

Fig. 1.

Inventors

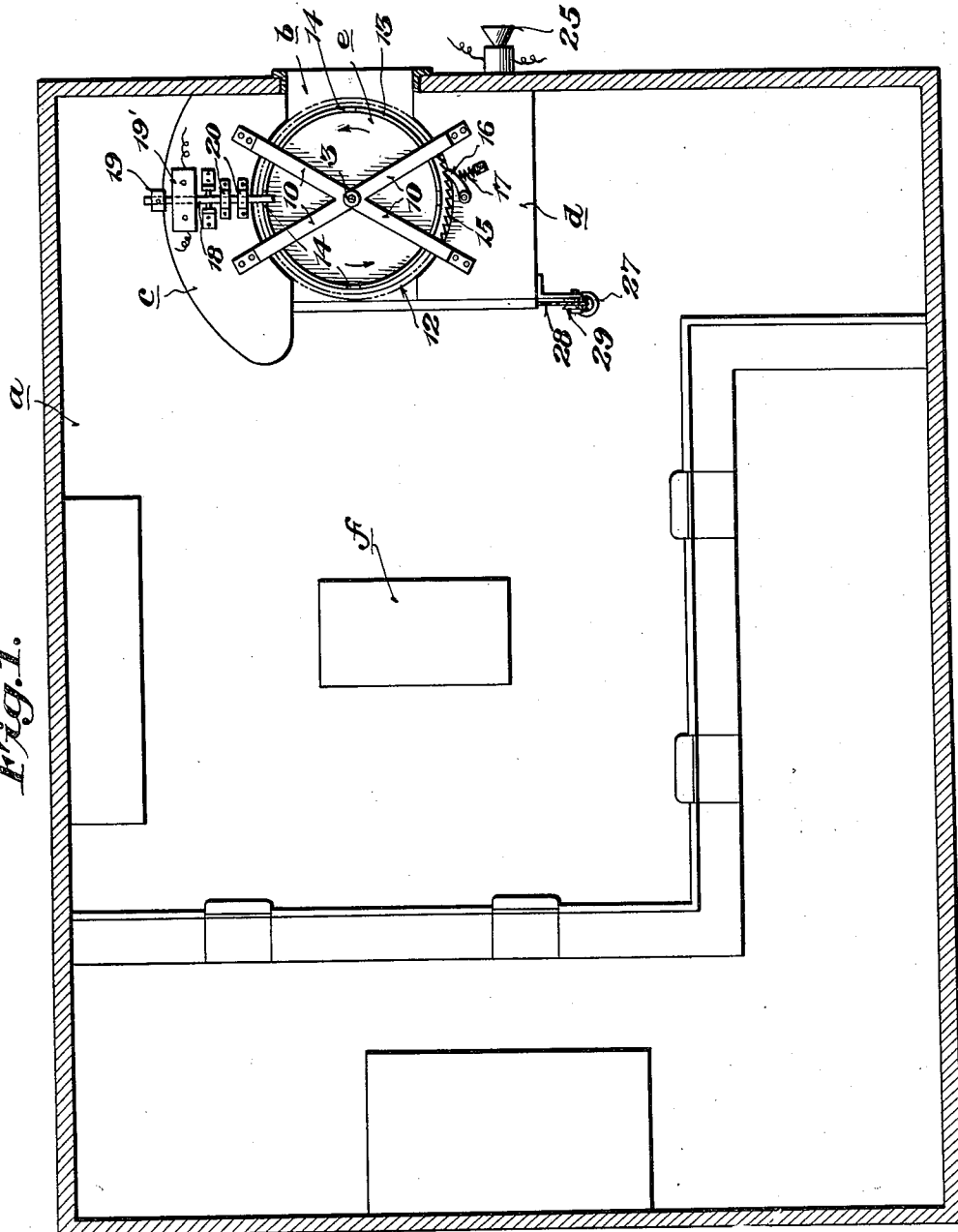
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June 11, 1935.

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2,004,551

BANK BANDIT TRAP

Filed Feb. 23, 1932

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Fig. 2.

