April 25, 1933. J. WOOD 1,905,547

PROTECTIVE ENTRANCE TO A BURGLARPROOF SAFE

Filed June 15, 1931

FIG. 1

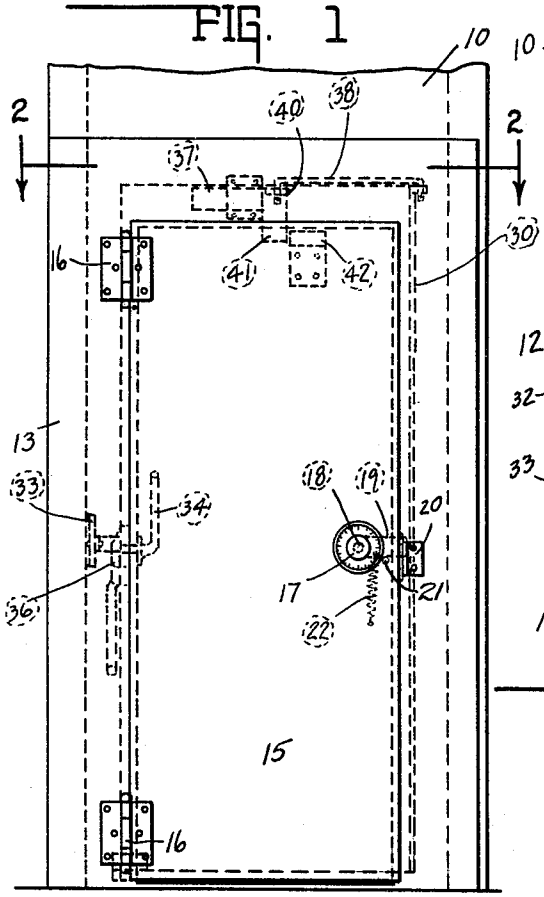


FIG. 2

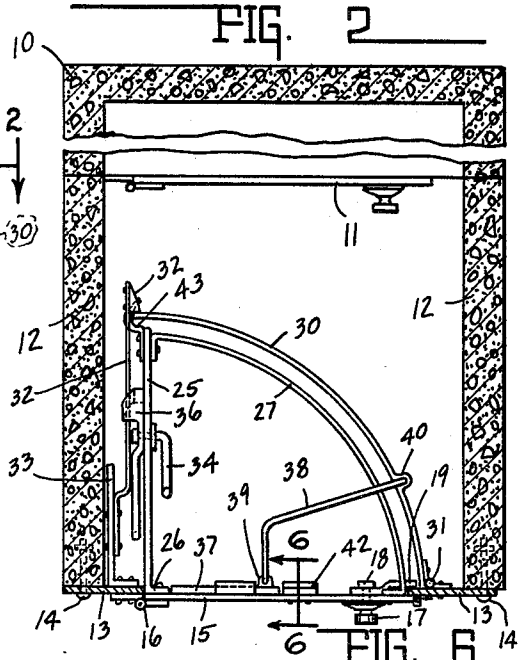


FIG. 3

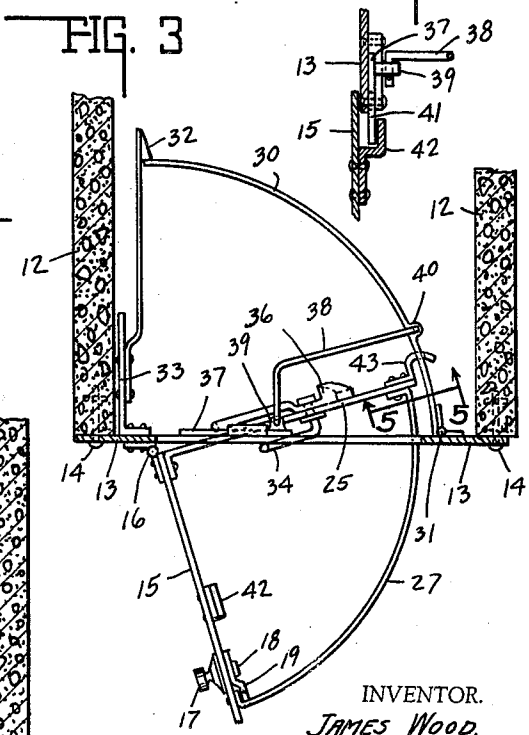


FIG. 5

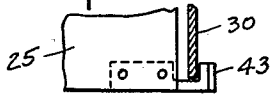
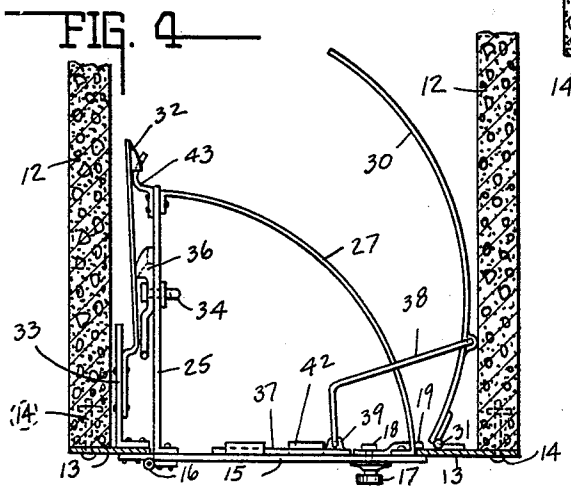


FIG. 4



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PROTECTIVE ENTRANCE TO A BURGLARPROOF SAFE

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This invention is apparatus to protect business men from a robber when the latter compels the business man to open his safe and bring its contents to the robber.

The invention consists in apparatus placed adjacent to and in front of a safe in which money is kept and safeguarded, and it consists primarily of the combination with a steel or fire-proof casing of three doors forming an entrance cage. The doors are made of steel or other strong fire-proof material, one door being the entrance door which is connected with an intermediate door, and, as the entrance door opens, it closes the intermediate door, and when the entrance door is closed after the business man enters it a third rear door is opened which automatically locks the entrance door shut leaving the business man in a cage of steel protected by three doors.

While the entrance door is open, the burglar cannot enter because the intermediate and rear doors are closed. After the business man enters the cage between the three steel doors, he releases the rear door, and as it opens, it locks the entrance door, and then the regular safe door having a combination lock becomes accessible to the business man and this is his mode of entrance during ordinary business. However, if he is being "held up", he does not open the combination lock, but remains protected in the protecting cage consisting of the casing and three doors until he is relieved.

The full nature of the invention will be understood from the accompanying drawing and the following description and claims:

