(No Model.) 2 Sheets—Sheet 1.

B. F. JOHNSON.

SAFETY CAGE FOR CARS.

No. 487,746. Patented Dec. 13, 1892.

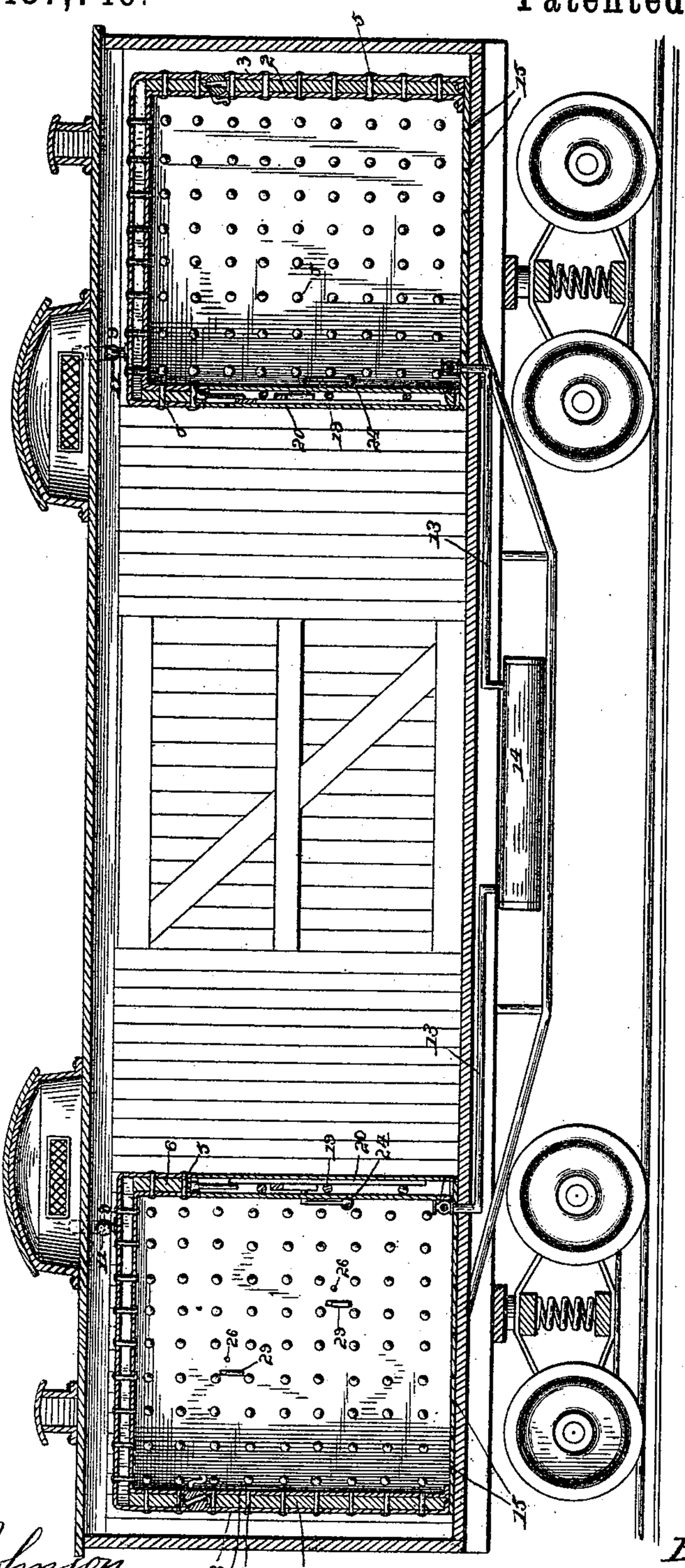

Fig. 1.