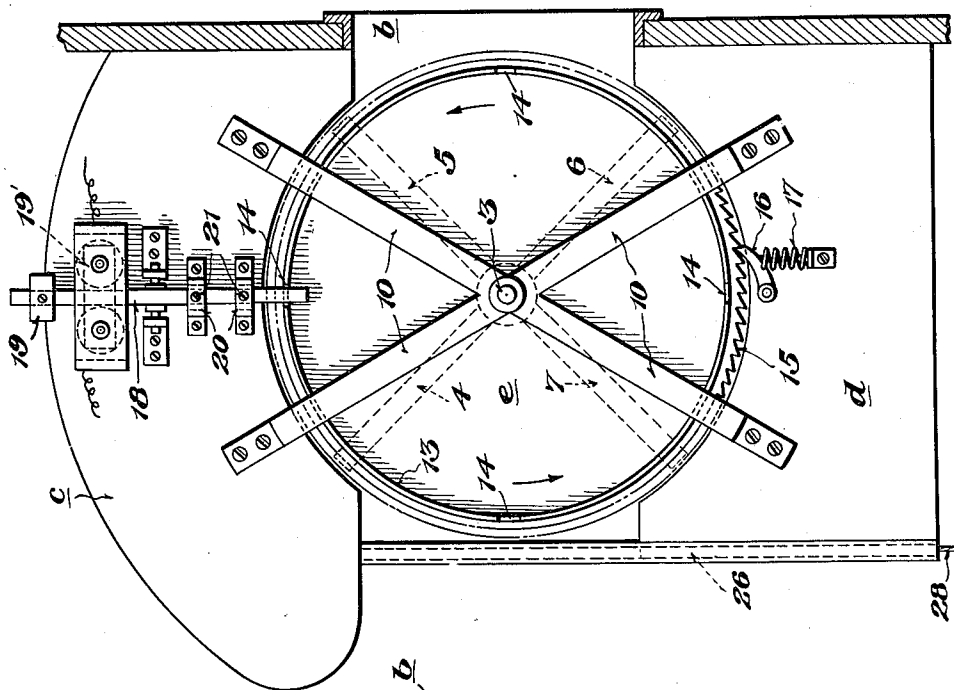
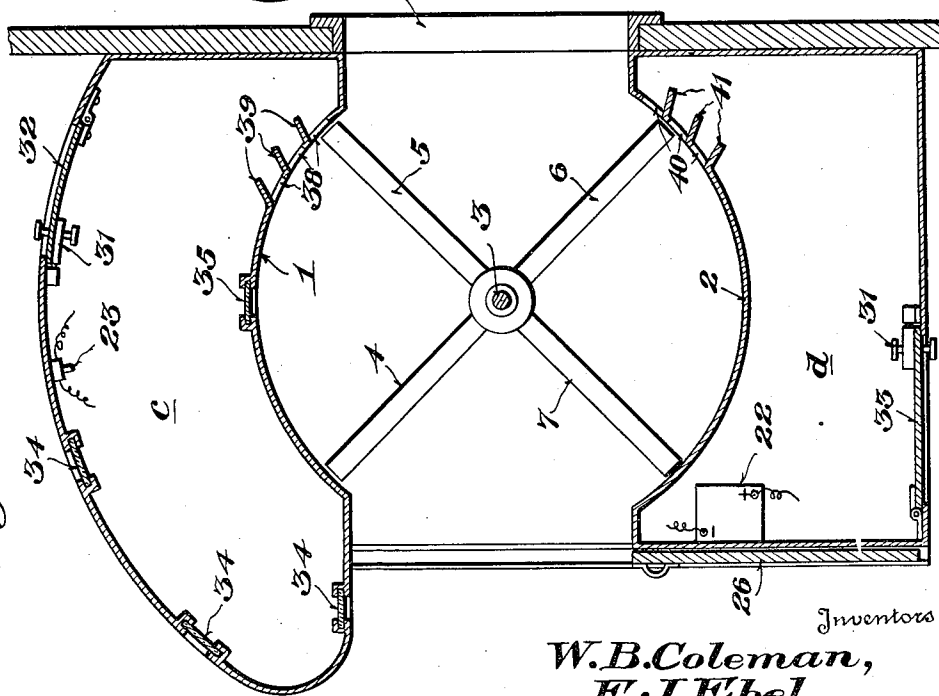


Fig. 3.



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Fig. 4.

