109-83 CROSS REFERENCE SEARCH ROOM

Jan. 14, 1958 D. B. JOHNSON ET AL 2,819,692

SAFE DEPOSIT RECEPTACLE

Filed March 21, 1956 2 Sheets-Sheet 1

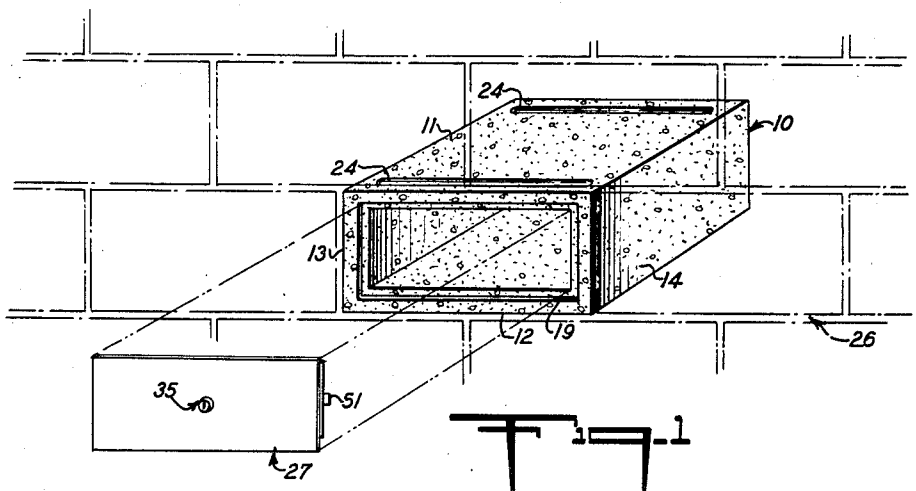


FIG. 1

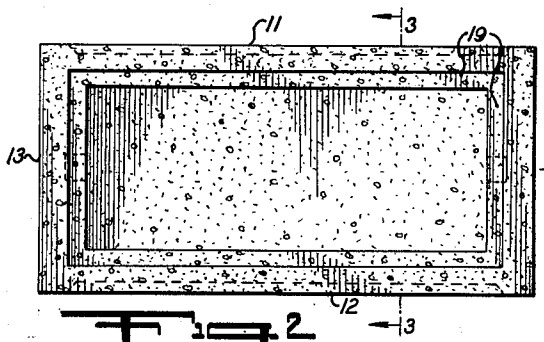


FIG. 2

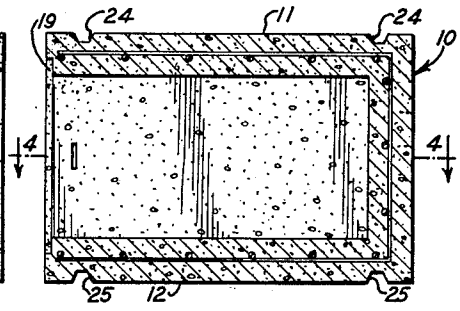


FIG. 3

