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ROBBERY PREVENTION APPARATUS

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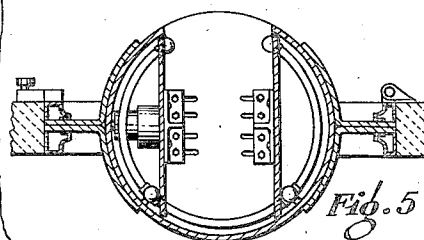
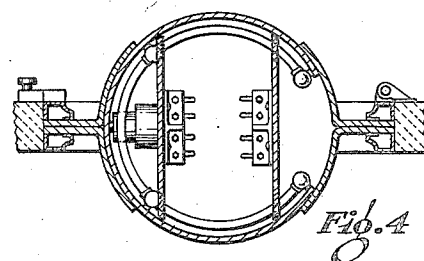
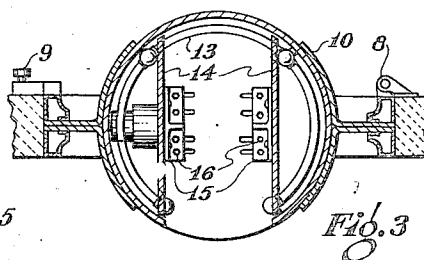
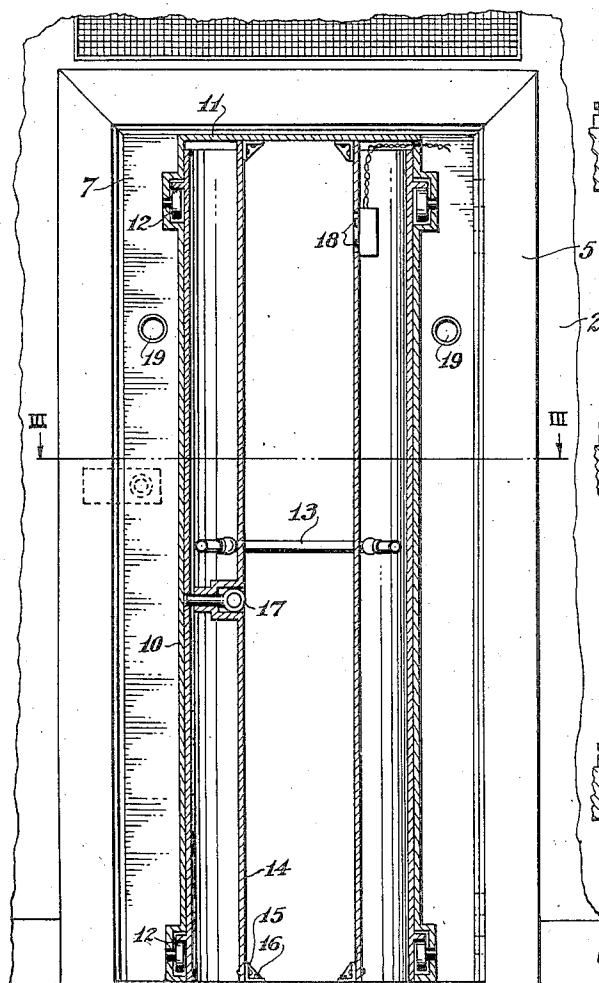
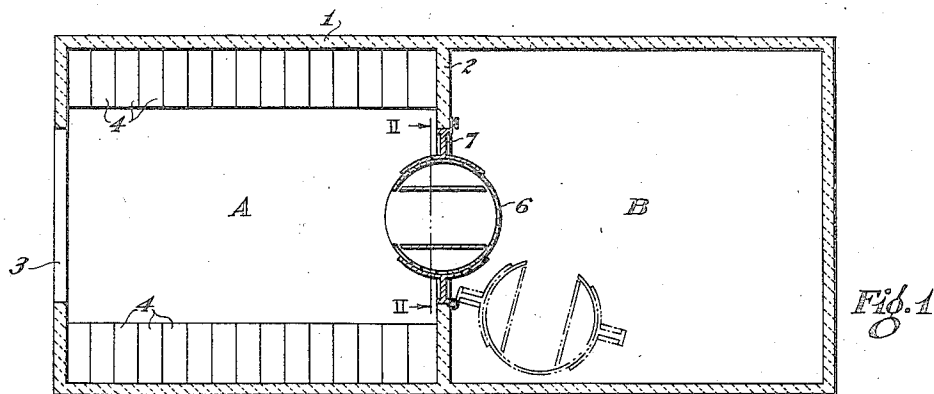


Fig. 2

Fig. 1

Fig. 3

Fig. 4

Fig. 5

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ROBBERY PREVENTION APPARATUS

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11 Claims. (Cl. 20—1.01)

This invention relates to a device for preventing robberies and the like, and is particularly applicable to use by banks and other institutions which have vaults or similar spaces for the storage of valuables.

