Sept. 27, 1927. 1,643,494

W. A. HAYES

BURGLARPROOF BOOTH

Filed April 30, 1927 2 Sheets-Sheet 1

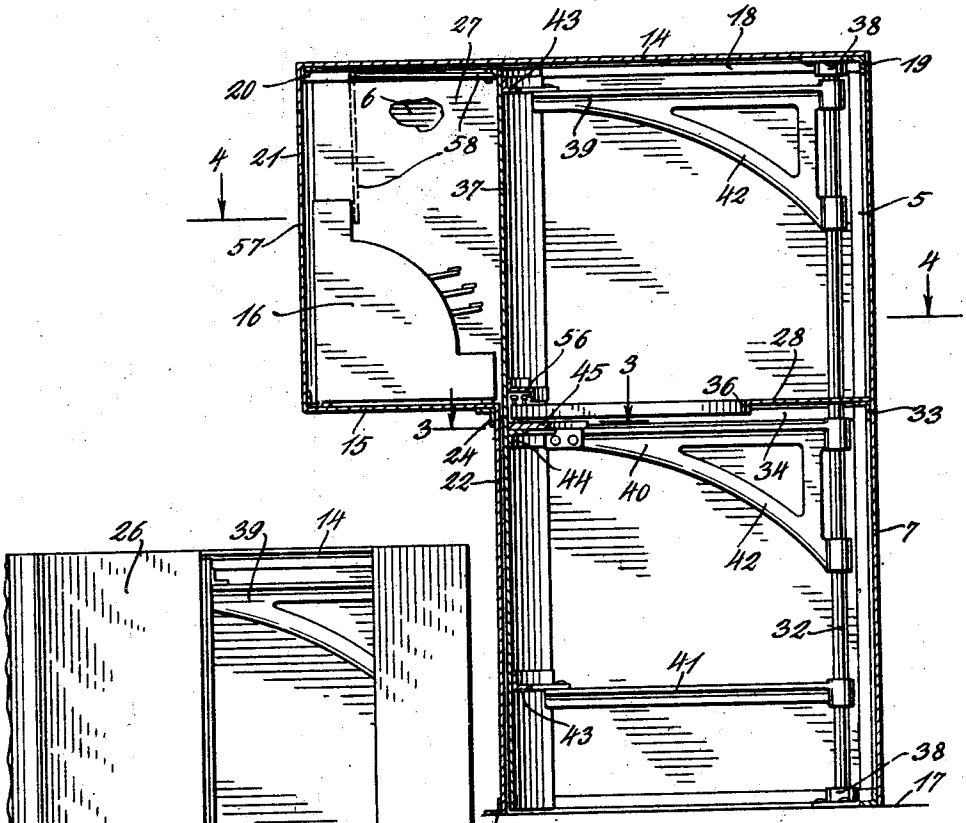


Fig. 2.

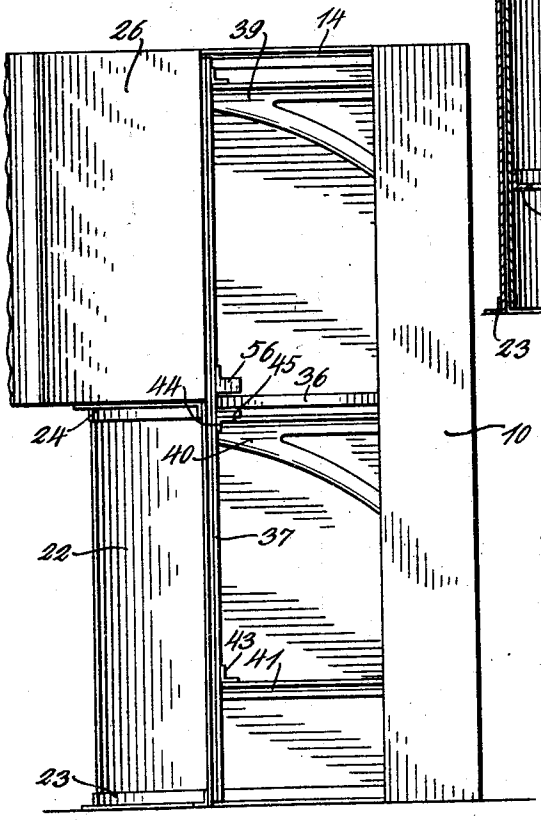


Fig. 1.

