

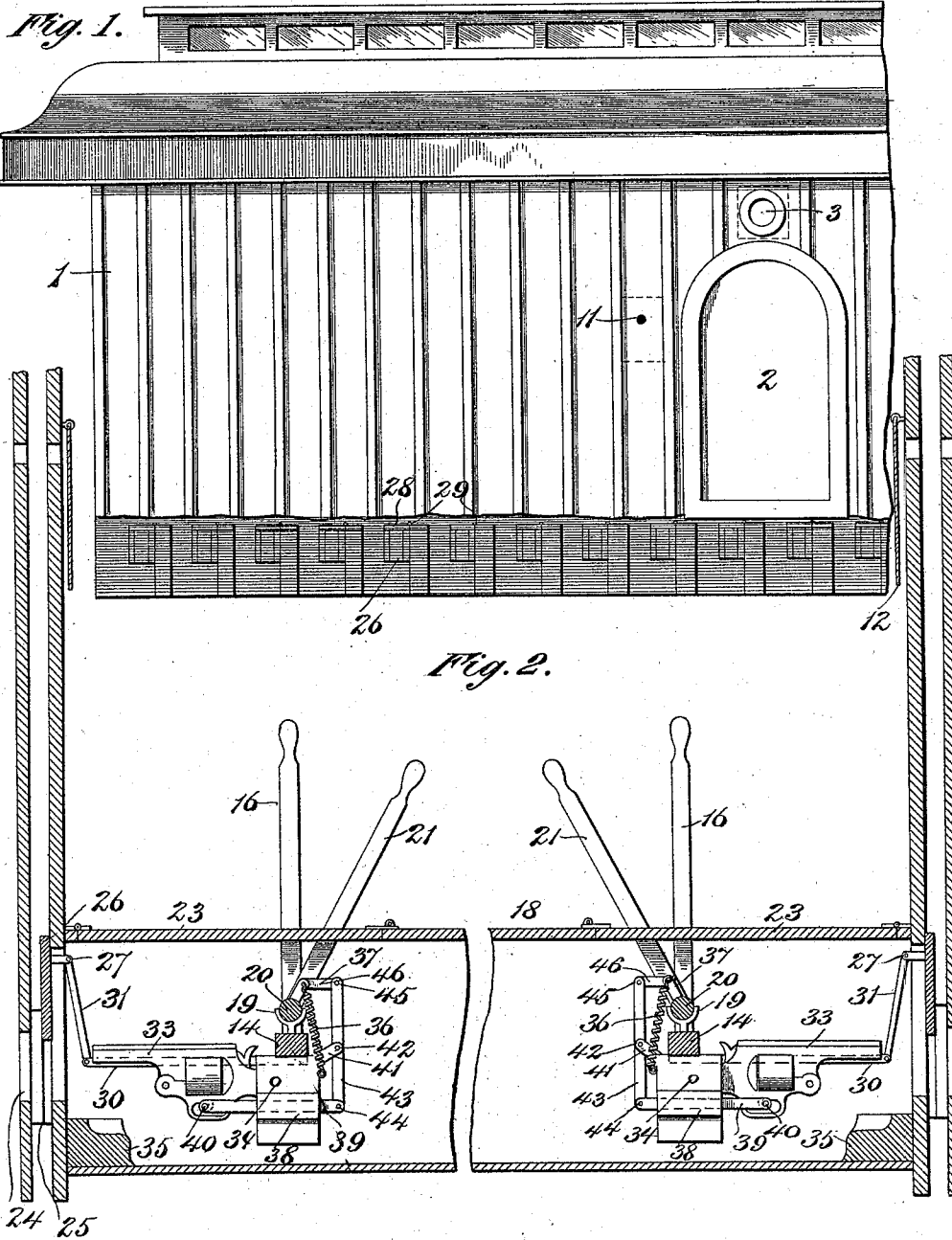
(No Model.)

2 Sheets—Sheet 1.

S. H. WILLIAMS.
BURGLAR PROOF CAR.

No. 554,162.

Patented Feb. 4, 1896.



Attest.
Edw. D. Duval, Jr.
W. T. S. Duwall

Inventor:
Samuel H. Williams.

by *W. T. S. Duwall*
Atty.