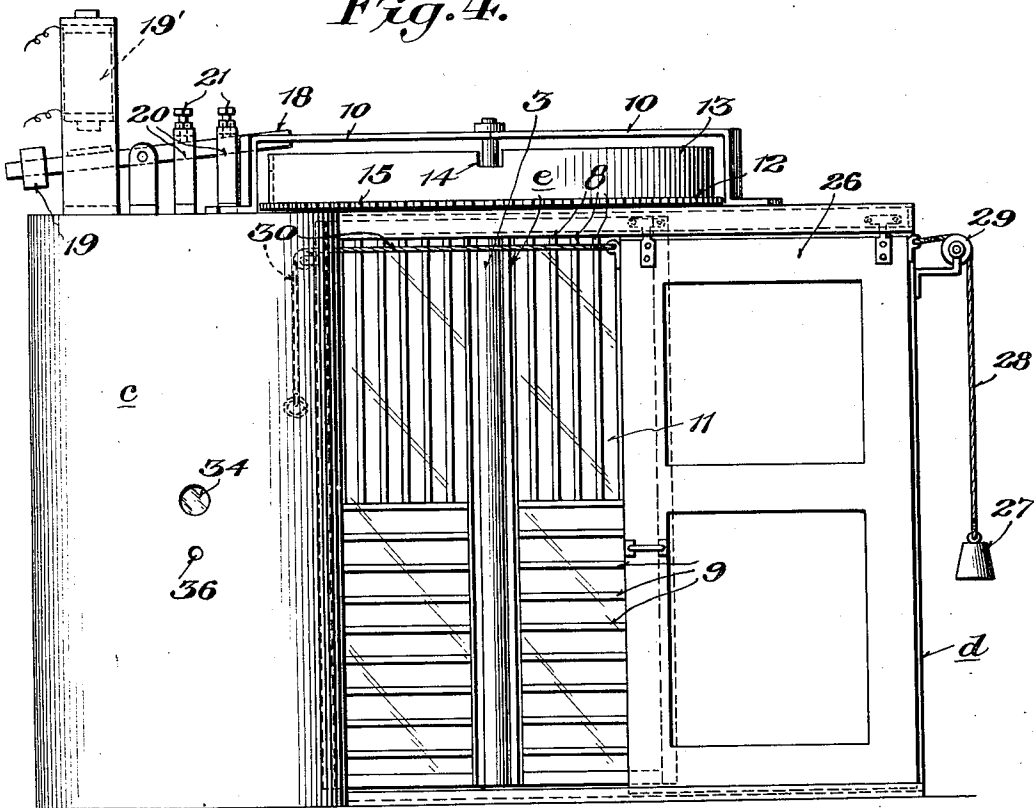


Fig. 5.



Fig. 7.

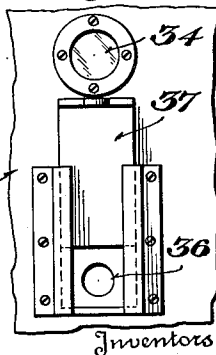
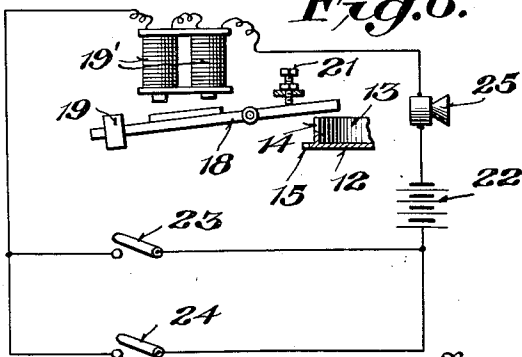


Fig. 6.



