Oct. 10, 1933. W. C. MILLER 1,929,558

SAFE CONSTRUCTION

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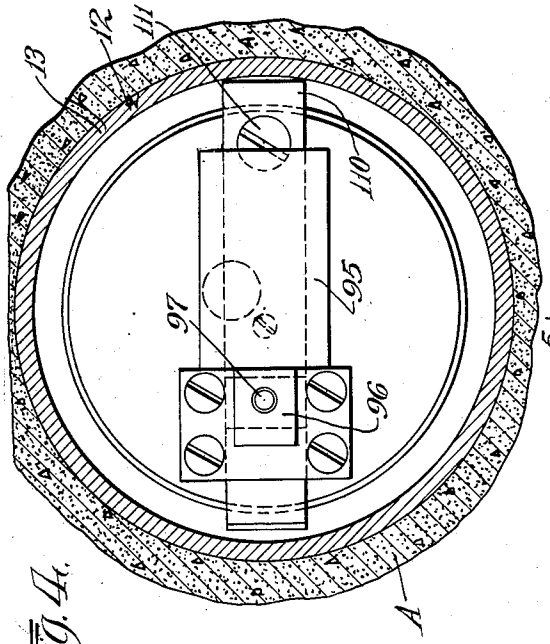


Fig. 4.

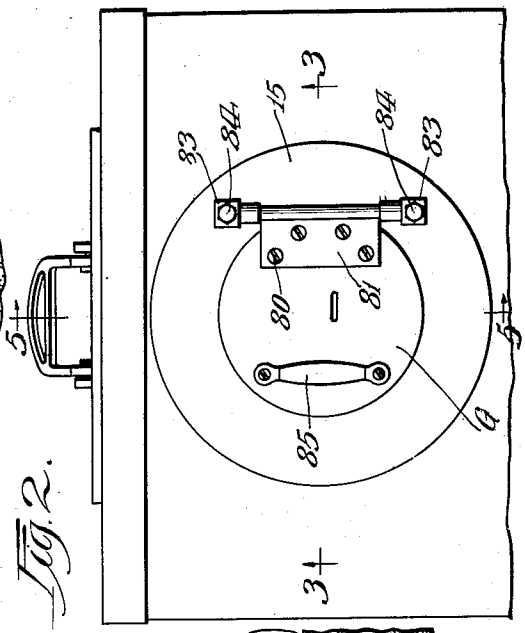


Fig. 2.

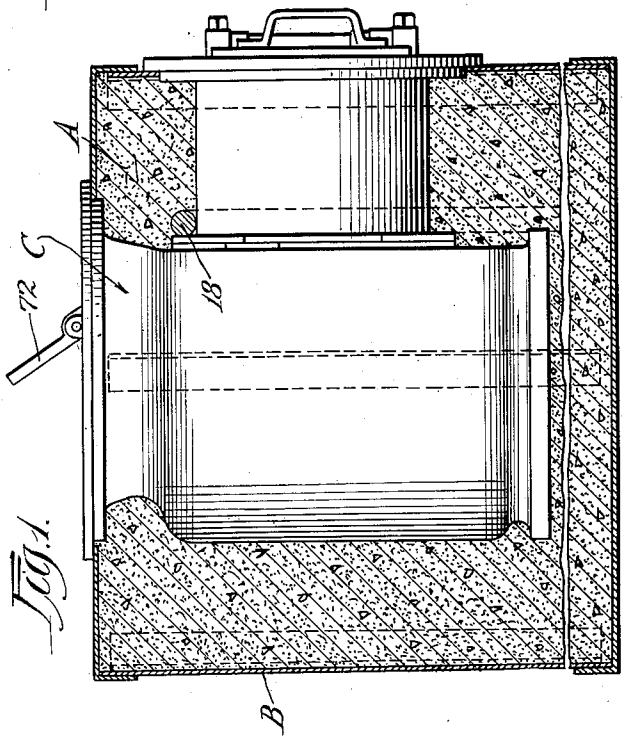


Fig. 1.