(No Model.)

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Fig. 3.

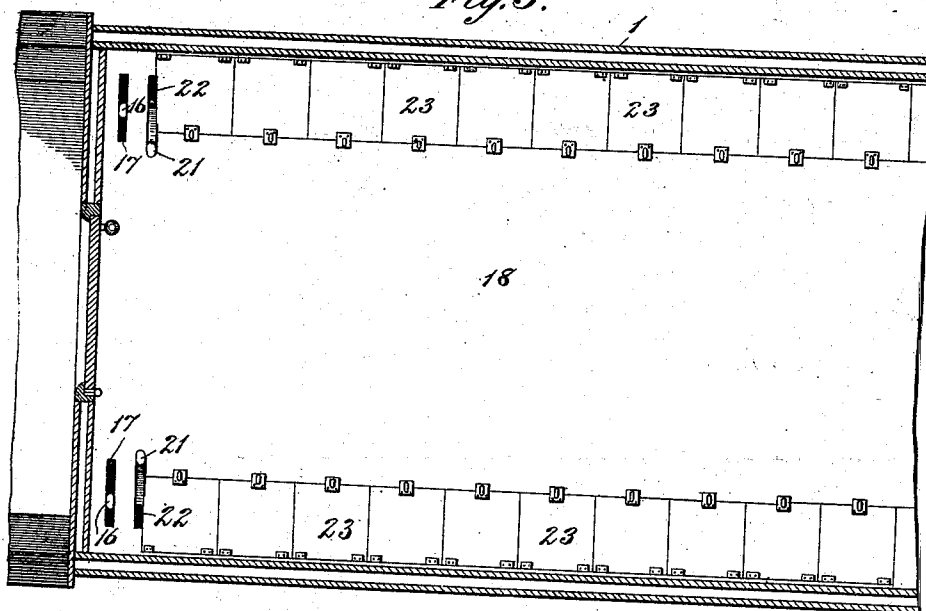


Fig. 4.

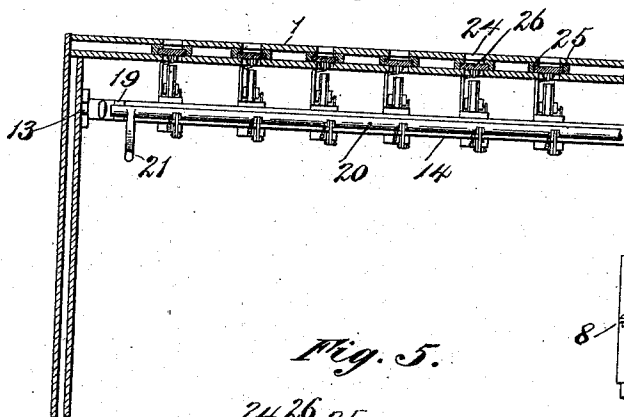


Fig. 5.

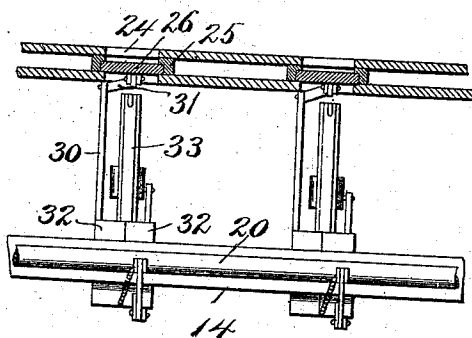
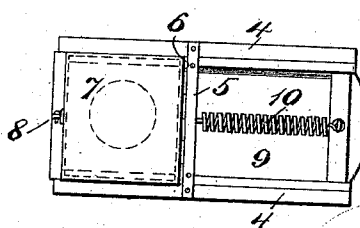


Fig. 6.



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UNITED STATES PATENT OFFICE.

SAMUEL H. WILLIAMS, OF CLEARMONT, MISSOURI.

BURGLAR-PROOF CAR.

SPECIFICATION forming part of Letters Patent No. 554,162, dated February 4, 1896.

