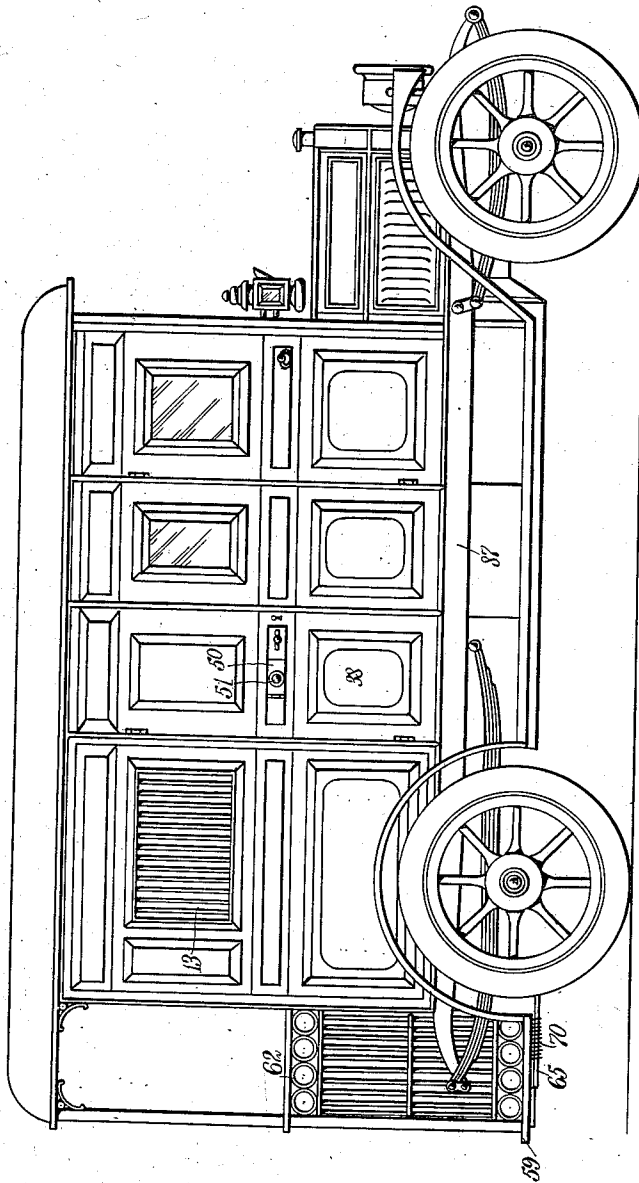


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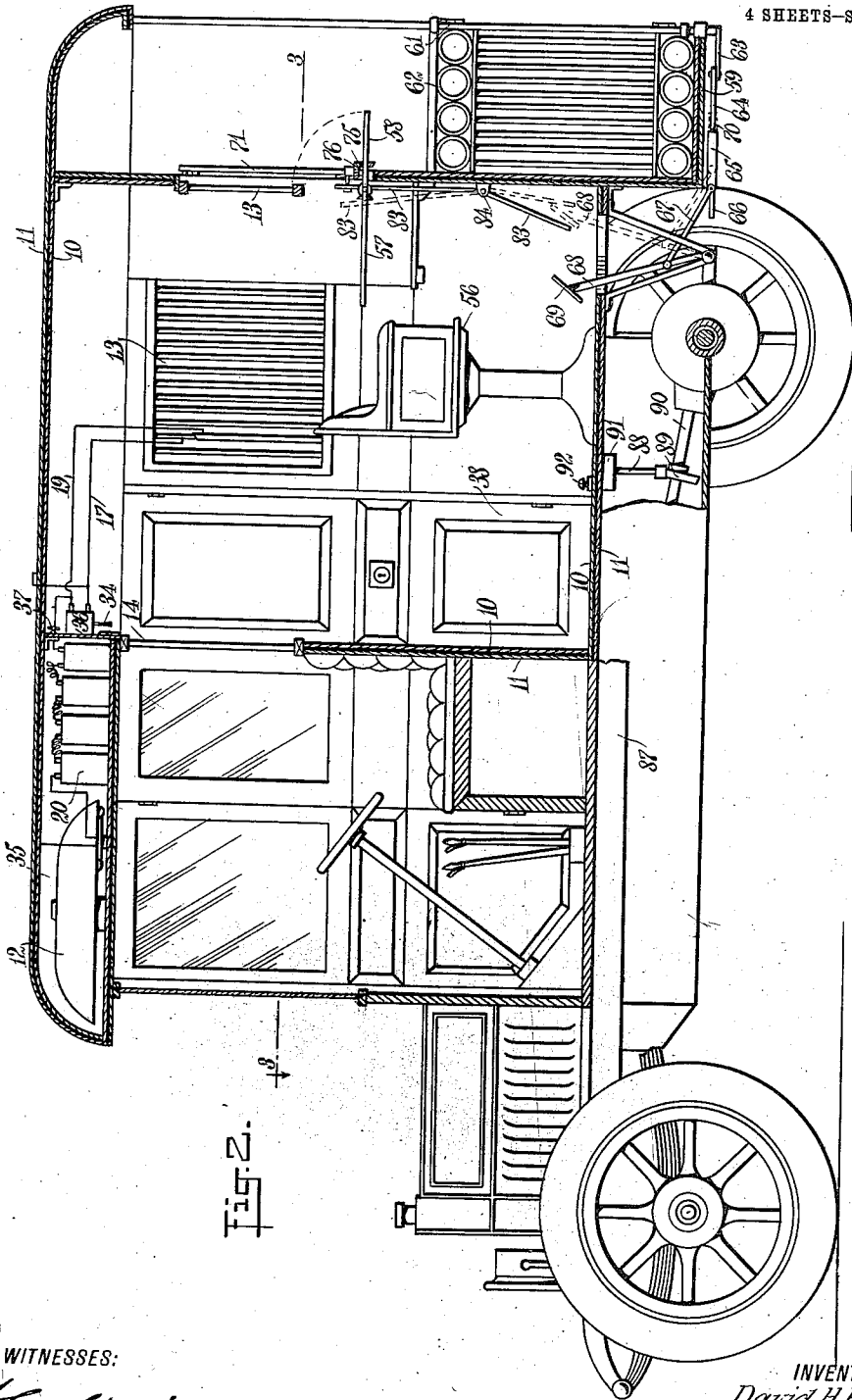
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AUTOMOBILE BANK VEHICLE.
APPLICATION FILED AUG. 30, 1910.

Patented May 28, 1912.

4 SHEETS—SHEET 2.



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4 SHEETS—SHEET 3.

