July 17, 1934. F. J. BREMER 1,966,705

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Filed June 15, 1933 2 Sheets-Sheet 1

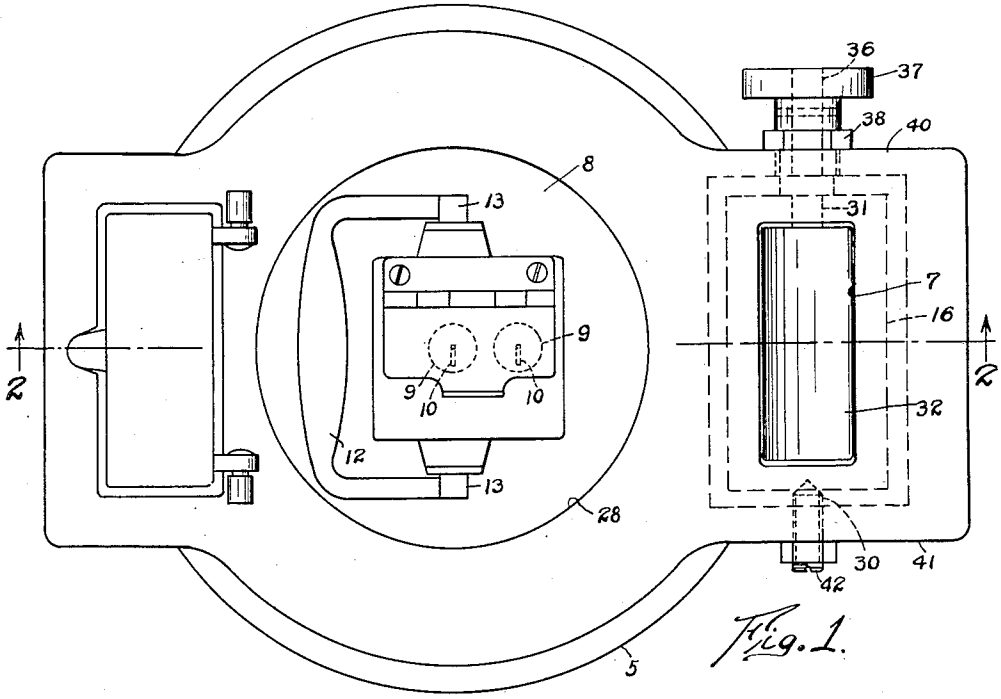


Fig. 1.

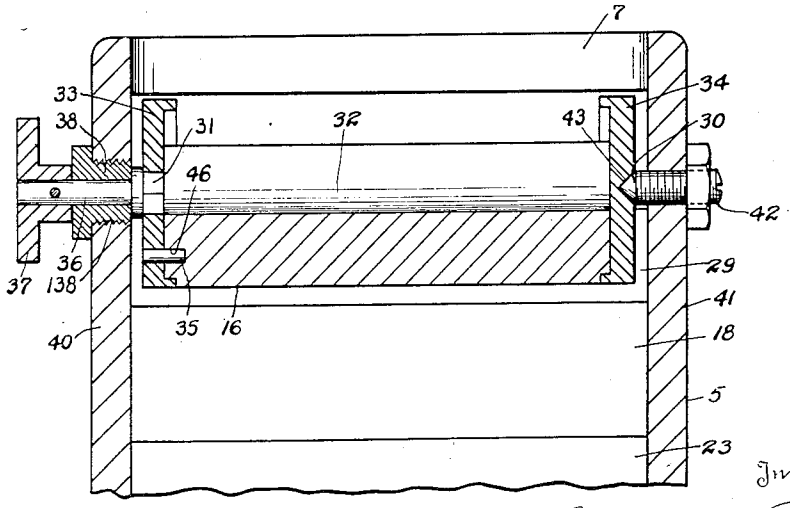


Fig. 3.

