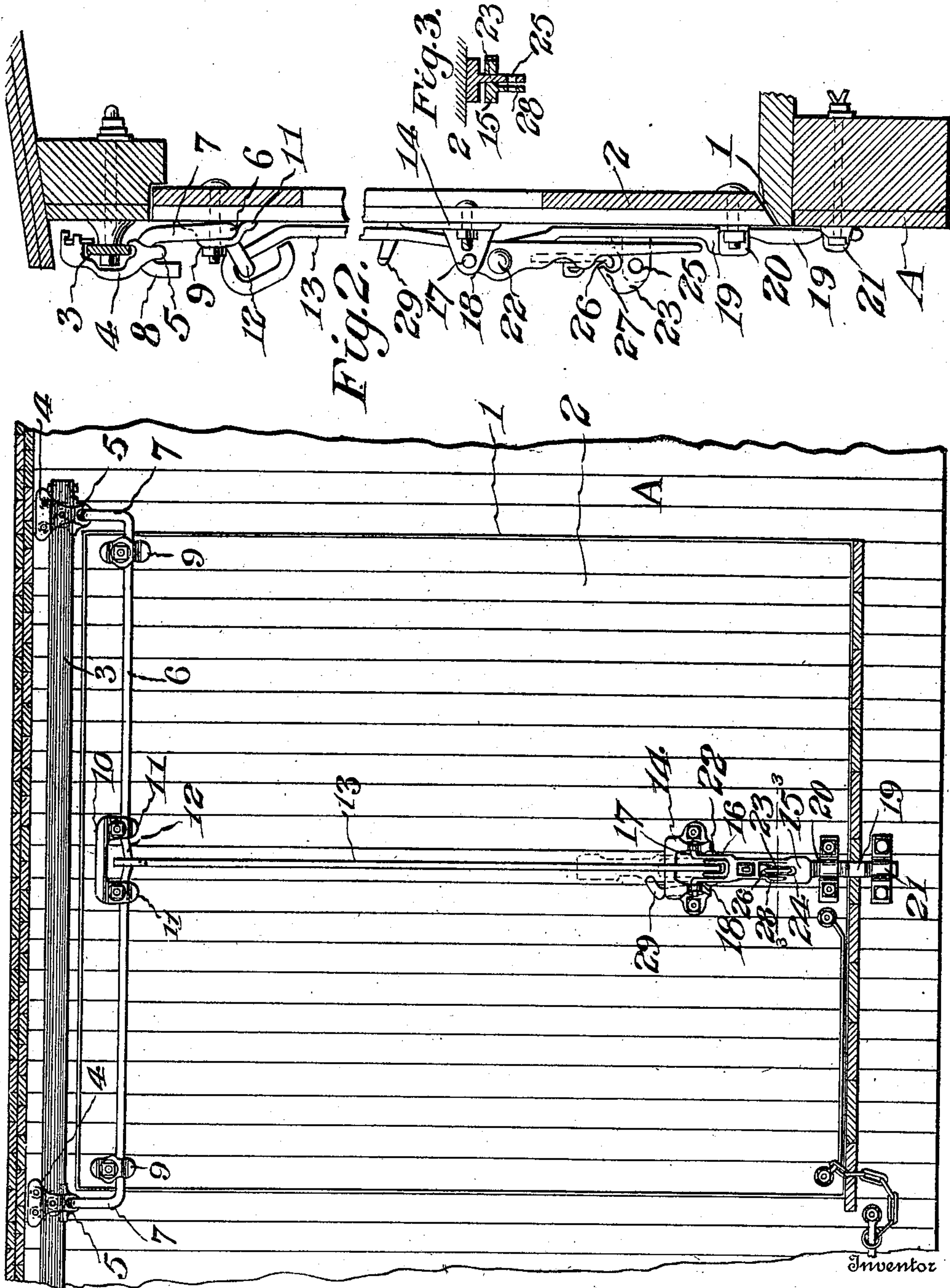


C. W. BITNER.
CAR DOOR LOCKING DEVICE.
APPLICATION FILED FEB. 16, 1909.

975,113.

Patented Nov. 8, 1910.

2 SHEETS—SHEET 1.



Witnesses: —

Joe. P. Mahler,
C. Bradway.

Fig. 1.

