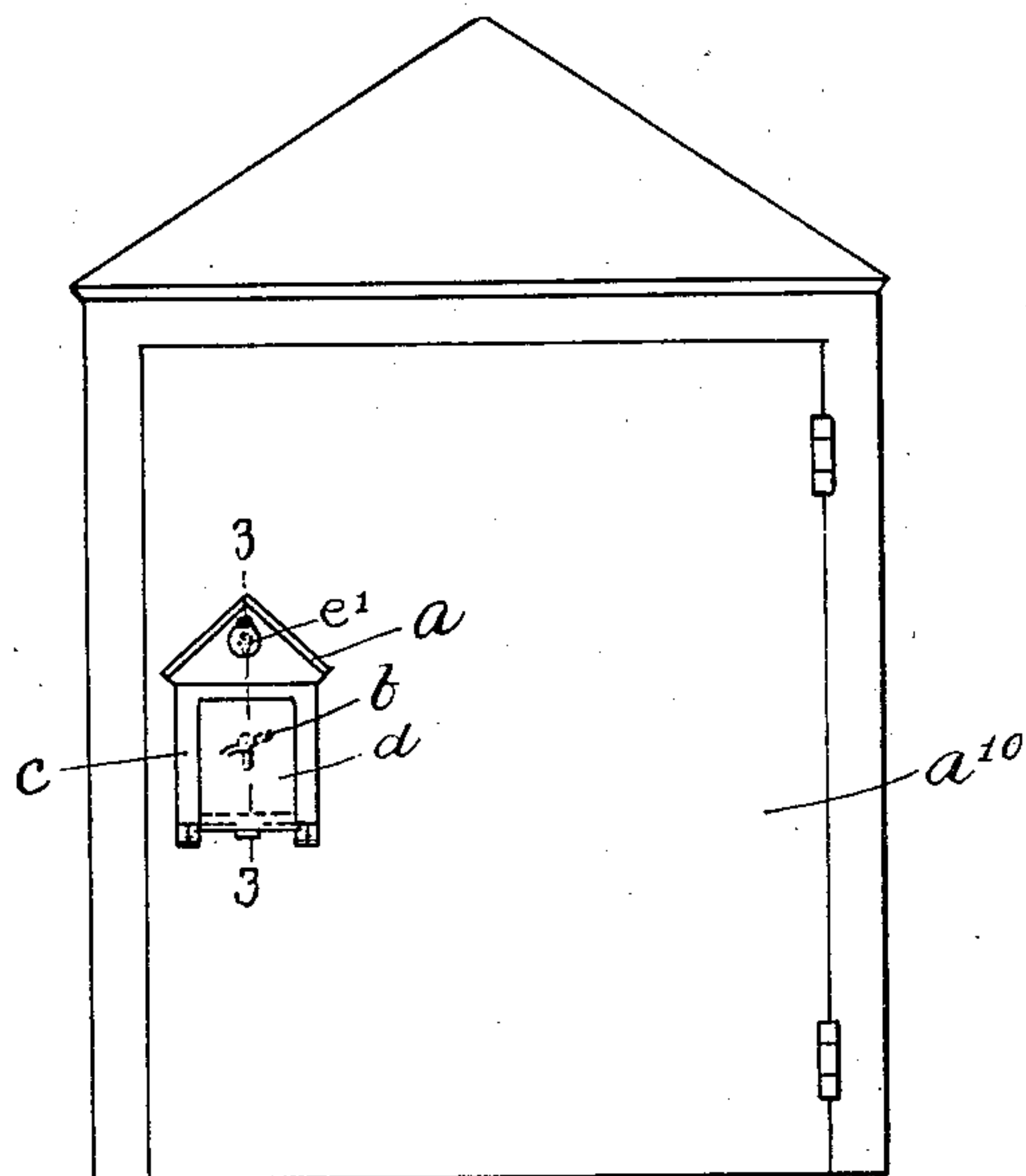


Fig. 1.