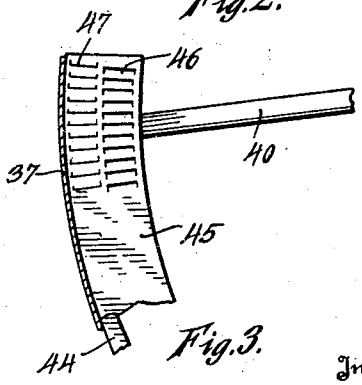


Fig. 3.

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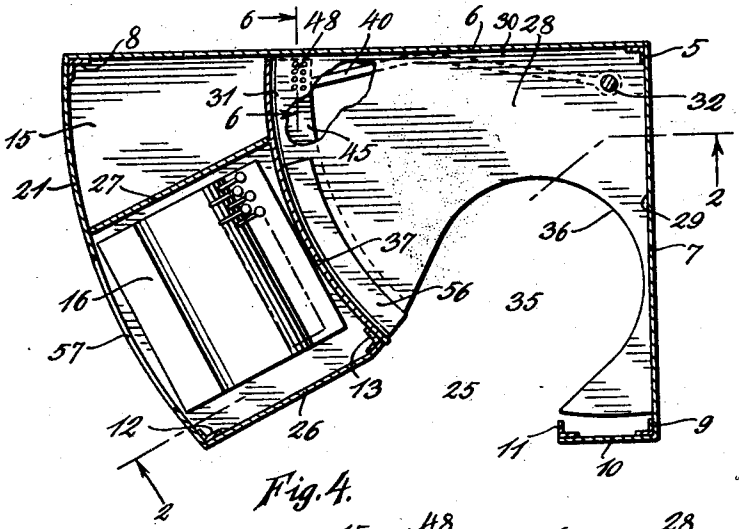


Fig. 4.

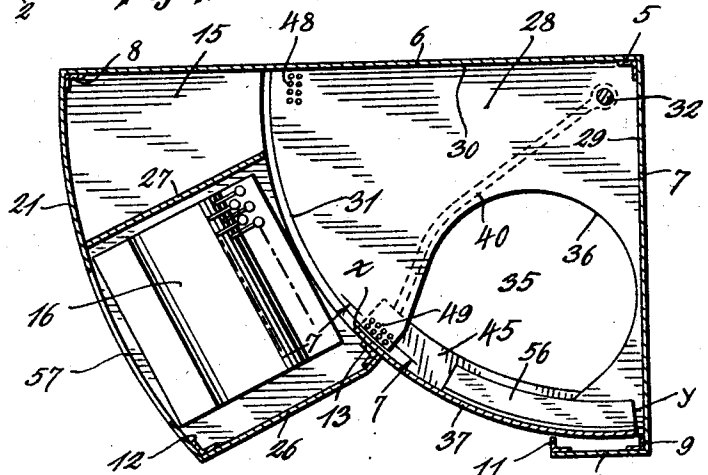


Fig. 5.

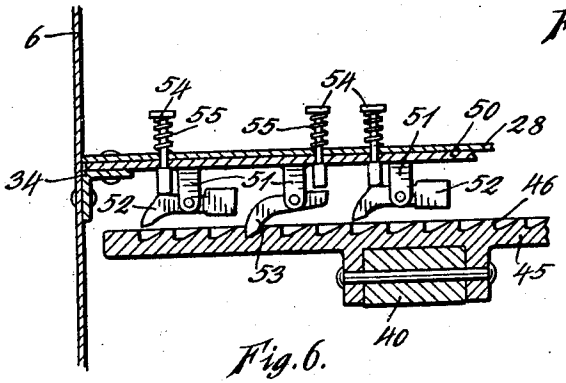


Fig. 6.

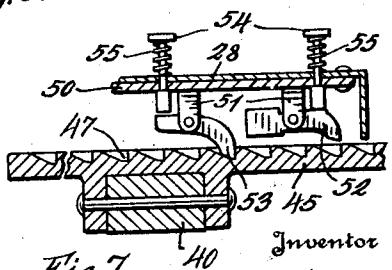


Fig. 7.

