May 3, 1927. 1,627,464

M. SALAMON

SAFE

Filed April 13, 1926

Fig 1

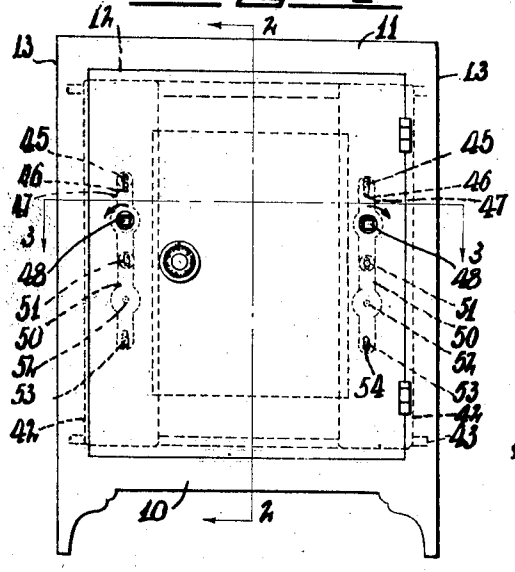


Fig 2

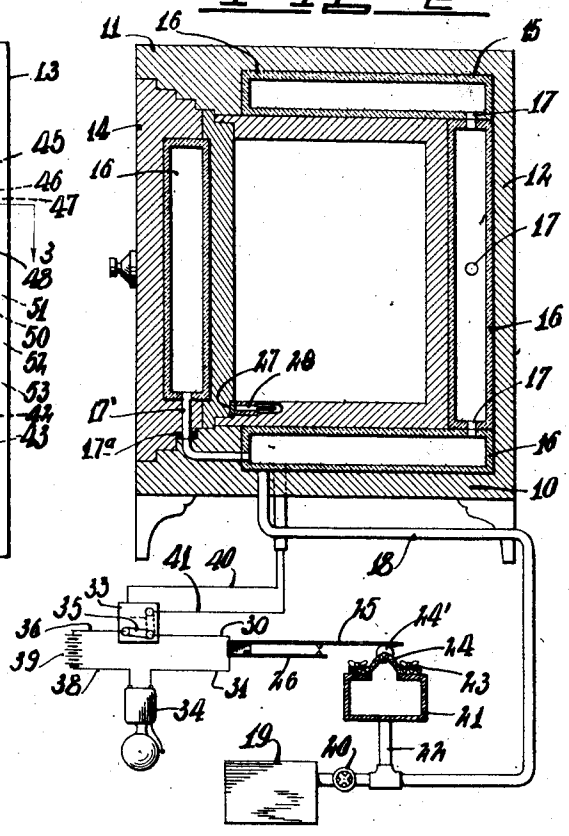


Fig 3

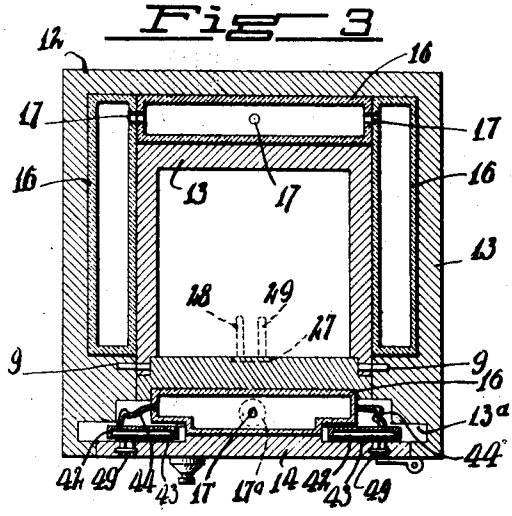
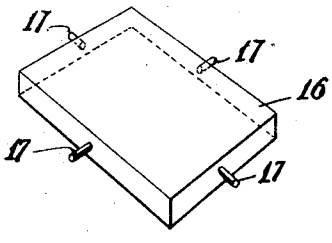


Fig 4



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UNITED STATES PATENT OFFICE.

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SAFE.