Application filed March 14, 1895. Serial No. 541,705. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL H. WILLIAMS, a citizen of the United States, residing at Clearmont, in the county of Nodaway and State of Missouri, have invented certain new and useful Improvements in Burglar-Proof Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to burglar-proof cars, the objects in view being to produce a defensive mechanism for express or other cars carrying valuables, engine-cabs and tenders, said mechanism being in the form of a battery of guns and arranged to be thrown into and out of operative position for discharge against intended intruders by unseen operators located in the interior of the cars, engine-cab or tender, to provide proper safety appliances for the guns when out of use, for an automatic covering and uncovering of the port-holes therefor, for a proper reflection of the light and guard therefor, and also suitable sight-openings.

Various other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is an external view of a portion of an express-car provided with my invention. Fig. 2 is a vertical transverse sectional view. Fig. 3 is a horizontal section taken above the floor-line of the car. Fig. 4 is a similar view below the floor-line. Fig. 5 is an enlarged view of a portion of Fig. 4. Fig. 6 is an elevation of a portion of the interior surface of the wall of the car, showing the lamp-box in its closed position and the plate or slide closed so that no light is shed.

Before proceeding with a detail description of my invention I wish to state that although I have herein shown, for the purpose of illustration merely, my invention applied to an ordinary express-car, yet it is to be understood that it is my intention to also apply the invention to engine-cabs and tenders, and thereby protect the engineer and fireman from being overawed by the burglars and enable them to thoroughly protect themselves.

The car 1 is provided with the usual side door 2, above which I preferably form a light-

opening 3. Upon the interior of the wall of the car, above and below the opening 3, I locate horizontal ways 4, connecting them at one side of the opening by a vertical strip 5, to which is hinged, as at 6, a lamp-box 7. As its name implies, the box 7 is for the accommodation of a lamp, which latter is readily placed in position by swinging the box to an open position upon its hinges. When the lamp is placed in position the box may be closed and secured by means of a hook-and-eye connection 8. Arranged for sliding freely in the ways 4 is a plate or slide 9, the same being imperforate and normally closed over the light-opening by means of a coiled or other spring 10, so that the light is not ordinarily shed from the lamp. When it is desired to flash the light out on the road at the side of the car it is only necessary to withdraw the slide from over the light-opening. The spring will cause the plate to automatically return to close the opening when released from the hand of the operator, and thus shut off the rays of light. I also locate at suitable and convenient points small sight-openings or peep-holes 11, which are normally covered by a loosely-hanging curtain 12. By such an arrangement a person can introduce his head under the curtain until his eye finds the peep-hole, the curtain all the time being back of him and hiding the light in the interior of the car, and he can then in an unobserved and safe manner scrutinize the persons outside. If it be dark he can also reach up with his hand and withdraw the slide, thus shedding light to aid in his seeing. The light being thoroughly guarded by the metal box in which it is placed, bullets fired thereat cannot gain entrance to the car.

By my invention, as thus far described, an express-messenger or other employé can, when called upon to open the door, conveniently inspect the intruder and thus ascertain whether or not he has business of a legitimate nature. This portion of my invention is of course principally adapted for express and other closed cars.

Having now described how outsiders can be scrutinized and identified from the interior of the car without an exposing of the person within, I will now proceed to describe the arrangement.

In the upper sides of the sleepers I form at opposite sides of the car half-round bearings

13, and locate therein opposite parallel rock-shafts 14, which extend from end to end of the car. Each of the rock-shafts 14 is provided at one or both ends with an operating-lever 16, which projects up through a slot 17 in the superimposed floor 18. By this means it will be seen that either or both of the rock-shafts 14 can be rocked from either end of the car. Near the opposite ends of each of the rock-shafts 14 I locate a pair of bearings 19 and in the same journal the reduced ends of a pair of opposite rock-shafts 20, the same rotating or rocking with their supporting-shafts 14 and also independent thereof, as will be hereinafter seen. Either or both ends of the shafts 20 are provided with operating-levers 21, which are located adjacent to the levers 16 and pass up through suitable slots 22, formed in the floor at the sides of the slots 17 near the ends of the car.

At intervals of, say, from ten to twelve inches apart I locate in the floor of the car trap-doors 23, by means of which the mechanism to be described is accessible.