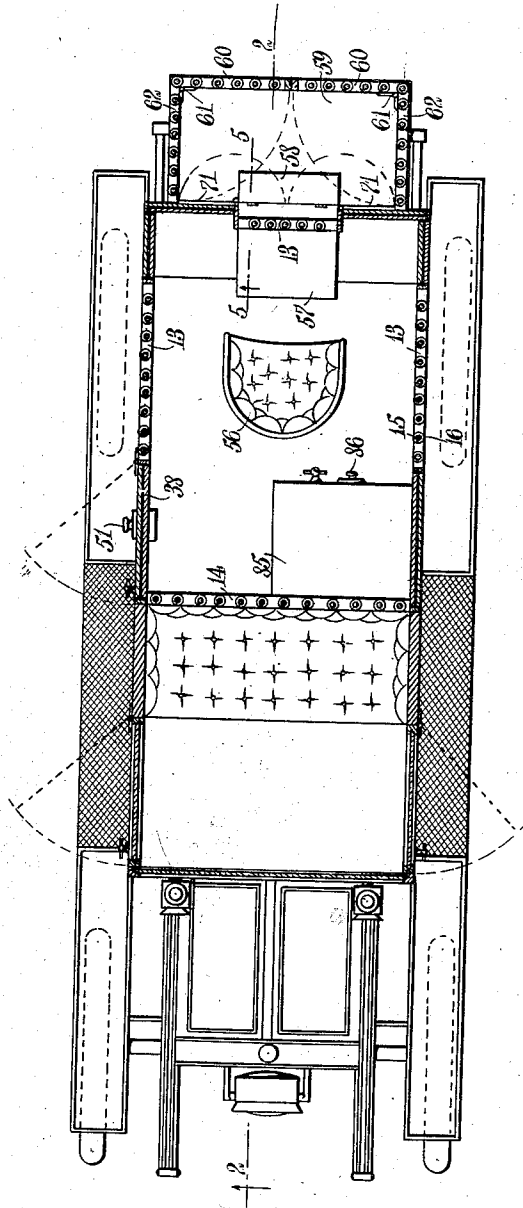


Fig. 3.

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4 SHEETS-SHEET 4.

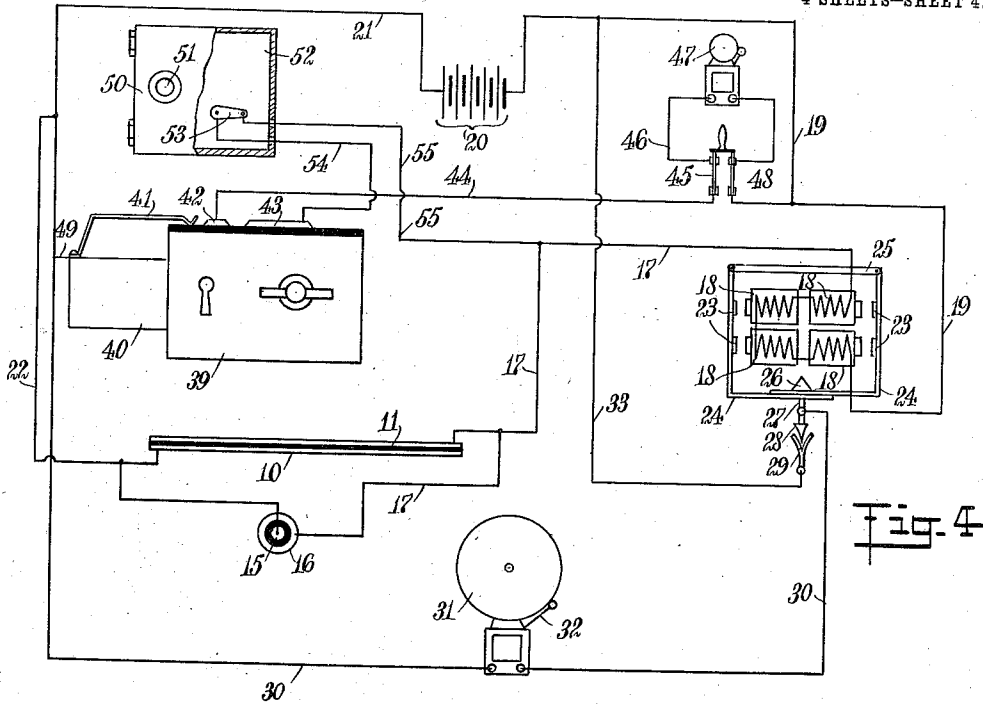


Fig. 4

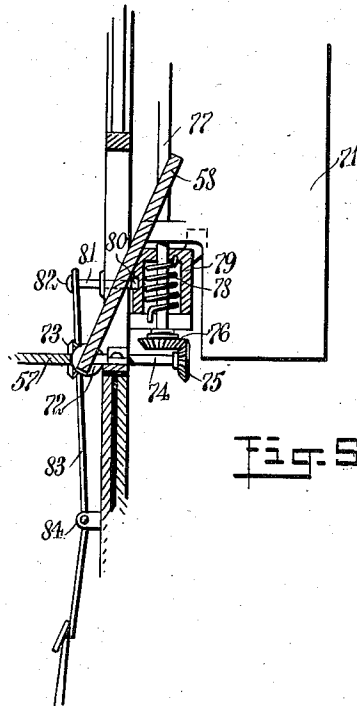


Fig. 5.