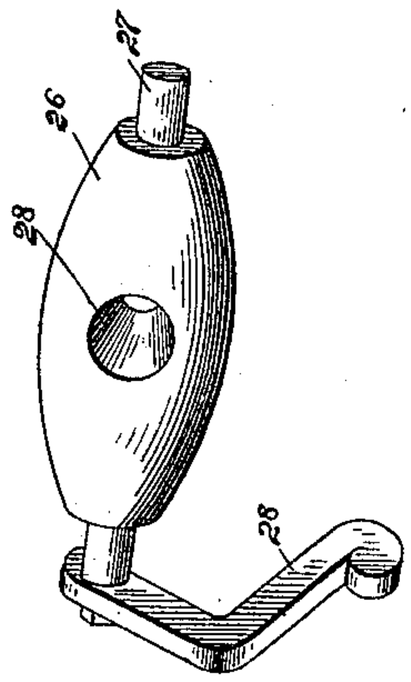

Fig. 2.

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(No Model.)

2 Sheets—Sheet 2.

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SAFETY CAGE FOR CARS.

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Fig. 2

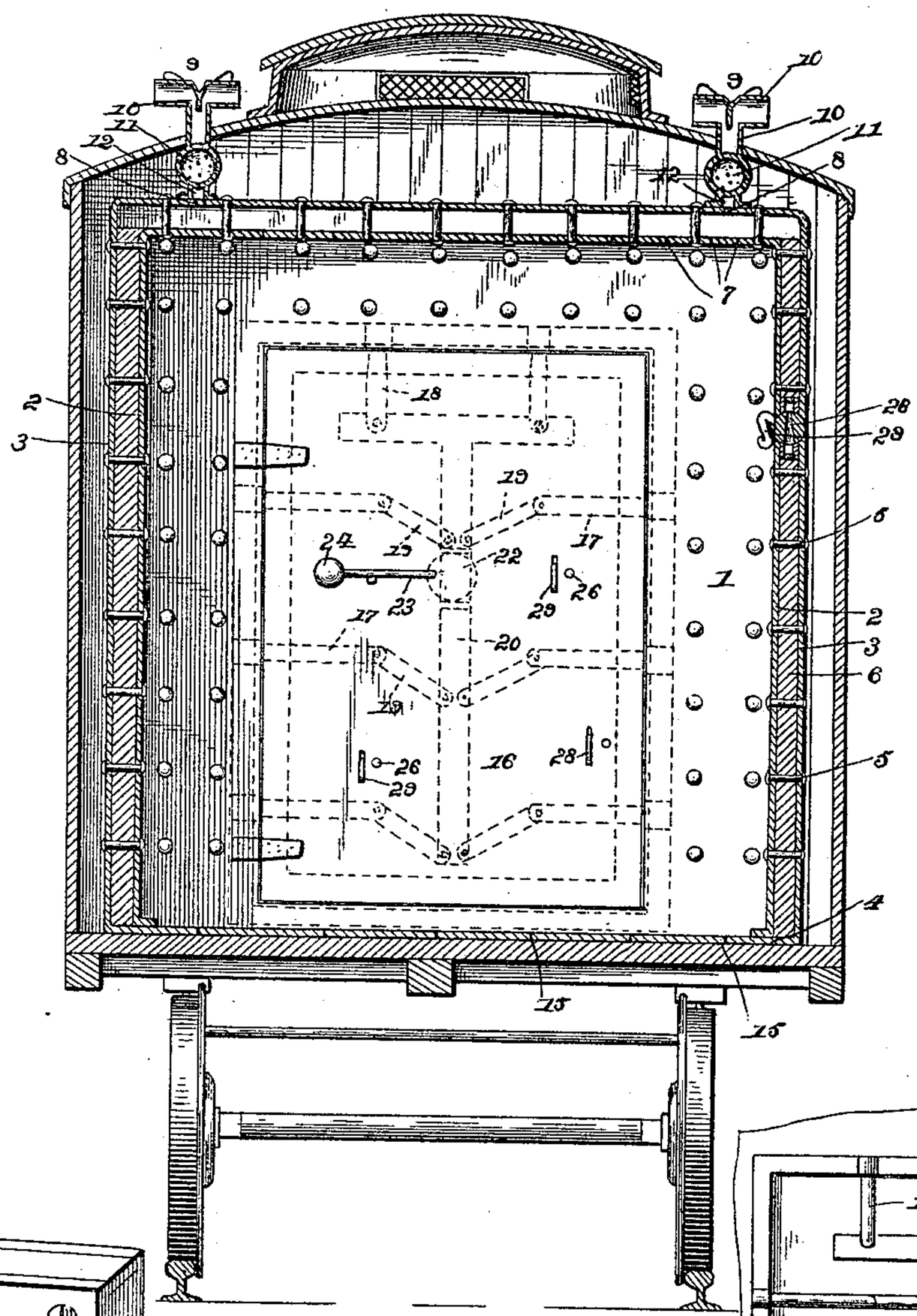


Fig. 3.

Fig. 4.

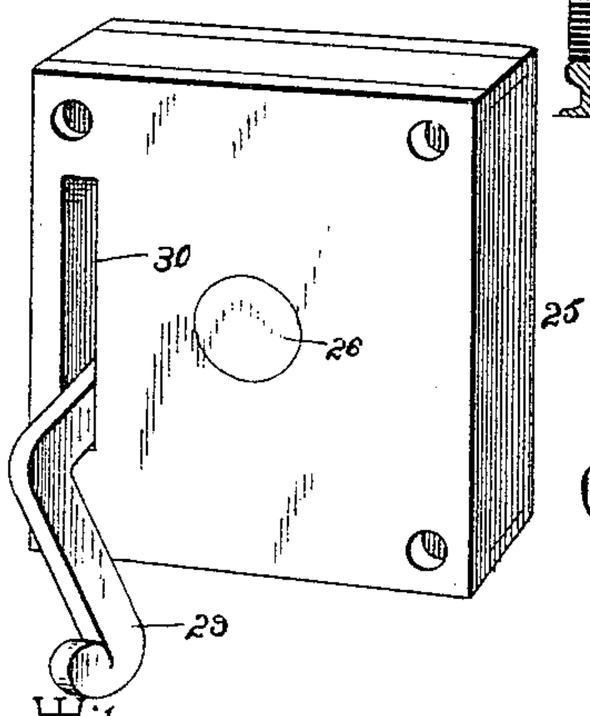
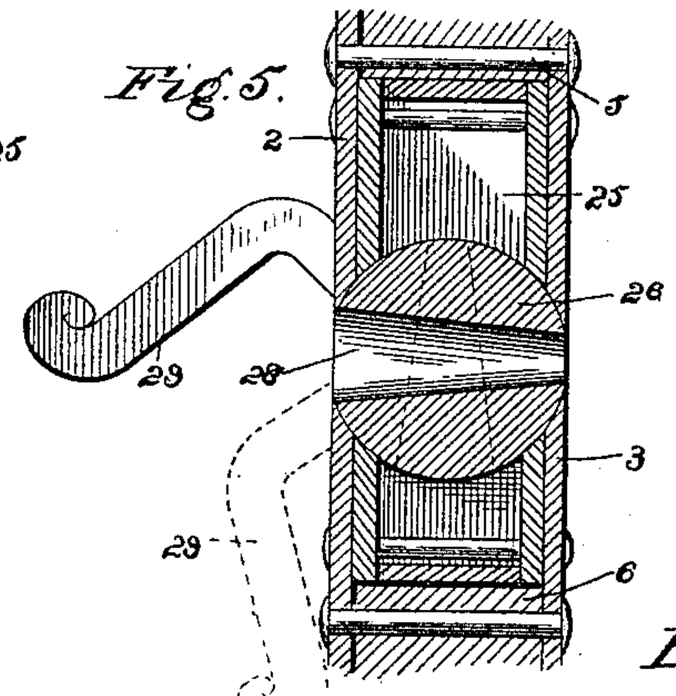
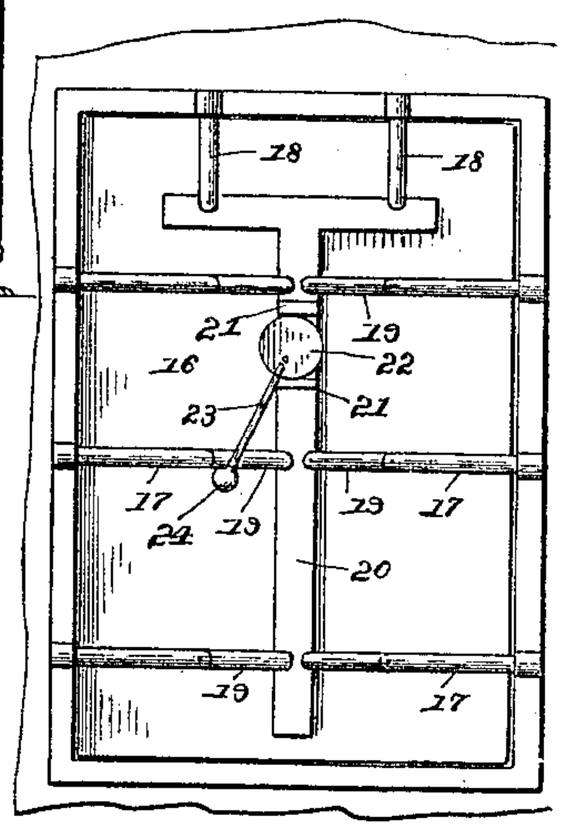