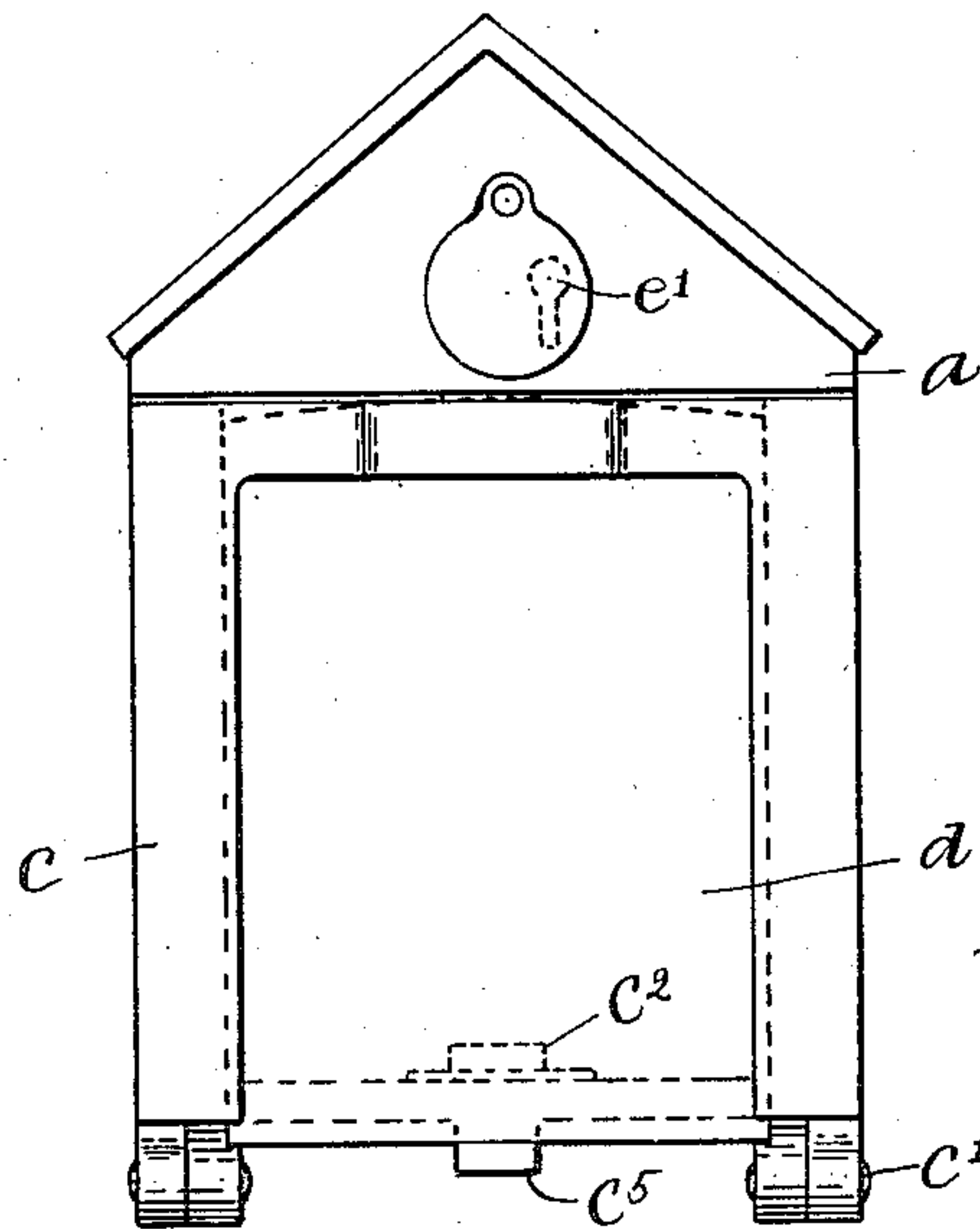


Fig. 2.

