T. J. NAULTY.

DOOR OPERATING DEVICE.

APPLICATION FILED APR. 27, 1908.

912,019.

Patented Feb. 9, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

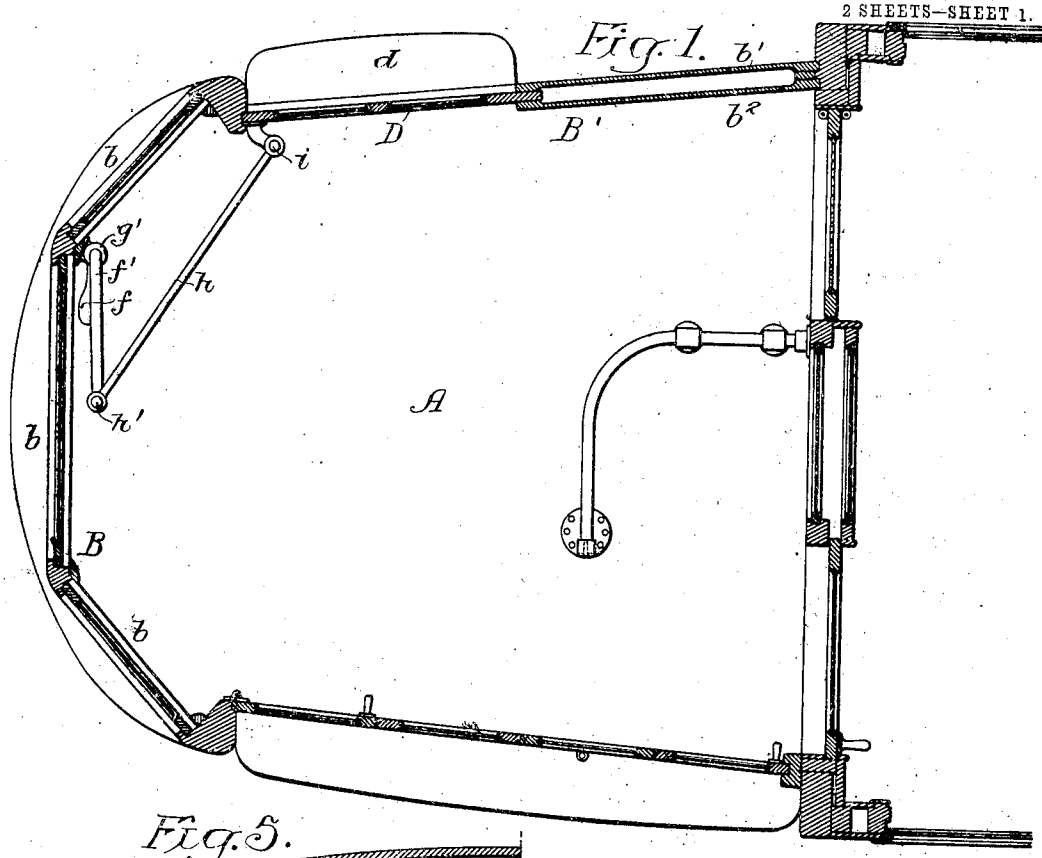
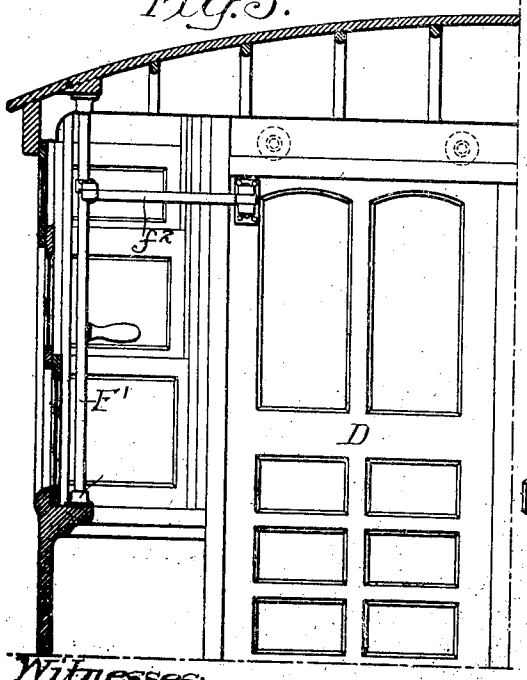


Fig. 5.