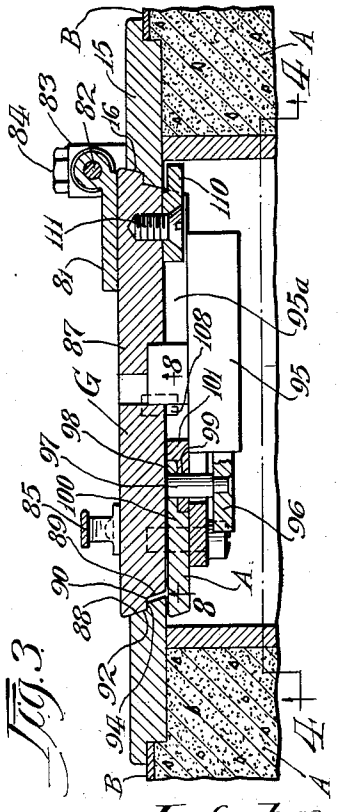


Fig. 3.

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SAFE CONSTRUCTION

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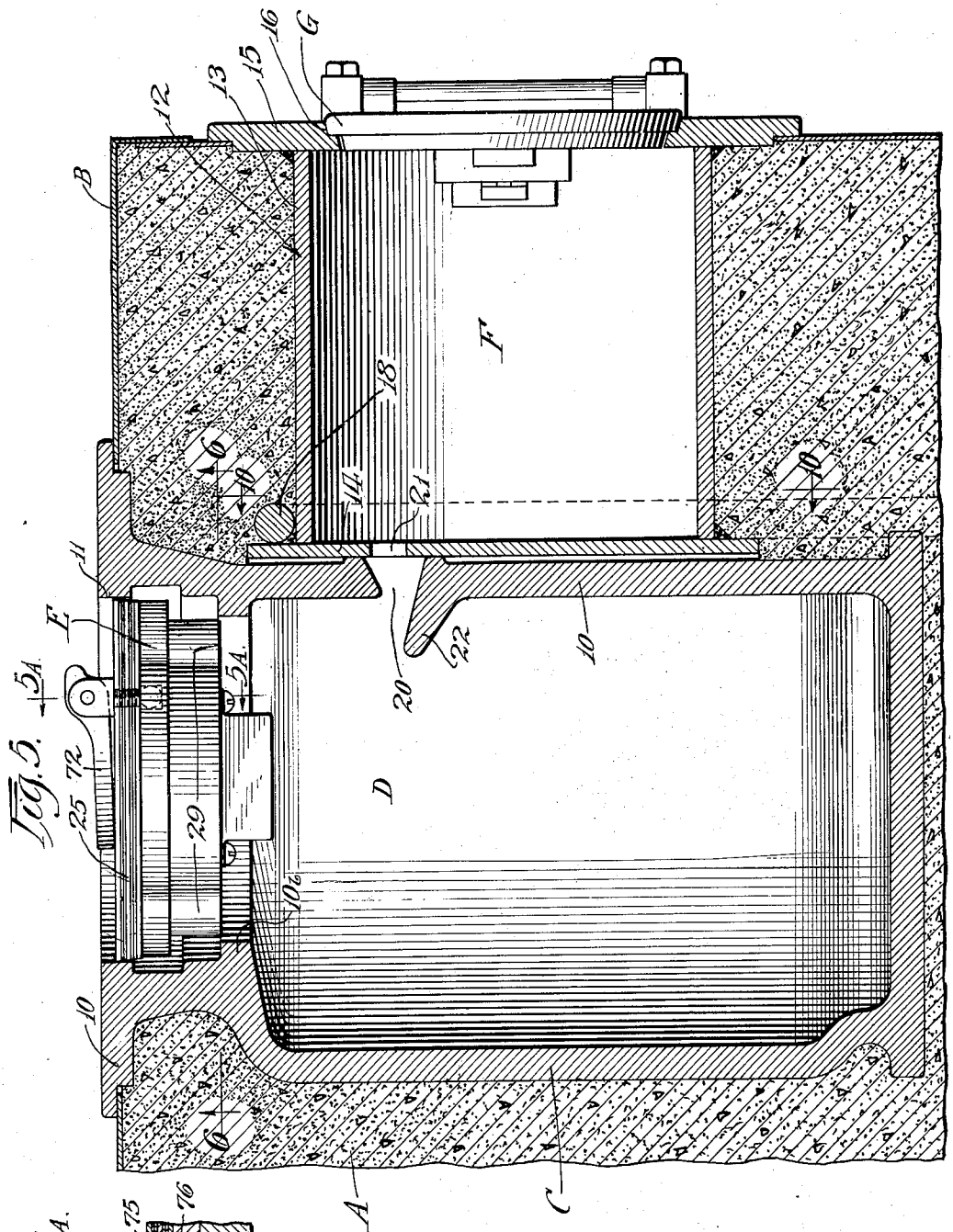


Fig. 5.

