Nov. 15, 1932. S. L. BELKNAP 1,887,866

DOUBLE DOOR FLOOR SAFE

Original Filed Dec. 13, 1926 2 Sheets-Sheet 1

Fig. 1.

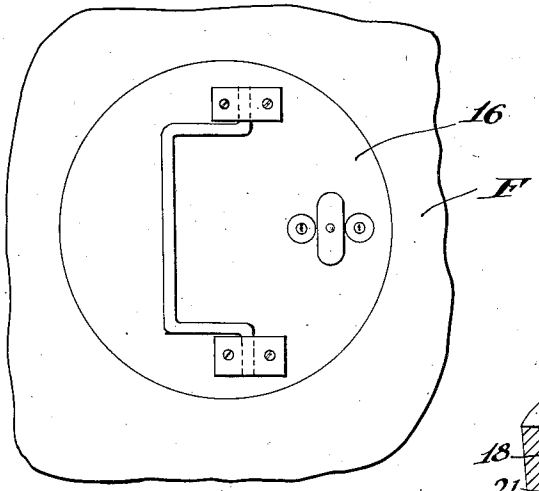


Fig. 3.

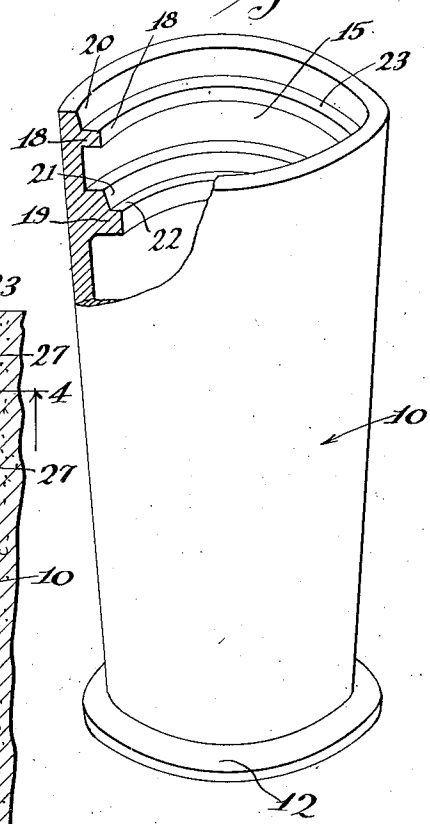
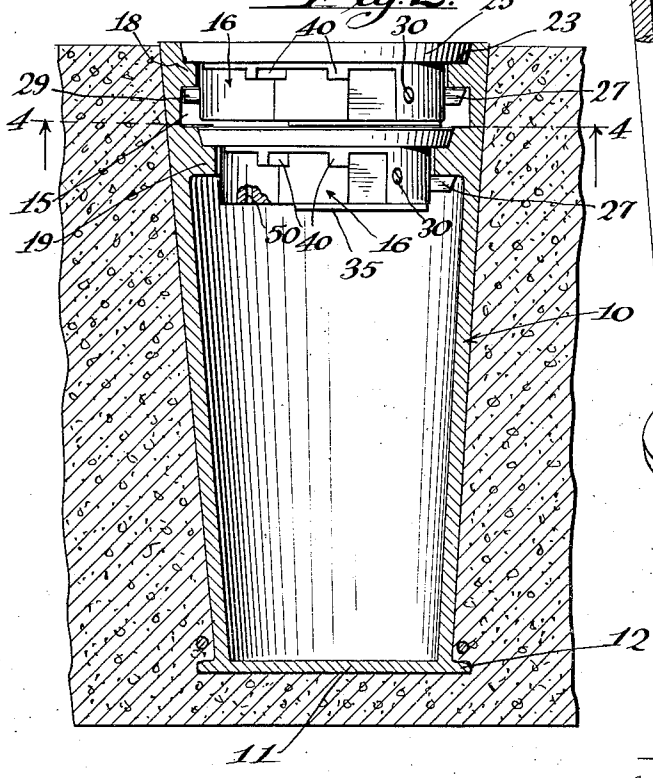


Fig. 2.



Witness:

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Fig. 4.