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UNITED STATES PATENT OFFICE.

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AUTOMOBILE BANK-VEHICLE.

1,027,978.

Specification of Letters Patent.

Patented May 28, 1912.

Application filed August 30, 1910. Serial No. 579,707.

To all whom it may concern:

Be it known that I, DAVID H. BELLAMORE, a subject of the King of Great Britain, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Automobile Bank-Vehicle, of which the following is a full, clear, and exact description.

10 Among the principal objects which the present invention has in view are: to provide a vehicle so constructed and arranged that any attempt to feloniously gain access to the interior of the car results in the sounding of an alarm; to provide a vehicle for itinerant banking purposes, the walls thereof being electrically connected when penetrated by any metallic substance or twisted to form an entering space; to provide a vehicle of the character set forth with appliances for ejecting from the cashier's window persons menacing or otherwise dangerous to the cashier; to provide means for preventing the intrusion by inspection of the operations of the cashier or car attendant; to provide means within the control of the attendant for sounding an alarm if and when attacked or run away with; and to provide means within the control of the attendant for sounding the alarm when the entrance door is opened.

One embodiment of the present invention is presented in the structure illustrated in the accompanying drawings, in which like characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a side elevation of a vehicle, constructed and arranged in accordance with the present invention; Fig. 2 is a vertical section on an enlarged scale, the section being taken on the line 2—2 in Fig. 3; Fig. 3 is a horizontal section taken on the line 3—3 in Fig. 2; Fig. 4 is a diagrammatic view showing the lay out of the various electric circuits for sounding the alarm and ascertaining the working condition of the system; and Fig. 5 is a detailed view on an enlarged scale taken on the line 5—5 in Fig. 3.

The vehicle herein set forth and exhibited in the accompanying drawings is designed to supply the need for a protected vehicle adapted for purposes of transportation of money and valuables over routes and through localities where the same would otherwise

be attacked and the goods or valuables contained therein confiscated.

A further use to which the vehicle is put is to facilitate a roving banking business, making it possible to facilitate the deposit and check system in rural districts insufficiently populated or centered to support a banking institution.

It is necessary for the safety of the materials carried by the bank that the same should be protected against robbery or burglary, and it is for this purpose that the following described construction is designed. The body of the present vehicle is divided into two sections, the forward and the rear section. The forward section may or may not be constructed of steel or other suitable material. The forward section is intended for the occupancy of the chauffeur or the accompanying guard or attendant. The convenience of the chauffeur and guard is provided for in the design.

To the rear of the compartment occupied by the chauffeur is the protected structure which, for convenience, I would call the banking room. This room is constructed throughout of any approved pattern of electrically protected wall, that is to say, the inner wall section 10 being separated by any suitable electrical insulating material from the outer wall 11. These walls are preferably constructed from hard steel, but the strength of the wall in the present construction is not depended upon for other than temporary protection, the real protection being the bell 12 and the means for continuously operating the same. The bell 12 will be of extra power and the mechanism for operating the striker of said bell will be sufficiently powerful, so that in sequestered places the alarm could be heard a great distance.

The window openings 13, 13 and the transoms 14, 14 are provided with bars for closing the same for preventing admission thereto. The bars for closing the same have each an interior rod 15 and an encompassing tube 16 to surround the said rod 15. It is preferred that the rod 15 and the tube 16 should not be separated by insulating material in the body of the said rod, the construction providing for a contact between the rod and tube whenever the said bars are bent or spread.

As shown in the diagram at Fig. 4, the tubes 16 and the outer wall 11 are connected by the wire 17, the magnets 18, 18, the main 19 with the battery 20. The opposite pole of the battery 20 is connected by means of the main 21 and branch 22 with the inner wall 10 and the rod 15. By means of this arrangement it will be observed that instantly with the formation of electrical contact between the walls 10 and 11 or the rod 15 and the tube 16, the battery 20 energizes the magnets 18, 18, which draw upon the armatures 23, 23 mounted on swinging arms 24, 24. The arms 24, 24 are supported by a stationary rod 25 and are so constructed that when drawn toward each other, openings provided in the arms 24, 24 spread to enlarge a passage formed by the two arms, above which the barb head 26 of an electrical drop rod 27 rests. When the magnets 18, 18 are energized by the circuit thus established, the immediate result is to drop the rod 27 to permit the head 28 thereof to contact with the terminal 29.