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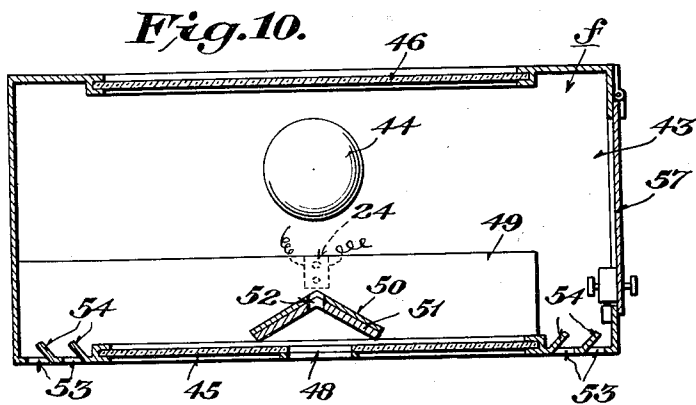
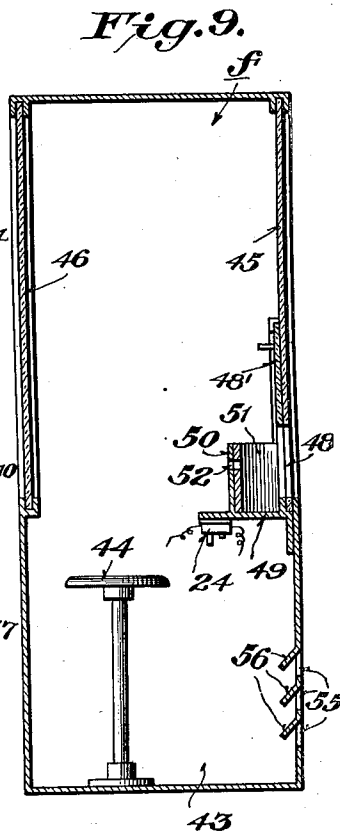
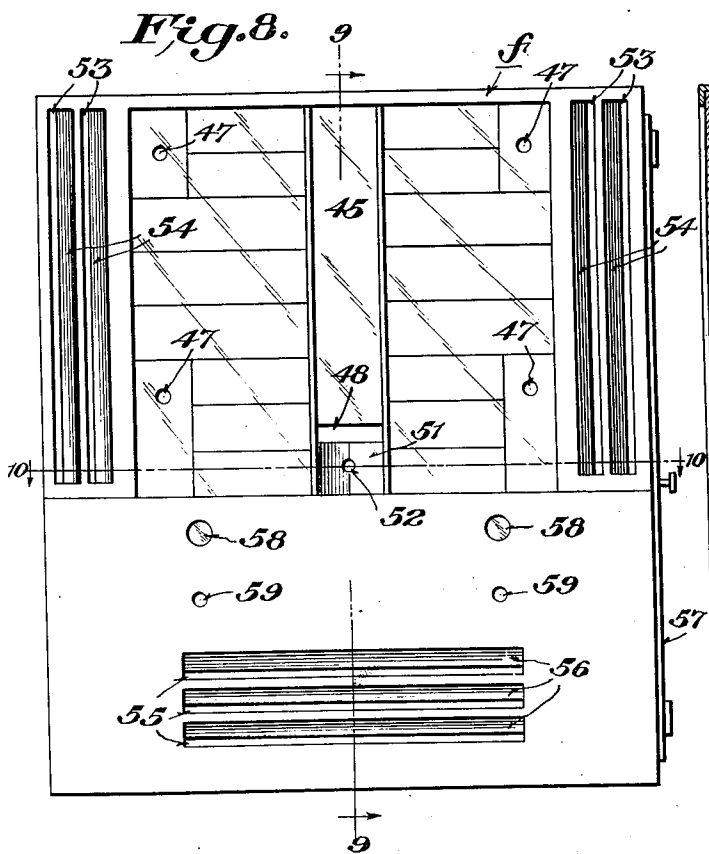
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4 Sheets-Sheet 4



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UNITED STATES PATENT OFFICE

2,004,551

BANK BANDIT TRAP

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Application February 23, 1932, Serial No. 594,724

3 Claims. (Cl. 20—1.01)

Our invention relates to new and useful improvements in bank bandit trap and has for its principal object the provision of means for preventing the escape of a person who has or who attempted to hold up and rob a bank.

Another object of the invention consists in the provision of a rotatable door positioned in a passage and normally adapted to permit persons to enter and leave the bank, means being provided and controlled from suitable points for engaging and preventing rotation of the door and for holding the same in a position to trap the bandit within the bank or in a position between the openings of the passage through which persons pass in entering and leaving the bank.

Another object of the invention resides in the provision of compartments adjacent the revolvable door into which an attendant may enter, one of the compartments being provided with windows through which a view of the interior of the bank may be obtained, at least one of the windows being positioned to overlook the end of the entrance passage. Openings are also provided through which an attendant may discharge a gun, these openings being normally closed by doors or slides and the windows being preferably formed of bullet-proof glass. Each of the compartments is also provided with ventilating openings adjacent which are positioned deflecting vanes whereby any bullets discharged from a gun carried by the bandit may be deflected away from the attendant or person positioned within the compartment. One of the compartments may be used for storage of a battery or other mechanism for a purpose which will be brought out.