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UNITED STATES PATENT OFFICE.

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BURGLARPROOF BOOTH.

Application filed April 30, 1927. Serial No. 187,824.

This invention relates to improvements in burglar proof booths.

It is notorious that burglaries are becoming very frequent. Among the greatest sufferers from their depredations are the gasoline filling stations throughout our cities and country. The great partiality of robbers for filling stations may be explained in many ways, but may be due primarily to the fact that these stations are somewhat isolated and are usually in charge of a single attendant.

It is the object of this invention to produce a booth or housing which is constructed from bullet proof steel plates and within which the cash register is located. This booth is so constructed that when it is unoccupied the cash register will be enclosed in a compartment formed from steel plates. Before access can be had to the cash register, it is necessary for the attendant to enter the booth and to close the door which will automatically latch, thus entirely enclosing the attendant. After the door has been closed, or simultaneously with the closing of the door, the compartment containing the cash register is opened. Before the attendant or any other person can get access to the cash register, he must therefore first enter and lock himself in the booth. The lock or latch by which the door to the booth is held in closed position is preferably a pin operated permutation lock, which can be quickly and easily unlocked by the attendant who is familiar with it, but which can be opened only with the greatest difficulty, if at all, by a stranger. The latch or lock is located on the interior of the booth and therefore, if the attendant is forced to enter the booth, he can remain therein safely because the door cannot be opened from the outside and as the walls are bullet proof, he is in no danger of being shot. If the robber enters the booth he must close the door and lock himself in before he can get access to the cash register. As the lock can only be opened by one familiar with its operation, the robber will make himself a prisoner by entering the booth, and if he forces the attendant to enter the latter will be shielded from all injury by the bullet proof walls of the booth and will also be in position to use the telephone or to operate an alarm so as to call help. It is evident that filling stations, stores or other places that are equipped with this safety booth will not offer any temptation to robbers who will therefore direct their attentions to places that are not equipped in this manner.

Having thus briefly and in a general way described my invention, I will now proceed to describe the same in detail and reference for this purpose will now be had to the accompanying drawings in which the preferred embodiment has been illustrated and in which:

Fig. 1 is a side elevation of the device, a portion being broken away for want of space;

Fig. 2 is a vertical section taken on line 2—2, Fig. 4;

Fig. 3 is a detail view taken on line 3—3, Fig. 2;

Fig. 4 is a transverse section taken on line 4—4, Fig. 2 showing the door in open position;

Fig. 5 is a section similar to the section shown in Fig. 4 but showing the door in closed position;

Fig. 6 is a section taken on line 6—6, Fig. 4 and shows the lock or latch by means of which the door is locked in open position; and

Fig. 7 is a section taken on line 7—7, Fig. 5 and shows the locking elements that hold the door in closed position.

My improved burglar proof booth is preferably formed entirely of metal and its walls are made from bullet proof steel plates. An angle bar 5 is located in the corner between sides 6 and 7 and the latter have their edges riveted or bolted to the flanges of this angle bar. Angle bars 8 and 9 are secured to the other vertical edges of sides 6 and 7 respectively. A vertical sheet metal side 10 is secured along one side to one flange of the angle bar 9 and has its other vertical edge secured to the angle bar 11. In the construction of this booth I employ two other angle bars which have been designated by numerals 12 and 13. Angle bars 8, 12 and 13 extend from the top plate 14 to the plate 15 that forms the bottom of the compartment which contains the cash register 16, while angle bars 5, 9 and 11 extend from the top plate 14 to the floor 17. An angle bar 18 (Figs. 1 and 2) extends from the upper end of the vertical angle bar 5 to the corresponding end of bar 8 and has its flanges connected to the side 6 and the top 14. Another angle bar 19 lies in the angle formed by side 7 and top 14 (Fig. 2). A curved angle bar 20 ex-

tends between the upper end of angle bars 8 and 12 and connects the upper end of the curved side 21 with the curved outer edge of the top 14. A curved plate 22 has its lower end resting on the floor 17 and its upper end contacting with the under side of plate 15. A curved angle bar 23 has one flange secured to the floor and the other to the lower end of plate 22, while a curved angle bar 24 lies in the angle formed by plates 15 and 22. Other angle bars are employed in the construction but they will not be particularly pointed out as they merely serve to form a framework. The plates and angle bars above described form a housing or booth having two compartments, one compartment is formed by sides 6, 7, 10 and 22 and may be entered through a door opening 25. The other compartment is formed by the bottom plate 15 curved plate 21 end plate 26 and portions of the side plate 6 and the top 14. This latter compartment contains the cash register 16 or any other valuables that are to be safe-guarded. A vertical partition 27 may be used, if desired, to subdivide the smaller compartment.

