P. J. HUOT.

CAR DOOR.

APPLICATION FILED JUNE 1, 1910.

988,100.

Patented Mar. 28, 1911.

2 SHEETS—SHEET 1.

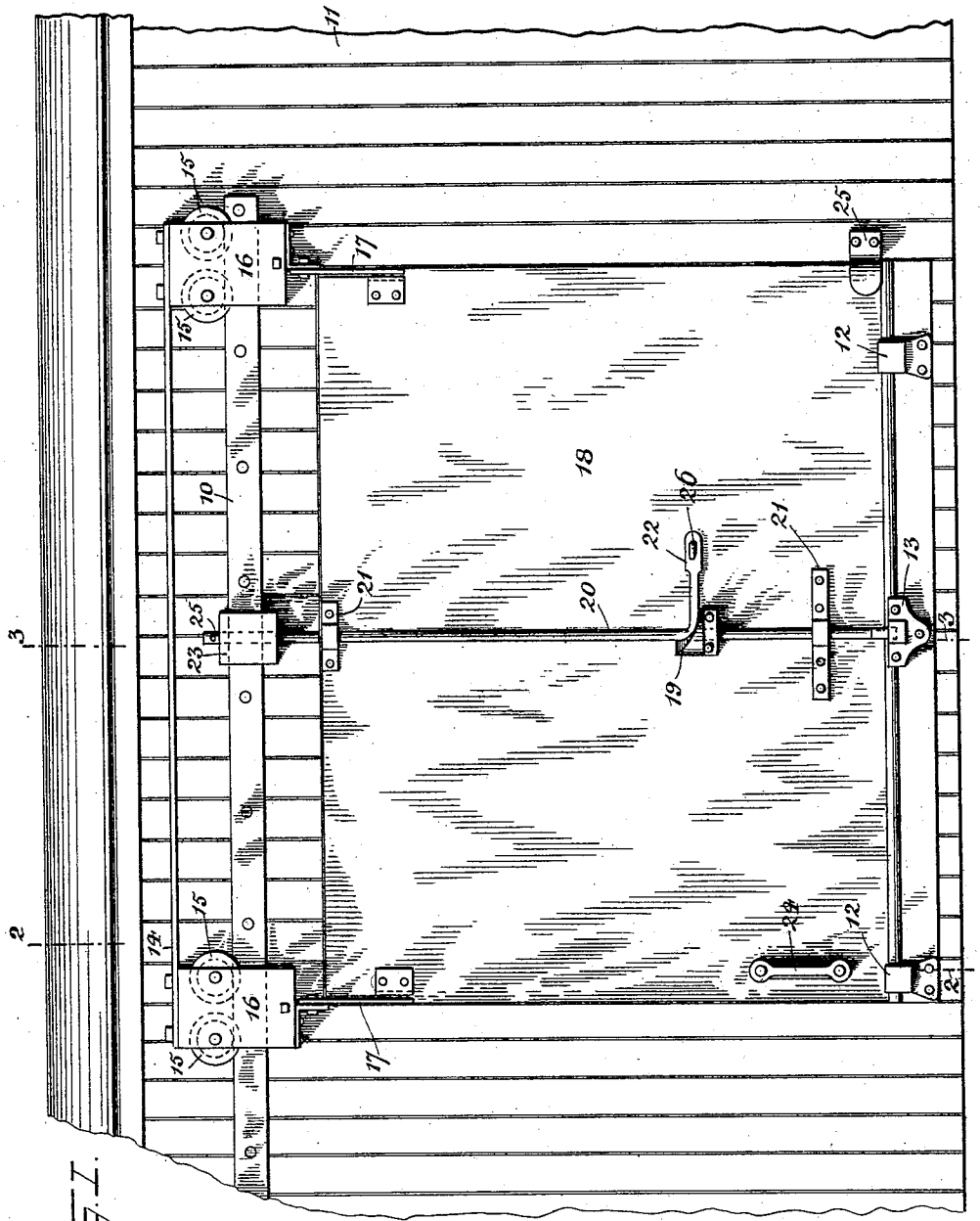

Fig. 1.