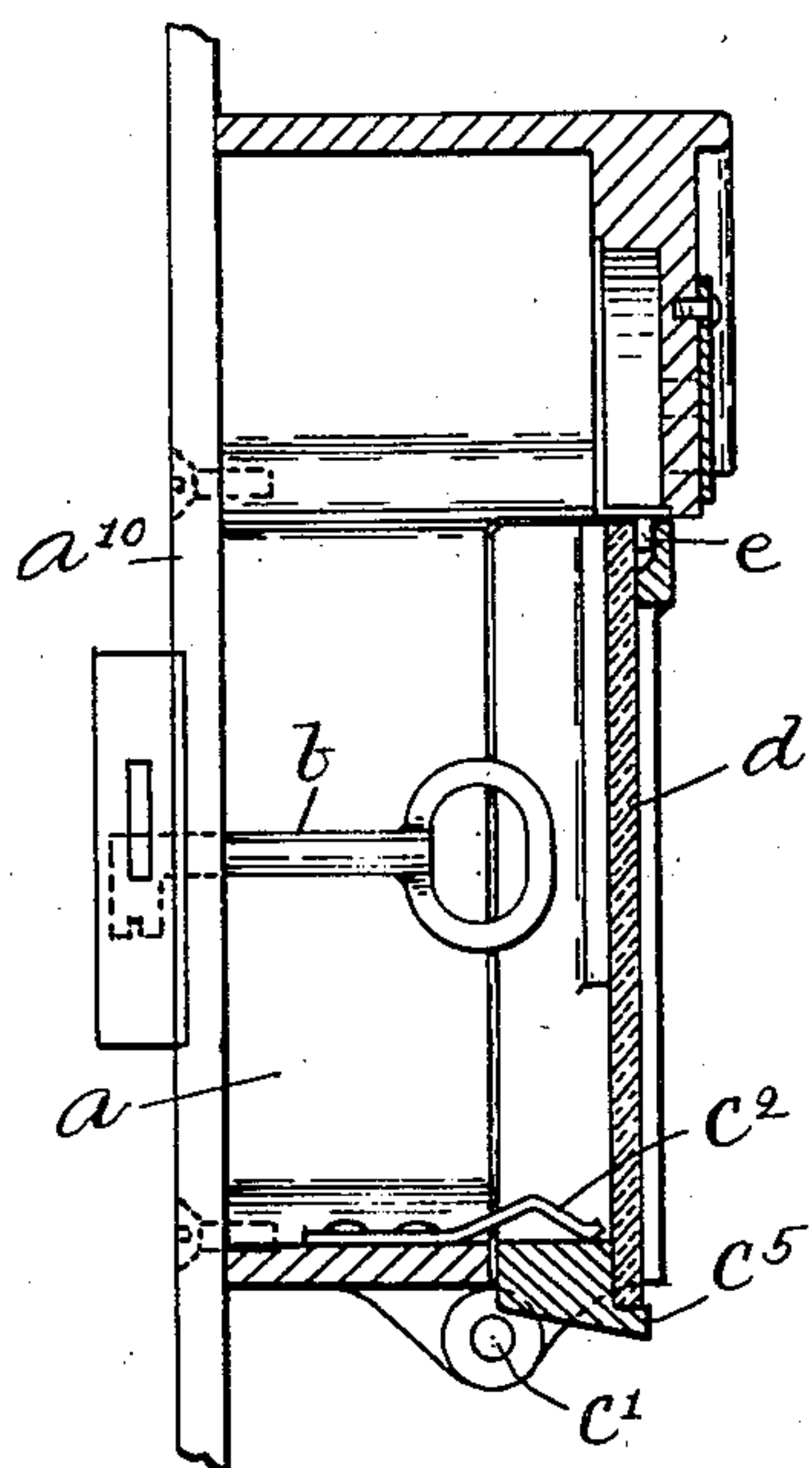


Fig. 3.