In the drawing, Fig. 1 is an elevation of the protecting cage and the safe located to the rear thereof, the latter being partially broken away, the cage entrance door being closed. Fig. 2 is a horizontal section on the line 2—2 of Fig. 1, still showing the entrance door of the cage closed. Fig. 3 is a similar view showing the entrance door open and the intermediate and rear doors of the cage closed. Fig. 4 is the same as Fig. 3 with the front door of the cage closed and the intermediate and rear doors thereof open. Fig. 5 is a fragmentary sectional view taken on the line 5—5 of Fig. 3. Fig. 6 is a similar view taken on the line 6—6 of Fig. 2.

The construction 10 indicates a compartment, which may be a burglar-proof safe construction located, say, in a gasoline filling station, and said compartment has a door 11, which may be the usual combination entrance door to a safe. In front of the door 11, an entrance or protecting cage is built with walls 12 in the nature of front extensions of the compartment 10, as shown in Fig. 2. In the front of said protective cage there is a steel door frame 13 secured rigidly by headed bolts 14 or other suitable means to the extension walls 12.

The frame 13 is in the nature of a door frame having top and side members to receive the entrance door 15 of the protecting cage. This door is made of steel preferably and is hinged at 16 to the front door frame 13, as seen in Figs. 1 and 2. It preferably has the appearance of a burglar-proof safe door with an external door knob 17 secured on a short bolt 18 which has secured on its inner end a latch 19 which when in horizontal position engages a latch plate 20 secured to the door frame 13. A stop 21 on the inner side of the entrance door 15 limits the downward movement of the latch 19, and a spiral spring 22 is connected at one end to the front end of the latch 19 and at its other end to a point on the entrance door 15 below the latch 19, so that normally the spring 22 will hold the latch closed until the knob 17 is turned for raising the latch.