Still another object of the invention consists in the provision of a novel form of teller's cage in which the teller while at his regular work, will have a clear view of the interior of the bank and the entrance passage. The teller's cage will also have openings through which a gun may be fired as well as deflecting vanes for deflecting bullets, fired by the bandit, away from the occupant of the cage.

As a further object of the invention we form the rotatable door of a plurality of slats or bars and provide removable glass panels which may be attached in the winter time or during inclement weather.

With the above and other objects in view, which will appear as the description proceeds, our invention consists in the novel details of construction and arrangement of parts, described in the following specification and illustrated in

the accompanying drawings, and while we have illustrated and described the preferred embodiments of the invention, as they now appear to us, it will be understood that such changes may be made as will fall within the scope of the appended claims.

In the drawings:—

Fig. 1 shows a general plan of the interior of the bank with our trap positioned in the entrance and outlet passage.

Fig. 2 is a detail showing a top plan of the trap and adjacent compartments.

Fig. 3 is a horizontal section, with parts shown in plan, through the trap and compartments.

Fig. 4 is a side elevation looking from the interior of the bank.

Fig. 5 is a fragmental detail showing a horizontal section through one of the arms or partitions of the revolvable door with the detachable glass panels in position.

Fig. 6 is a diagrammatic view of the circuit for controlling the rotatable door lock and for operating a siren preferably positioned exteriorly of the bank.

Fig. 7 is a fragmental detail showing one of the windows for gaining a view from the compartment positioned adjacent the revolvable door as well as one of the port openings for firing a gun, with the door or slide, for normally closing the port opening in raised position.

Fig. 8 is a front elevation of the teller's cage from which the revolving door may be controlled and from which the teller may gain a clear view of the bank room.

Fig. 9 is a vertical section on the line 9—9 of Fig. 8 looking in the direction of the arrows; and

Fig. 10 is a horizontal section on the line 10—10 of Fig. 8 looking in the direction of the arrows.

In the drawings *a* indicates the interior of a bank having the usual arrangement of counters, teller cages, vaults, etc., and *b* indicates the passage through which persons enter and leave the bank. The passage *b* is formed by the compartments *c* and *d*, the inner walls or faces of which are curved inwardly as shown at 1 and 2 to permit proper positioning and rotation of a door indicated generally at *e*. The door includes the vertically extending shaft 3 and the radially extending arms or partitions 4, 5, 6 and 7, the arms or partitions being formed as shown more particularly in Fig. 4 of the drawings by means of the vertically extending bars or rods 8 and the horizontally extending bars or rods 9. The lower end of the vertically extending shaft 3 is rotatably mounted in the floor while the upper end

is rotatably mounted in the braces 10, as shown more particularly in Figs. 1, 2 and 4 of the drawings. As shown more particularly in Fig. 3 the outer ends of the arms or partitions, forming a part of the door, rotate within the curved portions 1 and 2 of the compartments c and d. For winter use or during inclement weather we provide the glass panels 11 which may be detachably connected on opposite faces of the arms or partitions of the rotatable door, as shown more particularly in Fig. 5 of the drawings. Secured to the shaft 3, adjacent the upper end thereof, is a disc or plate 12 having the upwardly extending peripheral flange 13 which is formed in its upper edge with the circumferentially spaced notches or recesses 14, these recesses or notches 14 being spaced an equal distance apart, as shown more particularly in Figs. 1 and 2 of the drawings and for a purpose which will be later apparent. The plate or disc 12 is provided around its peripheral edge with ratchet teeth 15 which are engaged by a pawl 16 normally pressed into engagement with the teeth by the spring 17. This arrangement of teeth and pawl is more particularly illustrated in Fig. 1 of the drawings and permits rotation of the door c in only one direction as indicated by the arrows.

For locking the rotatable door we provide the latch member 18 which is normally held with its inner end raised, as shown more particularly in Figs. 4 and 6 of the drawings, by means of the weight 19, this latch member 18 forming an armature adapted to be attracted by the magnet 19' when the same is energized. When the magnet is energized the inner end of the latch member will be lowered to be engaged in one of the notches or recesses 14 and it will be understood that if one of the notches is not in position to receive the end of the latch member when the armature is initially energized that the end of the latch member will ride around the upper edge of the flange 13 as the door is rotated and will then snap into the notch or recess 14 when the same is aligned with the latch. With the end of the lever engaged in a notch the door will be held against rotation and with the arms or partitions forming a part of the door positioned as shown more particularly in Fig. 3. If a bandit has reached the door before the same is locked he will be trapped between certain pairs of the arms or partitions between the ends of the passage. In the position shown in Fig. 3 the bandit might be trapped between the arms 4 or 5 or between the arms 6 and 7. If the bandit has not reached the door, prior to the same being locked, he naturally could not rotate the door, when reached, to escape. In other words with the arms positioned as shown in Fig. 3 if the bandit should enter between the arms 4 and 7 he could not rotate the door.