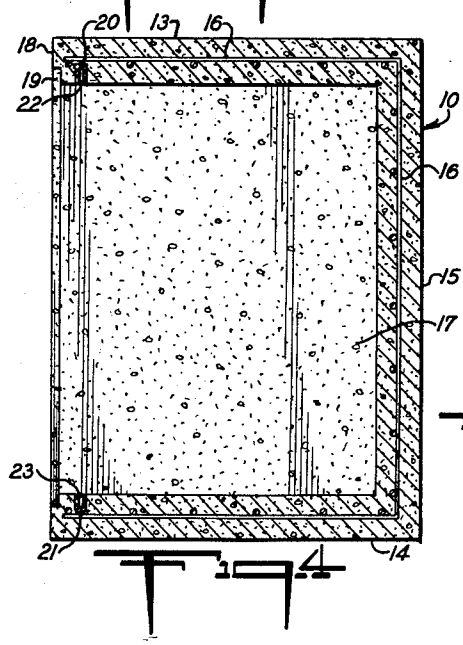


FIG. 4

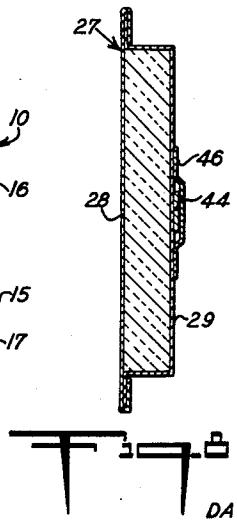


FIG. 8

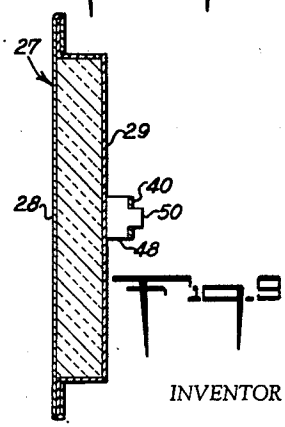


FIG. 9

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SAFE DEPOSIT RECEPTACLE

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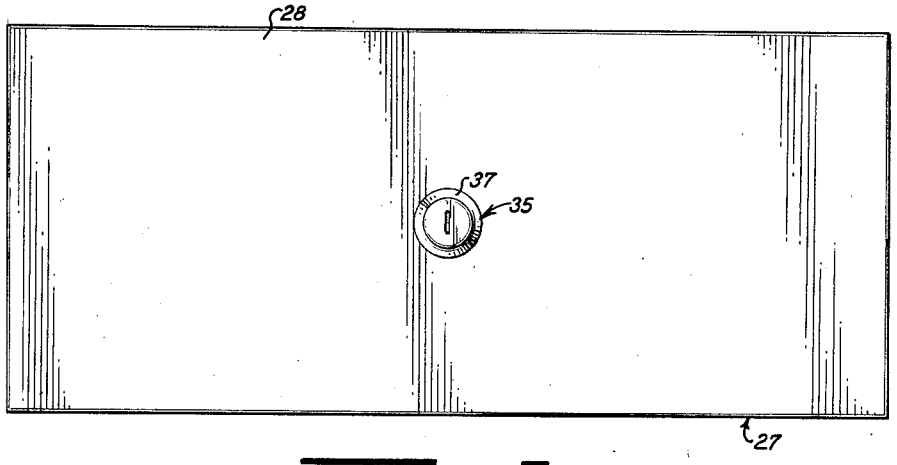