WITNESSES:

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2 SHEETS—SHEET 2.

Fig. 2.

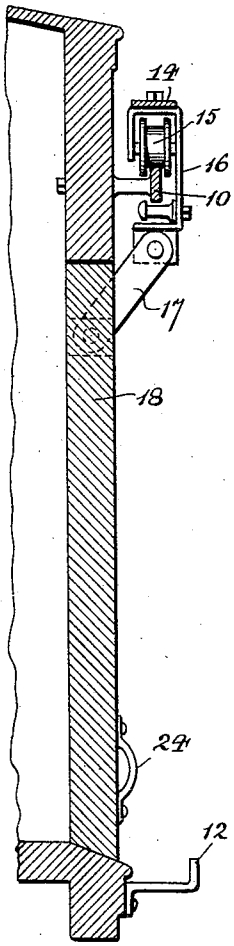


Fig. 3.

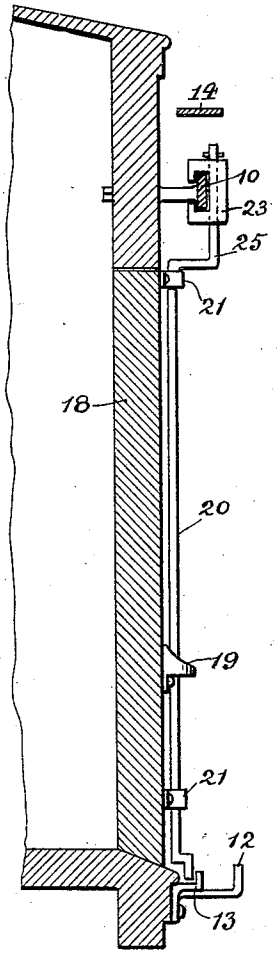


Fig. 4.

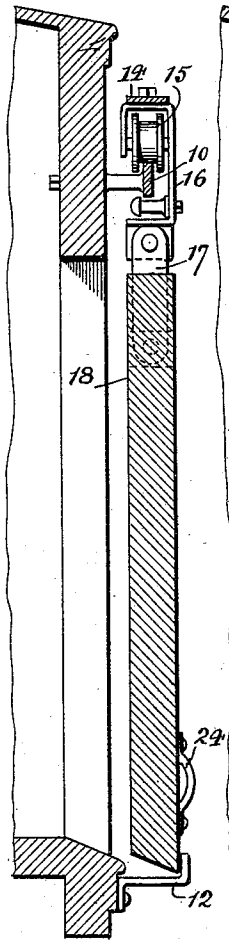


Fig. 5.

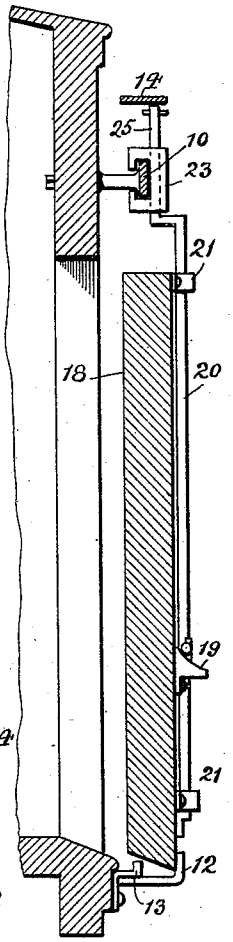
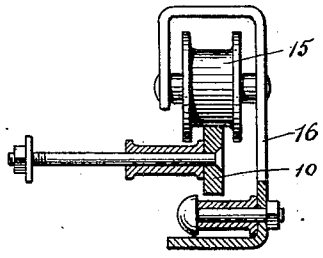


Fig. 6.



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UNITED STATES PATENT OFFICE.

PHILLIP JOSEPH HUOT, OF KANKAKEE, ILLINOIS.

CAR-DOOR.

988,100. Specification of Letters Patent. Patented Mar. 28, 1911.

Application filed June 1, 1910. Serial No. 564,389.

To all whom it may concern:

Be it known that I, PHILLIP J. HUOT, a citizen of the United States, and a resident of Kankakee, in the county of Kankakee and State of Illinois, have invented a new and Improved Car-Door, of which the following is a full, clear, and exact description.

