No. 720,330. PATENTED FEB. 10, 1903

G. W. CRAIG.

MEANS FOR PROTECTING SAFES.

APPLICATION FILED FEB. 7, 1902.

NO MODEL.

Fig. 1.

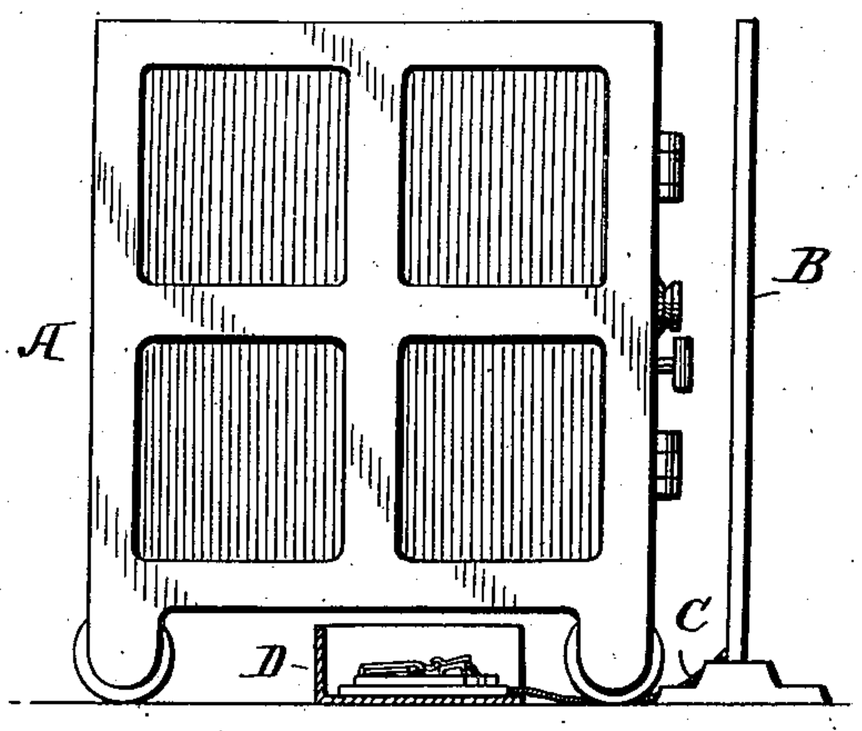

Fig. 2.