Witnesses:  
H. B. Davis.  
Cynthia Doyle

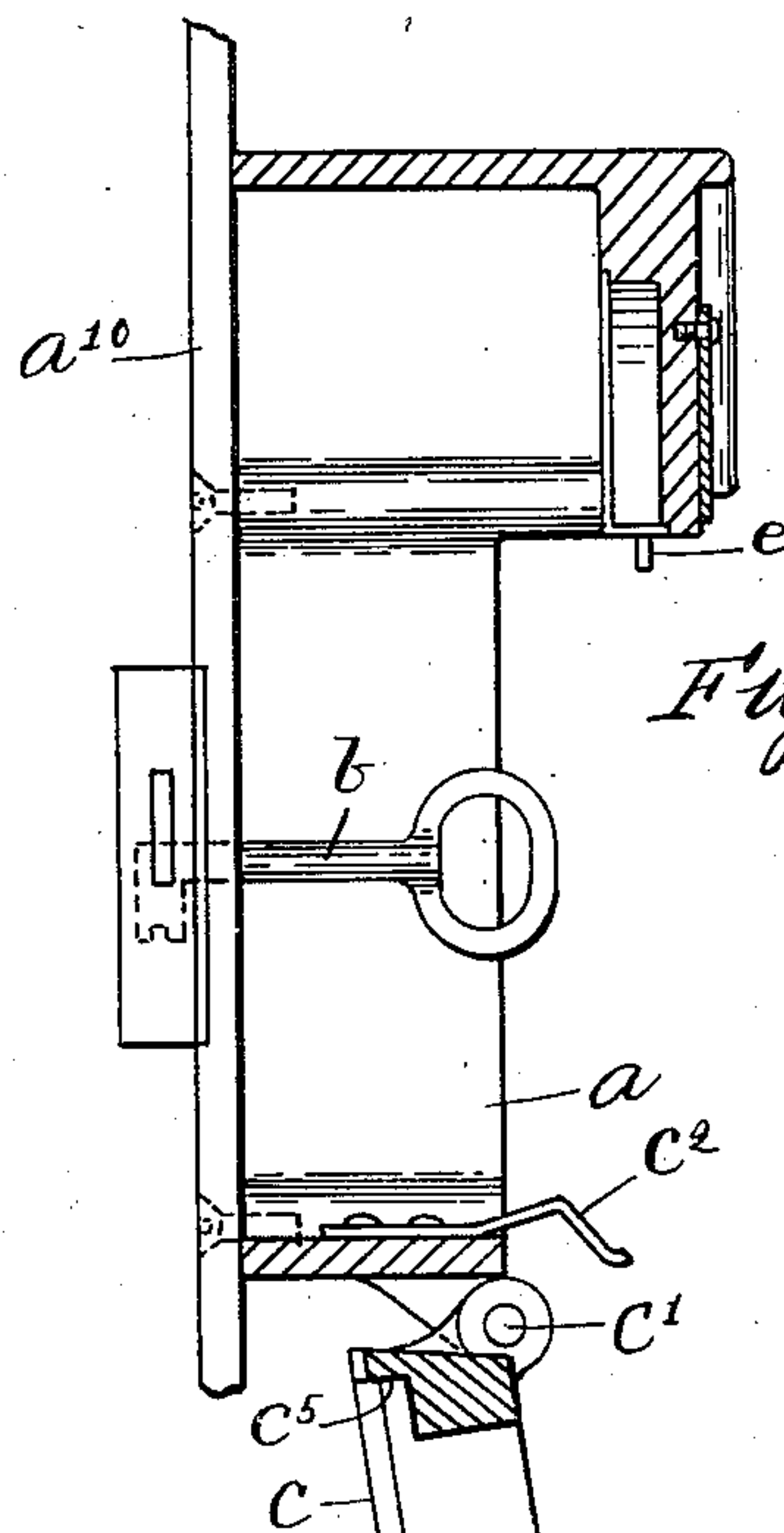


Fig. 4.