This invention relates to freight cars, and has for an object to provide a car door adapted to constitute a snug fitting closure member for the car and adapted to be releasably held in a locked position on the car. For the purpose mentioned, use is made of a rail, a supporting means mounted to slide on the rail, a door mounted to swing on the supporting means, a cam on the door, and a locking bar engaging the cam to releasably hold the door in a locked position.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a partial side elevation of a car, showing my invention applied thereto; Fig. 2 is a sectional view taken on the line 2—2 in Fig. 1 and showing the door in closed position; Fig. 3 is a sectional view taken on the line 3—3 in Fig. 1 and showing the door closed, and the locking means in locked position; Fig. 4 is a sectional view similar to Fig. 2 but showing the door in open position; Fig. 5 is a sectional view similar to Fig. 3 but showing the door open and the locking means in unlocked position; and Fig. 6 is a detail elevation of the supporting means.

Referring more particularly to the various views, I employ a rail 10, secured horizontally to the side of a car, over the opening therein and spaced a distance from the car. Guides 12 are provided and disposed adjacent the lower edge of the opening, and a socket 13 is disposed intermediate the guides 12. Mounted to slide on the rail 10 are supporting means 14, consisting of rollers 15 and hangers 16. Pivotally mounted on the hanger 16 are links 17, and mounted to swing from the links 17 is a door 18. The lower edge of the door is disposed to be guided by the guides 12, and the said lower edge is preferably beveled, as shown in Figs. 2, 3, 4 and 5.

Rigidly secured on the door 18 is an inclined cam 19, through which is extended a locking bar 20 mounted to slide in bearings 21 and provided with a handle 22. The lower end of the locking bar 20 is adapted to engage the guide 13, and the upper end of the locking bar is mounted to slidably engage a guide 23 mounted to slide on the rail 10 and disposed intermediate the supporting members 16. A handle 24 is secured to the door, and a stop lug 25 is provided to limit the movement of the door.

In the operation of my device, when the door is locked the outer surface of the door is in the same plane as the side of the car. To unlock the door and open the same, the handle 22 is grasped and thrown to the opposite side. This movement forces the bar 20 upwardly, thus releasing the same from the socket 13, and the locking bar being formed at the upper end in the shape of a crank 25, when the lever is operated as mentioned the door 18 is pulled outwardly and away from the side of the car, as will be seen in Figs. 4 and 5. The handle 24 is now grasped, and the door is slid away from the opening in the car, the said door being slidable owing to the supporting members 14. When it is desired to return the door to a closed position, the reverse of the operation heretofore described, is performed, and the door will then be disposed as shown in Fig. 3.

It will be noted that when my car door is in locked position, the door fits snugly into the door opening, with the outer side of the door in the same plane as the side of the car upon which the door is mounted. In this manner, a perfect fitting closure is secured, and by means of the locking bar 20 and cam 19, the door is tightly held against the car, thus eliminating any banging or wabbling, common to most car doors.

By providing a staple 26 on the door 18, and a slot in the handle 22, the locking bar can be conveniently and securely locked to the car door by any suitable padlock or securing device.

It will be understood that, although I have shown a particular construction for the purpose of more easily describing my device, the scope of the invention is defined in the appended claims.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. A car door comprising supporting means mounted to slide on a rail, a door depending from the supporting means, a guide

member mounted to slide on the rail between the supporting means, a locking bar mounted to slide on the door, a crank arm on the locking bar and slidably engaging the said guide member and means on the locking bar for moving the same to move the crank arm relatively to the said guide member.

2. A car door mounted to slide on a rail, a socket on the car, a locking bar on the door and adapted to engage the socket when the door is in closed position, a cam on the said door, means on the locking bar for engagement with the cam to move the locking bar to engage or disengage the said socket, a crank arm on the locking bar and a guide member mounted to slide in the rail and slidably engaged by the crank arm.

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

PHILLIP JOSEPH HUOT.

Witnesses:
MICHAEL J. QUIGLEY,
WILLARD C. SMITH.