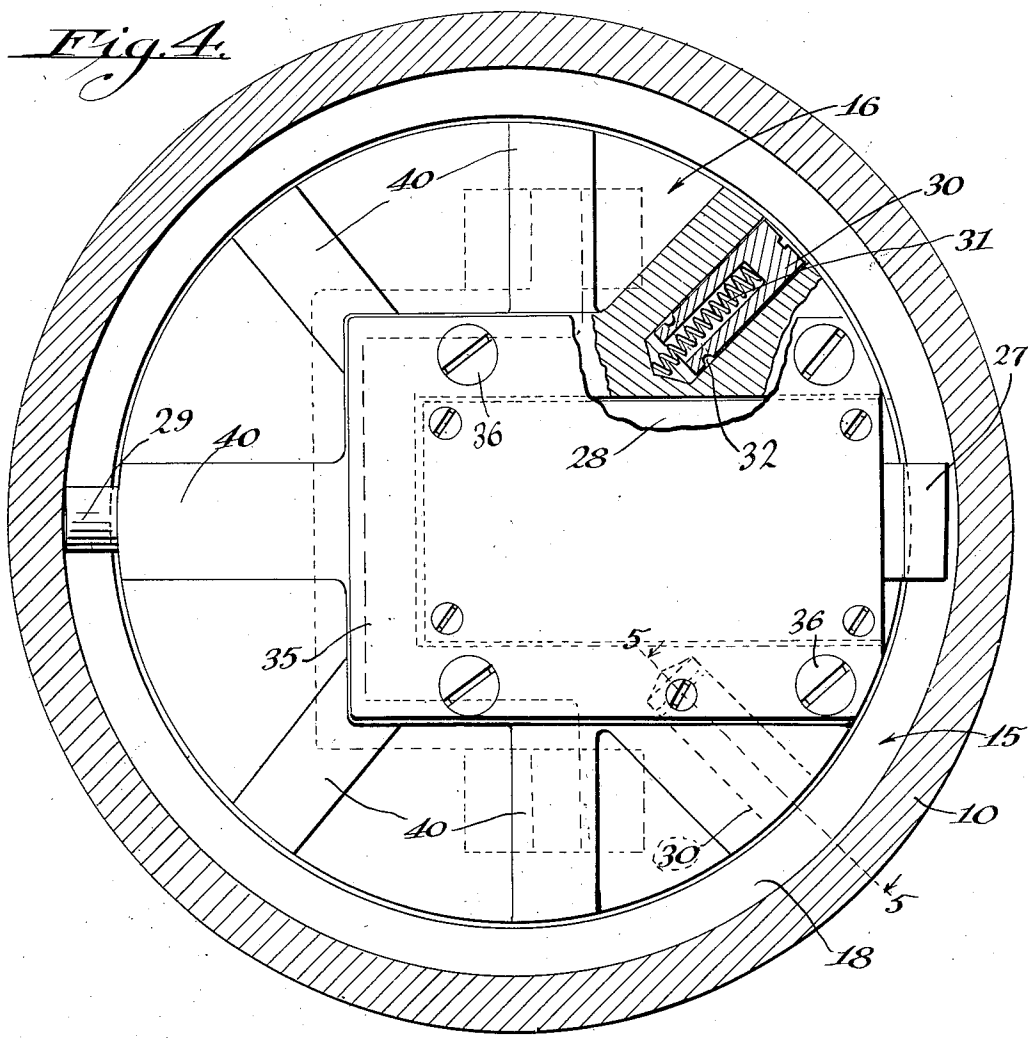


Fig. 5.

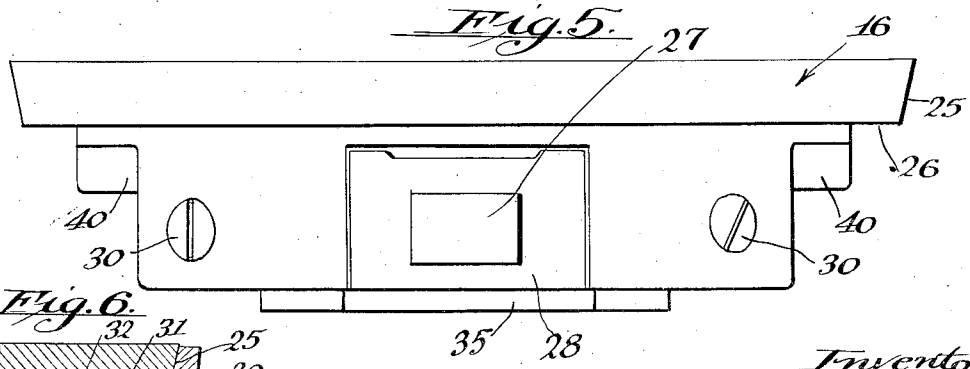
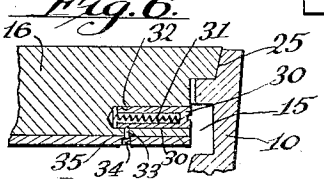


Fig. 6.