The entrance door 15 has secured to it rigidly an intermediate door 25 made of steel and the like, and, in the form herein shown, the intermediate door 25 is normally at a right angle to the entrance door 15, as seen

in Fig. 2, and is secured to the entrance door not only at their juncture at 26, but by a curved overhead bar 27 which is rigidly secured at its two ends to said doors 15 and 25 remote from the hinges 16. This makes the entrance door 15 and the intermediate door 25 a rigid unit so that the intermediate door moves and swings with the entrance door.

When the entrance door is opened, as shown in Fig. 3, to admit a person into the protective cage, the intermediate door follows the entrance door and practically closes the entrance, as shown. As he enters the protective cage he closes the entrance door 15 which opens the intermediate door 25. The parts are then in the position shown in Fig. 2 with the entrance to the combination safe door 11 still blocked by the rear door 30 of the protective cage. That door 30 is of arcuate form substantially concentric with the hinges 16 of the entrance and intermediate doors 15 and 25 and is located outwardly beyond the sweep of the intermediate door 25 in its movements. The rear door 30 is hinged at 31 to the front casing frame 13 near the opening through said frame 13 and near the outer edge of the entrance door.

The rear door 30 is held closed by a spring latch 32 bolted to a side frame plate 33 which is secured to the door frame 13. This latch cannot be released except by the business man after he enters the protective cage and closes the entrance door 15, as shown in Fig. 2, and the intermediate door has reached its wide open position. He then operates a lock handle 34 in the intermediate door 25 that moves a downward rigidly secured cam 36 which engages the latch bar 32 and moves it out of locking engagement with the rear door 30. Then the rear door 30 is pushed open towards the position shown in Fig. 4, so as to give access to the combination door 11 of the burglar-proof safe to the rear.

The opening of the rear door 30 automatically locks the entrance door 15 closed and holds it closed. This is by means of the sliding latch 37 mounted on the rear side of the top member of the door frame 13, as seen in Fig. 2. A connecting rod 38 is pivoted at one end to said sliding latch 37 and 39 and at the other end to the rear door 30 at 40. Therefore, the opening movement of the rear door 30 slides the latch bar 37 from the disengaging position shown in Fig. 2 to the position shown in Figs. 4 and 6, where a downward extension 41 from said latch bar 37 engages a catch 42 which is secured to the inner side of the entrance door 15. This arrangement is shown in Figs. 4 and 6. When the rear door 30 is open, the latch 37 and extension 41 move to the left and engage the catch 42 and hold the entrance door closed.

In order that the rear door 30 may be held closed when the entrance door is open, as shown in Fig. 3, to prevent access by the robber, a catch 43 is secured to the lower part of the intermediate door 25, as seen in Fig. 3. This catch extends from the intermediate door 25 under the rear door 30 and has an upward extension behind the rear door 30. This effectually holds the rear door 30 shut when the front entrance door 15 is open, as seen in Fig. 3. The catch 43 is curved somewhat away from the plane of the door 25 so that when the door 25 is open, as seen in Fig. 2, the catch 43 will not engage the rear door 30.

It appears, therefore, from the foregoing description, that applicant's apparatus will thoroughly protect the business man from a robber who compels him to open the safe, and prevents the robber from gaining access to the safe, and at the same time it permits the business man to have ready access to his safe when there is no danger, and even then, he and his safe are thoroughly protected from any robber who might approach without any knowledge of the business man and his undertaking to get access to his safe. Any signalling means may be provided in connection with the protecting cage to enable the business man therein to give any desired signal or convey any desired information.

The invention claimed is:

1. A protective entrance to a burglar-proof safe and the like, including three cooperating doors, the first door being an entrance door, the second door being an intermediate door connected rigidly with the entrance door, and the third door being a rear door, releasable means for holding the rear door closed, and means mounted on the intermediate door for releasing the rear door when the intermediate door is in open position, whereby when the entrance door is open the intermediate door will close the entrance temporarily and the rear door will be locked and after the entrance door is closed the intermediate door will be open and the rear door can then be released and opened.

2. A protective entrance to a burglar-proof safe and the like, including a casing having a front door frame with an entrance opening, an entrance door hinged to one side of said door frame for opening and closing the entrance, an intermediate door rigidly connected with said entrance door and extending inwardly from the same near the hinged portion thereof and at substantially a right angle thereto so that as the entrance door is opened the intermediate door moves towards the entrance closing position, a third rear door concentric with the hinged connection of the entrance door and hinged to the rear side of the door frame near the free edge of the entrance door and extending beyond the free edge of the intermediate door, and means operable by the opening move-

ment of said rear door for holding the entrance door closed on the inside.