A plate 28 has two right angularly related edges 29 and 30 and an arcuate edge 31 whose center of curvature is the center of the shaft 32. Plate 28 is located at the same height from the floor as plate 15 and is supported along edges 29 and 30 by means of angles 33 and 34. Plate 28 has a cut-out portion 35 whose opening registers with the door opening 25 and which is bounded by the curved edge 36. This cut-out or opening is of such size that it will admit a man of average size but which will in no case admit two men, even though they are both exceptionally slim. A man standing in the cut-out 35 can reach and manipulate the cash register.

In order to complete the safety features of this invention, it is necessary to provide a door that can be quickly and easily moved into such a position that will close the opening 25 and which, when it is in open position, will serve as a partition between the two compartments. The door is formed from a curved sheet 37 of sheet steel of a height equal to the height of the door opening and of such width that when it is in open position, it will extend from the door opening to plate 6 in the manner shown in Fig. 4. When the door is in closed position it extends from the inner surface of plate 7 to point marked "X" in Fig. 5. When the door is open the cash register is entirely enclosed in its compartment so as to be inaccessible to a person standing in the cutout 35 in the other compartment. The door must be mounted so as to be easily movable from closed to open position and the reverse. I have therefore illustrated a construction in which a vertical shaft 32 is located adjacent the vertex formed by plates 6 and 7. The upper and lower ends of shaft 32 are mounted for free rotation in bearings 38. Secured to the shaft are three arms or brackets which have been designated by numerals 39, 40 and 41. Arms 39 and 40 are preferably identical in shape and size and are each provided with a brace portion 42. An arcuate section 43 of angle iron is connected to the outer ends of arms 39 and 41 and to these the door 37 is secured. A similar arcuate angle iron 44 is connected to the free end of arm 40 and to the door 37. An arcuate plate 45 is secured to the upper surface of the angle iron 44. The inner end of member 45 is provided with two short arcuate sections of reversely arranged ratchet notches 46 and 47. These notches cooperate respectively with locks 48 and 49 to lock the door in open and in closed position. A locking device that can be employed in this device has been illustrated in Figs. 6 and 7. A plate 50 is secured to the undersurface of plate 28 and from the under surface of this plate a plurality of spaced pairs of ears or lugs 51 project downwardly. Pivoted to each pair of lugs is a pawl. These pawls are of two kinds; those that have been numbered 52 are counterweighted so as to be normally out of contact with the notches in part 45, while those that are numbered 53 are so proportioned that they are normally in engagement with the upper surface of plate 45. A plunger 54 is located above the lighter end of each pawl and is held in raised position by means of a spring 55. When the plungers that cooperate with the pawls 53 are pressed downwardly these pawls are moved into inoperative position and when the plungers associated with the inoperative pawls 52 are pressed downwardly these pawls are moved into operative position. These locks have been illustrated as each having eight plungers and eight pawls but a greater or a less number may be used. Each lock has three or more pawls 53 and in order to open the locks the three plungers corresponding to the operative pawls 53 must be pressed down simultaneously without at the same time pressing any plunger corresponding to any of the pawls 52. As all of the plungers 54 are the same in appearance the location of those that control the pawls 53 must be learned before the lock can be operated.

When the parts are in the position shown in Fig. 4 the door forms a partition wall between the two compartments and is held against movement towards closed position by the pawls 53 on lock 48.