Banks and other concerns which keep large amounts of cash and other valuable articles of course have been provided with vaults or storage spaces having protecting walls and doors, so that access to the valuables is difficult. They also are equipped with various alarm systems and the like and generally with armed guards, and other precautions against theft of the valuables are taken.

With a vault of good construction and suitable doors and locks, the breaking into the storage space is difficult, hence burglary of such vaults is infrequent. It will be noted that recently when a bank's funds have been stolen, this has been done by robbery during business hours, the robbers entering the bank and intimidating the occupants, while they remove from the vault such things as they desire.

Of course, when one of the employees of a bank is confronted with an armed robber, he is not inclined to actuate alarms or do anything else which he feels will precipitate unpleasant results upon himself.

If, however, the bank could be provided with means which would insure the removal of at least one of its employees beyond the range of the robbers' weapons, this employee would be free to operate alarms and the like, to release incapacitating gas, to lock all means of egress from the bank, or in other manners to set into motion instrumentalities for capture of the robbers.

It is an object of the present invention to provide an improved apparatus which will insure the placing of at least one member of the personnel of the concern using it in a safe place from which he can actuate any alarm or other protective devices with which the building is equipped.

Another object is to provide a device for protecting one person, which may be mounted in a doorway, as for instance that leading to the vault or to one chamber of the vault.

Another object of the invention is to provide a vault with a protecting device which may be mounted in the doorway but which may be moved so that it will not obstruct this doorway. Other objects will hereinafter appear.

The invention will be better understood from the description of one practical embodiment

thereof illustrated in the accompanying drawing, in which:

Figure 1 is a plan view of a more or less typical bank vault;

Figure 2 is a cross-sectional view taken on the line II—II of Figure 1; and

Figures 3, 4 and 5 are sectional views taken on the line III—III of Figure 2 showing the parts in different positions which they occupy as the apparatus is used.

In Figure 1 a vault is shown having an outer chamber A and an inner chamber B, the two being surrounded by walls 1 and separated by a transverse partition 2. A door 3 through the outer wall provides access to the outer chamber A, this being the chamber in which are generally located safety deposit boxes 4 or the like.

Through the partition 2 is a doorway surrounded by a frame 5 in which is mounted a door provided with a revolving cylindrical shell 6 which will permit the passage of one person only to the inner chamber.

The door itself consists of a rectangular frame 7 pivoted by hinges 8 to one side of the jam, so that it may swing from the position it is shown in full lines of Figure 1 to the position shown in the dotted lines of this figure.

A lock 9, operable from the interior of the inner chamber, is indicated for holding the door in the position in which it fills the doorway, this lock conveniently being a combination device placed on the inner side of either the frame or the door itself.

Rigidly secured to the door frame are arcuate wings 10 joined to a generally circular top 11, and suspended within these wings as upon rollers or bearings 12 is the parti-cylindrical shell 6, mounted to revolve about a central vertical axis and fitting closely within the wings. A hand rail 13 is attached to the shell for convenience in rotating it.

Within the shell, two vertical plates 14 are positioned, these being connected to the door frame by brackets 15 and screws 16 so that they may be adjusted toward and from each other to fit the space between them to the individuals who are to use the apparatus.

Each pair of wings, it will be noted, is over 90 degrees in extent, and the shell extends for over 270 degrees, so that the opening of the shell may be caused to register with either the inner or outer openings between the edges of the pairs of wings or may be completely covered by either pair of wings.

Supported within the shell, at some point

where it is not conspicuous but may readily be reached by a person within this shell, is a lock 17 by which the shell may be locked against rotation with its opening either covered by the wings or facing chamber B and is also means for actuating such protective devices as signals, gas, locks, etc., the latter being shown as a plurality of switches 18 mounted upon one of the vertical plates 14.

Gun ports 19, if desired, may be formed through the door on either side of the wings. The door itself including the wings and shell is made of bullet-proof material, and it is preferable that the entire partition 2, including such gratings as are provided for ventilation, be bullet-proof.

The operation of the device is as follows:

Upon installation, the plates are adjusted so that there will just be room for any one of the bank personnel to pass between them, the diameter of the shell being so small that two persons cannot get within it. In the morning, when it is desired to bring the trays from the vault to the tellers' cages, one member of the bank's personnel enters this shell and rotates it 180 degrees, which permits him to enter the inner chamber; he then opens the door 7 by releasing the lock 9, and swings the door to its dotted line position. The tellers can now pass through the doorway and bring their trays out; after which, and before the bank is opened to the public, the door is closed and locked in place.

If, now, robbers enter the bank and desire to get into the vault, they are confronted with the necessity of passing through the vestibule formed by the shell one at a time. As the robbers are unfamiliar with the storage of articles within the vaults, and as these are largely stored in locked containers, it becomes necessary that one of the bank's personnel be taken into the inner chamber.