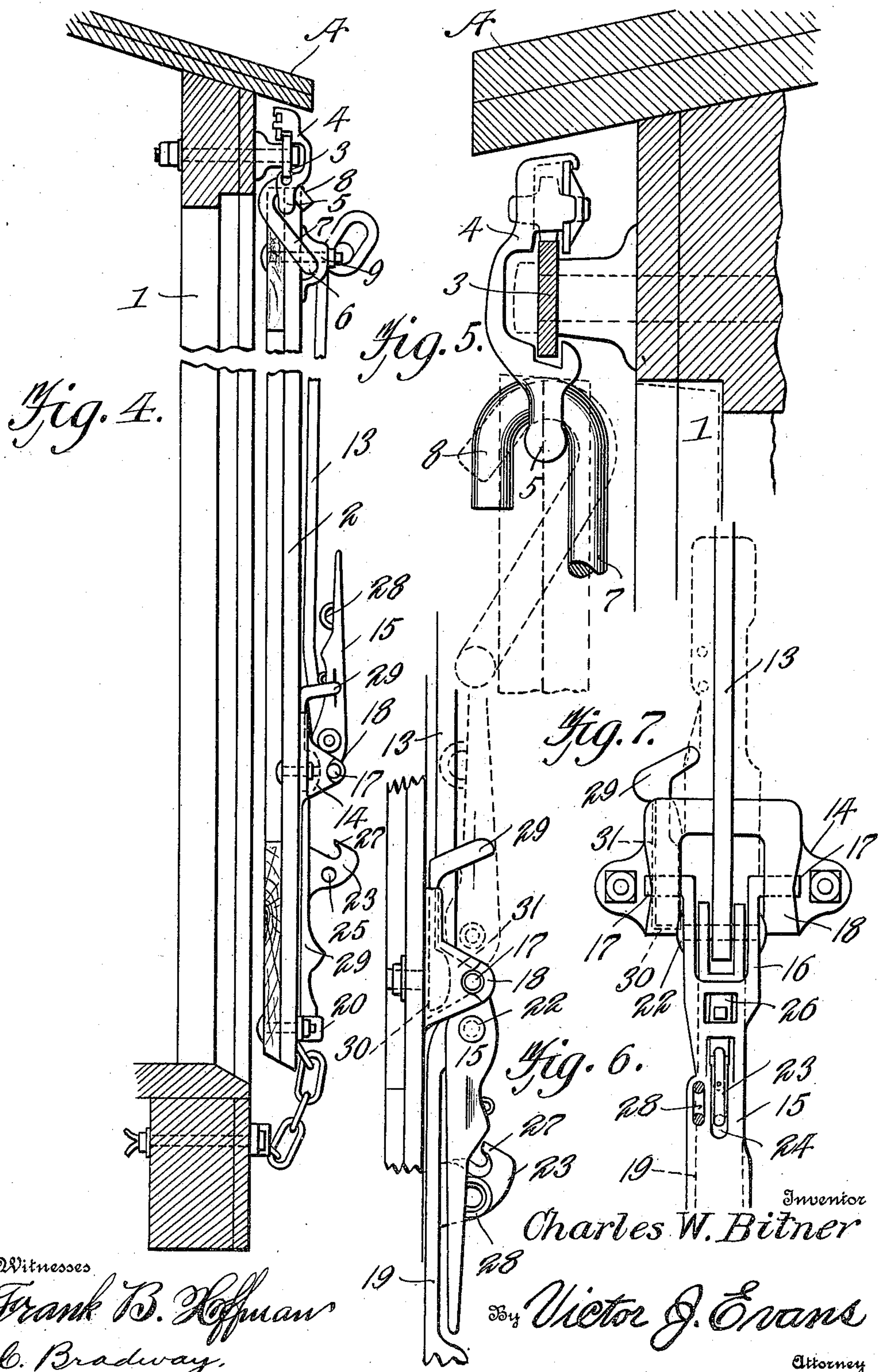
Charles W. Bitner.
By Victor J. Evans,
Attorney

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Witnesses
Frank B. Hoffman
C. Bradway.

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UNITED STATES PATENT OFFICE.

CHARLES W. BITNER, OF OAXACA, MEXICO.

CAR-DOOR-LOCKING DEVICE.

975,113.

Specification of Letters Patent.

Patented Nov. 8, 1910.

Application filed February 16, 1909. Serial No. 478,336.

To all whom it may concern:

Be it known that I, CHARLES W. BITNER, a citizen of the United States, residing at Oaxaca, in the county of Central and State of Oajaca, Mexico, have invented new and useful Improvements in Car-Door-Locking Devices, of which the following is a specification.