FIG. 5

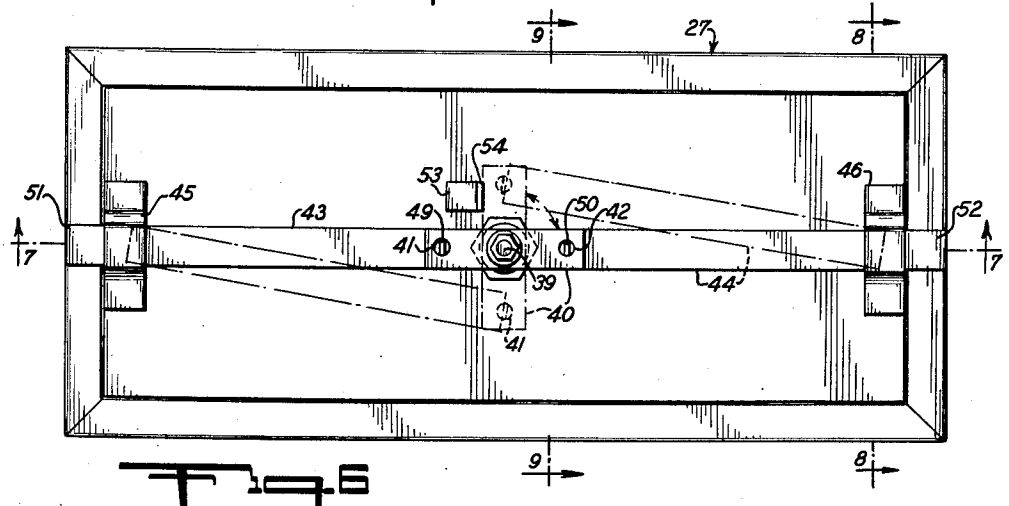


FIG. 6

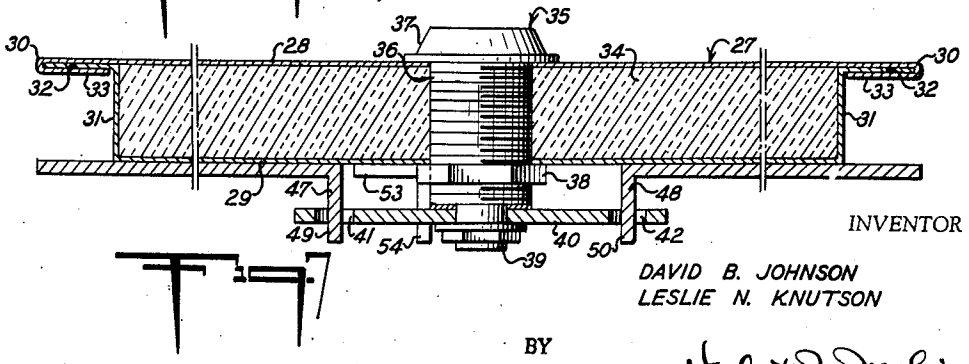


FIG. 7

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SAFE DEPOSIT RECEPTACLE

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Application March 21, 1956, Serial No. 572,865

5 Claims. (Cl. 109—50)

This invention relates to safe deposit receptacles and more particularly to such a receptacle designed for installation as a structural element in the wall of a building or the like.

Heretofore many different types of safe deposit receptacles to be incorporated in the walls of buildings have been proposed and utilized but the majority of such receptacles were not intended as a load bearing structural unit and furthermore such receptacles were relatively complex and costly involving metallic liners, complicated and costly lock mechanisms as well as a relatively heavy closure or door requiring relatively massive hinges or the like for mounting the same. Furthermore, these prior art deposit receptacles were not of such dimensions as to replace a conventional building block and consequently required the construction of a wall around the same rather than incorporating the receptacle as an integral part of the wall without in any way altering the pattern or the manner of laying such wall.

It is accordingly an object of the invention to provide a safe deposit receptacle which may be conveniently and economically constructed from readily available materials and which is of such formation and strength as to permit incorporation of the same as a load bearing structural element in the wall of a building or the like.

A further object of the invention is the provision of a safe deposit receptacle including a hollow concrete block of substantially the same dimensions as a conventional building block and intended for installation as a load bearing structural element in the wall of a building or the like.

A still further object of the invention is the provision of a safe deposit receptacle for installation as a structural element in the wall of a building or the like and in which a completely removable closure is provided which is of fire and tamper proof construction and which when installed is substantially flush with the inner edges of the receptacle.

Another object of the invention is the provision of a safe deposit receptacle including a reinforced concrete block intended for installation as a load bearing structural element in the wall of a building or the like and including a completely removable closure incorporating relatively simple and economical locking means.

Further objects and advantages of the invention will be apparent from the following description taken in conjunction with the accompanying drawing wherein:

Fig. 1 is an exploded view in perspective showing a safe deposit receptacle constructed in accordance with this invention and installed as a structural element in the wall of a building or the like, such wall being shown in phantom;

Fig. 2, a front elevational view of the receptacle shown in Fig. 1 and with the closure omitted for greater clarity;

Fig. 3, a sectional view taken substantially on the line 3—3 of Fig. 2;

Fig. 4, a sectional view taken substantially on the line 4—4 of Fig. 3;

Fig. 5, a front elevational view of the closure for the safe deposit receptacle shown in Fig. 1;

Fig. 6, a rear elevational view of the closure shown in Fig. 5 and showing the locking mechanism in full lines in locked position and in dot-dash lines in unlocked position;

Fig. 7, a sectional view taken substantially on the line 7—7 of Fig. 6;

Fig. 8, a sectional view taken substantially on the line 8—8 of Fig. 6; and

Fig. 9, a sectional view taken substantially on the line 9—9 of Fig. 6.