Fig. 5.





Witnesses

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UNITED STATES PATENT OFFICE.

BENJAMIN F. JOHNSON, OF McCOMB, MISSISSIPPI.

SAFETY-CAGE FOR CARS.

SPECIFICATION forming part of Letters Patent No. 487,746, dated December 13, 1892.

Application filed July 1, 1892. Serial No. 438,708. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. JOHNSON, a citizen of the United States, residing at McComb, in the county of Pike and State of Mississippi, have invented a new and useful Safety-Cage for Cars, &c., of which the following is a specification.

The invention relates to improvements in safety-cages for express-cars and the like.

The object of the present invention is to provide for cars and the like a safety-cage adapted to contain valuables and to be occupied by the person in charge and to afford a fire and bullet proof shelter.

A further object of the invention is to arrange the locking mechanism on the interior and to present a solid exterior to prevent fuses for blasting being inserted in the cage or the walls thereof and to provide automatically-closing port-holes to permit firearms to be discharged from the interior and to prevent bullets or other missiles entering the cage through the port-holes.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a longitudinal sectional view of a car provided with safety-cages constructed in accordance with this invention. Fig. 2 is a transverse sectional view. Fig. 3 is a detail view showing the locking mechanism. Fig. 4 is a detail perspective view of one of the boxes. Fig. 5 is a vertical sectional view of the box. Fig. 6 is a detail perspective view of the tapering roll and handle.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a safety-cage adapted to be arranged in a car or other desirable place to contain valuables and to shield an express agent or other person in charge, and consisting of inner and outer shells 2 and 3, which form the top and sides, and a bottom 4. The shells are constructed of chilled steel and are connected by bolts 5, as shown, and the spaces between the sides of the shells are filled with a fire-proof lining 6. The space at the top of the cage is not filled, and the inner shell is provided with ventilating-openings 7, and the outer shell is provided in its top with openings 8, which communicate with ventilators 9. The ventilators 9 consist of a T-shaped pipe 10, having the head arranged outside of the car, as shown, and a perforated hollow ball 11, connected with the lower end of the T-shaped pipe, and connected by a neck 12 with the outer shell of the cage. By this construction a continual supply of fresh air is provided and the insertion of any fuses into the cage through the ventilator is prevented. While the train is in motion and in an upright position upon the rails the ventilators will be sufficient to supply the cage; but should a train be wrecked and a car overturned a supply of air may be obtained from a pipe 13, which communicates with an air-drum 14 of a brake. The pipe extends through the bottom of the cage and is provided with a cock to control the supply of air obtained in this manner. The bottom of the cage is provided with openings 15 to afford free ventilation, and in cold weather these openings 15 may be closed by any suitable means, if found necessary or desirable, to prevent draft through the cage.