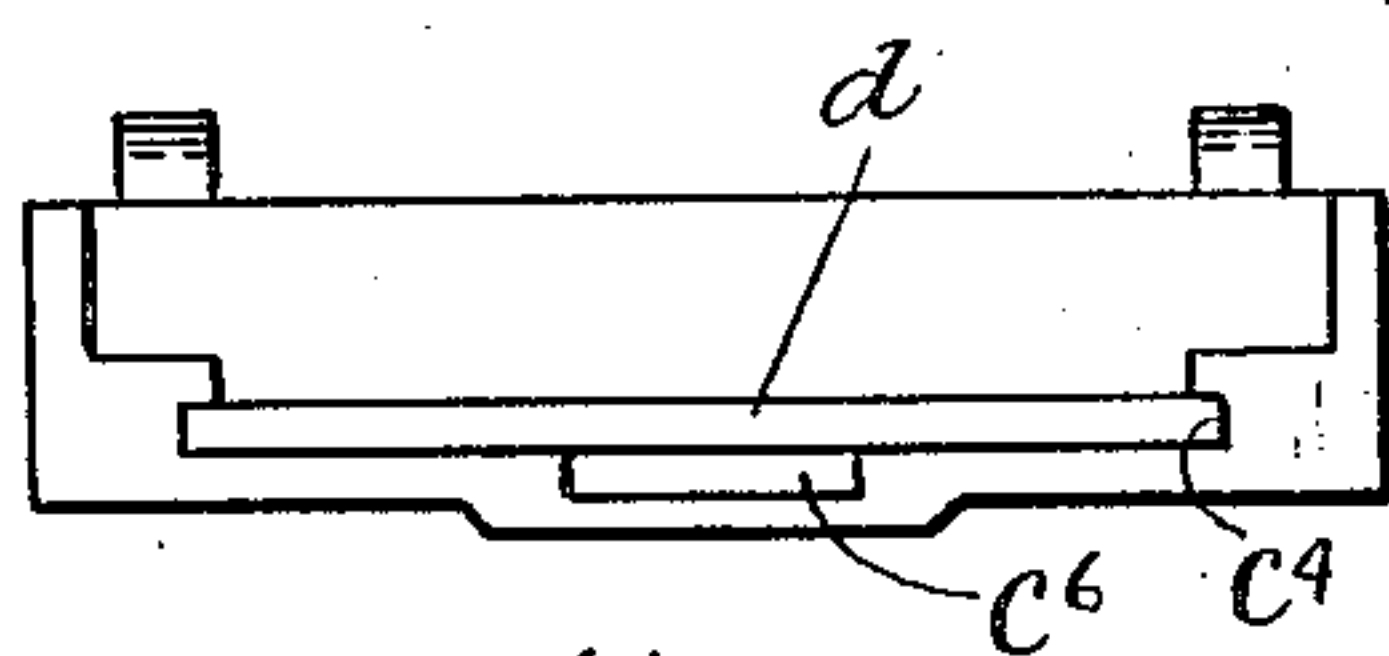


Fig. 5.

Inventor:  
Frederick W. Cole  
by Maynor Harrison  
att'y



# UNITED STATES PATENT OFFICE.

FREDERICK W. COLE, OF NEWTON, MASSACHUSETTS, ASSIGNOR TO THE  
GAMEWELL FIRE-ALARM TELEGRAPH COMPANY, OF NEW YORK, N. Y.,  
A CORPORATION OF NEW YORK.

GUARD FOR DOOR-KEYS OF FIRE-ALARM BOXES AND FOR OTHER THINGS.

No. 824,411.

Specification of Letters Patent.

Patented June 26, 1906.

Application filed February 8, 1906. Serial No. 300,064.

*To all whom it may concern:*

Be it known that I, FREDERICK W. COLE, of Newton, county of Middlesex, State of Massachusetts, have invented an Improvement in Guards for Door-Keys of Fire-Alarm Boxes and for other Things, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

In the construction of fire-alarm boxes it has been common to place a guard comprising, essentially, a glass plate over the key, which is left inserted in the keyhole of the door, and when the glass is broken the key is accessible; but such construction of key-guard is objectionable, for the reason that the person breaking the glass and operating the key is oftentimes cut by the glass when reaching in to engage and operate the key.

This invention has for its object to construct a guard especially designed to overcome this objection. My improved guard may, however, be used for other purposes—that is to say, to cover and thereby protect other things besides the door-keys of fire-alarm boxes.

My invention consists, essentially, in a guard comprising or consisting, essentially, of a self-opening door having a glass or other kind of frangible plate and means engaging said plate for holding said door closed. The door may be made self-opening by pivoting it at its lower end in such manner that it will drop by gravity when released, or an actuating-spring may be provided which bears upon or against the door and which operates to open the door when permitted so to act, or in practice both of the aforesaid means or forces for opening the door may be employed to provide against either means or force failing to act at the proper time.

The means for engaging the glass plate for the purpose of holding the door closed consists of a projection either on the part to which the door is pivoted or on some other stationarily-supported part, which is so constructed and arranged as to directly or indirectly engage said plate, so that whenever the plate is broken the door will be released and permitted to open automatically. So far as the means for engaging the plate is concerned I desire it to be understood that any

means for engaging the glass plate which when the plate is broken will release a self-opening door comes within the spirit and scope of my invention.

My invention also consists in means for engaging the glass plate for the purpose of holding the door closed, which is adapted to be operated by a suitable key, whereby the inspector may open the door without breaking the glass.

Figure 1 shows in front elevation my improved guard applied to a fire-alarm box of ordinary construction and covering and thereby protecting the door-key thereof. Fig. 2 is an enlarged front elevation of a guard embodying my invention. Fig. 3 is an enlarged vertical section of the guard shown in Fig. 1, taken on the dotted line 3 3, the self-opening door thereof being closed. Fig. 4 is a similar vertical section of the guard, the self-opening door thereof being open. Fig. 5 is a top view of the self-opening door which forms the essential element or feature of the guard.