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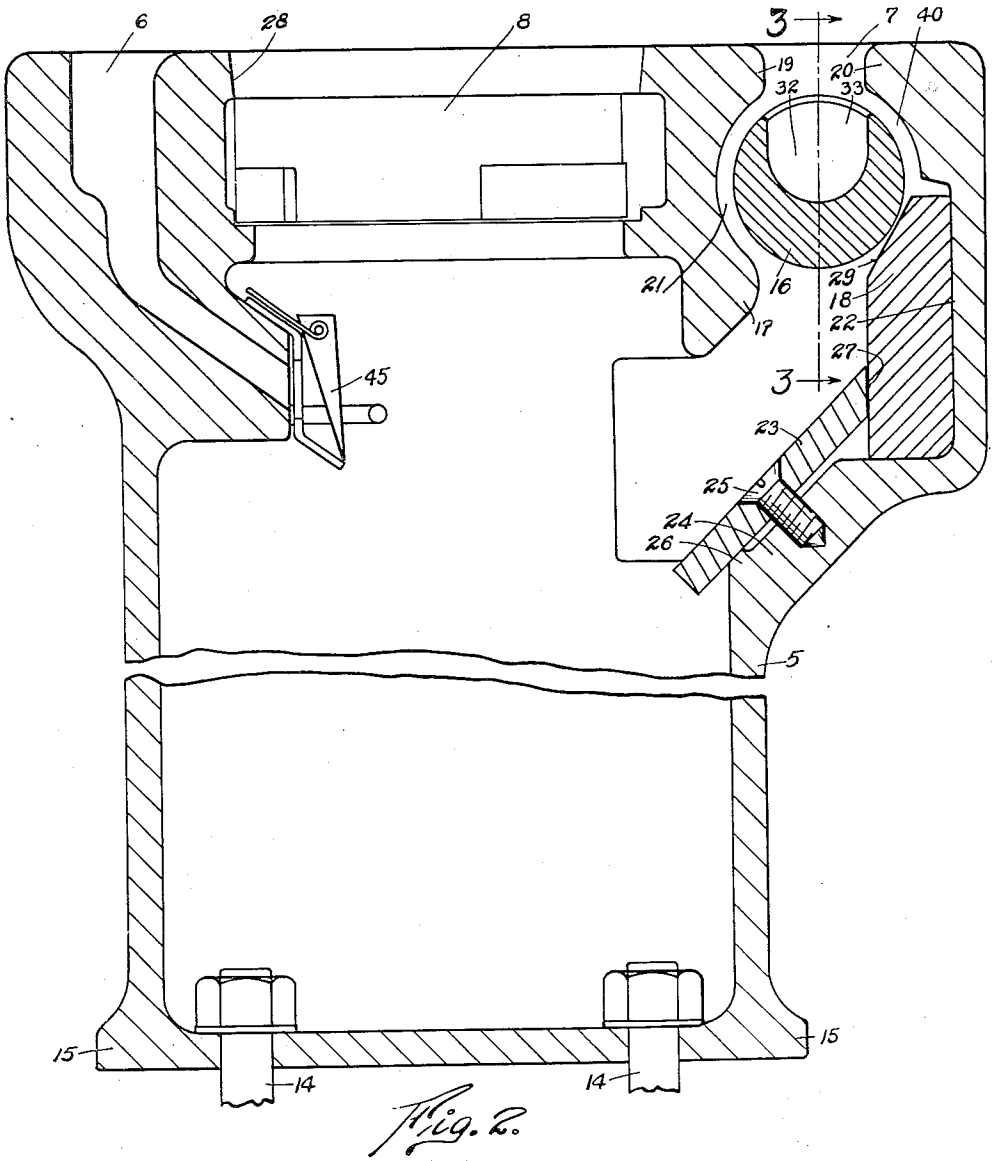


Fig. 2.

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SAFE

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Application June 15, 1933, Serial No. 675,962

12 Claims. (Cl. 109—1)

This invention relates to improvements in a safe or depository of the type wherein articles readily may be deposited therein, but may not be recovered without the aid of proper means for opening the safe. Access for the purpose of removing deposited articles from a safe of the general character disclosed, usually is obtained by the use of one or more keys, or by manipulation of a combination lock. Although the main door of the safe or depository disclosed herein is adapted to be key operated, it will be understood that a combination lock might easily be provided for the purpose, in accordance with common practice.

One object of the present invention is to provide a simple, inexpensive, theft-proof means whereby articles may be deposited in the safe with a minimum of effort and time.

