Dec. 21, 1926. 1,611,787

D. H. SNAVELY

BANK BURGLAR TRAP

Filed Feb. 24, 1926 2 Sheets-Sheet 1

Fig. 1.

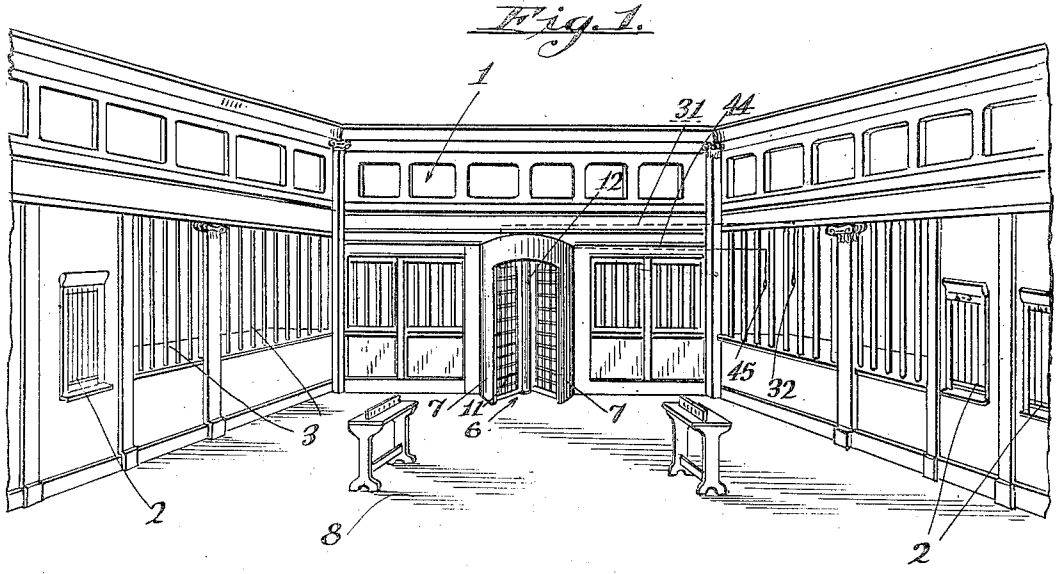


Fig. 2.