The latch or armature 18 operates in the guide members 20 which limit the upward movement of the inner end thereof, as shown more particularly in Fig. 4 of the drawings, and each of the guides is provided with an adjusting screw 21. The circuit shown in Fig. 6 includes the battery 22, switches 23 and 24, magnet 19', armature or latch 18, and siren 25, the parts being connected by the wiring shown and it will be understood that the siren may be positioned as desired, but preferably exteriorly of the building to attract attention of police officers or passers-by. The switches 23 and 24 may be positioned as desired, but we have illustrated one switch as being positioned in the compartments c and the

other switch being positioned in the teller's cage f, the detailed construction of which will be later described.

For closing, when desired, the inner opening of the passage b we provide the sliding door 26 supported from a suitable track construction and normally held in open position by the weight 27 connected to the door by means of the rope or cable 28, the rope or cable passing over the pulley 29, as shown more particularly in Fig. 4 of the drawings. A rope 30 is connected to the door 26 and leads into the compartment c where it may be grasped for pulling the door closed. If desired, the end of the rope might be connected to a lever or the like and may be secured in any suitable manner for holding or locking the door closed. When the rope is released the weight 27 will pull the door to open position. While we have only illustrated the two switches 23 and 24 it will be understood that any desired number of switches may be provided and positioned at different points within the bank for operation by the desired persons. The compartment c is provided with the door 32 through which a person may enter and leave the compartment and the compartment d is provided with a door 33 for the same purpose. Latches 31 are provided for locking the doors 32 and 33 from the inside of the compartment. The compartment c is provided with the windows or look-outs 34, preferably of bullet-proof glass, and these windows or look-outs are positioned, as shown more particularly in Fig. 3 of the drawings, so that a person within the compartment may gain a view of the interior of the bank, and it will be noted that one of the windows is positioned adjacent the inner end of the passage b. The curved wall 1 of the compartment c is provided with the window or look-out 35 so that a person within the compartment may see a person positioned between the arms or partitions of the rotatable door. Beneath each of the windows 34 and 35 is a port hole 36 through which a gun may be fired when desired. These port holes are normally closed by the slides or doors 37 shown more particularly in Fig. 7 of the drawings. A person within the compartment c may talk to a person positioned in the passage b through the port opening beneath the window 35 when desired. For ventilating purposes openings 38 are formed in the curved wall 1 of the compartment c and positioned adjacent one edge of each of the openings 38 is a vane 39 directed, as shown more particularly in Fig. 3 of the drawings, for deflecting shots or bullets from a person who may be leaving or entering the compartment.

The compartment d is provided with the ventilating openings 40 and adjacent one edge of each of the openings is a deflecting vane 41 for directing bullets or shots away from a person entering or leaving the compartment. In Fig. 3 of the drawings we have shown the battery 22 as being positioned within the compartment d and the switch 23 is shown positioned in the compartment c.

The teller's cage f will be so positioned within the bank room that the teller or attendant, within the cage, may have a view of the entire interior of the room. The formation of the cage is shown more particularly in Figs. 8, 9 and 10 of the drawings and includes the cabinet 43 having a stool 44 upon which the attendant may sit. We have shown the cabinet as being formed of metal and provided with the front and rear