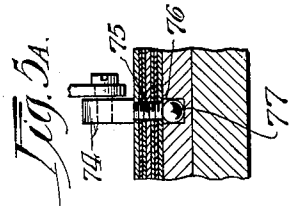


Fig. 5A.

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SAFE CONSTRUCTION

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Fig. 6.

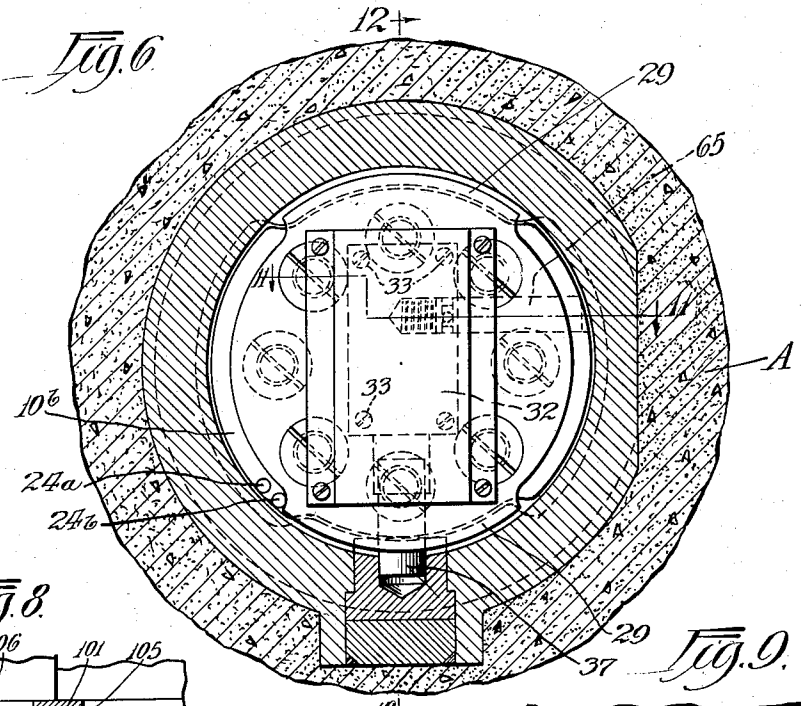


Fig. 8.

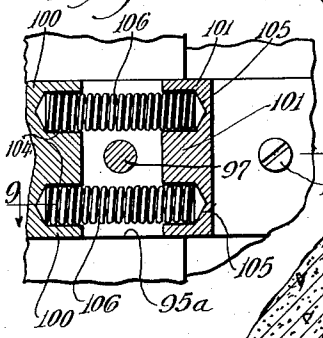


Fig. 7

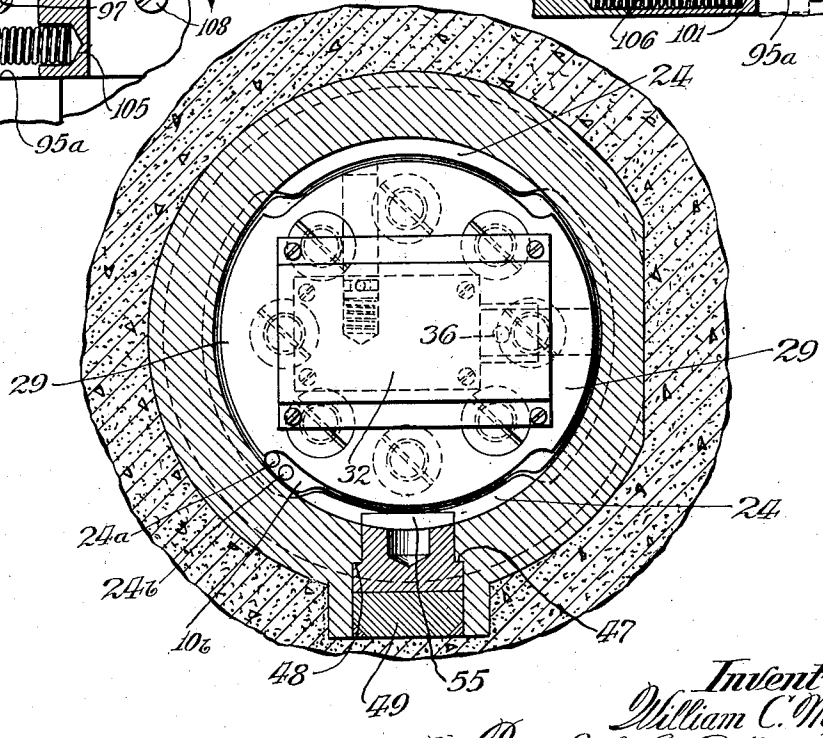
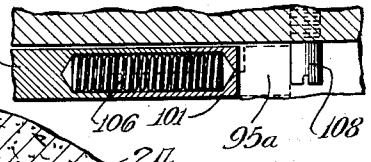


Fig. 9.