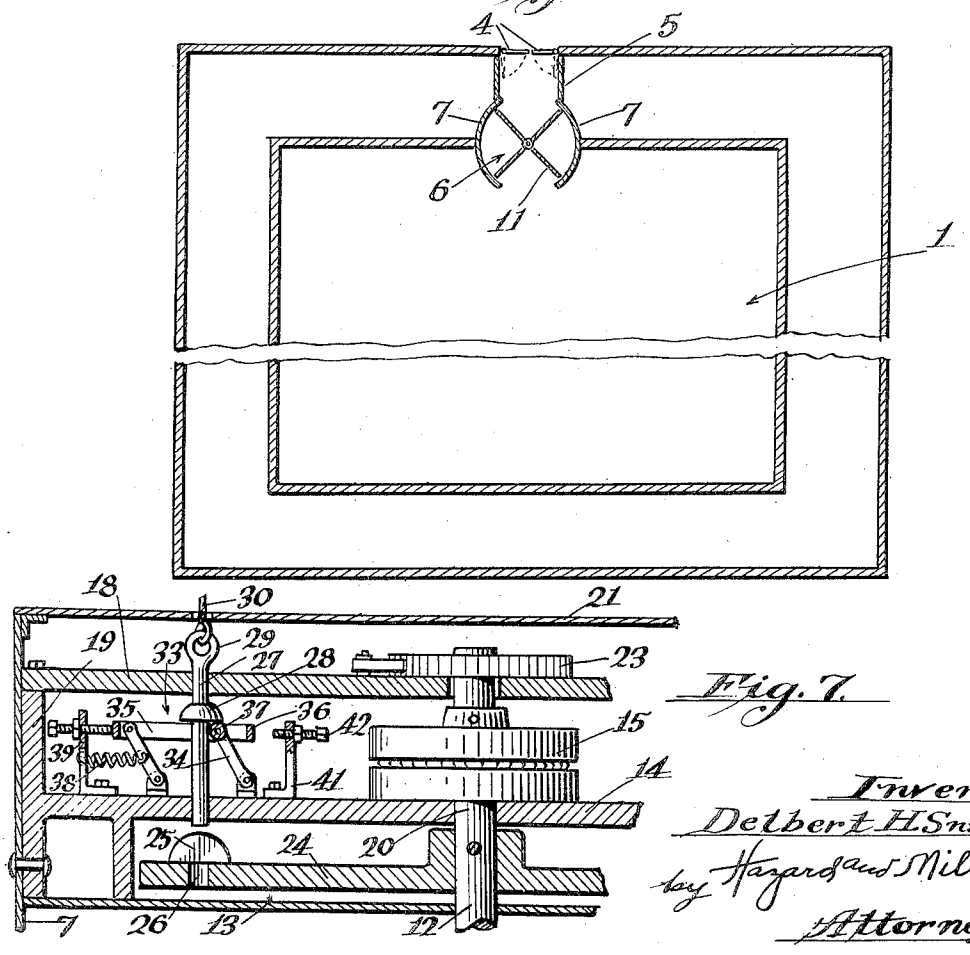


Fig. 7.

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Fig. 4.

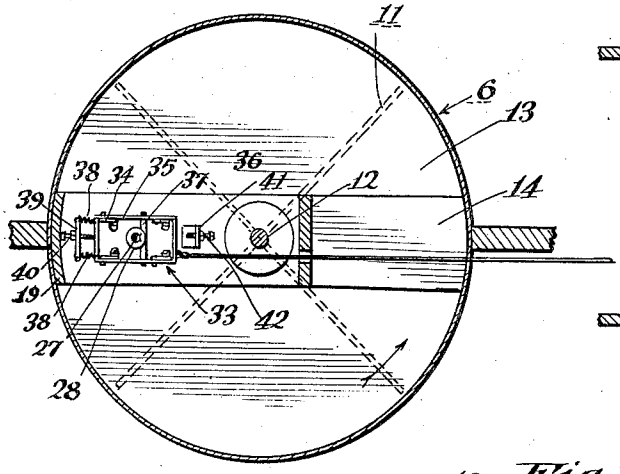


Fig. 6.

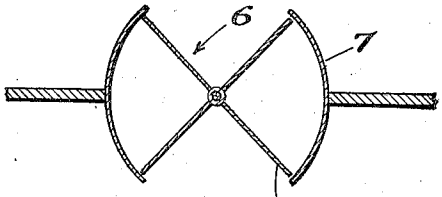


Fig. 5.