bullet-proof glass panels 45 and 46, each panel being provided with the port holes 47 through which a gun may be fired. The front panel is also provided with the opening 48 through which the attendant may talk and positioned just beneath the opening 48 is a shelf 49 to the under surface of which the switch 24 is secured. Positioned on the shelf 49, in the rear of the opening 48 is a shield, to protect the attendant, and this shield includes the metal back plate 50 and the wood front facing 51 in which bullets which might be fired through the opening 48 will be embedded. The shield is provided with a port opening 52 through which the attendant may look out or fire a gun when desired. The front of the cabinet is provided, at the sides of the glass panel 45, with the ventilating openings 53, which are elongated and extend vertically, and positioned along one edge of each of the openings is a deflector strip or vane 54, these vanes or strips being directed towards the sides of the cabinet to deflect bullets or shots away from the attendant. We have also shown transversely extending openings 55 beneath the glass panel 45 and adjacent the upper edge of each of these openings is a downwardly extending deflecting vane 56 which will deflect bullets or shots towards the bottom of the cabinet. A door is shown at 57 and the attendant may enter or leave the cabinet through this door. At 58 we have shown windows, formed of bullet-proof glass, through which the attendant may look and beneath each of these windows is a port or opening 59 through which the attendant may fire a gun. A sliding door 48' is provided for closing the opening 48 when desired.

From the above it is thought that the construction will be clearly understood as well as the operation. It will be understood that an attendant will be positioned within the teller's cage *f* and, as previously stated, he has a view of the interior of the bank room. Should he notice that the bank is being held up and robbed he may operate the switch 24 which, through means of the circuit illustrated in Fig. 6, will energize the magnet 19' and attract the armature to engage the inner end of the latch 18 in one of the notches 14 of the flange 13. As set forth in the previous description if one of the notches 14 is not in position to receive the latch then the latch will ride around on the upper edge of the flange until one of the notches is aligned therewith. With the latch member received in one of the notches it will be impossible for the bandit to escape through the passage *b* for the rotatable door will be locked or if he reaches the door before the same is locked he can only rotate the same until the latch drops into one of the notches and he will then be held midway in the passage to prevent his escape. At the time that the circuit is closed for controlling the latch or lock the siren 25 will be operated to give an alarm. The attendant may fire a gun through the ports 47, 52 or 59 and if the bandit fires towards the teller's cage the attendant will be protected against injury, it being noted that if the bullet or shot should pass through one of the openings 53 or 55 that it will be deflected away from the attendant. After banking hours the rotatable door may be locked to prevent the entrance of any person and if some one should request that they be admitted an attendant of the bank may enter the compartment *c* and release

the door so that it may rotate sufficiently to allow a person to enter the passage and be positioned at a point between the arms or partitions 4 and 5 shown in Fig. 3. The attendant may then view the person through the window 35 and, if desired, talk to him or her through one of the ports 36 positioned below the window. Should the attendant decide that the person is entitled to admission the latch may be released to allow the door to rotate sufficiently for the entrance of the person. When an attendant is in the compartment *c* the latch or lock is controlled through means of the switch 23. A person within the compartment may view the interior of the bank room through the opening 34 and if a holdup takes place may fire a gun through the ports 36. Our invention will also be of particular advantage in small banks found in small towns where very often there is only one or two attendants. The door may be locked and if someone asks admittance the attendant may enter the compartment *c* to observe the person before releasing the lock through means of the switch 23. The compartment *d* may also receive an attendant and is also used for positioning the battery 22. The entrance may be closed by the door 26, when desired, and an outer door to the bank entrance will be provided as usual for locking at night and, as has been stated, during summer time and where there is clear weather the rods or bars 8 and 9 forming the rotatable door permit ventilation but in the winter time or in inclement weather the glass panels 11 may be secured in position as shown more particularly in Fig. 5.

Having fully described our invention what we claim as new and desire to secure by Letters Patent is:—

1. An entrance and exit for a bank or the like including an elongated passageway having a wall formed by a hollow compartment adapted to receive an attendant, a revolvable door positioned within the passageway, the compartment being formed and adapted to permit view of the passageway by the attendant and having openings therein, and vanes positioned adjacent the openings to deflect bullets away from the attendant in the compartment.

2. An entrance and exit for a bank or the like including compartments positioned and placed to provide side walls of an elongated passageway, and a door positioned within the passageway and intermediate the ends thereof for controlling movement therethrough, each of the compartments having openings therein and vanes positioned adjacent the openings to deflect bullets away from an attendant within the compartment.

3. An entrance and exit for a bank or the like including compartments positioned and placed to provide side walls of an elongated passageway, and a door positioned within the passageway and intermediate the ends thereof for controlling movement therethrough, each of the compartments having openings therein and vanes positioned adjacent the openings to deflect bullets away from an attendant within the compartment and at least one of the compartments being formed and adapted to permit view of the passageway by the attendant within the compartment.

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