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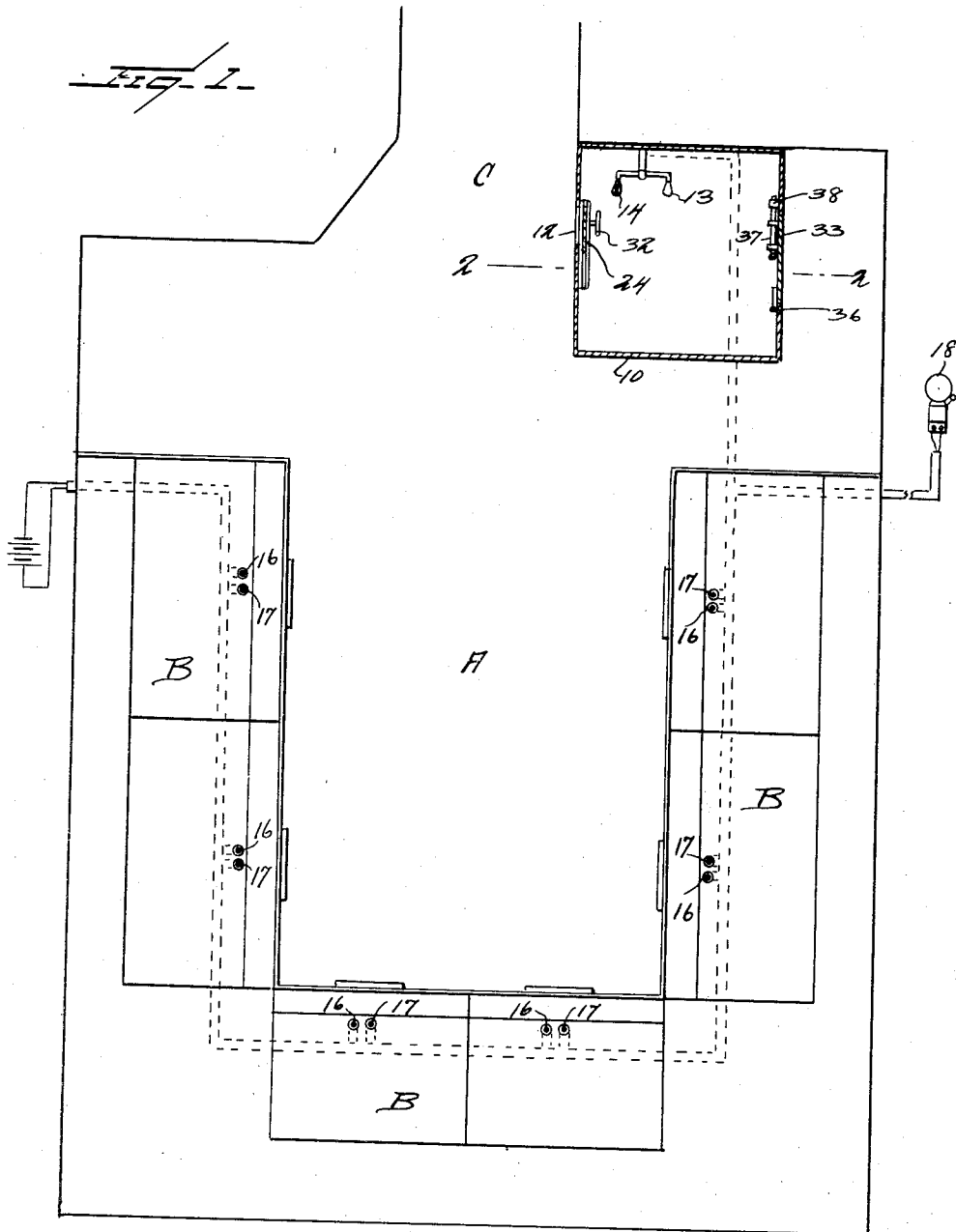
E. M. RUNKLES ET AL

1,703,751

BANK PROTECTING MEANS

Filed April 14, 1928

3 Sheets-Sheet 1



Inventors

E. M. Runkles
C. I. I. I. I.

By *Watson E. Coleman*
Attorney.