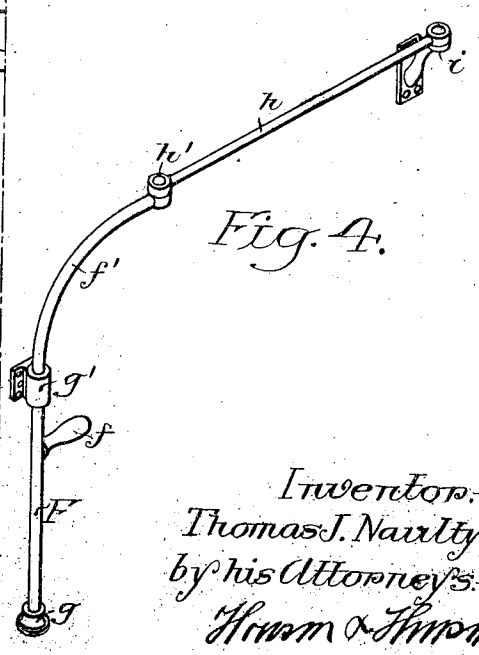


Fig. 4.

Witnesses:-
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2 SHEETS—SHEET 2.

Fig. 2.

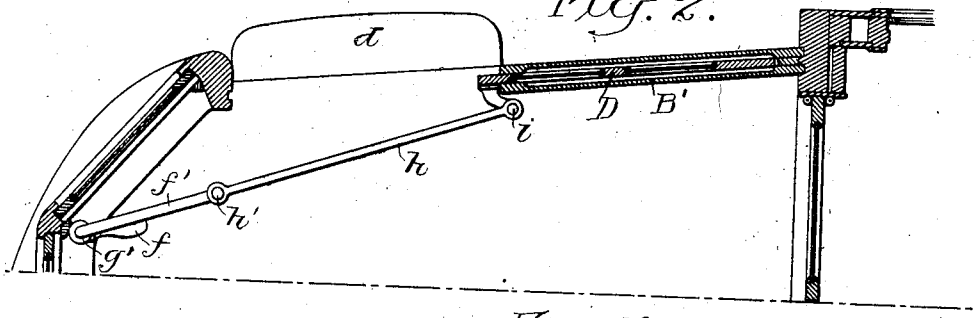
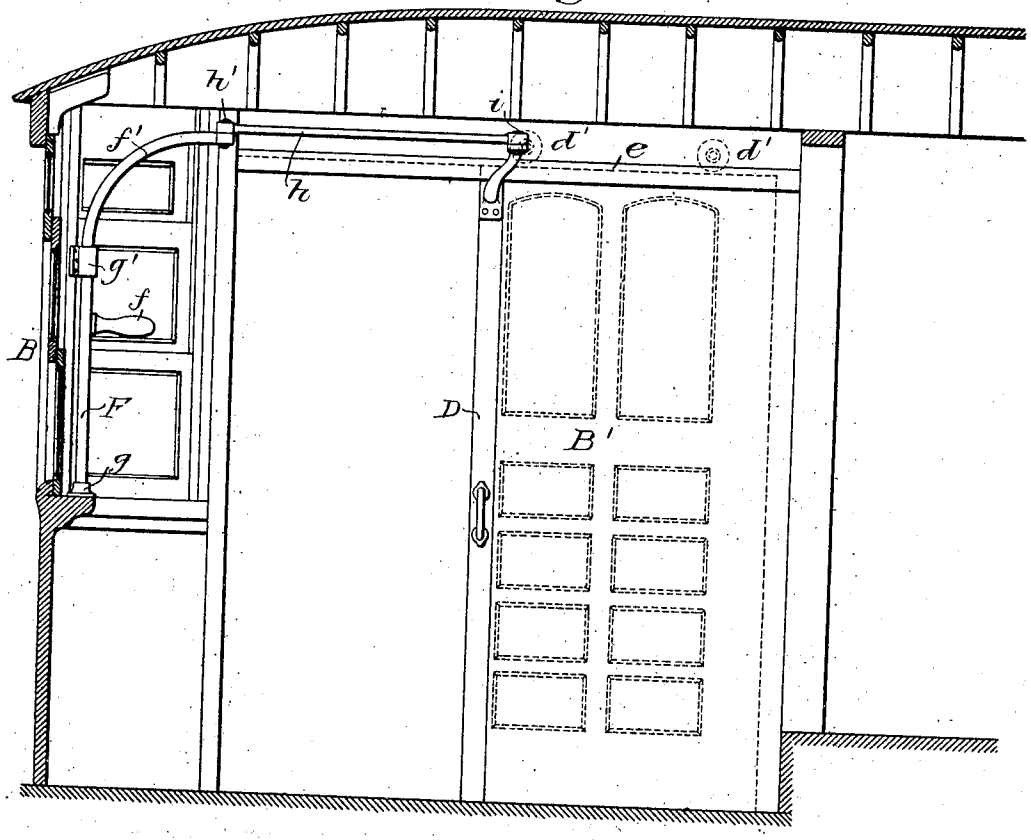


Fig. 3.