The guard herein shown for the purpose of illustrating one practical form or embodiment of my invention consists of a shell or case *a*, of suitable shape to surround a key *b* of a fire-alarm box, or it may be any other thing to be covered and thereby protected, and a door *c*, pivoted to said shell or case *a*. The shell or case *a* is adapted to be rigidly secured to the door *a*<sup>10</sup> of the fire-alarm box, and hence may be made as a part of said door *a*<sup>10</sup>, if desired. The door *c* is hinged to the shell or case *a* or other fixed member at its lower end, as at *c*<sup>1</sup>, and when closed occupies an upright position, and the pivots are set well back, so that the weight of the door is essentially in front of said pivot. By so pivoting the door it will be observed that when the door is released it will drop by gravity, being thereby self-opening. A flat spring *c*<sup>2</sup> is secured to the shell or case *a*, the outer or free end of which bears upon the lower edge or part of the door, the action of which is to open the door whenever the door is released.

While I have herein shown two means or forces for opening the door automatically whenever it is released, I desire it to be understood that I may employ either one of these means or forces to the exclusion of the other; but in practice I prefer to employ both



means or forces as a precaution to provide against either means failing to act at the proper time. Furthermore, I do not desire to limit my invention to pivoting the door at its lower end, as it is obvious that it may be otherwise pivoted and adapted to be automatically opened by a spring whenever it is released.

The door *c*, as herein shown, is made as a quadrangular or other shaped frame and contains a glass plate *d*, which is adapted to be broken for the purpose of releasing the door, and hence said door is so constructed as to provide for the easy renewal of the plate *d*, and, as herein shown, said frame is provided with guideways *c'* at its opposite sides, adapted to receive the plate *d*, and with a lug *c''* at its lower end, upon which the lower edge of the plate rests when properly disposed in the frame, and said frame is provided at its upper end with a recess *c'''* next the glass plate *d*, which is adapted to receive a projection *e*, which when contained in said recess will overlap and thereby engage the glass plate *d*, and thereby hold the door closed. The manner of providing for the easy renewal of the plate *d* is immaterial so far as my invention is concerned, although the particular manner herein shown possesses advantages on account of its simplicity of construction and effective manner of holding the plate.

As herein shown, the guideways for the plate extend to the top of the frame or thereabout, and the glass plate is introduced at the top of the frame, and when the door is closed said plate will rest by gravity on the lug *c''*, and when the door is open said glass plate or any broken portions thereof which have not previously fallen out will be free to slide downward and leave the frame. The projection *e*, which engages the plate *d* to hold the door closed, is arranged at the top of the shell or case *a*, or it may be arranged on some other part which is stationary with respect to the self-opening door and, as herein shown, is made movable into and out of position to engage the plate *d*, and a suitable key is adapted to be inserted in a keyhole *e'*, (see dotted lines, Fig. 2,) for the purpose of moving said projection *e*, said key being provided for the use of inspectors who desire to open the door without breaking the glass. It will be seen that the projection *e* thus serves as a means for engaging the plate *d* and that it is arranged in the shell or case *a*, which thus serves as a stationary member or support for it; but I desire it to be understood that I may

employ any other means for engaging the plate *d* directly or indirectly in lieu of the projection *e* herein shown for the purpose of holding the self-opening door having the glass plate in closed position against the action of the means provided for opening said door. In view of the fact that the shell or case *a* may be formed as a part of the door *a''* or as a part of any other member which is stationary with respect to the self-opening door it will be seen that the guard proper consists, essentially, of the self-opening door, which is prevented from opening by a piece of glass.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A guard consisting of a self-opening door having a glass plate, and means, engaging said plate, for holding said door closed, substantially as described.

2. A guard consisting of a door having a glass plate, a spring for opening said door, and means, engaging said plate, for holding said door closed, substantially as described.

3. A guard consisting of a door having a glass plate, and constructed and arranged to open by gravity, and means, engaging said plate, for holding said door closed, substantially as described.

4. A guard consisting of a door pivoted at its lower end and having a glass plate, and means, engaging said plate, for holding the door closed, substantially as described.

5. A guard consisting of a door comprising a frame having guideways at its opposite sides, and a lug at its lower end, a glass plate supported by said frame, and means for engaging said plate for holding the door closed, substantially as described.

6. A guard consisting of a self-opening door having a glass plate, and a projection, which engages said plate and holds the door closed, substantially as described.

7. A guard consisting of a self-opening door having a glass plate, and a movable projection, which engages said plate and holds the door closed, said projection being movable into and out of engagement with the plate, substantially as described.

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

FREDERICK W. COLE.

Witnesses:

B. J. NOYES,  
H. B. DAVIS.