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Fig. 10.

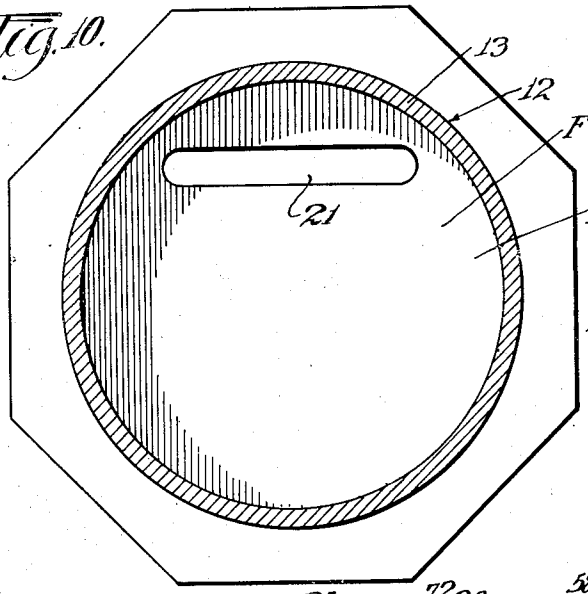


Fig. 11.

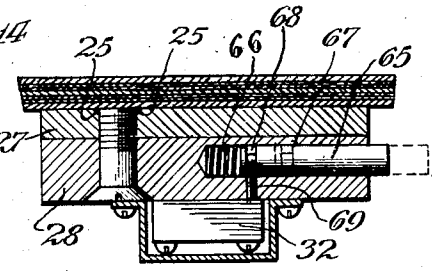


Fig. 12

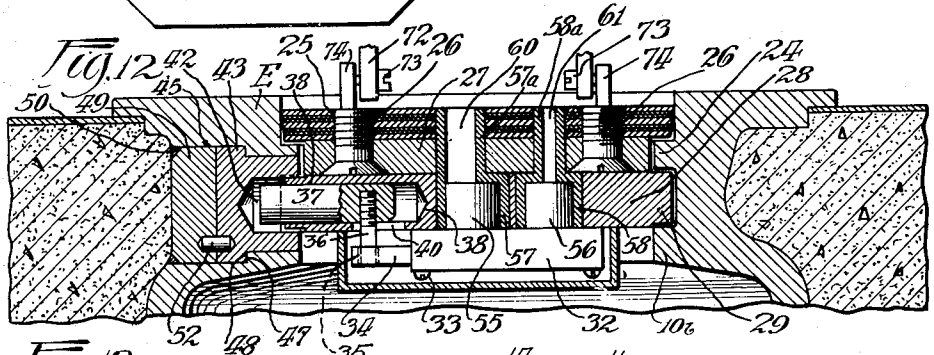


Fig. 13.

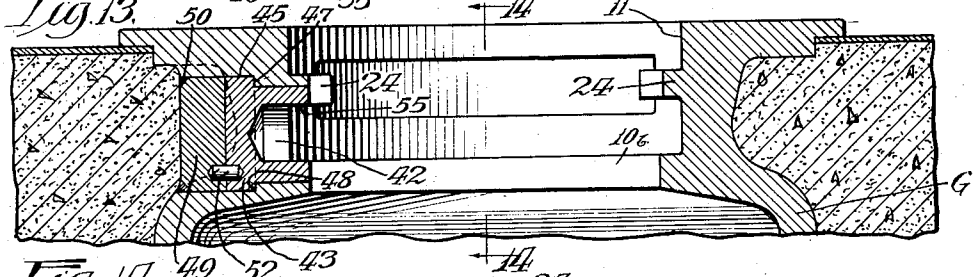
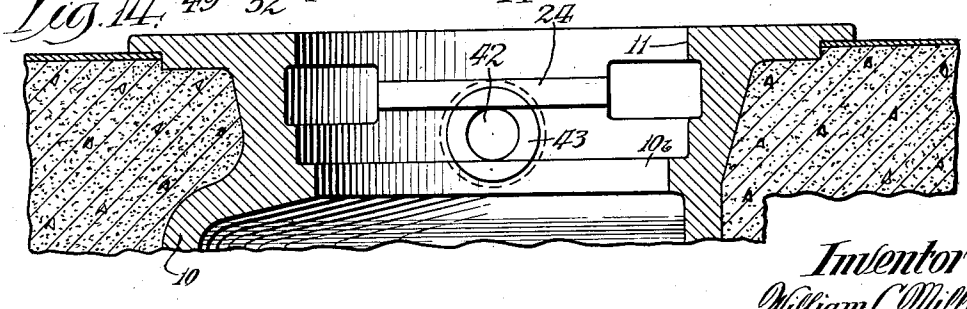


