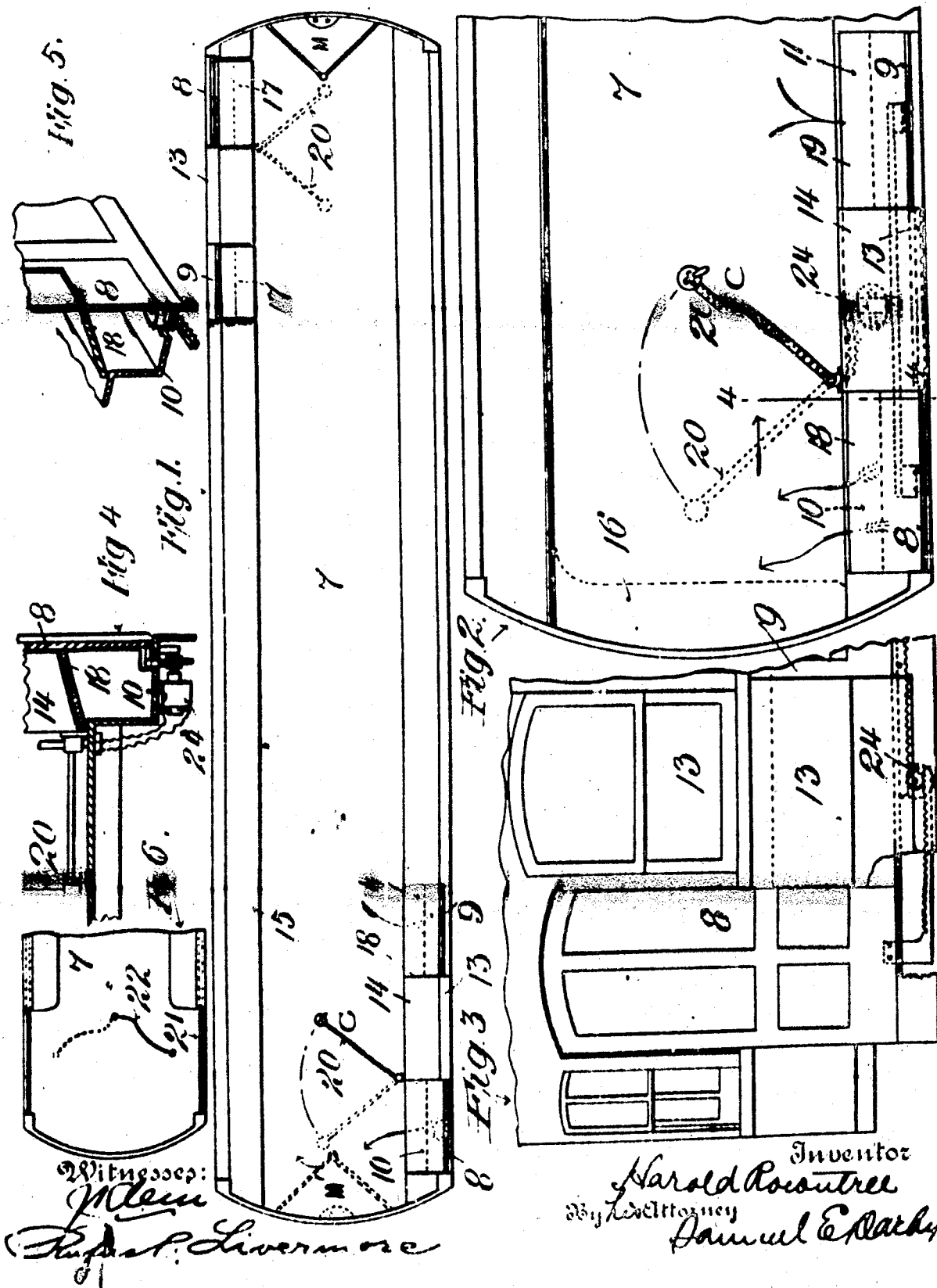


H. ROWNTREE
 PAY-AS-YOU-ENTER CAR.
 APPLICATION FILED JULY 29, 1908.

949,717.

Patented Feb. 15, 1910.



UNITED STATES PATENT OFFICE.

HAROLD ROWNTREE, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE PAY-WITHIN CAR COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF DELAWARE

PAY-AS-YOU-ENTER CAR.

949,717.

Specification of Letters Patent.

Patented Feb. 15, 1910.

Application filed July 20, 1908. Serial No. 444,267.

To all whom it may concern:

Be it known that I, HAROLD ROWNTREE, a citizen of the United States, residing at Chicago, county of Cook, State of Illinois, have made a certain new and useful invention in Pay-As-You-Enter Cars, of which the following is a specification.

This invention relates to pay-as-you-enter cars.

10 The object of the invention is to provide means for facilitating the entrance and exit of passengers to and from street or other cars without unduly restricting the passage ways, and in such manner as to enable the fares of passengers to be collected as they enter the car.

A further object is to provide means for increasing the seating capacity of the car without increasing its size or length.

20 A further object is to provide means for reducing to a minimum the danger of injury to passengers in getting on or off the car.

Other objects of the invention will appear 25 more fully hereinafter.

The invention consists substantially in the construction, combination, location, and relative arrangement of parts, all as will be more fully hereinafter set forth, as shown 30 in the accompanying drawing and finally pointed out in the appended claims.