If this member of the bank's personnel be sent through the vestibule first, he passes clear through to the inner chamber, locks the shell in a position to block the entrance, and is then free to operate all the alarms that he desires, to shoot through the gun ports, and so on. If, to prevent this, one of the robbers passes through the vestibule first and another sends one of the bank's personnel after him, this member of the bank's personnel rotates the shell only 90 degrees and locks it in a position in which it covers both the entrance and exit, so that he is safe from the robber on the interior as well as from those on the exterior, and operates his alarms and devices by means of the buttons 18 or the like within the shell.

While the apparatus is primarily intended to prevent the robbery of the vault during the time when the institution is open for business, it will be apparent that by locking the shell, it will materially assist in rendering the entering of the vault difficult and thus also serve as a protection against burglary.

While I have described the illustrated embodiment of my invention in some particularity, obviously many others will readily occur to those skilled in this art, and I do not, therefore, limit myself to the precise details shown and described but claim as my invention all embodiments, variations, and modifications thereof coming within the scope of the appended claims.

I claim:

1. In combination with a partition having a

doorway therethrough, a door selectively movable to close said doorway or to clear the same, said door having projecting wings forming a vestibule, a parti-cylindrical closure supported for rotation between said wings and having an opening on one side only and movable to either entrance of the vestibule, the wings on the door being sufficient in extent to completely cover said opening.

2. In combination with a partition having a doorway therethrough, a door selectively movable to close said doorway or to clear the same, said door having projecting wings forming a vestibule, a parti-cylindrical closure supported for rotation between said wings having an opening on one side only and movable to either entrance of the vestibule, the wings on the door being sufficient in extent to completely cover said opening, and walls supported by the door within the closure limiting the passage space within the vestibule.

3. In combination with a partition having a doorway therethrough, a door selectively movable to close said doorway or to clear the same, said door having projecting wings forming a vestibule, a parti-cylindrical closure supported for rotation between said wings having an opening on one side only and movable to either entrance of the vestibule, the wings on the door being sufficient in extent to completely cover said opening, and walls adjustably supported by the door within the closure limiting the passage space within the vestibule.

4. In combination with a partition having a doorway therethrough, a door hinged adjacent one side of the doorway, a lock retaining the door in doorway closing position, the central portion of the door being apertured and provided with arcuate wings, a parti-cylindrical shell arranged to rotate about a vertical axis and closely fitting within the wings, means for rotating said shell, a pair of vertical plates extending transversely of the door within the shell and adjustably attached to the door, and locking means for locking the shell in position in which its opening is covered by one of said wings.

5. In combination with a wall having a doorway therethrough, a door movable from a position filling said doorway to a position where its projection on the wall clears the doorway, the door having a vestibule the interior of which is of sufficient extent to accommodate one person only and having openings at each end, and closure means for said openings arranged to always close at least one of said openings.

6. In combination with a wall having a doorway therethrough, a door movable from a position filling said doorway to a position where its projection on the wall clears the doorway, the door having a vestibule the interior of which is of sufficient extent to accommodate one person only and having openings at each end, and closure means for said openings arranged to always close at least one of said openings, the vestibule projecting substantially equal distances to both sides of the doorway.

7. In combination with a wall having a doorway therethrough, a door movable from a position filling said doorway to a position where its projection on the wall clears the doorway, the door having a vestibule the interior of which is of sufficient extent to accommodate one person only and having openings at each end, integral closure means for said openings arranged to always close at least one of said openings, and

locking means arranged to selectively lock the closure means in any of three positions.

5 8. A vault having a wall provided with a vestibule therethrough, the vestibule having a passageway opening on one side of the wall and a
10 passageway opening on the other side of the wall, closure means for said passageway openings and arranged so that it can clear only one opening at a time, and locking means arranged
to selectively lock the closure means closing either or both openings.

9. A vault having a wall provided with a vestibule therethrough, the vestibule having a passageway opening on one side of the wall and a
15 passageway opening on the other side of the wall, closure means for said passageway openings and arranged so that it can clear only one opening at a time, and locking means arranged
20 to selectively lock the closure means closing either or both openings, said closure means and locking means being operable from within the vestibule, the space within the vestibule being
of sufficient size to admit only one person at a time.

25 10. A vault having a wall provided with a vestibule therethrough, the vestibule having an

opening on one side of the wall and an opening on the other side of the wall, closure means for said openings and arranged so that it can clear only one opening at a time, locking means arranged to selectively lock the closure means
5 closing either or both openings, and an adjustably supported partition within the vestibule whereby the space within the same may be varied, the closure means and partition defining
10 a space within the vestibule in which a person may stand whereby adjustment of the partition will cause this space to conform to the size of the person intending to use the device.

11. In combination with a wall having a doorway therethrough, a door hinged to the wall at
15 one side of the doorway, locking means arranged to retain said door across said doorway, a vestibule in said door, closure means associated with said vestibule and operable independently of
20 said door, the interior of the vestibule being of sufficient extent to accommodate one person only and arranged to be used when the door is locked across said doorway, the door and vestibule being included within a dihedral angle
25 of 90° having its apex at the axis of the hinges.

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