With continued reference to the drawings there is shown a safe deposit receptacle constructed in accordance with this invention and which may well comprise a hollow concrete block **10** having top and bottom walls **11** and **12**, side walls **13** and **14** and a rear wall **15**. The block **10** may be rendered moisture proof in any desired manner and there may be also incorporated in the walls thereof a metallic mesh **16** to provide suitable reinforcement in order that the block **10** will support the load for which the same is designed.

The block **10** provides a generally rectangular cavity **17** open at the front end of the block and surrounding such opening in the front edges **18** of the top and bottom walls **11** and **12** and the side walls **13** and **14** is a rabbet **19** the purpose of which will be presently described. Spaced inwardly from the front edges **18** of the side walls **13** and **14** and opening into the cavity **17** are recesses **20** and **21** and disposed in these recesses are metallic sockets **22** and **23** the purpose of which will be presently described.

The top and bottom walls **11** and **12** of the block **10** may be provided with mortar grooves **24** and **25** respectively and as shown in Fig. 1 the block **10** is of the same general dimensions as a conventional building block and is incorporated in the wall of a building during the construction of such wall which may include a plurality of conventional building blocks **26** with the block **10** substituted for one of such conventional building blocks at any desired location in the wall. The mortar grooves **24** and **25** serve to receive mortar which firmly locks the receptacle block **10** in place in the wall. There is thus provided a built-in receptacle which is moisture proof and also of sufficient wall thickness to provide a substantially fire-proof receptacle. The inner edges **18** of the receptacle block **10** are of course flush with the inner surface of the wall in which the block is installed and if desired the closure for the cavity **17** may be so finished to present the appearance of a conventional wall surface.

A removable closure **27** is provided for closing the opening in inner edges **18** of the receptacle block **10** and as best shown in Figs. 6 to 9 the closure **27** may comprise a front metallic panel **28** and an inwardly spaced rear metallic panel **29** and as will be seen by an inspection of Fig. 7 the front panel **28** extends outwardly of the rear panel **29** to provide a marginal flange **30**. The rear panel **29** may be bent forwardly as at **31** with these portions terminating in a marginal flange **32** which is secured to the front panel **28** by a crimped portion **33** of the marginal flange **30**. The space between the front panel **28** and the rear panel **29** may be filled with fiber glass or other suitable thermal insulating material **34** which serves to render the closure **27** substantially fire-proof. The dimensions of the marginal flange **30** are such that this flange will seat in the rabbet **19** in the front edges **18** of the top and bottom walls **11** and **12** and the side walls **13** and **14** of the block **10** and the reduced portion formed by the forwardly bent portions **31** of the rear panel **29** are of such dimensions as to closely fit within the walls of the cavity **17**. Likewise the outer surface of the front panel **28** will be flush with the front edges **18** of the block **10** when the closure **27** is installed therein.

Locking means for preventing unauthorized access to the cavity 17 when the closure 27 is in place on the block 10 may conveniently take the form of a cylinder lock 35 disposed substantially centrally of the closure 27 and having a barrel 36 extending through the front wall 28 and the rear wall 29 with an escutcheon 37 disposed on the front of the panel 28 and with a nut 38 engaging the threaded barrel 36 and the rear surface of the rear panel 29 to hold the lock 35 in place on the closure 27. The lock 35 may be provided with a rearwardly extending operating shaft 39 to which is fixed for rotation therewith a crossbar 40 and such crossbar may be provided adjacent the opposite ends thereof with apertures 41 and 42.

Locking bars 43 and 44 may be slidably mounted on the rear surface of the rear panel 29 by guides 45 and 46 secured to the panel 29 by welding or any other suitable means and the inner ends of locking bars 43 and 44 may be provided with angularly disposed portions 47 and 48 having reduced ends 49 and 50 pivotally received in the apertures 41 and 42, respectively, to pivotally connect the locking bars 43 and 44 to the crossbar 40.

