

(No Model.)

G. C. SMITH.
SAFE PROTECTOR.

No. 536,175.

Patented Mar. 19, 1895.

FIG. 2.

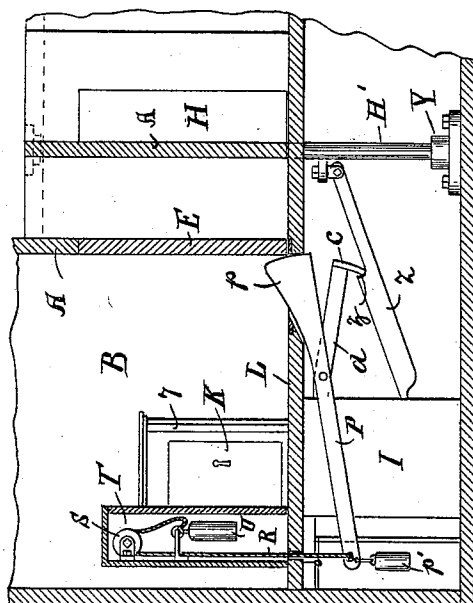


FIG. 3.

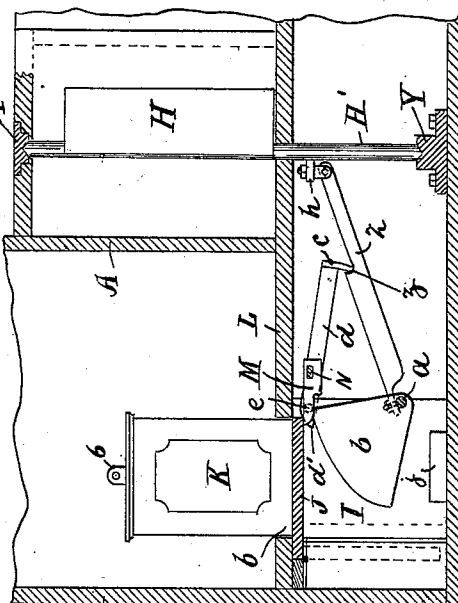


FIG. 1.

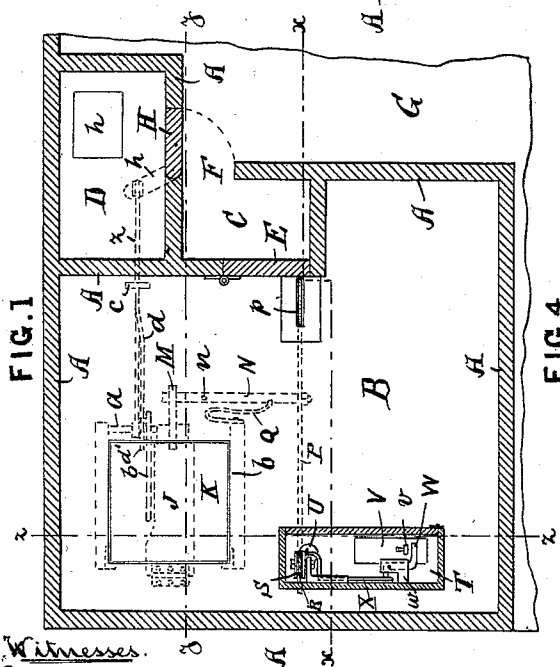
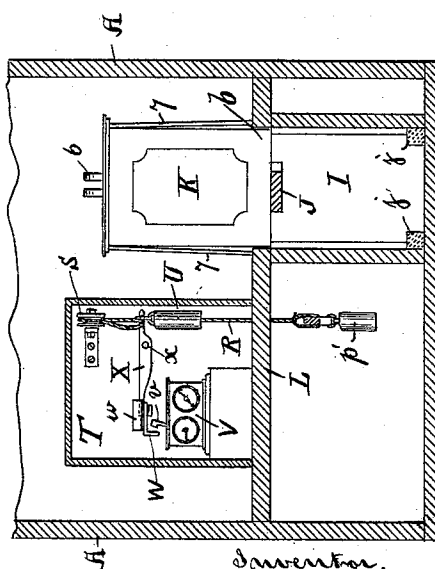


FIG. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

GEORGE C. SMITH, OF CAMBRIDGE, MASSACHUSETTS.

SAFE-PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 536,175, dated March 19, 1895.

Application filed December 23, 1893. Serial No. 494,588. (No model.)

To all whom it may concern:

Be it known that I, GEORGE C. SMITH, a citizen of the United States, residing at Cambridge, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Safe-Protectors, of which the following, taken in connection with the accompanying drawings, is a specification.

10 The object of my invention is to protect safes containing valuables from burglary, and also to catch the thief, and the invention consists in arranging the safe in a burglar proof compartment having an entrance door, the
15 said safe being supported over a well and a series of levers whereby when set, if the door of the compartment is forced, the safe will fall into the well and the thief be confined as hereinafter described and pointed out in the
20 claims.

Referring to the accompanying drawings: Figure 1 represents a plan view of a safe protector embodying my invention. Fig. 2 is a vertical section taken on line *x, x*, of Fig. 1.
25 Fig. 3 is a similar section taken on line *y, y*, of Fig. 1. Fig. 4 is a vertical section taken on line *z, z*, of Fig. 1.

A, represents walls which are preferably formed of burglar proof material, and form
30 chambers or compartments B, C, D, the compartment B, communicating with C, by means of a door E, and the compartment C, with the main room G, of the building or car by an opening F. A door H, fits into an opening to
35 give access to the compartment D, and also forms a door to close the opening F, as hereinafter described.

In the compartment B, at a suitable distance from its walls is formed in the floor an opening
40 *b*, that leads to a well I, the sides of which may be of burglar proof material.