Let us now suppose that the attendant desires access to the cash register. He will enter through the door opening 25 and assume a position in the cut-out 35 in plate 28. He will then press the three plungers of lock 48 which control the three pawls 53 and while he holds these in inoperative posi-

tion he will swing the door towards closing position. As long as any portion of the door is in front of the cash register, the occupant is unable to get the cash drawer open and it is not until the door reaches the position shown in Fig. 5 that the cash register can be opened. As soon as the door reaches a position in which the edge "Y" is about in line with the vertical angle bar 11 lock 49 becomes effective and locks the door in closed position. As long as the door is open, even partially, the plate covers the plungers 54 but after the leading edge of the door has passed, the bar 11, the plungers of lock 49 may be uncovered. When the parts are as in Fig. 5 the occupant may open the cash register, but unless he is in possession of the information necessary to unlock the door, he is a prisoner within the booth. The attendant, however, who is familiar with the locks can open them without any difficulty.

The curved side 21 has a cut-out 57 through which the indications on the cash register can be read. A hinged plate 58 is secured to the roof plate 14 in such a way that it can be dropped down into position in front of the cash register if occasion demands.

Let us now assume that the booth is in place and equipped with a cash register as shown. When the booth is unoccupied, the door will be open (Fig. 4) and if a thief should enter it, he would not obtain access to the cash register because the door is interposed between him and it. Before the door can be closed lock 48 must be opened. If the thief should succeed in opening lock 48, he could then move the door to closed position and get access to the cash register, but in so doing he would become a prisoner. Even if the locks 48 and 49 can be worked by a stranger, it will require some time to do so and during this time the attendant will be apprised of the fact that some one is in the booth and make arrangements to capture him.

If the burglar should force the attendant to enter the booth, the latter can close the door and will then be entirely safe and can use the telephone or close a switch to an electric signal so as to call the police or summon aid.

From the above it will be seen that the burglar, if he attempts to rob the cash register himself, will be made a prisoner in the booth and if he forces the attendant to go in and get the cash and give it to him, the latter can lock himself in and call help. The compartment in which the man stands must be so formed that only one individual can find room in it at one time; this is accomplished by using the plate 28 and providing it with a cut-out 35 that is of such size that it will receive only one person at a time. If two people could be contained within the compartment at the same time one could coerce the other and the safety feature would become ineffective. The embodiment shown is illustrative only and should not be considered as in any way limiting the invention to the exact construction shown.

I have illustrated a structure in which the door itself forms the partition between the two compartments when it is in open position, but it is obvious that the partition may be formed by a separate plate properly connected with the door so as to be controlled by the latter.

Having described my invention what I claim as new is:

1. A safety device for the protection of valuables from robbers comprising a housing formed from bullet proof material, said housing having two compartments, one of which is adapted to contain the valuables and the other being of such size that it can contain only one average sized individual, said housing having a door opening of sufficient size to permit a man to pass through, a movable partition separating the two compartments, a movable door for closing the door opening, means for so interconnecting the door and the movable partition that when the door is open the partition will be in position to separate the two compartments and when the door is closed the partition will be in such a position that the two compartments are in communication with each other and means for locking the door in closed position.

2. A safety device for the protection of valuables from robbers comprising a housing formed from bullet proof material, said housing having two compartments, one of which is adapted to contain the valuables and the other being of such size that it can contain only one average sized individual, said housing having a door opening of sufficient size to permit a man to pass through, a movable partition separating the two compartments, a movable door for closing the door opening, means for so interconnecting the door and the movable partition that when the door is open the partition will be in position to separate the two compartments and when the door is closed the partition will be in such a position that the two compartments are in communication with each other, means for locking the door in closed position and means for locking the door in open position.

3. A burglar proof booth comprising a housing whose walls are bullet proof, the interior of said housing having two compartments, one for a cash register and the other for the reception of an individual, said housing having a door opening through which a person may enter the last named compartment, a door for closing said open-

ing, a movable partition for separating the compartments, said door and partition being so interconnected that the partition will be in such a position that it will separate the compartments while the door is open and open communication between said compartments when the door is closed and means for automatically locking the door when it reaches closed position.

4. A burglar proof booth comprising a housing whose walls are bullet proof, the interior of said housing having two compartments, one for the reception of a cash register and the other for the reception of an individual, said housing having an opening through which a person may enter the last named compartment, a door for closing said opening, said door when in open position serving as a partition for separating the two compartments, and means for locking the door both in open and closed position.

In testimony whereof I affix my signature.

WALTER A. HAYES.