Another object is to simplify manufacture and assembly of the deposit door of a safe or depository having the characteristics above set forth.

The foregoing and other objects are attained by the means described herein and disclosed in the accompanying drawings, in which:

Fig. 1 is a top plan view of a safe or depository embodying the invention.

Fig. 2 is a cross-sectional view taken on line 2—2 of Fig. 1.

Fig. 3 is a fragmental cross-sectional view taken on line 3—3 of Fig. 2.

Referring to the drawings, 5 indicates a safe body or receptacle for articles that may be deposited through one or more apertures such as 6 or 7 at or near the top of the receptacle. Both apertures are provided with means for precluding the extraction of articles held by the safe, which means will be described hereinafter. At 8 is represented any suitable or approved type of enlarged door that may be opened by means of one or more keys, or a combination lock, not shown, this large door being provided for the purpose of allowing an authorized person to remove deposits from the safe interior. In the form of door illustrated, there is applied thereto two locks 9 each of which has a key-hole 10 for insertion of proper keys. After the locks have been properly manipulated, the door may be lifted bodily from the safe body by means of a suitable bail or handle 12 which is hinged upon the door as at 13. The door 8 is of a common type well known to those skilled in the art, wherefore it requires no detailed explanation other than to state that it may be removed or replaced only by an authorized person.

The bolts 14 provide for fastening the body to a suitable support, and the extensions 15 are provided for the purpose of anchoring the body in the event that it be set in concrete or the like.

Attention is now directed to Fig. 2 wherein there is shown a rotary door 16 cooperatively associated with the deposit receiving aperture 7. This door, it should be noted, is so arranged relative to a series of abutments 17, 18, 19 and 20, that the door cannot possibly be forcibly driven into the deposit compartment nor extracted upwardly from its chamber or socket 21, by the use of tools inserted through the aperture 7. The door chamber or socket 21 is shown to be larger than the aperture 7, and the diameter of the rotary door likewise exceeds the width of said aperture 7. The overhanging abutments 19 and 20 preferably are integral parts of the safe body, so that the rotary door may be placed in position, during manufacture, only when the abutment block 18 is absent. As a matter of fact, removal or replacement of the rotary door is possible only upon removal of the abutment block 18, which block is held in position against a vertical interior wall 22 of the safe by means of a thrust plate 23 which is screwed or bolted as at 25 to an angularly disposed wall 24 of the safe. The wall 24 preferably, though not necessarily, carries a fulcrum extension 26 about which the thrust or bearing plate 23 may rotate slightly upon tightening or loosening of the screw or bolting means 25. The contact edge 27 of the thrust plate may advantageously be beveled or chamfered, as shown, to provide a substantial surface contact thereof upon the block 18. The provision of the fulcrum arrangement above set forth obviates a considerable amount of expensive accurate machining and fitting of parts that would otherwise be necessary to maintain the block 18 in position. Another advantage of the arrangement of members 23, 18, and 24 is that it permits of tightening, loosening, or replacement of block 18 by simply inserting a tool such as a screw-driver or wrench through the opening closed by large door 8, and then turning the fastener 25. In this connection it should be stated that the inclination of wall 24 and the position of the securing means 25 are such that the axis of the securing means, if extended, would substantially clear or avoid all the walls of the main opening 28 which is closed by door 8. Thus, it is rendered unnecessary to work entirely within the confines of the safe in order to effectively place the members 18, 23, and 25 in their ultimate fixed condition. To provide for maximum re-enforcement

of the walls 22 and 24 for enabling them to withstand hammer blows directed downwardly upon the rotary door 16, the abutment face 29 of block 18 is chamfered or beveled inwardly and downwardly, as shown, so as to direct part of the blow toward the abutment 17 after breakage or displacement of the door trunnions or supports 30 and 31 (Fig. 3). As is clearly shown in Figs. 1 and 2 of the drawings, the rotary door mechanism is off-set or disposed to one side of the safe body, so that it may not interfere with the removal of deposited articles by way of the main door 8.