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3 Sheets-Sheet 2

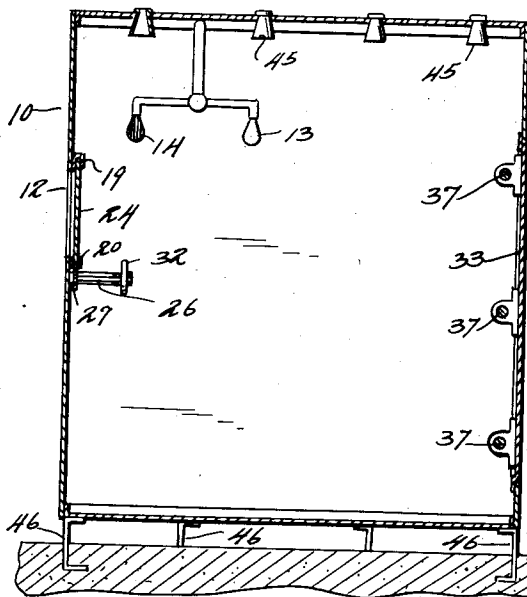
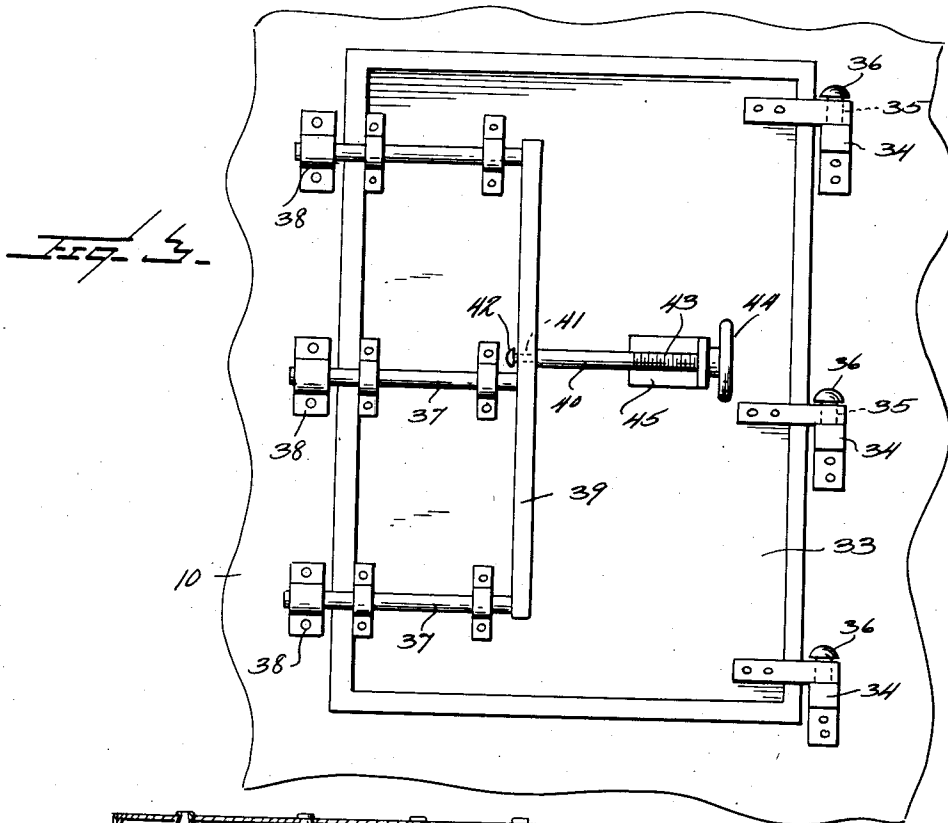