This invention relates to a locking device designed for use in connection with doors for box, stock and combination cars, and relates more particularly to a locking device of that type used with doors that set into the openings in the sides of the car.

The invention has for one of its objects to improve and simplify the construction and operation of devices of this character so as to be comparatively simple and inexpensive to manufacture, thoroughly reliable and efficient in use, and readily manipulated.

A further object of the invention is to improve the form of the rock-shaft on which the door swings inwardly and outwardly and to also improve the construction of the manipulating lever in connection with the device for holding the same in raised position.

With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claim appended hereto.

In the accompanying drawing, which illustrates one embodiment of the invention, Figure 1 is a side view of the door-locking device applied to a car. Fig. 2 is an enlarged vertical sectional view of a portion of the car showing the device in side elevation, portions being broken away. Fig. 3 is a detail sectional view on line 3—3, Fig. 1. Fig. 4 is a vertical section of the car, showing the door in open position. Fig. 5 is an enlarged detail view of one of the door hangers. Fig. 6 is a side view of the bolt operating and locking device. Fig. 7 is a front view thereof.

Similar reference characters are employed to designate corresponding parts throughout the views.

Referring to the drawing, A designates a portion of the body of a car which has a door opening 1 into which the door 2 sets when in closed position. Over the door opening is a horizontally-disposed track 3

on which the door moves back and forth and on this track are mounted combination hangers 4 formed with apertured lugs 5. Mounted on the door is a horizontally-disposed rock shaft 6 that has terminal crank arms 7 that terminate in hooks 8 that engage in the apertured lugs 5 of the hangers whereby the door is suspended on the track. On the door are side bearings 9 for receiving the ends of the rock shaft 6, and at the middle of the door is a double bearing 10 which coöperates with the other bearings to support the rock shaft. The central bearing is in the form of an inverted U, and between the legs 11 thereof, the shaft 6 has a V-shaped bend 12 constituting a crank to which the actuating rod 13 of the locking device is connected.

Secured to the middle of the door adjacent the bottom thereof is a bracket 14 on which is pivotally mounted the operating lever 15 which has a bifurcated portion 16, the bifurcations of which are bent laterally into pivots 17 that are disposed in bearings 18 on the bracket 14. Attached to the bifurcated portion 16 of the lever is a bolt 19 which slides in straps or keepers 20 and 21 arranged respectively on the door 1 and body of the car one above the other, the bolt being connected with the lever 15 by a pivot 22. On the bolt is a hook-shaped catch 23 that extends through an opening 24 in the lever and the catch has an aperture 25 for receiving a padlock or seal for holding the lever in locking position and preventing tampering with the device. On the lever is a slidable latch 26 which is adapted to engage behind the bill 27 of the catch 23 to maintain the lever in place. Formed on the lever at one side of the opening 24 is an apertured lug 28 disposed opposite the catch 23 so that a seal can be passed through both the catch and lug 28. The actuating rod 13 passes downwardly between the bifurcations 16 and is connected with the upper end of the bolt 19 by the pivot 22 so that by swinging the lever upwardly, the bolt is simultaneously withdrawn with the upward movement of the actuating rod 13 whereby the shaft 6 will be rocked to throw the door outwardly beyond the side of the car in position for sliding the door open. Mounted on the bracket 14 and pivotally connected therewith to swing laterally is a retainer 29 designed to hold the lever 15 in raised position, as shown by dotted lines in Fig. 1. As the lever is swung

upwardly, it strikes the retainer 29 which is moved to one side to permit the lever to pass, and as soon as the lever passes, the retainer swings to normal position so that the extremity thereof engages in front of the lever and holds it in raised position. The retainer has a weighted end 30 disposed in a chamber 31 in the bracket 14 and this weighted end yieldingly holds the retainer in the position in Fig. 7.

From the foregoing description, taken in connection with the accompanying drawing, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative, and that such changes may be made when de-

sired as are within the scope of the claims appended hereto.

Having thus described the invention, what I claim is:—

A combination of a door body having an opening, a door therein, means for suspending the door including a rock shaft, a vertically-disposed actuating rod connected with the shaft, a lever fulcrumed on the door, means for connecting the lever with the said rod, a locking bolt attached to the lever, means for holding the lever lowered to retain the bolt in locking position, and a retainer adapted to automatically act to hold the lever in raised position.

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

CHARLES W. BITNER.

Witnesses:

H. A. MONDAY,
BENJAMIN A. DIAZ.