The rotary door may be constituted of a cylindrical metal member (Fig. 2) grooved longitudinally to provide a pocket 32 for receiving articles to be deposited. The ends of the groove or pocket may be closed by means of a pair of end caps 33 and 34 which may be secured to the door in any known manner, such as by driving them onto the door ends and applying a pin or the like 35 (Fig. 3). It is to be observed that the groove or pocket 32 is so formed in the material of the door as to leave sufficient weight at the bottom portion to cause the door to always assume a normal position at which the groove is uppermost, and therefore always receptive of articles to be deposited.

One of the end plates, for example 33, has associated therewith a handle means whereby the door may be rotated axially upon its supports 30—31. The handle means may comprise a shaft 36 one end 31 of which is squared or otherwise fitted into the end cap 33 so as to preclude relative rotation thereof. The other end of the shaft carries a handwheel or handle member 37. The shaft may pass through a bushing 38 which rotatably receives it. The bushing may threadedly engage a threaded opening 39 in the wall 40. The opposite wall 41 suitably supports an adjustable stud 42 whose inner end 30 enters a depression or opening 43 in the end cap 34.

From the foregoing it will readily be understood that articles may be deposited by way of the rotary door by simply dropping the articles through the aperture 7 and into the door pocket 32, whereupon the handle 37 may be manually actuated for rotating the door about its supports and thereby empty the contents of the pocket into the main receptacle of the depository. The manner in which the rotary door is co-related with the surrounding elements, insures the contents of the safe against removal through the receiving aperture 7.

The mechanism indicated generally by the character 45 is simply a second receiving means for articles to be deposited, but the details thereof are not pertinent to the invention set forth herein and therefore need not be described.

It is to be observed that assembly of the rotary door mechanism is extremely simple and easy, it being only necessary to place the complete cylinder comprising the elements 16, 33, 34 and 35 in position, inserting from below. Then assemble parts 36, 37, and 38 into a unit and insert into threaded hole 138. Then insert screw 42 at the other end, after which the parts 18, 23 and 25 are placed in position as previously described.

It is to be understood that various modifications and changes may be made in the structural details of the device, within the scope of the appended claims, without departing from the spirit of the invention.

What is claimed is:

1. In combination a hollow safe body having a deposit receiving aperture communicative with the safe interior, a rotary door normally substantially closing the receiving aperture, means rotatably supporting the door adjacent to the receiving aperture, an abutment fixed relative to the safe body interiorly thereof and disposed adjacent to the rotary door, a removable abutment member located interiorly of the safe body and opposite said fixed abutment whereby to provide a constricted passageway between the door and the safe interior so as to preclude forcible projection of the door into the safe interior upon displacement of the rotary door supporting means, and securing means disposed wholly within the safe interior for maintaining the removable abutment member in position opposite said fixed abutment.

2. In combination a hollow safe body having a main door opening through which the contents of the safe may be removed and a separate deposit receiving aperture communicative with the safe interior, a rotary door normally substantially closing the receiving aperture, means rotatably supporting the door adjacent to the receiving aperture, an abutment fixed relative to the safe body interiorly thereof and disposed adjacent to the rotary door, a removable abutment member located interiorly of the safe body and opposite said fixed abutment whereby to provide a constricted passageway between the door and the safe interior so as to preclude forcible projection of the door into the safe interior upon displacement of the rotary door supporting means, and securing means for maintaining the removable abutment member in position said securing means being disposed wholly within the safe body and accessible through the main door opening.

3. In combination a hollow safe body having a deposit receiving aperture communicative with the safe interior, a rotary door normally substantially closing the receiving aperture, the door being disposed wholly within the confines of the safe body, means accessible from the exterior of the safe body for rotatably supporting the door adjacent to the receiving aperture, and means in the form of abutments carried by the safe body for precluding displacement of the rotary door in the direction of the safe interior upon displacement of the door supporting means, at least one of said abutments being removable only by the application of a tool interiorly of the safe.

4. In combination a hollow safe body having a deposit receiving aperture communicative with the safe interior, a rotary door disposeed wholly within the body of the safe for normally substantially closing the receiving aperture, the door being drum-shaped and larger in diameter than the width of the receiving aperture at the mouth of said aperture, means accessible from the exterior of the safe body for rotatably supporting the door adjacent to the receiving aperture, and means in the form of abutments carried by the safe body for precluding displacement of the rotary door in the direction of the receiving aperture upon displacement of the door supporting means.