Fig. 5

Inventors

E. M. Runkles
C. Isisa

By

Watson E. Coleman
Attorney

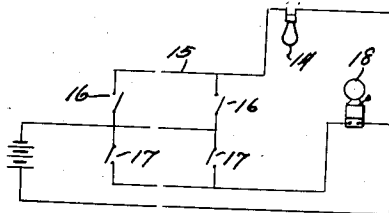
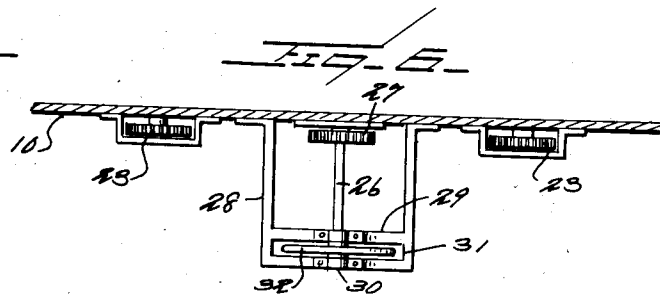
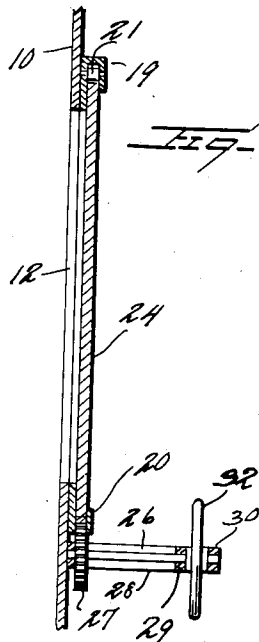
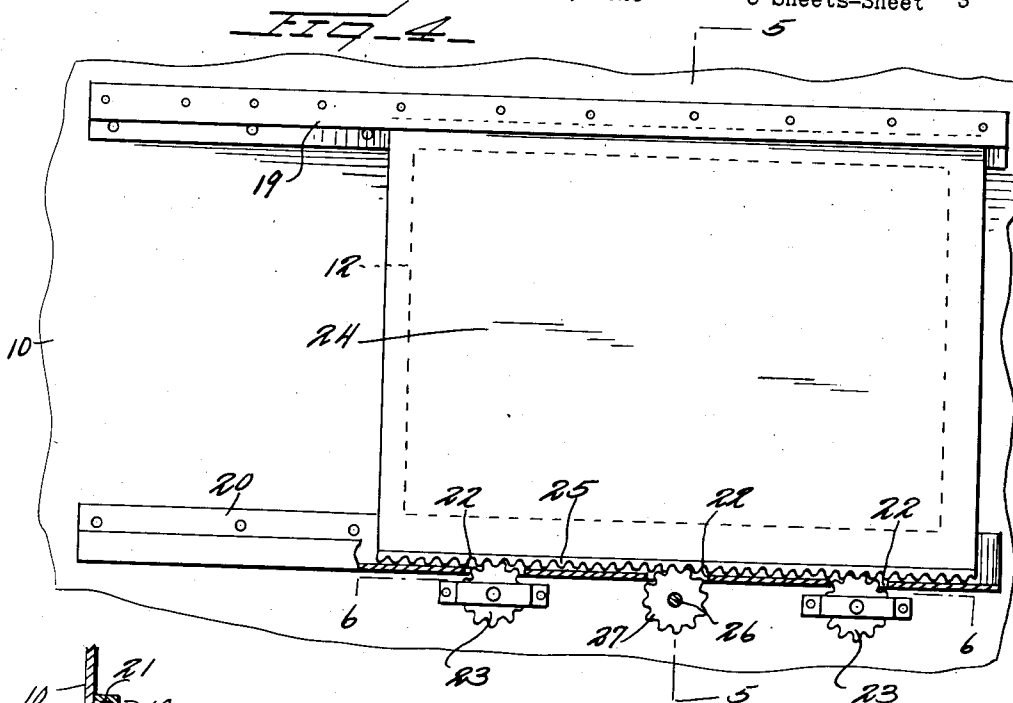
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3 Sheets-Sheet 3



Inventors

EM Runkles
C. Toisa

By *Watson E. Coleman*
Attorney

UNITED STATES PATENT OFFICE.

ELSIE MAE RUNKLES AND CHARLES ISISA, OF DETROIT, MICHIGAN.

BANK-PROTECTING MEANS.

Application filed April 14, 1928. Serial No. 269,968.

This invention relates to means for protecting banks from robbers, and generally speaking the invention consists in the provision of a watchman's cage of steel or other bullet-proof material located adjacent to or forming part of the entrance passageway and having therein a signal light which is adapted to be flashed whenever one of the tellers or other officials of the bank presses a circuit closer located in his particular cage, so that the watchman may be warned and, while thoroughly protected himself, may shoot the robbers or hold them up at the doorway as they are about to make their escape.

The invention further consists in the provision of means whereby a police alarm may be sounded at the same time that the signal within the watchman's cage is energized so that the police may immediately come in case of trouble and without any special call other than the signal stated.

A further object is to provide a shield for a window or door opening leading into said passageway, this shield being adapted to be shifted to or from a closed position and to be held in any position desired and to be moved by mechanism of such character that the shield cannot be moved from the exterior of the watchman's cage, and in this connection to provide an entrance door to the watchman's cage which is also provided with means whereby it may be locked from the inside so that no bandits can possibly enter the cage to kill or intimidate the watchman.

Other objects have to do with the details of construction and arrangement of parts as will appear more fully hereinafter.