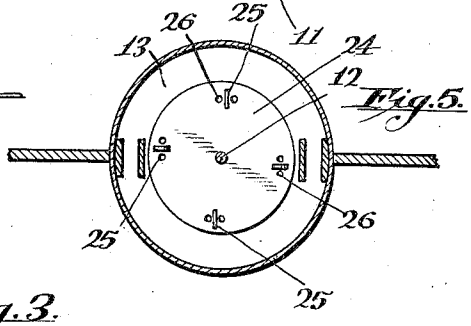
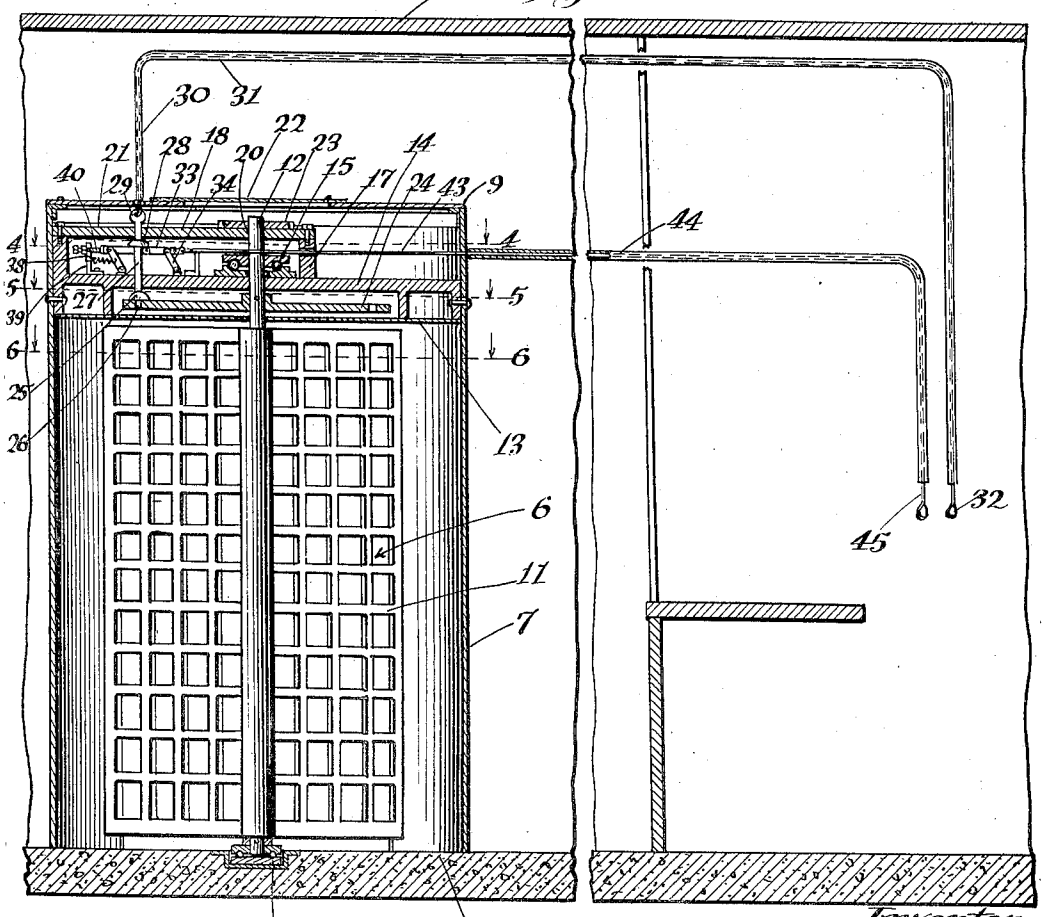


Fig. 3.



Witness:
Miss Hall

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Patented Dec. 21, 1926. 1,611,787

UNITED STATES PATENT OFFICE.

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BANK BURGLAR TRAP.

Application filed February 24, 1926. Serial No. 90,275.

My invention is a bank burglar trap intended for installation in a bank or like structure to positively close the exit should an attempt be made to rob the bank.

An object of my invention is to provide a closure for a bank entrance and exit, particularly adapted for use with revolving doors so that if an attempt is made to rob the bank someone in authority in the bank may operate the device to lock the exit, thereby preventing its use.

A more specific object of my invention is to form a revolving door suitable for banks or the like with a locking bolt, the locking bolt being normally suspended by a tripping gate whereby an authorized person may trip the gate, allowing the bolt to drop, the bolt then engaging a rotatable element of the door and stopping its movement, hence blocking the exit.

In constructing my invention I modify a revolving door to make it suitable for banks by utilizing suitable material to prevent exits of burglars or the like and above the roof of the door have an auxiliary rotatable disc or the like. A bolt is hung suspended on a swinging gate, thereby holding the bolt in proper position out of contact with the disc. A flexible cable leads through a conduit to a distant portion of the bank so that if the bank is held up by bandits or the like the cable may be pulled, thus tripping the gate and dropping the bolt into contact with the disc, the disc preferably having a series of apertures with a stop between each pair of apertures, these being positioned to prevent rotation of the disc and hence the door when in a number of different positions: therefore positively blocking exit through the door and preferably capturing the bandit in the revolving door.