5. In combination, a safe body having a main door opening through which the contents of the safe may be removed and a separate deposit receiving aperture communicative with the safe interior, a rotary door normally substantially closing the aperture, means rotatably supporting

the door adjacent to the receiving aperture the door being larger than the aperture to preclude forcible removal of the rotary door through the receiving aperture, and abutments carried by the safe body and located adjacent to the rotary door to preclude forcible displacement of the rotary door into the safe body, at least one of said abutments being removable by insertion of a tool through the main door opening, for the purpose of removal and replacement of the rotary door by way of the main door opening.

6. In combination, a safe body having a main door opening through which the contents of the safe may be removed and a separate deposit receiving aperture communicative with the safe interior, a rotary door normally substantially closing the receiving aperture, means rotatably supporting the door adjacent to the receiving aperture, and means in the form of abutments carried by the safe body for precluding bodily displacement of the rotary door in the direction of the receiving aperture and in the direction of the safe body interior, at least one of said abutments being removable to permit dropping of the door into the interior of the safe body.

7. In combination, a safe body having a main door opening through which the contents of the safe may be removed and a separate deposit receiving aperture communicative with the safe interior, a rotary door normally substantially closing the receiving aperture the door being larger than the aperture to preclude forcible removal of the rotary door through the receiving aperture, and means including a removable abutment member fixed to the safe interior for limiting the extent to which the rotary door may be forced toward the safe interior, said abutment member being removable to permit displacement of the rotary door into the safe body interior.

8. In combination a hollow safe body having a deposit receiving aperture communicative with the safe interior, a rotary door built into the safe body and normally substantially closing the receiving aperture, means rotatably supporting the door adjacent to the receiving aperture, and means in the form of abutments carried by the safe body for precluding displacement of the rotary door in the direction of the safe interior upon displacement of the door supporting means, at least one of said abutments being removable by the use of a tool applied interiorly of the safe body.

9. In combination a hollow safe body having a deposit receiving aperture communicative with the safe interior, a rotary door normally substantially closing the receiving aperture, means rotatably supporting the door adjacent to the receiving aperture, and means in the form of abutments carried by the safe body for precluding displacement of the rotary door in the direction of the safe interior and in the direction of the receiving aperture upon displacement of the door supporting means, at least one of said abutments being removable only when the safe is open, to permit bodily removal of the rotary door in the direction of the safe interior, the other abutments at all times precluding removal of the rotary door in the opposite direction.

10. In combination a hollow safe body having a deposit receiving aperture and a door socket communicative with the safe interior, a rotary door in the socket normally substantially closing the receiving aperture but having abnormal clearance with respect to a wall of the door socket to afford space for the insertion of substantially flat objects to be deposited, means rotatably supporting the door in the socket adjacent to the receiving aperture, an abutment fixed relative to the safe body interiorly thereof and disposed adjacent to the rotary door, a removable abutment member located interiorly of the safe body and opposite said fixed abutment whereby to provide a constricted passageway between the door and the safe interior so as to preclude forcible projection of the door into the safe interior upon displacement of the door supporting means, and securing means disposed wholly within the safe interior for maintaining the removable abutment member in position opposite said fixed abutment.

11. In combination a hollow safe body having a deposit receiving aperture and a door socket communicative with the safe interior, a rotary door in the socket normally substantially closing the receiving aperture but having clearance with respect to a wall of the door socket in excess of the clearance necessary for rotation of the door, to afford space for the insertion of substantially flat objects to be deposited, and means rotatably supporting the door in the socket adjacent to the receiving aperture.

12. In combination a hollow safe body having a deposit receiving aperture communicative with the safe interior, a rotary drum-shaped door having a pocket therein, and normally substantially closing the receiving aperture, the door being disposed wholly within the confines of the safe body, means accessible from the exterior of the safe body for rotatably supporting the door axially adjacent to the receiving aperture, and means in the form of abutments carried by the safe body for precluding displacement of the rotary door in the direction of the safe interior upon displacement of the door supporting means, at least one of said abutments being removable only by the application of a tool interiorly of the safe.

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