The rod 27 is connected to the battery 20 by means of the mains 30. Cut in on the main 30 is an alarm bell 31, the vibrator for the striker 32 being of any approved and usual type. The terminal 29 is connected to the battery 20 by means of the main 33. The dropping of the rod 27 into contact with the terminal 29 completes the circuit through the mains 30 and 33, the bell 31 and the battery 20. This circuit once established remains established until the rod 27 is lifted to be supported by the arms 24, 24. The rod 27 is provided with a handle 34, disposed in the banking room of the vehicle and accessible only to the occupant of said room. Thus it will be seen from the above description that the walls and grill bars, comprising the wall structure of the banking room are so arranged that when tampered with an alarm system is set in operation which continues to peal until entrance is completely forced and the handle 34 raised to lift the rod 27 from contact with the terminal 29.

The bell 12 is mounted in a hollow space 35, directly above the chauffeur's cab and the space is provided with a two-wall structure similar to that above described. The battery 20 is mounted within the same chamber. The chamber is closed from the banking room by a paneled door 36. The paneled door 36 is hinged at the lower edge and closed by a latch 37. Mounted upon the paneled door 36 is a casing in which is contained the magnets 18, 18, and the swinging arms 24, 24 operated thereby.

While I have herein shown and described a bell 12 as the alarm influence, I wish to be understood as recognizing the use of other devices such as whistles, horns or electrically-operated sounding devices. In all

cases, however, it will be understood that the alarm device is operated automatically by means of and preferably by an electric system.

Entrance to the banking room is obtained by the door 38. The door 38 is hinged upon the structure and is formed of electro-protected construction. The said door is operated by means of a key-operated lock 39. The lock is of any approved construction and has a bolt 40. The bolt 40 is preferably arranged as an element of a testing system. For this purpose the bolt is provided with a spring wiper 41. The wiper 41 is extended in the path of a plate 42, over which the said wiper rides before making permanent contact with the terminal plate 43.

The plate 42 is connected by means of a wire 44 with one leg of a switch 45. The switch 45 completes the circuit through the said switch 45, the branch wire 46, the small bell 47 and the short wire 48 through the main 19. The main 19 as above set forth is connected with one pole of the battery 20. The other pole of the said battery is connected to the main 21 which is connected by means of the short wire 49 to the wiper 41. Thus when in the operation of the lock 39 the bolt 40 is partially retracted, the wiper 41 makes electrical contact with the plate 42. Instantly the bell 47 is energized, provided, of course, that the switch 45 is closed. In this manner, the attendant, either on leaving or entering the car, when he turns the key to unlock the door, is made aware that the electric system is in operative condition, as by the preliminary turn of the key the wiper 41 is carried over the plate 42 and sounds the small bell 47. It is to prevent the tampering with the door 38 in gaining access to the banking room by duplication of the key that I have provided in the door a small compartment which is closed by the door 50. The door 50 is controlled by a combination lock 51, the combination being known only to the attendant or bank officials.

It is within the chamber 52 that the switch 53 is mounted. The switch 53 when closed connects the terminals of the wire 54 and the wire 55. The wire 54 is connected with the plate 43. The wire 55 is connected with the wire 17 and through the same with the magnets 18, 18. The opposite terminal of the windings of the magnet 18 is connected to the mains 19, 19. The mains 19, 19 lead to the battery 20, as above stated, and the main 21 is connected with the wiper 41. Thus when the switch 53 is in closed position, if the bolt 40 be retracted sufficient to open the door 38, the wiper 41 is extended over the plate 43, completing thereby the circuit through the battery by the wires 21, 19, magnets 18, 18, wire 17, wire 55, switch 130

53, wire 54, plate 43 and wiper 41. This circuit when closed operates the drop rod 27 to close the circuit through the bell 31 to sound the alarm. It will be understood that this action only occurs when the switch 53 is in closed position.