The front of the cage is provided with a door 16, consisting of inner and outer plates, forming continuations of the shells, and having mounted between them locking mechanisms comprising a series of horizontal and vertical bolts 17 and 18, the former of which are connected by links 19 with the vertical portion of a T-shaped bar 20, and the vertical bolts are connected directly to the horizontal arms of the T-shaped bar. The T-shaped bar is provided on its vertical portion with lugs 21, between which is arranged a cam-head 22 of a lever 23, which is fulcrumed at the head and is adapted to be turned to raise and lower the T-shaped bar to lock and unlock the door. The stem of the lever is connected with the head by a fulcruming-pivot or the like, and is provided at its outer end with a weight 24. The stem of the lever is arranged on the inner face of the door, and the exterior of the door presents no opening whatever through which a fuse could be inserted.

At various points in the walls of the cage

are arranged port-hole boxes 25, having automatically-closing port-holes, through which firearms may be discharged should the cage be attacked. The port-holes 28, which taper toward their outer ends, are formed in tapered rolls 26, which are constructed of cast-steel, and which are provided at their ends with journals 27, and which are mounted in the space between the walls of the boxes and are adapted to be turned to bring the tapered openings or port-holes in an approximately-horizontal position to register with openings in the inner and outer walls of the box and to be turned to carry the tapered opening 28 into a perpendicular position to close the openings in the wall and prevent any bullets or missiles entering the cage through the port-hole opening. Each roll is provided with an angle handle 29 of sufficient weight to cause the roll to turn automatically to bring the opening 28 in a vertical position and close the port-hole. The weighted handle extends through a slot 30 in the inner wall of the box. It will thus be seen that a fire, bullet, and burglar proof cage or compartment is provided, that firearms may be discharged from the interior without liability of bullets or other missiles entering the cage from the exterior, and that perfect ventilation is provided.

In the accompanying drawings the cage is shown applied to a car; but it may be employed in stationary structures, such as banks and the like.

What I claim is—

1. A safety-cage comprising inner and outer shells forming the top and sides and being separated and providing a ventilating-space between the tops of the shells, the inner shell being provided with ventilating-openings communicating with the interior of the cage and the space between the tops of the shells, a ventilator connected to the top of the outer shell and communicating with the space between the tops of the shells, a fireproof filling arranged between the sides of the shells, and bolts connecting the inner and outer shells, substantially as described.

2. A safety-cage for cars and the like, comprising inner and outer shells forming the top and sides, the tops of the shells being provided with ventilating-openings and ventilators comprising a T-shaped pipe, and a perforated hollow ball interposed between the pipe and the cage, substantially as and for the purpose described.

3. A safety-cage having a door, in combination with locking mechanism comprising vertical bolts arranged at the top of the door, horizontal bolts arranged at the sides of the door, a vertically-movable T-shaped bar mounted in the door and having its horizontal arms attached to the inner ends of the vertical bolts, links pivoted to the inner ends of the horizontal bolts and to the vertical portion of the T-shaped bar, and an operating-lever for moving the T-shaped bar vertically to actuate the bolts, substantially as described.

4. The combination, with a safety-cage having inner and outer shells provided with openings, of a roll journaled between the shells and provided with an opening adapted to register with the opening of the shells to form a port-hole and adapted to be turned into a vertical position to close the openings of the shells, substantially as described.

5. The combination, with a safety-cage having inner and outer shells and provided with openings, of a box, a roll journaled in the box and having an opening adapted to register with the openings of the shells, and a weighted handle adapted to turn the roll and to close the opening automatically, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

BENJAMIN F. JOHNSON.

Witnesses:

JOHN H. SIGGERS,

HORACE G. PIERSON.