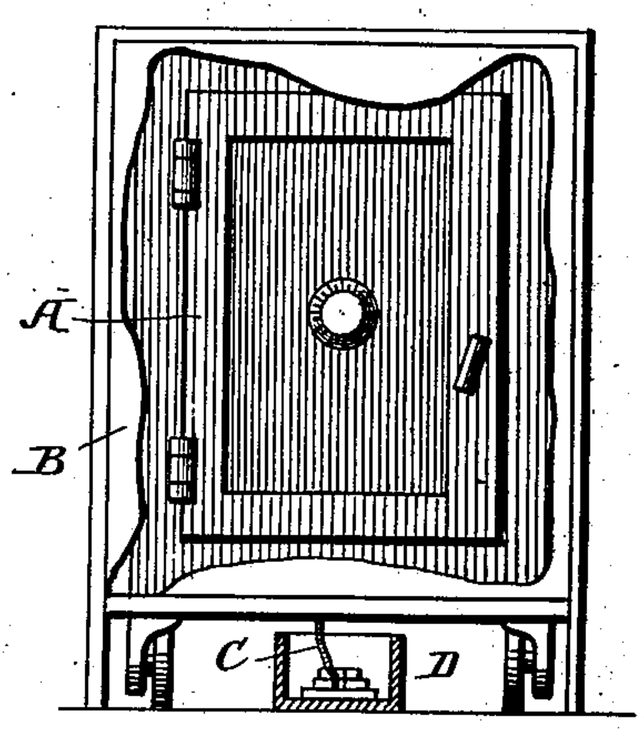

Fig. 3

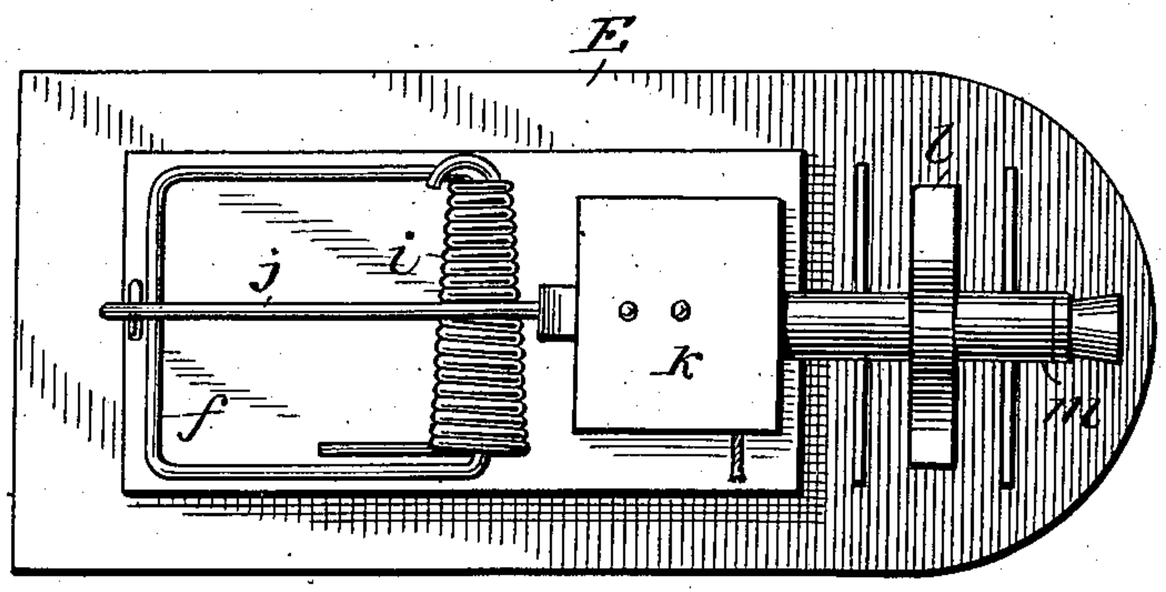

Fig. 4.

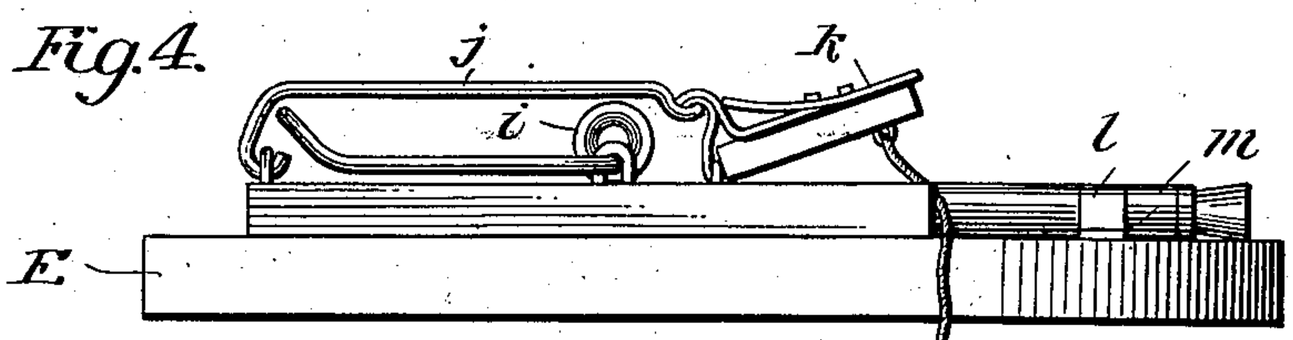

Fig. 5.

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UNITED STATES PATENT OFFICE.