The arrangement whereby the switch 53 is locked within the chamber 52, the lock of which chamber is controlled by the combination device 51, permits the attendant to leave the car, and on leaving to open the door 50 to be permitted to close the switch 53. The door 50 is then closed and the combination thrown, when it is impossible for parties tampering with the car to get to the switch 53 without knowing the combination of the lock for the door 50. Thus it will be seen there is provided an arrangement whereby the attendant or other person in charge may leave the car with safety.

The banking room is provided with a chair 56. The chair 56 is disposed so that the person seated in the chair may readily pass or send cash or other articles over the inner table 57 and the shelf 58. This is the usual operation when using the vehicle as a portable or itinerant bank. The platform 59 provides a stand for the customer during the business transaction.

Provision is made in the present invention for ejecting a person from the platform, this provision being made for the sake of protection of the cashier or attendant. The platform 59 is of any suitable structure and is normally closed outwardly by gates 60, 60. The gates 60, 60 are hinged at 61, 61 to the side rails 62, 62. The gates are opened by means of the levers 63, 64, these levers being connected as the levers in a toggle, the lever 64 being connected with a sliding bar 65. The sliding bar 65 is guided on a rod 66 and is pivotally connected to a link 67, which in turn is pivotally connected with a foot lever 68 having a foot rest 69 extended within the banking room and in front of the chair 56. When the lever 68 is forced forward to the position shown in dotted lines at Fig. 2 of the drawings, the sliding bar 65 moves the levers 64 and 63 laterally to swing the gates open, as shown by the dotted lines in Fig. 3 of the drawings. A powerful spring 70 is mounted within the bar 65, against the tension of which the said bar is moved when the lever 68 is thrown into locked position, as indicated by the dotted lines. When in the open position the spring 70 is constantly alert to reverse the action of the gates 60 to move the same to the closed position shown in Fig. 3 of the drawings. In thus moving, the gates 60, 60 positively eject a person standing upon the platform.

It will be noticed that by the arrangement of the lever 68 the cashier may move the lever 68 by his foot without the des-

perado or other person being aware of any action on the part of the cashier, his first notice being the striking of the gates and the thrust thereof from the platform. The action would, at least, disconcert an aim if it were the purpose of the desperado to fire at the cashier.

As a further prevention against molestation of the character specified shutters 71 are hinged to fold over the window opening, as shown by the dotted lines in Fig. 3 of the drawings. The outer shelf 58 is connected with the shutters 71, 71 to operate in conjunction and simultaneously therewith. The construction whereby this is accomplished is best shown in Fig. 5 of the drawings, where the shelf 58 and the table 57 are shown in this figure of the drawings as in section. The shelf 58 is fixedly mounted upon a shaft, at the ends whereof are fixedly mounted bevel wheels 72. The bevel wheels 72 are meshed with other bevel wheels 73. The bevel wheels 73 are fixedly mounted on a shaft 74 on the inside of the banking room. At the outer end of the shaft 74 is a third bevel wheel 75, which is in meshed engagement with the bevel wheel 76 fixedly mounted on the end of a vertical shaft 77. The vertical shaft 77 forms the pivotal hinge for the shutters 71.

It will be observed that as the shelf is brought to vertical position in front of the grill 13 of the window, the shutters 71, 71 are rotated in harmony with the rotation of the shaft to close over the said grill 13, thus closing the window at the front of the table 57. This action is automatic in that it is actuated by heavy spiral springs 78. The springs 78 are disposed in a boxing 79 so that the pivot shafts 77, 77 of each of the shutters 71 are thrown into closed position when not restrained. The boxing 79 is provided with a nick or recess 80 which is provided to receive the end of a latch bolt 81. When the shutters 71 are fully open, the latch bolt 81 drops into the nick or recess 80, locking the shutters in open position. The latch bolt 81 is provided with a head 82, the head 82 being used to engage a lever 83. The lever 83 is mounted inside of the banking room and is mounted in brackets 84 on the side of the car.