Application filed April 13, 1926. Serial No. 101,610.

This invention relates to safes and has for an object to provide a means adapted to give warning if the safe is opened or drilled by burglars.

More specifically speaking the invention has for an object to provide a safe equipped with a pneumatically operated burglar alarm which, by the release of compressed air contained in the walls of the safe causes an alarm to be given, said air being contained in adjustable boxes in the said wall to allow an adjustment of the box after the safe door is closed to form a better protection.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

Fig. 1 of the drawing is a front elevational view of a safe having the invention applied thereto.

Fig. 2 is a vertical sectional view taken on the line 2—2 of Fig. 1, showing also in the diagram the different alarm attachments.

Fig. 3 is a horizontal sectional view taken on the line 3—3 of Fig. 1.

Fig. 4 is a detail perspective view of one of the air boxes.

Referring now to the drawing, the reference numeral 10 indicates the bottom wall of the safe, 11 the top wall, 12 the rear wall, 13 the two side walls, and 14 the door. The walls and door, of the usual hardened steel, are formed of a number of separate parts fastened together by studs, as indicated at 9, and presenting shallow recesses 15 which extend substantially the full area thereof, and thus form a hollow construction. In these recesses are located the shallow glass boxes 16, which are adapted to contain compressed air, and which I therefore term air boxes, these boxes having air passages 17 leading from one to the other to connect them as a unitary element. The air box in the door 14 has at its two side ends, auxiliary air boxes 42, laterally slidable in grooves 43 in the safe proper, and provided with air connection pipes 44, connecting with the main air box in the said door. The auxiliary boxes 42 are laterally manually movable, when the door 14 is closed, into recesses 13^a formed in the side walls 13, and it is advisable to construct these auxiliary boxes of non-breakable material, such as metal, so as to prevent their breaking should attempts to open the safe door be made, while these parts are in extended positions. To manually move these parts to and from extended position, they are provided with a pin 45, engaging a vertical slot 46 in the boxes 42, said pin 45 being mounted on a lever 47, pivoted at 48, and provided at this point with a square projection 49 to receive a tool for turning purposes. The other end of lever 47 is pivotally connected to a lever 50, as at 51, by an elongated slot connection and lever 50 is pivotally mounted as at 52, and carrying a pin 53 at its outer end, engaging a vertical slot 54 in the boxes 42. It is readily seen that by putting a turning tool on 49, the auxiliary boxes may be moved to inner and outer positions, by the simultaneous action of pins 45, and 53, acting together in the same directions, in their respective vertical slots 46, and 54, of the said boxes. The auxiliary box in extended positions offer a better target, for burglars attempting to drill the safe.

The main air box in the door 14 is connected with one of the air boxes in the safe walls by a suitable conduit 17′ which may be provided with rubber packing elements 17^a at the edge of the door.

From one of the air boxes 16 a pipe 18 of hardened steel leads to the desired point, such as a watchman's room and connects a supply tank 19 of compressed air. In this pipe is an ordinary two way hand valve 20 and it has also connected thereto a device for holding the alarm circuit open. This device comprises a casing 21 to one end of which a branch 22 from the pipe 18 leads. In this casing is mounted by wing screws, a frame 23 between which and casing 21 an elastic sheet 24 is held having a head 24′ at its center. The latter bearing on a spring contact finger 25 to hold it from engagement with a second contact finger 26.

Suitably mounted in the safe in opposition to be engaged by a bridging element 27 on the door when the latter is closed, is a pair of contact pins 28 and 29 respectively.

Referring now to the electric connections, from the contacts 25 and 26 wires 30 and 31

respectively lead to a three point switch 33 and a bell 34, the wire 30 connecting to that terminal of the switch to which the bridging member 35 is attached. From a second terminal of switch 33 a wire 36 leads to a battery 37, and from the battery 37 a wire 38 leads to the bell 34. From the two points of switch 33 between which the bridging member 35 swings wires 40 and 41 lead to the respective contacts 28 and 29.