As will be seen in Fig. 6 with the crossbar 40 rotated to the full line position the locking bars 43 and 44 will also occupy the full line position with their outer ends 51 and 52, respectively, projecting beyond the side portions 31 of the rear panel 29. Rotation of the shaft 39 of the lock 35 to move the crossbar 40 to the dotted line position shown in Fig. 6 will also retract the locking bars 43 and 44 and move the same to the dotted line position shown in Fig. 6 and in order to prevent disengagement of the locking bars 43 and 44 from the guides 45 and 46 there may be provided stop means 53 comprising an angle member secured to the rear panel 29 by welding or any other suitable means and having a portion 54 projecting into the path of rotation of the crossbar 40.

To place the closure in closing position in the block 10 it is only necessary to operate the lock 35 to retract the locking bars 43 and 44 at which time the closure 27 may be placed in position with the marginal flange 30 disposed in the rabbet 19 and upon rotating the lock 35 to move the locking bars 43 and 44 outwardly the outer ends 51 and 52 thereof will move into the sockets 23 and 22, respectively, in the recesses 21 and 20 to firmly lock the closure 27 in position. A reversal of this operation permits convenient removal of the closure 27 from the block 10 thereby providing unobstructed access to the cavity 17 therein.

The closure 27 as will be seen from the above description is of relatively lightweight construction yet by reason of the thermal insulation is substantially fireproof and furthermore supporting hinges are not necessary and the closure may be completely removed from the receptacle in order to permit unobstructed access to the contents thereof. Furthermore, the locking mechanism is extremely simple yet highly effective and consequently the safe deposit receptacle of this invention may be produced at a comparatively low cost and may be conveniently installed by a mason when laying up the wall of a house or other building. Obviously the safe deposit receptacle of this invention may be installed in a basement or foundation wall or may be installed in any other desired location where conventional building blocks are utilized in the construction of the wall.

It will be obvious to those skilled in the art that various changes may be made in the invention without departing from the spirit and scope thereof and therefore the invention is not limited by that which is shown in the drawing and described in the specification but only as indicated in the appended claims.

What is claimed is:

1. A safe deposit receptacle for installation as a structural element in the wall of a building, said receptacle comprising a hollow standard size building block of reinforced moisture proof concrete, an opening in one end of said block providing access to the interior, a rabbet surrounding said opening, mortar grooves in opposite external faces of said block to facilitate locking said block in said wall, locking bar receiving recesses in opposite side walls of said block adjacent said rabbet, metallic sockets disposed in said recesses, a removable closure for said opening comprising a metallic front panel of a size to be received in said rabbet substantially flush with the end edge of said block, a metallic rear panel spaced from said front panel and secured thereto, thermal insulation disposed between said panels, locking means for said closure comprising oppositely extending latch bars slidably mounted on the rear face of said rear panel, a cylinder lock extending through said front and rear panels substantially centrally thereof, a crossbar fixed to the inner end of said lock and rotatable therewith, apertures in said crossbar adjacent opposite ends thereof, angularly disposed portions of the inner ends of said latch bars received in said apertures to pivotally connect said latch bars to said crossbar, whereby upon rotation of said lock said latch bars will be extended or retracted, guides adjacent the opposite side edges of said rear panel slidably receiving said latch bars and stop means secured to said rear panel and disposed in the path of rotation of said crossbar to prevent disengagement of said latch bars from said guides, whereby said closure may be placed in said opening with said latch bars projecting into said recesses to lock said closure in place and upon rotation of said lock to retract said latch bars said closure may be completely removed from said block.