Fig. 14.



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Patented Oct. 10, 1933 1,929,558

UNITED STATES PATENT OFFICE

1,929,558

SAFE CONSTRUCTION

William C. Miller, Canton, Ohio, assignor to Diebold Safe & Lock Company, a corporation of Ohio

Application June 6, 1932. Serial No. 615,699

5 Claims. (Cl. 109—1)

The invention relates to safe construction and particularly to a safe or money-chest in which the daily receipts of stores, gas filling stations, etc., may be placed temporarily for safekeeping.

A safe or money-chest of this type is shown in my co-pending application, Serial No. 511,893 filed January 28, 1931.

One form of the present invention is embodied in a device of the kind described which comprises a block of concrete which is of such size that it cannot be removed readily from the premises in which it is installed. Embedded in the concrete block are two containers, one of which has a door-opening accessible from one face of the block and the other of which has a door-opening accessible from another face of the block. One container is preferably a heavy-walled casting, the other container being fabricated from a plurality of parts which are welded to each other. The heavy-walled container has a slot which communicates with a slot in a wall of the fabricated container, the construction being such that money may be deposited in the heavy-walled container through the slots. The heavy-walled container is provided with a closure member, the closure member being provided with a lock which must be manipulated by two keys if the closure member is to be locked to or unlocked from the heavy-walled container. One of the keys is retained on the premises, the other being preferably in the possession of some agency which collects the money deposited in the heavy-walled container and deposits it in a bank. The fabricated container is adapted to hold a supply of change for doing business, and also coupons or other valuables, the fabricated container being provided with a closure member which is controlled by a single key retained on the premises.

The construction of the improved device is such that it is impossible for unauthorized persons to gain access to the contents of the heavy-walled container during the short time they would have at their disposal during a raid or holdup. The heavy-walled container and the closure member therefor are provided with hardened steel members which prevent unauthorized persons from destroying the lock on this closure member by drilling into it. The closure members for both of the containers are provided with auxiliary locking devices which lock the closure members to their respective containers if the respective locks are displaced from the closure members by hammering upon them through keyholes in the closure members.

Other advantages will become apparent as the following detailed description progresses, reference being had to the accompanying drawings, wherein

Fig. 1 is a vertical section taken through a device which embodies the invention, the money-chest proper being shown in elevation.

Fig. 2 is a front elevation of the improved device, the base being broken away.

Fig. 3 is an enlarged section taken on line 3—3 of Fig. 2.

Fig. 4 is a section taken on line 4—4 of Fig. 3.

Fig. 5 is an enlarged section taken on the same line as Fig. 1, but showing the money-chest in section.

Fig. 5A is a section taken on the line 5A—5A of Fig. 5.

Fig. 6 is a section taken on line 6—6 of Fig. 5.

Fig. 7 is a section taken on the same line as Fig. 6, but showing a closure member for the money-chest in a position to which it is turned when it is to be opened.

Fig. 8 is a section taken on line 8—8 of Fig. 3.

Fig. 9 is a section taken on line 9—9 of Fig. 8.

Fig. 10 is a section taken on line 10—10 of Fig. 5.

Fig. 11 is a section taken on line 11—11 of Fig. 6.

Fig. 12 is a section taken on line 12—12 of Fig. 6.

Fig. 13 is a section taken on the same line as Fig. 12, a closure member being omitted from Fig. 13, and

Fig. 14 is a section taken on line 14—14 of Fig. 13.

Referring to the drawings wherein a money-chest embodying a preferred form of the invention is shown, A designates a block of concrete formed in a sheet metal shell B; C, a money-chest proper which is embedded in the concrete block A; D, a compartment in the money-chest normally closed by a closure member E; and F, a compartment in the money-chest normally closed by a closure member G.