The wall 1 of the car at or below the floor-line is provided with a series of port-holes 24, the same agreeing in number and location with the trap-doors 23. Within the sheathing of the walls I locate at opposite sides of these port-holes vertical guides 25, and in each pair locate a vertically-sliding plate or cover 26, on the inner side of which is a pair of perforated lugs 27. A horizontal closing-strip 28 rests at its free end upon the upper end of the cover 26 and is hinged, as at 29, to an adjacent portion of the structure of the car or a block placed there for the purpose.

From each of the rock-shafts 14, opposite each of the port-holes 24, there projects a rock-arm 30, the same terminating adjacent to the opposite walls of the car and loosely connected at their ends to the lower ends of a series of links 31, whose upper ends are loosely connected to the ears or lugs 27. Thus it will be seen that as the two rock-shafts 14 are rocked by their respective levers 16 the covers for the port-holes will be raised to expose or uncover the holes, or lowered to cover the same, in accordance with the direction of rotation given said rock-shafts.

At one side of each of the rock-arms 30 I locate, in the present instance, a pair of clamping-blocks 32, the intention being to so form them as to adapt them to grasp or clamp the stock or butt portions of revolvers. I may however alter the shapes of these clamping-blocks to adapt them to receive and retain other forms of battery. Within or between the blocks I locate the butts of revolvers 33, securing them in position by means of suitable clamping-bolts 34. The barrels of the battery are so arranged and disposed that their line of fire is through the port-holes when the rock-shafts 14 are in one position, and when in their second position the lower ends of the barrels rest in metal sockets 35, the latter being merely metal blocks chan-

neled out for the purpose and arranged along the interior of the walls of the cars. By their employment persons are guarded against injury by any possible accidental discharge of one or more of the guns forming the batteries.

Pairs of lugs project from the rock-shaft 20 above each of the clamping-blocks 30 and coiled retracting-springs 36 connect said lugs, which are designated as 37, with the inner ends of the clamping-blocks, so that as a result the shaft 20 is spring-actuated in one direction.

A horizontal guide 38 is located at one side of each of the pair of clamping-blocks, and located therein for reciprocation is a sliding bar 39, at whose front or outer end is arranged a trigger-trip 40, that, being disposed at a right angle to the bar 39, passes in front of and rests against the trigger of the revolver. In suitable bearing-supports 41, located at the inner end of each of the pair of clamping-blocks, there is pivotally supported at an intermediate point, as at 42, a lever 43, the lower end of which is pivotally connected to the rear end of the bar 39, as at 44, and the upper end of which is likewise connected, as at 45, to the rear end of a short lever or link 46, whose front end is pivotally connected to the bearing ears or lugs 37 thereabove. Thus it will be seen that at each rocking of the shaft 20 the several bars 39 will be reciprocated and the triggers of the several revolvers vibrated, and thus the hammers raised and released, whereby the revolvers are discharged all simultaneously at one side of the car, or if both sides be attacked both batteries can be brought into play.

Having thus described in detail the construction of my invention, the operation thereof will be for the most part fully understood in connection therewith, but may, for convenience, be briefly stated as follows:

The exterior of the car, but for the presence of the covered port-holes, has the usual appearance, and these port-hole covers being perfectly smooth on their exterior cannot be raised from the outside to uncover. The messenger being convinced that the car is attacked simply grasps the two levers, 16 and 21, operating the first to raise the battery to the proper line of fire, which is about opposite the vital of a man standing on the ground, and at the same time uncovering the series of port-holes. The second lever, 21, is then vibrated as rapidly as desired, and the result is a succession of volleys from which no person or persons standing opposite the sides of the car can escape. In this manner one man can easily and without exposure defend one entire car from the attack of a gang of would-be robbers.

My invention carried out as herein described, with suitable modification that will readily suggest itself to the mechanic, will enable the engineer and fireman to protect themselves and the engine and tender.

Various changes in the construction of de-

tails of my invention will readily suggest themselves to the skilled mechanic and can be carried out without departing from the principle or sacrificing the advantages of my invention.