Another feature of my invention is the use of a flexible cable passing through a conduit to a distant part of the bank so that the bolt may be withdrawn to allow operation of the revolving door.

My invention will be more readily understood from the following description and drawings, in which;

Figure 1 is a perspective view of a bank interior showing a suitable arrangement of the revolving door trap.

Fig. 2 is a plan of a banking room, indicating the relative position of the revolving door trap and other features.

Fig. 3 is a vertical section through the revolving door, indicating part of the structure of the banking room.

Fig. 4 is a horizontal section on the line 4—4 of Fig. 3, in the direction of the arrows.

Fig. 5 is a horizontal view on the line 5—5 of Fig. 3, in the direction of the arrows.

Fig. 6 is a horizontal section of Fig. 3, on the line 6—6 in the direction of the arrows.

Fig. 7 is an enlarged detail of part of Fig. 3, showing in particular the locking arrangement for the revolving door.

The general arrangement of my invention is illustrated particularly in Figs. 1, 2 and 3 in which the banking room is designated generally by the numeral 1 having cashiers' cages 2 and other counters 3 suitably screened off from the public. An entrance and exit door 4, preferably having swinging doors 5 allows passage to the revolving door 6 which during the banking hours would be the only entrance and exit for the banking room open to the public.

The revolving door is preferably formed with wall segments 7 formed of bullet-proof material of the proper curvature extending from the floor 8. The top 9 of such walls would preferably be below the ceiling 10 of the banking room, however, this is an immaterial feature. The revolving part of the door 11 is mounted on a vertical revolving shaft 12, the door elements being preferably made of a suitable screen or grille of sufficient strength to prevent breaking by bandits or the like. A ceiling plate 13 joins the walls of the revolving door structure and is preferably formed of bullet-proof material and forms a complete closure preventing a person climbing therethrough. A bearing plate 14 is also formed between the walls and may be made absolutely closing the top or in the form of a grid or spider. This supports an upper bearing 15 which cooperates with the lower bearing 16 forming the journals for the shaft 12. This shaft extends through openings in the ceiling plate 13 and in the bearing plate 14. A brace 17 extends upwardly and supports one end of a horizontal bar 18, the other end being fastened to a bracket 19 in one of the walls and forms a journal 20 for the upper end of the shaft. A closure cover 21 is built across

the upper ends of the walls and has a trap door 22 to allow access to the working parts of the revolving door, such door being provided with a ball and ratchet device 23 to allow rotation of the door in one direction.

The shaft of the door has a disc 24 rigidly secured thereto above the ceiling plate 13 and below the bearing plate 14. This disc is provided with stops 25 extending upwardly thereabove and with apertures 26 on each side of the stops. A locking bolt 27 is slidably mounted in the bearing plate 14 and the bar 18. This bolt has a collar 28 below the bar and is provided with an eye 29 to which is connected a flexible cable 30, this cable extending through a conduit 31 hidden in any suitable part of the structure of the banking room or building. The cable has an operating handle 32 in a suitable part of the banking room where it would be convenient for access to the bank officials but positioned where a bandit could not have access to the same.

An operating gate 33 is constructed with pivoted legs 34 having side bars 35 and front and rear bars 36 with a center bar 37. This center bar is adapted to engage the collar 28 on the locking bolt, holding it suspended when the locking gate is in the position shown in Fig. 3. This gate has a spring 38 connected thereto, this spring being secured to an abutment 39 through which extends a set screw 40 to limit the movement of the gate. A bracket 41 having a set screw 42 prevents movement of the gate in the opposite direction. The gate has a flexible cable 43 connected thereto, this cable passing though a conduit 44 and having a handle 45 some place in the bank for access by the banking officials but not by the bandit. The cable is normally tensioned so as to hold the gate in the position illustrated in Fig. 3.