Witnesses:-
Augustus B. Coppes
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UNITED STATES PATENT OFFICE.

THOMAS J. NAULTY, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE J. G. BRILL COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

DOOR-OPERATING DEVICE.

No. 912,019. Specification of Letters Patent. Patented Feb. 9, 1909.

Application filed April 27, 1908. Serial No. 429,453.

To all whom it may concern:

Be it known that I, THOMAS J. NAULTY, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Door-Operating Devices, of which the following is a specification.

One object of my invention is to improve the means for operating the doors of passenger cars, and particularly those situated at the forward end of the car and which can be controlled by the motorman or other person controlling the operating mechanism of the car.

A further object of the invention is to so lock the operating mechanism in respect to the motorman that he can readily open or close the door without moving from his post; and a still further object is to so design the mechanism that the motorman can both open and close the door.

These objects I attain in the following manner, reference being had to the accompanying drawings, in which:—

Figure 1, is a sectional plan view of one end of a car illustrating my invention and showing the door closed; Fig. 2, is a view similar to Fig. 1, showing the door open; Fig. 3, is a longitudinal sectional view of a platform of a car, showing the door open and illustrating my invention; Fig. 4, is a perspective view of the operating device; and Fig. 5, is a view of a modification.

My invention relates particularly to operating mechanism for the exit platform doors of a pay-as-you-enter car, which are under the control of the motorman so as to prevent passengers entering the car through the exit doorway at the forward end and also to prevent opening of the door before the car comes to a stop, thus avoiding accidents due to passengers alighting before the car stops.

I have so designed the mechanism that the operating handle will be in front of the motorman so that he can open and close the door without leaving his post or turning away from the controlling mechanism of the car.

A is the platform of a pay-as-you-enter car inclosed by a frame B having window openings b at the forward end, so that the motorman standing at the usual point will have a complete view in front of the car.

d is the exit doorway and D is a sliding door adapted to pass into the channel formed by the two walls b', b^2 of the frame B′ at the side of the platform. The door has wheels d' running on a rail e in the ordinary manner and is adapted to a suitable guide plate at the bottom.

F is a vertical operating rod adapted to bearings g, g' secured to the sill and post, in the present instance, of the frame B. This operating rod has a handle f within easy reach of the motorman. The upper end of the rod F is bent to form an arm f' and the end of this arm is connected by a pin h' to a rod h connected to a bracket i on the door D, so that when the rod is turned in one direction the door will be closed and when turned in the opposite direction the door will be opened. The rod is curved in the present instance at the upper end to form the arm f', but it may be bent at right angles or a separate arm f^2 may be attached to the operating rod F′, as shown in Fig. 5, if found desirable.

By the use of the above described mechanism the door is always under the control of the motorman and will remain closed until operated by the motorman. Both the opening and the closing of the door are performed by the motorman and means, such as a catch, may be provided for holding the rod on the operating handle to retain the door in its closed position if found desirable.

The device is simple and effective, and strong, and is not liable to get out of order by rough usage.

I claim:—

1. The combination of a car, a platform, a vestibule framework closing the end of the platform, a doorway at one side of the platform, a sliding door arranged to close said doorway, a vertically arranged shaft, bearings for said shaft mounted on the vestibule framework, a crank on the upper portion of the shaft, and a rod forming a direct connection between the crank and the door.

2. The combination of a car having a platform, a vestibule inclosing the end of said platform, a doorway, a sliding door arranged to close said doorway, a vertical

shaft, bearings therefor mounted on the vestibule framework, the upper portion of the shaft being in the form of a crank, a bracket on the door, a rod connecting the crank portion of the shaft with the bracket, and a handle projecting from the shaft.

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

THOMAS J. NAULTY.

Witnesses:
Jos. H. Klein,
Wm. A. Barr.