The concrete block A may be of any suitable size. It is preferably placed upon the floor of the room in which the improved device is to stand and it should be sufficiently heavy so that it cannot be readily removed from the room. The block A may be formed in the room by pouring concrete into the shell B or the device may be completely assembled before it is shipped to its destination.

The money-chest C comprises a heavy walled container 10 preferably formed from cast steel.

The container 10 forms the compartment D and is provided with a door opening 11 in its top wall for the closure member E. The money-chest C also comprises a container 12 formed of a cylindrical metallic member 13 to the ends of which plates 14 and 15 are welded. In this instance, the longitudinal axis of the cylindrical member 12 is disposed horizontally and the plate 14 forms the back wall of the compartment F, the front wall of the compartment F being formed by the plate 15 which is provided with a door opening 16 normally closed by the door G. The plate 12 is preferably formed from hardened steel so that one cannot drill through it into the compartment D. The containers 10 and 12 are of such conformation that they are anchored in the concrete block A and cannot be removed therefrom without substantially complete destruction of the block. As a further safeguard, steel rods 18 are preferably welded to the plate 14 and the cylindrical member 12. The rods 18 project through the concrete and anchor the container 12 therein.

The container 10 is provided with an aperture or money slot 20 which is alined with an aperture or money slot 21 provided in the plate 14. Formed integral with the container 10 and projecting inwardly from its wall directly beneath the money slot 20 is a lug 22. The lug 22 prevents one from inserting instruments into the compartment D from the compartment F to extract money from the compartment D. It will be readily understood, however, that money or other valuables may be deposited in the compartment D through the money slot 20 from the compartment F.

The container 10 is provided with integral lugs 24 in the door opening 11. (See Figs. 5, 7, 13 and 14). As best shown in Figures 6 and 7, a pair of stop pins 24*a* and 24*b* are also provided in the door opening 11. The pins 24*a* and 24*b* project upwardly from an annular flange 10*b* formed integral with the container 10.

The door or closure member E comprises a laminated plate 25 of chromium steel or any other drill-proof metal or alloy. Secured to the bottom surface of the laminated plate 25 by screws 26 is a steel plate 27 and secured to the bottom surface of the steel plate 27 is a steel plate 28, the plate 28 being provided with integral diametrically disposed lugs 29 which co-operate with the lugs 24 to lock the closure member E to the container 10. It will be noted that the heads of the screws 26 are countersunk into the bottom surface of the plate 27 and that the shanks project through the plate 25. The upper ends of the screws 26 are flush with the upper surface of the plate 25 and are welded to the plate 25 as shown at 25*a*. The screws 26 are preferably formed from hardened steel.

When the closure member E is being brought into its closed position, the lugs 29 are turned to the positions in which they are illustrated in Fig. 7 so that they will pass downwardly between the lugs 24. The closure member is then angularly displaced to bring the lugs 29 into the positions wherein they are shown in Figs. 5 and 6 so that they lie directly beneath the lugs 24. The closure member E may be locked in this position by means comprising a lock 32 secured by screws 33 to the bottom surface of the plate 28. The lock 32 comprises a bolt 34 having an aperture 35 into which the lower end of a pin 36 projects. The upper end of the pin 36 is screw threaded into a locking bolt 37 slidably journaled in a bore 38 formed in the plate 28. It will be noted that the plate 28 is provided with a slot 40 for the pin 36. When the lock 32 is in its locked condition, the bolt 34 is extended as illustrated in Fig. 12 so that the bolt 37 projects into a recess 42 formed in a hardened steel plug 43. The hardened steel plug 43 is mounted in a bore 45 formed in the container 10, the plug 43 being provided with a shoulder 47 which engages a shoulder 48 formed in the bore 45. The shoulders 47 and 48 prevent the plug from being driven inwardly. Also disposed in the bore 36 and abutting against the outer surface of the plug 43 is a steel plug 49 which is welded to the container 10 as indicated at 50. The plug 43 is held against rotation around its longitudinal axis by a pin 52 which extends into holes drilled into the abutting surfaces of the plugs 43 and 49. It will be noted that the inner end of the plug 43 is slotted as at 55 to accommodate one of the lugs 29 which projects into the plug 43 when the closure member E is locked in its closed position.