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1,887,866

UNITED STATES PATENT OFFICE

SAMUEL L. BELKNAP, OF LOS ANGELES, CALIFORNIA

DOUBLE DOOR FLOOR SAFE

Substituted for application Serial No. 154,497, filed December 13, 1926. This application filed September 16, 1930. Serial No. 482,345.

This invention relates to floor safes adapted to be embedded in a concrete floor or recesses in a wall for receiving and protecting valuables. The application may be considered as a substitute application for my prior application Serial No. 154,497, filed December 13, 1926.

An object of this invention is to provide an improved safe of extremely durable construction which is of such a nature that it can neither be removed bodily from the concrete floor or wall, as the case may be, or broken into.

Another object of the invention is to provide an improved safe having a plurality of doors which are adapted to be locked in place by different locks. By such an arrangement, wherein one person is able to unlock one door only and another person is required to unlock the second door, the presence of two persons will be required on removing articles from the safe, thus affording a protection against fraud. Such an arrangement makes the improved safe one which can be advantageously employed in chain stores, service stations, and the like.

Another object of the invention is to provide a safe having a door which is so constructed that if the door is tampered with or an attempt is made to punch the lock of the door through, that the door will become immediately and permanently locked in place.

Another object of the invention is to provide a safe having two doors arranged one behind the other, the inner door being provided with a coin slot so that on removing the outer door valuables may be deposited through the the coin slot in the inner door and allowed to drop into the safe. By such an arrangement an attendant at a service station or a chain store can remove the outer door and deposit excess cash in the safe without removing the inner door. In the event that he is forced to open the outer door or is robbed while the outer door is removed, the inner door, which can be opened only by the collector, affords a barrier preventing the taking of the valuables in the safe.

Still another object of the invention is to provide a safe having one or more doors, each of which can be rotated while in locked condition so that the ready rotation of the door effectively prevents cutting it with various implements.

Another object of the invention is to provide a safe having a container so constructed as to effectively prevent its being removed bodily from a concrete floor or wall.

With the foregoing and other objects in view, which will be made manifest in the following detailed description and specifically pointed out in the appended claims, reference is had to the accompanying drawings for an illustrative embodiment of the invention, wherein:

Fig. 1 is a top plan view of a section of floor, illustrating the improved safe embedded therein.

Fig. 2 is a vertical section of the improved safe illustrated as having been embedded in a concrete floor.

Fig. 3 is a perspective view, partly in section, showing the container forming a part of the safe.

Fig. 4 is a horizontal section taken upon the line 4—4 upon Figure 2.

Fig. 5 is a view in side elevation of one of the doors.

Fig. 6 is a sectional view of a portion of one of the doors illustrating the details of a safety locking device.

Referring to the accompanying drawings, wherein similar reference characters designate similar parts throughout, the improved safe consists of a container 10, which is frusto-conical in form with the large end of the container providing its entrance and adapted to be positioned flush with the surface of the floor F. The small end of the container forms the back or bottom 11 which is integral and which provides an outwardly extending annular flange 12. As shown upon the drawings, the exterior surface of the safe is straight, that is its walls diverge upwardly along straight lines. Such an arrangement does not afford any purchase for prying the safe bodily out of the floor, even in the event that the concrete of the floor F should be chipped away around the top of the safe. The flange 12 also effectively prevents re-

moval of the safe container 10 bodily from the floor and, if desired, reinforcing rods may be embedded in the concrete over the flange assisting in causing the flange to anchor the safe in place. The frusto-conical shape of the container is such that in the event that the safe is pounded with the intent of causing the bottom 11 to pulverize the concrete beneath it, the downwardly convergent walls assist in preventing loosening of the safe in that they can transmit some of the compression stresses to the concrete. In other words the walls of the container can withstand stresses over and above those which could be withstood by the adhesive bond between the concrete and the container alone.

The entrance 15 is adapted to be closed by a pair of circular doors 16 and 16′ which are substantial duplicates. The lower or inner door 16′ is slightly smaller in width than the upper door but in other essential features the two doors are substantially the same. The container 10 is provided near the entrance with inwardly extending flanges 18 and 19 which flanges form seating surfaces for the doors 16 and 16′. The lower flange 19 is also provided with a beveled surface 21 and the top of the container is beveled at 20. The seating surfaces are indicated at 22 and 23. The door 16 has a complementary beveled surface 25 adapted to seat on beveled surface 20 and a surface 26 which seats on surface 23.