The manner of operation and use of my improved burglar alarm for safes is as follows: When the alarm is set the parts occupy the position shown in Fig. 1, compressed air having been delivered to the air boxes 16 from the tank 19, the air entering casing 21 and expanding the elastic sheet 24 outward to hold spring contact 25 away from contact 26. The bridging member 35 of switch 33 is positioned to connect wires 30 and 36, as will be apparent, if the safe is tampered with, either to open the door 14 drill any of the walls thereof, or cut the pipe 18 the exhaustion of the air will permit spring contact 25 to move elastic sheet 24 inwardly and engage the contact 26, thus closing the circuit through the bell and giving an alarm. The party opening the safe in the morning throws the switch member 35 to the position shown in dotted lines which opens the alarm circuit and includes therein the wires 40 and 41, contacts 28 and 29, and bridging piece 27 on the door. When the door is closed at night the closing of the circuit will cause bell 34 to ring, notifying the watchman to turn on the compressed air which immediately stretches elastic 24 and opens the circuit at the contacts 25, 26 and thereupon the bell stops ringing. The switch member 35 is then returned to its original position.

While I have illustrated and described my invention, with some degree of particularity, I realize that in practice various alterations therein may be made. I therefore reserve the right and privilege of changing the form of the details of construction or otherwise altering the arrangement of the correlated parts without departing from the spirit or the scope of the appended claims.

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

1. The combination, in a safe having its walls formed to present a number of air tight chambers, of a door, a main chamber therein, auxiliary side air boxes having flexible pipes communicating with said main chamber, and laterally slidable in grooves in the door proper, and manual means to project said auxiliary air boxes outwards, or inward to present a larger target for burglars attempting to drill the safe.

2. In a device of the class described a safe body proper, a door therefor, a main compressed air box shielded within said door, auxiliary side air boxes having flexible pipes communicating with said main air box, and laterally slidable in grooves in the door proper, said safe body proper being formed with recesses aligned with said slidable auxiliary air boxes, and manually controlled means for projecting said auxiliary air boxes into said recesses, and therefrom, to present a target for burglars attempting to drill between said door, and safe body proper.

3. In a device of the class described a safe body proper, a door therefor, a main compressed air box shielded within said door, auxiliary side air boxes having flexible pipes communicating with said main air box, and laterally slidable in grooves in the door proper, said safe body proper being formed with recesses aligned with said slidable auxiliary air boxes, and means for projecting said auxiliary air boxes into said recesses and therefrom, to present a target for burglars attempting to drill between said door, and safe body proper.

4. In a device of the class described a safe body proper, a door therefor, a main compressed air box shielded within said door, auxiliary side air boxes having air communications with said main air box, and laterally slidable in grooves in the door proper, said safe body proper being formed with recesses aligned with said slidable auxiliary air boxes, and manually controlled means for projecting said auxiliary air boxes into said recesses, and therefrom, to present a target for burglars attempting to drill between said door, and safe body proper.

5. In a device of the class described a safe body proper, a door therefor, a main compressed air box shielded within said door, auxiliary side air boxes having air communications with said main air box, and laterally slidable in grooves in the door proper, said safe body proper being formed with recesses aligned with said slidable auxiliary air boxes, and manually controlled means for projecting said auxiliary air boxes into said recesses, characterized by a pair of pivoted levers co-acting, and having pins engaging in slots of said auxiliary boxes, and therefrom, to present a target for burglars attempting to drill between said door, and safe body proper.

6. In a device of the class described a safe body proper, a door therefor, a main compressed air box shielded within said door, auxiliary side air boxes having air communications with said main air box, and laterally slidable in grooves in the door proper, said safe body proper being formed with recesses aligned with said slidable aux-

iliary air boxes, and manually controlled means for projecting said auxiliary air boxes into said recesses, characterized by a pair of pivoted levers, one of which being provided with a square projection for a turning tool, and both levers co-acting, and having pins engaging in slots of said auxiliary boxes, and therefrom, to present a target for burglars attempting to drill between said door, and safe body proper.

In testimony whereof I have affixed my signature.

MATYAS SALAMON.