The manner of using my invention is substantially as follows:

From the above description it will be seen that the revolving door may be installed and the locking bolt positioned on the gate in proper adjustment to the disc 24. Then the trap door may be closed and locked preventing unauthorized adjustment or tampering with the operative features of my trap. If the bank is held up by bandits or the like certain of the officials who know the location of the handles 32 and 45 would pull the handle 45, thus swinging the gate to trip the bolt 27, the bolt dropping on to the disc 24. Then the first person who rotates the door will bring the bolt into engagement with the stop 25, the bolt then dropping into one of the apertures 26.

Although the door has been described as having a ratchet and pawl device to prevent rotation in both directions, should these be out of order or a door rotating in opposite directions be utilized, the bolt will engage the stop and then drop into either of the apertures 26. Thus presuming that one of the bandits was the first to endeavor to make an exit from the bank he would be trapped in the revolving door and the other bandits as well as the customers of the bank would be prevented from having exit through the revolving door. It will be noted that the spring 38 will retract the gate so that the cross bar 37 engages the upper surface of the collar 28, thereby preventing the bolt being drawn upwardly. However, on the arrival of police the handle 32 may be pulled after pulling the handle 45 to release the bolt and thus raising the bolt 27 and again securing it in the set position by the retraction of the gate but the spring allowing entrance of such officers into the bank.

Although my invention is of a simple character, nevertheless it will be apparent that the general structure of the revolving door with the locking mechanism therefor may be considerably changed to suit different types of installations or different features of banking rooms. Such changes however, being within the spirit of my invention as set forth in the description, drawings and claims.

Having described my invention, what I claim is:

1. A bank burglar trap comprising in combination a banking room having a revolving door, a disc fixedly mounted to rotate with the door, said disc having a series of apertures and a series of stops positioned above the apertures and at one side thereof, a slidable bolt positioned to drop on the disc and to engage the stops to guide same into the apertures, a rocking tripping gate device normally holding the bolt out of contact with the disc, flexible means extending from the tripping device to a distant part of the banking room to actuate the tripping device to allow the bolt to move into contact with the disc.

2. A bank burglar trap comprising in combination a banking room having a revolving door, a disc fixedly mounted to rotate with the door on the upper portion thereof, a slidable bolt positioned to slide vertically, a tripping gate having pivoted legs, means to engage the bolt and hold the same normally elevated above the disc, and means to rock the tripping gate to release the bolt and allow the bolt to drop into engagement with the disc.

3. In a bank burglar trap, a revolving door structure having stationary walls and a revolving door, a disc operatively connected to the door to rotate therewith, a bolt slidably mounted to slide in a vertical direction, a collar on the bolt, a gate having pivoted legs and a cross bar being adapted to engage the collar and hold the bolt elevated, a spring normally holding the said bar in engagement with the undersurface of

the collar, and means to rock the gate against the tension of the spring to release the bolt allowing it to drop into contact with the disc.

4. In a bank burglar trap as claimed in claim 3, in which the cross bar is positioned to engage the upper surface of the collar to restrain upward movement of the bolt after dropping into engagement with the disc.

5. In a bank burglar trap, a revolving door structure having stationary walls formed of bullet-proof material, a ceiling plate formed of bullet-proof material, a bearing plate above the ceiling plate, a vertical shaft journaled in the bearing plate, revolving door elements connected to said shaft, a disc attached to the shaft between the ceiling plate and bearing plate, means on the disc to engage a bolt, a locking bolt having a collar slidably mounted in the bearing plate, a tripping gate having legs pivotally connected to the bearing plate, a cross bar on the tripping gate adapted to engage the collar on the bolt, a spring normally holding the cross bar in engagement with the bolt underneath the collar and a flexible means having a handle connected to the tripping gate.

6. In a bank burglar trap as claimed in claim 5, having in addition a flexible actuating means connected to said bolt adapted to lift same and hold the bolt elevated until the tripping gate engages therewith.

In testimony whereof I have signed my name to this specification.

DELBERT H. SNAVELY.