Having described my invention, what I claim is—

1. The combination with the wall of a car, the same being provided with a light-opening, of opposite ways arranged at opposite sides of the opening, a cleat connecting the ways at one side of the opening, a lamp-receiving box hinged to the cleat and provided with fastening devices, a slide arranged within the ways, and a spring for normally closing the slide over the opening, substantially as specified.

2. The combination with the wall of a car, the same being provided with a series of port-holes, a series of movable covers for the holes, means for simultaneously operating the covers to open or close the holes, of a movable battery normally depressed below and out of line with the holes, mechanism for simultaneously raising the pieces composing the battery into line with the holes, and mechanism for simultaneously discharging the pieces composing the battery, substantially as specified.

3. The combination with the wall of a car having a series of port-holes and below the same a series of metal guard-sockets, of a series of guns composing a battery, means for normally supporting the muzzles of the same in the guards, and for raising them into line with the openings or holes and discharging them, substantially as specified.

4. The combination with the wall of a car, the same having a series of port-holes, of a rock-shaft, a battery supported thereby, means for normally depressing the barrels of the pieces composing the battery, means for raising the same into line with the port-holes, and means for discharging the pieces, substantially as specified.

5. The combination with the wall of a car, the same having a series of port-holes, a series of sliding covers arranged over the holes, and a rock-shaft journaled for movement opposite the holes, of a battery carried by the rock-shaft, means for rocking the shaft so as to raise and lower the battery, and mechanism connecting the rock-shaft with the series of sliding covers, whereby when the shaft is rocked in one direction the covers are raised so as to uncover the holes and when rocked in the opposite direction the same are lowered to close the openings, substantially as specified.

6. The combination with the wall of a car, the same having a series of port-holes, and a series of vertically-sliding covers for the same, of a rock-shaft journaled for movement opposite the openings or holes, means for rocking the shaft, a series of arms projecting from the shaft opposite the holes, links connecting the arms loosely with the several covers for raising and lowering the latter with the movements of the shaft, a se-

ries of guns carried by the shaft, and means for discharging the guns, substantially as specified.

7. The combination with the wall of a car having port-holes, of a rock-shaft journaled opposite the same, a battery supported below the rock-shaft, a sliding bar supported at the side of each piece composing the battery, a trip-arm extending from the front end of each bar into the path of the trigger of the adjacent piece, connections between the rear ends of the sliding bars and the rock-shaft, and means for operating said shaft, substantially as specified.

8. The combination with the wall of a car having a series of port-holes, a rock-shaft journaled opposite the same and a battery supported below the said shaft, of means for operating the shaft, and a trigger-trip mechanism between the triggers of the pieces and said rock-shaft, substantially as specified.

9. The combination with the wall of a car, the same having a series of port-holes, a rock-shaft journaled opposite the same, and a battery supported below said shaft, of a lever for operating the rock-shaft in one direction, a spring for operating the shaft in the other direction, and trigger-tripping devices between the shaft and pieces of the battery and operated by the movements of the shaft, substantially as specified.

10. The combination with the wall of a car, the same having port-holes, a rock-shaft journaled opposite the same, a lever for operating the same, bearings on the rock-shaft and a superimposed rock-shaft journaled therein, a battery carried by the lower shaft, a lever for operating the upper shaft, rock-arms extending from the latter shaft, levers intermediately pivoted in rear of each piece of the battery, a link connecting the same with the rock-arms, and sliding trigger-trips arranged in ways at the side of each piece of the battery and connected at their rear ends to the lower ends of the aforesaid intermediately-pivoted levers, substantially as specified.

11. The combination with the wall of a car, the same being provided with port-holes, a rock-shaft arranged opposite the same and provided upon its upper sides with bearings, a lever for operating said rock-shaft, a superimposed independent shaft arranged in said bearings, a lever for operating the same, springs for drawing said superimposed shaft in one direction, a series of revolver-embracing clamps arranged on the lower rock-shaft, and trigger-tripping devices carried by the upper shaft, of a series of revolvers located in the aforesaid clamps, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL H. WILLIAMS.

Witnesses:

GEO. P. SHOPTHUGH,

I. Z. WILLIAMS.