J, is a flap that supports the safe K. This flap is hinged at one end to the under side of the floor L, and is supported at the outer end
45 by a latch or bolt M, which by a bar N, is connected to a bar or lever P, the bar N, being fulcrumed at *n*, to the under side of the floor L. A spring Q, interposed between the well and the bar N, always keeps the end of the
50 latch or bolt N, pressed inward to support the flap J.

The bar P, is loosely mounted upon the end

of the bar N, which bar forms a fulcrum for said bar P, to turn upon. One end of this bar is formed with a projection *p*, and to the other
55 end is attached one end of a rope or chain R, which passes up and over a pulley S, mounted in an inner compartment T. To the other end of the rope or chain is attached a weight U, and to the end of the bar P, is suspended a
60 weight *p'*.

In the inner compartment T, is fitted a clock and time indicator V, so that when the clock is wound up the indicator may be set to go
65 off at any given time. The indicator is provided with a hammer *v*, that strikes the outer end of a lever W, which lever is fulcrumed to a block *w*, and its inner end holds the end of a lever X, that is fulcrumed at *x*, the outer
70 end of which lever is formed with a projection upon which the weight U, may be suspended.

The door H, is formed in one with a shaft H', that has at its lower end a bearing in a shoe Y, and at its upper end is also supported
75 in a shoe Y', so that the door will turn with the least possible resistance. To the shaft H', is secured an arm *h*, to which one end of a bar Z, is attached, the other end of which is connected to the shaft *a*, upon which is
80 mounted a quadrant shaped plate *b*. The bar Z, is formed with a notch or recess *z*, in which rests a locking piece *c*, on the end of a lever *d*, which lever is fulcrumed at *e*, and its forward end *d'*, projects a short distance under the flap J, when the same is in the raised position
85 as will be best seen in Fig. 3.

The operation is as follows: Supposing the safe K, to be resting upon the flap J, and the attendant is in the compartment B, the door
90 E, being open. Now if the attendant wishes to go out he sets the indicator V, at the time he wishes to return. He also hangs the weight U, upon the end of the lever X, the other end of which is held by the lever W. He then goes
95 out and closes the door E, (which is fitted with a suitable lock.) The projection *p*, of the bar P, then rises behind the door E, (see Fig. 2) by reason of the weight *p'*, drawing down the other end of the bar. The door is thus held
100 until the time indicator V, reaches the point set, when the hammer *v*, will strike the outer end of the lever W, and draw its inner end out of contact with the lever X, which then allows the weight U, to fall, and raises the end of the

bar P, thus drawing the projection *p*, down to or just below the level of the floor so that the door E, can be opened; but should anyone attempt to force the door E, open before the weight U, has fallen, then the door will operate upon the projection *p*, and press it backward, which action will operate the lever N, and withdraw the bolt M, from under the flap J, which will then fall and with it the safe K, which as it falls will come into contact with the end *d'*, of lever *d*, forcing the same down and thus raising the locking piece *c*, out of the recess *z*, in the bar Z, setting the same free, and as the safe continues to fall, it comes into contact with the quadrant piece *b*, turning the same, thus imparting a partial rotation of the shaft *a*, and forcing the bar Z, back, which acting upon the arm *h*, causes the shaft H', to rotate one fourth of a circle thus bringing the door H, from the position shown in Fig. 1, to cover the opening or door way F, thereby confining the person who is trying to force the door E, in the compartment C, where he is held until released, which can only be done by disconnecting the lever Z, from the shaft H', so that the door H, can be moved to its former position. In order to give access to the under side of the floor L, I form a trap door *h*, in the compartment D, which is secured in any desired manner.

When the safe falls I prefer it to drop upon elastic cushions *j*, but if desired, the well might be constructed almost air tight when the compressed air would form a cushion for the safe.

Although I have shown and described the safe as falling entirely below the floor, in some cases it will be necessary for it to fall only a portion of the way as in express cars on railroads, the object being to prevent the door from being opened, and when used on railroad cars the frames for raising the safes would be kept at certain stations and not upon the cars. Thus should train robbers gain access to the compartment B, the safe would be in such a position that the door could not be forced opened.

If desired to insure the safe from falling through any accident, while in use, I insert between the upper flanges and the floor stays

7, which would, of course, have to be removed when the attendant left the compartment B.

What I claim is—

1. A safe protector consisting of a burglar proof compartment, a door to said compartment, a stop projecting above the floor on the inside of the door, a time indicator arranged within the compartment, a weight and cord attached to the stop lever, and a lever on the time indicator for sustaining the weight until the time at which the indicator has been set when said weight will fall and the stop withdrawn to release the door as set forth.

2. A safe protector consisting of three burglar proof compartments B, C, G, a door E, communicating between the compartments B, C, a time indicator V, a door stop *p*, and suitable levers for operating same by the falling of a weight U, a well, a flap at the upper end of same for supporting the safe, a door H, to close the opening F, connected and operated by suitable levers by the forcing of the door E, and the falling of the safe substantially as set forth.

3. The bar P, having a projection *p*, cord R, and weight U, in combination with the levers X, W, time indicator V, and the door E, substantially as and for the purposes set forth.

4. The bar P, having a projection *p*, lever N, spring latch M, the levers Z, *d*, shaft *a*, and quadrant *b*, in combination with the flap J, door H, shaft H', and arm *h*, all arranged and operated substantially as set forth.

5. A safe protector consisting of a burglar proof compartment, a door to said compartment, a stop projecting above the floor on the inside of the door and an outer compartment having a door, normally open, a series of levers connecting the stop and said door whereby the latter is closed upon the stop being pressed back, thus retaining the person in the outer compartment as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 17th day of October, A. D. 1893.

GEORGE C. SMITH.

Witnesses:

CHAS. STEERE,
EDWIN PLANTA.