In the operation of the shelf 58 and the shutters 71, 71, the attendant forces outward the shelf 58. The movement of the shelf 58, being transmitted through the gears 72, 73, 74, 75 and 76, imparts a rotary motion to the shutters 71, throwing the same back against the side of the car and opening the window in front of the table 57. When the shutters 71 are fully opened and the shelf 58 is brought to a horizontal position, the bolt 81 falls into the recess 80 and the parts are locked in position, but in this position the springs 78 are at highest tension,

hence when the operator or attendant, in the event of attack, moves his foot to strike the lower end of the lever 83 to retract the bolt 81 from the recess 80, the springs 78 operate to violently close upward the shelf 58 and inward the shutters 71, 71. This operation may be arranged to occur simultaneously with the closing of the gates 60, 60.

10 Within the car body and, if desired, built into the structure thereof, is a safe 85 which is closed by a combination lock 86. The running gear may be of any well known and approved construction. The side bars 87 are, however, bolted to and made a part of the construction.

It is to prevent the running off with the car that I have provided the plunger 88, which normally rests upon a cam 89. The cam 89 is preferably mounted upon the driving shaft 90 of the motor. For each revolution of the shaft 90 the cam 89 lifts the plunger 88 within the box 91 wherein the said plunger makes an electrical contact to complete a circuit through the magnets 18, 18, to drop the rod 27. The operation of this circuit is controlled by a floor plug 92. When the plug 92 is depressed or raised, as the case may be, the circuit connecting the plunger 88 will be permanently open. It will therefore be seen that the operator or attendant could at any time sound the alarm while the machine was running, by releasing the plug 92, permitting the circuit controlled thereby to be closed through the magnets 18, 18, to drop the rod 27 in the manner above described.

Thus it will be seen that with a vehicle thus constructed it is possible not only to move treasure with a large degree of safety from point to point but to facilitate and procure for those, not now supplied, the advantages of a banking system. A vehicle of the character described could in the course of a day cover many miles and supply many people, who would otherwise be unsupplied, with the facilities of banking and collecting checks: at the same time the fact that it is impossible to attack the bank without sounding the alarm which would notify all the people in the neighborhood that the bank was being attacked, would deter any but the most desperate characters from an attempt, and before entrance could be effected certain detection would be guaranteed so that the thief could be quickly pursued and captured.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent:

1. In a vehicle of the character described a burglar-proof body structure having a compartment formed therein arranged and equipped as a business office, and having a barred window for banking business with a person outside said compartment; an audible alarm mechanism mounted on said vehicle and operative by forcibly disarranging the walls of said compartment or the bars of said window; means for continuously operating said alarm; means for discontinuing the alarm operable only within said compartment; and means connected with said carrying wheels for actuating said alarm.

2. In a vehicle of the character described a burglar proof body structure having a compartment formed therein arranged and equipped as a business office, and having a barred window for banking business with a person outside said compartment; an audible alarm mechanism mounted on said vehicle and operative by forcibly disarranging the walls of said compartment; means for continuously operating said alarm; means for discontinuing said alarm operable only within said compartment; means connected with said carrying wheels for actuating said alarm; and means operable within said compartment only for preventing said alarm being actuated by said carrying wheels.

3. A vehicle such as described having a burglar-proof body structure provided with a cashier's window, and an audible alarm mechanism mounted upon said vehicle and operable by forcibly disarranging the walls of said structure, said alarm mechanism being mounted within the protective walls of said vehicle.

4. A vehicle such as described having a burglar-proof body structure provided with a cashier's window, and an audible alarm mechanism mounted on said vehicle and operable by forcibly disarranging the walls of said structure, means for continuously operating said alarm, and means for discontinuing the operation of said alarm operable only within said structure.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DAVID H. BELLAMORE.

Witnesses:

A. H. DAVIS,
PHILIP D. ROLLHAUS.