Our invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a plan or diagrammatic view of a bank having our bank protecting means applied thereto;

Figure 2 is a vertical sectional view through the watchman's cage or armored compartment;

Figure 3 is an elevation of the door;

Figure 4 is a rear elevation partly in section of the means for supporting the sliding shield of the cage;

Figure 5 is a section on the line 5—5 of Figure 4;

Figure 6 is a longitudinal section on the line 6—6 of Figure 4, showing in plan the means whereby the door may be operated;

Figure 7 is a diagrammatic view showing

the electrical connections to the signal light and to the burglar alarm;

Referring to these drawings, Figure 1 shows a diagrammatic plan of a bank or like institution and discloses the preferable position of the watchman's cage or armored room. A designates the general banking hall or foyer and B a series of tellers' or cashiers' cages or the cages for other officials of the bank. Entrance is secured to the general hall or foyer by the entrance hall C. It will be understood, of course, that this is purely diagrammatic.

The watchman's cage, which is designated generally 10, is preferably disposed at the entrance or hall, and preferably one side wall of the watchman's cage forms one of the walls of the hall or entranceway C. The cage 10 is of sheet steel having any desired thickness and construction and preferably has four steel walls and a steel ceiling. These may be constructed in any suitable manner and preferably will be entirely smooth upon the exterior of the cage. The cage is provided with a door opening into the general hall or into a private passageway through which the watchman enters or leaves the cage. It is also provided with an opening 12 constituting an observation opening, this opening being upon the wall fronting the entrance passageway C.

The cage is preferably lighted by a light 13 and may contain any suitable furniture, though preferably of metal. The cage is provided also with a red light signal, designated generally 14. This signal is connected in a normally interrupted circuit with a source of current by a series of wires 15, each wire running preferably beneath the floor of the bank or it might be in the ceiling of the bank.

Each wire passes into one of the tellers' cages, preferably beneath the floor thereof, and is there provided with a pedal-actuated circuit closer 16 of any suitable character so that when the pedal, which may be in the form of a push button and adapted to be operated by the foot of the officer, is depressed, a circuit will be closed through the source of power and the lamp 14. The circuit to the lamp 14 may be arranged in any suitable manner, provided it is capable of being closed by the depression of a push button or other circuit closer in any one of the tellers' cages independently of any other cage, so that in case a robber should attempt

to hold up or intimidate anyone in any one of the cages, the officer may depress or actuate the circuit closer 16 in his cage and close a circuit through the red light 14, thus giving a signal to the watchman. While we have illustrated a red light for this purpose, it will be understood that any other signal, either visual or audible, might be used, but preferably a red light is used as this will not give a warning to the robbers.

Preferably also each of the cages has a circuit closer 17 whose depression will cause the closing of a circuit which extends to an alarm or signal 18, shown diagrammatically in Figure 7, whereby the police may be notified so that simultaneously with the signal given to the watchman in the cage 10, a signal will also be given to the police. It is to be understood that any suitable circuit closer might be used for the purpose of closing the circuits through the alarm 18, a red light 14 or other signal.

Preferably the wires for the circuit are disposed in a single conducting tube and disposed beneath the floor or embedded within the walls of the building so that the robbers can by no chance cut these wires. Preferably also the two circuit closing buttons, switches or equivalent members 16 and 17 will be disposed so as to be actuated simultaneously by the foot of the officer. A circuit closer adapted to be operated by the foot is preferable to a device adapted to be actuated by the handle for the reason that a motion of the hand could be apparent to the robbers, whereas a motion of the foot would not be so apparent, being concealed by the partition in front of the cage.

The opening 12 is defined by any suitable metallic frame, preferably having the upper and lower horizontally disposed door guides 19 and 20. The guide 19 is U-shaped in cross section and has any suitable length greater than the length of the door coacting therewith as, for instance, a length of about one-third more than the door, and is provided with rollers 21 extending transversely of the trough-shaped guide. The guide 20 is also U-shaped in cross section and has a length greater than the length of the door. These guides are rigidly connected to the frame of the door opening in any suitable manner. The bottom guide 20 is formed with three openings in its bottom, as at 22. Disposed in two of these openings are toothed supporting wheels 23 which are mounted in any suitable manner upon the frame of the door upon the side wall of the cage, and the door 24 has attached to its under face the toothed rack bar 25 with which the toothed supporting wheels 23 are adapted to engage.