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MEANS FOR PROTECTING SAFES.

SPECIFICATION forming part of Letters Patent No. 720,330, dated February 10, 1903.

Application filed February 7, 1902. Serial No. 92,984. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. CRAIG, a citizen of the United States, residing at Lyons, in the county of Ionia and State of Michigan, have invented certain new and useful Improvements in Means for Protecting Safes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to means for protecting safes, vaults, &c., from unauthorized attempts to open them or otherwise tampering with them; and the object of the invention is to provide means which under certain conditions will vitiate the air around the safe or vault to such an extent as to render the vicinity of the safe or vault dangerous for a living person.

While the invention may be carried into effect in various ways, it consists, broadly, in the employment of a frangible vessel containing a substance or fluid which when liberated from the vessel will generate or emit fumes which will render the surrounding air unbreathable without endangering the life of a person in the vicinity of the vessel and in the employment of a device which under certain conditions will break the said frangible vessel.

In the following specification I shall describe a preferred embodiment of my invention; but it is to be understood that my invention is not restricted to the specific devices illustrated and described nor to the particular fume-generating composition mentioned.

In connection with the specification reference must be had to the accompanying drawings, in which—

Figure 1 is a side elevation of a safe and a preferred form of my protective devices, partly in section and in normal position. Fig. 2 is a front elevation with the screen partly broken away to show the front of the safe. Fig. 3 is a top plan view of the devices for supporting and breaking the frangible vessel, and Figs. 4 and 5 are respectively side and end views of Fig. 3.

A indicates the safe to be protected, and B is a movable object, such as a screen, in close proximity to the front of the safe and which must be moved before the door of the safe can be opened.

C represents a cord or wire adapted to be detachably connected to the bottom of the screen, so as to be moved when the screen is moved.

D represents an uncovered box adapted to contain the frangible vessel and the device for breaking it, and in the case of a safe this box will preferably be placed under the safe.

E represents a block or base upon which the frangible vessel *m* is supported. This vessel may conveniently be in the form of a glass vial fitting in a loop or pocket formed in a strap *l*, secured to the base.

Some means must be provided for breaking the vial, and in the present case I have shown a striker or jaw *f*, pivoted to the base and adapted to be impelled by a coil-spring *i* to strike the vial with sufficient force to break the latter. In order to detachably lock the striker *f* under tension of the spring, I provide a bar *j*, which is pivoted to the base and extends over the striker *f* when the latter is folded down on the base under the tension of the spring, and the free end of the bar is adapted to be engaged by a trigger *k*, which is pivoted on the base, and when so engaged the bar *j* will hold the striker under the tension of the spring. The cord or wire C is connected to the trigger, and it is obvious that when the screen B is moved it will move the cord C and cause the latter to exert a pull on the trigger and release the latter from engagement with the bar *j*, and the striker *f* will then under the influence of the spring *i* be caused to strike the vial *m* and break the latter.

A preferable fume-generating composition to be contained in the vial is as follows: camphor-gum, one part; ammonia, two parts; oil of mustard, four parts; kerosene-oil, eight parts, and chloroform two parts. Any other suitable composition may, however, be used.

The box D is not essential, as obviously the base E may be placed on the floor, and the vial and breaking devices may be placed in any desired position relative to the safe or vault to be protected.

Without limiting myself to the precise devices illustrated and described, I claim—

1. In a protective means for safes, &c., the combination of a frangible vessel for contain-

ing a fume-generating composition, a movable body adjacent to the object to be protected, and means actuated by the movable body for breaking said vessel, substantially as set forth.

2. In a protective means for safes, &c., the combination of a frangible vessel containing a fume-generating composition, a movable striker supported to break the vessel, a movable body adjacent to the object to be protected, means for impelling the striker, devices for detachably locking the impelling means against action, and a connection between the movable body and the locking devices, substantially as set forth.

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

GEORGE W. CRAIG.

Witnesses:
MARTIN WORDEN,
HENRIETTA BARTLETT.