2. A safe deposit receptacle for installation as a structural element in the wall of a building, said receptacle comprising a hollow standard size building block of reinforced moisture proof concrete, an opening in one end of said block providing access to the interior, a rabbet surrounding said opening, locking bar receiving recesses in opposite side walls of said block adjacent said rabbet, metallic sockets disposed in said recesses, a removable closure for said opening comprising a metallic front panel of a size to be received in said rabbet substantially flush with the end edge of said block, a metallic rear panel spaced from said front panel and secured thereto, thermal insulation disposed between said panels, locking means for said closure comprising oppositely extending latch bars slidably mounted on the rear face of said rear panel, a cylinder lock extending through said front and rear panels substantially centrally thereof, a crossbar fixed to the inner end of said lock and rotatable therewith, apertures in said crossbar adjacent opposite ends thereof, angularly disposed portions on the inner ends of said latch bars received in said apertures to pivotally connect said latch bars to said crossbar, whereby upon rotation of said lock said latch bars will be extended or retracted, guides adjacent the opposite side edges of said rear panel slidably receiving said latch bars and a stop means secured to said rear panel and disposed in the path of rotation of said crossbar to prevent disengagement of said latch bars from said guides, whereby said closure may be placed in said opening with said latch bars projecting into said recesses to lock said closure in place and upon rotation of said lock to retract said latch bars said closure may be completely removed from said block.

3. A safe deposit receptacle for installation as a structural element in the wall of a building, said receptacle comprising a hollow building block, an opening in one end of said block providing access to the interior, a rabbet surrounding said opening, locking bar receiving recesses in opposite side walls of said block adjacent said rabbet, a removable closure for said opening comprising a metallic front panel of a size to be received in said rabbet substantially flush with the end edge of said block, a metallic rear panel spaced from said front panel and secured thereto, thermal insulation disposed between said panels, locking means for said closure comprising oppositely extending latch bars slidably mounted on the rear face of said rear panel, a cylinder lock extending through said front

and rear panels substantially centrally thereof, a crossbar fixed to the inner end of said lock and rotatable therewith, apertures in said crossbar adjacent opposite ends thereof, angularly disposed portions on the inner ends of said latch bars received in said apertures to pivotably connect said latch bars to said cross bar, whereby upon rotation of said lock said latch bars will be extended or retracted, guides adjacent the opposite side edges of said rear panel slidably receiving said latch bars and a stop means secured to said rear panel and disposed in the path of rotation of said crossbar to prevent disengagement of said latch bars from said guides, whereby said closure may be placed in said opening with said latch bars projecting into said recesses to lock said closure in place and upon rotation of said lock to retract said latch bars said closure may be completely removed from said block.

4. A safe deposit receptacle for installation as a structural element in the wall of a building, said receptacle comprising a hollow building block, an opening in one end of said block providing access to the interior, a rabbet surrounding said opening, locking bar receiving recesses in opposite side walls of said block adjacent said rabbet, a removable closure for said opening comprising a metallic front panel of a size to be received in said rabbet substantially flush with the end edge of said block, a metallic rear panel spaced from said front panel and secured thereto, thermal insulation disposed between said panels, locking means for said closure comprising oppositely extending latch bars slidably mounted on the rear face of said rear panel, a lock extending through said front and rear panels substantially centrally thereof, a crossbar fixed to the inner end of said lock and rotatable therewith, apertures in said crossbar adjacent opposite ends thereof and means on the inner ends of said latch bars received in said apertures to pivotally connect said

latch bars to said crossbar, whereby said closure may be placed in said opening with said latch bars projecting into said recesses to lock said closure in place and upon rotation of said lock to retract said latch bars said closure may be completely removed from said block.

5. A safe deposit receptacle for installation as a structural element in the wall of a building, said receptacle comprising a hollow building block, an opening in one end of said block providing access to the interior, a rabbet surrounding said opening, locking bar receiving recesses in opposite side walls of said block adjacent said rabbet, a removable closure for said opening comprising a metallic front panel of a size to be received in said rabbet substantially flush with the end edge of said block, a metallic rear panel spaced from said front panel and secured thereto, thermal insulation disposed between said panels, locking means for said closure comprising oppositely extending latch bars slidably mounted on the rear face of said rear panel, a lock extending through said front and rear panels substantially centrally thereof, a crossbar fixed to the inner end of said lock and rotatable therewith and means to pivotally connect said latch bars to said crossbar, whereby said closure may be placed in said opening with said latch bars projecting into said recesses to lock said closure in place and upon rotation of said lock to retract said latch bars said closure may be completely removed from said block.

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