The lock 32 requires the use of two keys for its operation. One of these keys is kept in the store, or the like, where the device is placed and the other key is preferably retained by one who calls at regular intervals to collect the money deposited in the compartment D. The lock cannot be manipulated by either key alone. The lock is provided with a lock nose 55 for one key and a lock nose 56 for the other key. The noses 55 and 56 are protected by hardened steel bushings 57 and 58, respectively, which are rotatably mounted in the plate 28 and have extensions 57*a* and 58*a* which extend up through the plates 27 and 25. The extensions 57*a* and 58*a* are provided with key-holes 60 and 61, respectively, which may be alined with corresponding key-holes provided in the noses 55 and 56. The key-holes in the extensions 57*a* and 58*a* are alined with the key-holes in the noses 55 and 56 by means of the keys.

It will be readily understood that if an attempt is made to destroy the lock 32 by driving the plugs 57 and 58 inwardly by hammering thereon, the lock 32 will be forced from its position on the bottom surface of the plate 28. Such displacement of the lock 32 will cause an auxiliary bolt 65 to be displaced into a position wherein its outer end projects from the plate 28 between the lugs 29. (See Figs. 6 and 11). The means for actuating the auxiliary bolt 65 comprise a compression spring 66 disposed in the bottom end of a bore 67 formed in the plate 28, the bolt 65 being slidably journaled in this bore. The bolt 65 is provided with an annular groove 68 into which a pin 69 projects, the pin 69 being fixed to the lock 32. If the lock 32 is driven downwardly from the bottom surface of the plate 28, the pin 69 is withdrawn from the groove 68 so that the spring 66 drives the bolt 65 to the right. (Fig. 11). If it is assumed that the bolt 65 has been driven outwardly by the spring 66 and that an attempt is made to open the closure member E by rotating it until its lugs 29 lie between the lugs 24 as illustrated in Fig. 7, it will be readily understood that the outer end of the bolt 65 will then be disposed beneath a lug 24 and will prevent the closure member E from being lifted bodily from the opening 11. The bolt 37 co-operates with the auxiliary bolt to some extent. Thus, if the lock 32 is driven from the plate 28, the bolt 34 will

slip off of the bottom end of the pin 36 and the bolt 37 will tend to remain in its locked position. However, if the concrete block A were tipped bodily so that the bolt 37 would drop back into its retracted position, the closure member E would still be locked to the container 10 by the auxiliary bolt 65.

The stop pins 24*a* and 24*b* co-operate with the lugs 29 to limit angular displacement of the closure member E when it is being rotated to bring the lugs 29 into or out of the positions wherein they lie beneath the lugs 24. When the closure member E has been brought into its closed position, one of the lugs 29 abuts against the pin 24*b* as illustrated in Fig. 6. When the closure member is rotated out of its closed position into the position wherein it may be lifted from the opening 11, the other lock 29 abuts against the pin 24*a*. (See Fig. 7).

The closure member E is provided with a handle 72 which is pivoted on pins 73 projecting from lugs 74, the lugs 74 being provided with screw threaded shanks 75 which are screw threaded in the laminated plate 25. (See Fig. 5A). The recess 76 is provided in the plate 27 beneath each of the shanks 75. A hardened steel ball 77 disposed in the recess prevents one from drilling through the plates 27 and 28 if the lug 74 is removed.

As best shown in Figs. 2 and 3, the door or closure member G is secured by screws 80 to a plate 81 pivoted on a pin 82 which extends between posts 83 mounted on the plate 15. The posts 83 are secured to the plate 15 by bolts 84. The free end of the door G is provided with a handle 85.

The door G comprises a metal disc 87 having frustro-conical surfaces 88 and 89 which are separated from each other by an annular shoulder 90 formed on the disc. The frustro-conical surface 88 is engageable with a similar surface 92 formed in the plate 15 and the shoulder 90 is adapted to rest upon an annular shoulder 94 formed in the plate 15.

A lock 95 mounted in a slot 95*a* formed in the bottom surface of the disc 87 comprises a bolt 96 to which the lower end of a pin 97 is riveted. The pin 97 projects through apertures 98 and 99 provided in a bolt 100 and a bar 101, respectively. When the lock 95 is in its locked condition, the bolt 96 is extended as shown in Fig. 3 so that the outer end of the bolt 100 abuts against the inner surface of the plate 15 and locks the door G to the plate 15. When the lock 95 is subsequently unlocked, the bolts 96 and 100 are retracted so that the door G may be swung open around its pivotal axis.