A lock 28 extends through each door, the body of the lock being fastened in place on the door by a plate 35 which is secured to the door by screws 36. This lock serves to operate a bolt 27 which is adapted to be projected outwardly beneath its respective flange. Diametrically opposite the bolt a lug 29 is provided which is also positioned beneath the flange. When the lug 29 is beneath the flange and the bolt 27 is projected locking the door in place, by virtue of the circular form each of the doors can be rotated readily while in closed position so that if an attempt is made to chisel through the door it will rotate, hindering the chiseling. Reinforcing ribs, illustrated at 40, serve to reinforce the bodies of the doors.

Each door is provided with a safety locking device, the details of which are illustrated in Figures 4 and 6. This locking device comprises a hollow tubular safety latch 30 adapted to receive a coil spring 31. This coil spring is normally compressed and urges the tubular member outwardly into a position beneath the flange. A groove 32 is formed on the exterior surface of the latch and a pin 33, which is secured to the plate 35, extends into the groove and keeps the safety latch in normally retracted position.

In the event that an attempt is made to punch the lock through the door, plate 35 will be sprung or flexed. This flexing or springing of the plate draws the pin out of the groove, releasing the safety latch and allowing it to be projected by the spring beneath the flange, thus permanently locking the door in place. While the drawings illustrates the door as being provided with only two of these safety latches, any number can be employed as desired.

As clearly shown upon the drawings, the lock or locks in each door are located otherwise than at the center; or if one lock is located at the center of its door, the other lock is located elsewhere. By virtue of the fact that both doors are rotatable while in closed position, it is impossible for a thief to so position the doors as to align the locks and attempt to punch both locks through simultaneously. This is because of the concealed nature of the position of the inner door from the exterior of the safe.

The doors are preferably located very close together, as illustrated in Figure 2, so that the lock in the upper door cannot be punched through and also so that in the event that the upper door were melted by an acetylene torch or electric arc the molten metal would puddle immediately beneath it on the surface of the inner door and would not flow away.

The inner door is provided with a coin slot 50 which does not extend through the outer door. By giving a service station attendant the key or keys to the outer door only, or the combination of the lock in the outer door only in the event that a combination lock is employed, such attendant only has power to open the outer door. On removal of the outer door he can deposit excess cash or valuables in the safe by dropping them through the coin slot 50. The manager of the store or the collection agent being the only person to have power to open the inner door, both parties are required to be present to open the safe. The attendant by being present can verify as to the amount removed from the safe by the manager or collection agent which will advantageously serve for his own protection. In the event that the attendant should be forced to open the outer door or should be held up while the outer door was removed, the inner door forms an effective barrier against unauthorized persons removing valuables from the safe.

The outer door in the safe also forms an effective closure for the coin slot in the inner door so that whenever the outer door is in place it is impossible to withdraw articles from the safe through the coin slot by means of "fishing wires" or similar instruments. Also as the coin slot is closed by the outer door it is impossible to pour explosives into the safe through the coin slot to blow out the door. These advantages are highly desirable and are of great utility as compared with safes having coin slots which are always open or available from the exterior of the safe.

The form of the container is such that the diameters of the doors are greater than the diameter of the small end of the safe so that if the doors should be pounded through, breaking off or bending the flanges, they will wedge against the sides of the container before reaching the bottom and effectively prevent removal of articles from the safe.

From the above described construction it will be apparent that I have provided a safe which cannot be opened by ordinary tools. Furthermore the safe cannot be easily removed bodily and carried away. The improved safe is of relatively simple construction and can be easily and quickly embedded in a wall or floor.

Various changes may be made in the details of construction without departing from the spirit or scope of the invention as defined by the appended claims.

I claim:

1. A safe comprising a container, two doors for the entrance to the container, each door being rotatable while in closed position, a lock in each door for locking the door against removal, the locks being located otherwise than at the centers of their respective doors to prevent the locks being aligned and punched through.

2. A safe comprising a container, two doors for the entrance to the container, each door being rotatable while in closed position, a lock in each door for locking the door against removal, the locks being located otherwise than at the centers of their respective doors to prevent the locks being aligned and punched through, there being a coin slot formed through the inner door but which does not extend through the outer door, said coin slot being likewise located otherwise than at the center of the inner door.

3. A safe comprising a container, two doors for the container arranged one behind the other, the inner door being rotatable while in closed position, and a lock for each door whereby by virtue of the concealed nature of the position of the inner door from the exterior of the outer door the locks cannot be aligned and simultaneously punched through.

4. A safe comprising a container, two doors for the container arranged one behind the other, said doors being rotatable while in closed position, locks for the doors, said locks being otherwise than in alignment so that they cannot be simultaneously punched through.

In testimony whereof I have signed my name to this specification.

SAMUEL L. BELKNAP.