Mounted upon a shaft 26 is an operating gear wheel or cog wheel 27 which engages with the rack 25, and by rotating the shaft 26 the door 24 may be shifted backward or forward

to an open or closed position or a partly open position, as desired, the door running easily upon the rollers 21. The shaft 26 is mounted in a supporting frame 28 whose inner ends are attached to the side wall of the cage and whose outer ends are connected by means of the web 29 having bearings 30 for the outer end of the shaft 26. This web 29 is slotted at 31 and an end wall 32 is disposed upon the shaft and operates within this slot 31. By this means the watchman may shift the door toward or from its closed position, and when the door is partly open the watchman can command the entrance passageway and prevent any exit of the robbers therefrom or shoot them down if they attempt to pass.

While we have illustrated a certain specified means whereby the door may be shifted and have illustrated the door as being shiftable in a horizontal plane, it will be understood that other means might be used for the purpose and that the door might be shiftable in a vertical plane so as to leave an elongated, horizontally extending opening permitting the watchman to rake the entrance passageway and thus prevent any possible chance of the robbers bolting through the passageway and past the watchman. Of course, it will be understood that the watchman's cage is provided with an ammunition box or racks for ammunition and with suitable firearms, etc., and that the watchman's cage is so solidly built that the robbers cannot break into it without excessive work and loss of time.

The entrance door is designated 33 and is also made of sheet steel hinged to the wall of the cage and having means whereby it may be locked against being broken into by robbers. As illustrated, the door is provided with three hinges 34 engaging over vertical pintles 35 riveted or otherwise attached to the wall of the cage, the upper ends of the pintles being overturned, as at 36, so as to prevent the hinges from being lifted off the pintles. Slidably mounted upon the door are three eyebolts 37 which, when projected, engage in the three keepers 38 mounted upon the wall of the cage, the bolts being of relatively large size and the three bolts being connected by a bar 39. This bar 39 is shifted to carry the bolts into or out of projected position by means of a screw 40, the end of which is reduced and passes through an opening 41 in the bar and is swiveled to the bar by means of the head 24. The outer end of the screw 40 is threaded at 43 and the extremity of the screw is provided with a wheel 44. The screw has threaded engagement with an angular bracket 45 attached to the inner face of the door. By this means it will be seen that the watchman can readily lock himself in the cage and that the locking means is so strong there is no possibility of the robbers breaking into the watchman's cage through this door within a reasonable length of time.

Preferably, though not necessarily, the floor of the watchman's cage is elevated above the floor of the bank and the cage is supported by means of legs 46 a few inches from the floor, these legs being embedded in the concrete of the floor. The watchman's cage is also provided with ventilators 47 in the top of the cage, these ventilators flaring downward.

10 It will be seen that a structure of the character described assures complete protection to banks and that with such a construction installed there is no chance for a bank robber to get out of a bank without being captured or
15 killed. The watchman, being in the cage at all times, is in readiness for any emergency that may arise. The view door or shield 24 enables the watchman on duty to view all persons passing into or out of the bank and to
20 hold up the robbers or shoot them down whenever he gets a signal and when the robbers attempt to pass out through the exit. Of course, at this time he has the shield or door 24 open sufficiently to use his gun. The
25 watchman on duty can also view the interior of the bank through the view opening so that he can see what is taking place at the tellers' windows. Even if a particular teller or officer is unable to actuate the signal in
30 front of him, other tellers or officers, seeing his predicament, can actuate their circuit closers and thus actuate the signal for the watchman to guard the door. Furthermore, the actuation of any signal immediately signals the
35 police, showing that there is trouble at the bank so that they can arrive as soon as possible to intercept the robbers. When the rob-

bers start to leave the bank, the watchman inside the cage holds them up with his gun until the police arrive and he can then turn them over to the police.

It will thus be seen there is no way for the robbers or bandits to escape. In many banks a number of bank guards are kept on duty at all times loitering within the foyer of the bank to be used in case an attempt is made to hold up the bank.

It will be obvious that these bank guards have no protection, whereas a watchman stationed within the watchman's cage, would be completely protected, thus reducing very greatly the amount of wages now spent for bank guards and very greatly increasing the protection given to the bank, as it would be practically impossible for any robbers to pass the watchman's cage without being killed or wounded.

We claim:—

In a bank having officers' cages and an entranceway, a watchman's armored cage disposed along said entranceway forming one wall thereof and having a view opening, a shield therefore adjustable across the view opening from within the cage, an alarm signal disposed within the watchman's cage, a police signal disposed exteriorly of the bank, and means independently operable disposed in each one of the officers' cages whereby both signals may be simultaneously energized.

In testimony whereof we hereunto affix our signatures.

ELSIE MAE RUNKLES.
CHARLES ISISA.