As best shown in Figs. 8 and 9, the bolt 100 and the bar 101 are slidably journaled in the slot 95*a*. The bolt 100 is provided with a plurality of bores 104 which are alined with bores 105 formed in the bar 101. Compression springs 106 disposed in the bores 104 and 105 yieldingly urge the bolt 100 to its locked condition and yieldingly urge the bar 101 into a position wherein it will abut against a pin 108 projecting from the disc 87. Normally, the pin 97 prevents the springs 106 from functioning in this manner, but if the lock 95 is driven from the disc 87 by pounding on the key plug or nose of the lock 95 through the keyhole provided in the disc 87, the pin 97 will be driven from the apertures 98 and 99 and the springs 106 will retain the bolt 100 in its locked condition and drive the bar 101 back against the pin 108. The closure member G will then remain locked to the container 12.

Co-operating with the bolt 100 to lock the closure member G to the container 12 is a lug 110 secured to the disc 87 by a screw 111. One end of the lug 110 is disposed behind the plate 15 when the closure member G is in its closed position. (See Fig. 3). If an attempt is made to open the closure member G by removing the bolts 84, the posts 83 and the pin 82, the lug 110 will prevent the right hand end (Fig. 3) of the closure member from being displaced relative to the plate 15.

The improved money-chest shown in the drawings provides convenient means for safeguarding daily receipts of stores, theaters, gas stations, etc. As stated above, one of the keys for the closure member E is retained on the premises while the other is preferably in the possession of some agency which makes daily collections from a number of stores, etc. Both keys must be used to obtain access to the compartment D so that the money deposited therein may be removed. The compartment F is accessible at all times to the possessor of the key on the premises. The necessary change for doing business may be kept in the compartment F, and also the coupons, or other articles of value. Whenever the money collected is more than is necessary to keep on hand to conduct the business, the excess amount of money is deposited in the compartment D through the money slots 20 and 21. Therefore, in the event of a holdup or a burglary, the loss will be limited, in most instances, to the amount in the compartment F if the holder of the key for the closure member G is forced to open the closure member. Generally, lack of time will prevent unauthorized persons from even making an attempt to gain access to the compartment D.

While I have shown and described certain embodiments of my invention, it is to be understood that it is capable of many modifications. Changes, therefore in the construction and arrangement may be made without departing from the spirit and scope of the invention as disclosed in the appended claims, in which it is my intention to claim all novelty inherent in my invention as broadly as possible, in view of the prior art.

I claim:

1. A deposit-safe comprising: an anchor block; a container embedded in said block and having a door-opening accessible from one surface of the block, said container having a slot extending through its wall; a second container embedded in said block and having a door-opening accessible from another surface of the block, said second container having a slot communicating with said slot in the first-mentioned container; a lock-equipped closure member for the door-opening in the first-mentioned container; and a lock-equipped second closure member for said door-opening in said second container.

2. A deposit-safe comprising: an anchor block; a container embedded in said block and having a door-opening, said container having a slot extending through its wall; a second container embedded in said block and having a door-opening disposed in a plane at an angle to the plane in which the first-mentioned door-opening is disposed, said second container having a slot communicating with said slot in the first-mentioned container; a lock-equipped closure member for the door-opening in the first-mentioned container; and a second lock-equipped closure

member for the door-opening in said second container.

3. A deposit-safe comprising: an anchor block; a heavy-walled container embedded in said block and having a door-opening, said container having a slot extending through its wall and having a lug projecting inwardly beneath said slot; a second container provided in said block adjacent the first-mentioned container, said second container having a door-opening and a slot in its wall communicating with the first-mentioned slot; a closure member for the door-opening in the first-mentioned container; and a second closure member for the door-opening in the second container.

4. A deposit-safe comprising: an anchor block; a heavy-walled container projecting into said block from the top thereof and embedded therein, said container being open at its top and the wall of said container being provided with a slot and a lug projecting inwardly beneath said slot; a closure member for said container; a second container projecting into said block from a side thereof and having a door-opening at said side, said second container having a slot communicating with the first-mentioned slot; and a closure member for the door-opening in said second container.

5. A deposit-safe comprising: an anchor block; a container embedded in said block, said container having a slot in its wall; a closure member for said container; and a second container embedded in said block adjacent the first-mentioned container, said second container comprising a cylindrical wall; a plate welded to said cylindrical wall and provided with a door opening; a closure member for the last-mentioned door-opening; and a second plate welded to said cylindrical wall and provided with a slot communicating with the first-mentioned slot.

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