3. A protective entrance to a burglar-proof safe and the like, including a casing having a front door frame with an entrance opening, an entrance door hinged to one side of said door frame for opening and closing the entrance, an intermediate door rigidly connected with said entrance door and extending inwardly from the same near the hinged portion thereof and at substantially a right angle thereto so that as the entrance door is opened the intermediate door moves towards the entrance closing position, a third rear door concentric with the hinged connection of the entrance door and hinged to the rear side of the door frame near the free edge of the entrance door and extending beyond the free edge of the intermediate door, a sliding latch on the rear side of the top of the door frame, a catch on the inside of the entrance door adapted to be engaged by said latch when moved, and means extending from the rear door to said latch for moving it into locking position when the rear door is open.

4. A protective entrance to a burglar-proof safe and the like, including a casing having a front door frame with an entrance opening, an entrance door hinged to one side of said door frame for opening and closing the entrance, an intermediate door rigidly connected with said entrance door and extending inwardly from the same near the hinged portion thereof and at substantially a right angle thereto so that as the entrance door is opened the intermediate door moves towards the entrance closing position, a third rear door concentric with the hinged connection of the entrance door and hinged to the rear side of the door frame near the free edge of the intermediate door, means operable by the opening movement of said rear door for holding the entrance door closed on the inside, a latch connected with the casing for holding the rear door closed, and means mounted on the intermediate door operable for releasing said latch when the intermediate door is in its wide open position, whereby the rear door cannot be opened until the entrance door is closed.

5. A protective entrance to a burglar-proof safe and the like, including a casing having a front door frame with an entrance opening, an entrance door hinged to one side of said door frame for opening and closing the entrance, an intermediate door rigidly connected with said entrance door and extending inwardly from the same near the hinged portion thereof and at substantially a right angle thereto so that as the entrance door is opened the intermediate door moves towards the entrance closing position, a third rear door concentric with the hinged connection of the entrance door and hinged to the rear side of the door frame near the free edge of the intermediate door, means operable by the opening movement of said rear door for holding the entrance door closed on the inside, a latch connected with the casing for holding the rear door closed, and a cam-shaped wedge on the rear side of the intermediate door and operable from the opposite side of said door so that when the intermediate door is in wide open position said wedge will engage said latch and release the rear door.

6. A protective entrance to a burglar-proof safe and the like, including a casing having a front door frame with an entrance opening, an entrance door hinged to one side of said door frame for opening and closing the entrance, an intermediate door rigidly connected with said entrance door and extending inwardly from the same near the hinged portion thereof and at substantially a right angle thereto so that as the entrance door is opened the intermediate door moves towards the entrance closing position, a third rear door concentric with the hinged connection of the entrance door and hinged to the rear side of the door frame near the free edge of the intermediate door, means operable by the opening movement of said rear door for holding the entrance door closed on the inside, a latch connected with the casing for holding the rear door closed, means mounted on the intermediate door operable for releasing said latch when the intermediate door is in its wide open position, whereby the rear door cannot be opened until the entrance door is closed, and a catch on and extending beyond the opening edge of the intermediate door for engaging said rear door and holding it closed at all times excepting when said intermediate door is in its wide open position.

7. A protective entrance to a burglar-proof safe and the like, including a casing having a front door frame with an entrance opening, an entrance door hinged to one side of said door frame for opening and closing the entrance, an intermediate door rigidly connected with said entrance door and extending inwardly from the same near the hinged portion thereof and at substantially a right angle thereto so that as the entrance door is opened the intermediate door moves towards the entrance closing position, a third rear door concentric with the hinged connection of the entrance door and hinged to the rear side of the door frame near the free edge of the intermediate door, means operable by the opening movement of said rear door for holding the entrance door closed on the inside, a latch connected with the casing for holding the rear door closed, means mounted on the intermediate door operable for releasing said latch when the intermediate door is in its wide open position, whereby the rear door cannot be opened until the

entrance door is closed, and a catch on the free edge of said intermediate door at the bottom which is adapted to extend under the rear door and with an upwardly extending outer portion adapted to engage the rear surface of said rear door and hold it from being opened except when the intermediate door is in its wide open position.

In witness whereof, I have hereunto affixed my signature.

JAMES WOOD.