Referring to the accompanying drawing, and to the various views and reference signs appearing thereon, Figure 1 is a view in diagrammatic plan of a car body and its floor space, showing the application thereto of an arrangement embodying the principles of my invention. Fig. 2 is a similar view of one end of the car. Fig. 3 is a view in side elevation, parts broken out and parts broken off. Fig. 4 is a broken view in transverse section, on the line 1-1, Fig. 2. Fig. 5 is a view in perspective of the construction shown in Fig. 1. Fig. 6 is a view similar to 35 Fig. 2, showing a modification within the purview and scope of the invention.

The same part is designated by the same reference sign wherever it occurs throughout the several views.

50 In the matter of handling street and other passenger car traffic, especially in the larger cities where there is an ever increasing heavy traffic, and where, during certain hours of the day, and under constantly recurring 55 exigencies, the traffic becomes congested, it is

of the utmost importance to provide means for facilitating the entrance and exit of passengers to and from the cars to the end that this traffic may be handled with expedition. It is also equally important that the collection of fares from the passengers be facilitated, to the end that the company operating the cars may not suffer loss of revenue through failure of conductors to collect the fares or to properly register or record 65 them when collected. It is also desirable to utilize all the available space for the accommodation of passengers to the end that the car may have the largest possible carrying capacity. It is also desirable to provide 70 ample safeguard against the danger of injuring the passengers or others getting on or off the cars, or attempting to do so prematurely.

It is among the special purposes of my 75 present invention to provide means which are simple and efficient for accomplishing these various important and desirable objects.

In carrying out my invention, in one form 80 of embodiment thereof, I propose to employ two doors at one side of the rear end of the car, said doors being separated by an intervening stationary or fixed panel of the car body frame, behind which fixed panel the 85 doors, in opening, are designed to slide, one or both of the doors being arranged to slide in the direction of the length of the car, and, approximately in the plane of the side of the car, and, when in closed position, serving 90 to inclose the steps access to which from outside the car is controlled by the doors.

In the drawing reference sign 7, designates the floor space of the car, and in practice, though, in this respect, my invention, 95 in its broadest scope, is not to be limited to this feature, this floor space extends the entire length of the car from end to end. The doors 8, 9, are arranged in the side of the car near its rear end, and serve, when closed 100 to inclose from the outside of the car, the steps 10, 11, respectively, leading to or from the floor space of the car. The doorways are separated by an intervening fixed panel 13, of the car body frame, behind, inside or 105 outside of which, as may be desired, one or both of the doors slide when moved into their open position. A passenger seat 14, may be arranged against the fixed panel 13, if desired. The passenger seat 15, on the op- 110

posite side of the car extends the full length of the car, and, if desired, may extend partly or wholly around the end of the car as indicated in dotted lines at 16, in Fig. 2.

It will be observed that by the arrangement above specified, I do not employ an entry platform at the end of the car with the transversely arranged doors at the entrance from the platform into the car, and hence am enabled to utilize the entire length of the car, from one extreme end to the other for the accommodation of passengers, thereby greatly increasing the comfortable carrying capacity of the car while at the same time insuring protection to the passengers against rain, snow or the like.

Where the car is equipped with doors in the sides thereof at one end only, provision is made at the other end of the car for the accommodation of the motorman, as indicated at M.

It may sometimes be found desirable to employ doors at each end of the car. In this event, I propose to employ doors, arranged as above described, at each end of the car, the doors at the other end being arranged on the other side of the car. In such case, where the doors on one side and at one end only of the car are employed I propose to use removable passenger seats, as indicated at 17, Fig. 1, to be placed over the space occupied by the steps. When these doors are required for use for entry and exit to and from the car these seats are removed to position over the steps at the other end of the car, thus affording additional seating accommodations for passengers, and hence utilizing to this extent the available space of the car. Where doors are provided at each end of the car the motorman may also be accommodated at each end of the car as indicated at M, M', Fig. 1.

It will be seen that the steps leading down from the floor space of the car commence on a line with the inner edges of the seats, and extend downwardly from the floor level of the car to the lowest step, the outer edge of which does not extend beyond the plane of the side of the car, so that when the doors are closed they will inclose the steps inside of the car, thereby rendering it unnecessary to employ folding or movable steps and also preventing accidents to passengers or others attempting to get off the cars before the doors are opened.

It may be desirable to provide a protection for the space occupied by the steps and leading down from the level of the car floor, when the doors are closed, thereby preventing passengers inside of the car from accidentally falling or being crowded into such space. This protection may be accomplished in many specifically different ways. As one form well adapted for the purpose, but to which the invention in its broadest

scope as defined in the claims is not to be limited or restricted, I propose to attach or secure to one or both of the doors, the flange or narrow platform 18, 19, which, when the door in its closed position covers the space above the steps controlled thereby, as clearly shown in the drawings, thereby affording means for preventing passengers from falling or being crowded into such space. When the door is moved to open position this platform 18, 19, may slide into the pocket formed beneath the seat 14 arranged adjacent the fixed panel between the two doorways. Of course it is evident that the step space may be covered or guarded in many other different ways, and by many other different arrangements.

In order to facilitate the entrance and exit of passengers to and from the cars, and to facilitate the collection of fares from the passengers as they enter, I propose to employ one doorway for the entrance and the other doorway for the exit of the passengers. It is also desirable to further restrict the passageways into and from the car so as to direct the passengers while entering and leaving the car into the proper directions, as well as to facilitate the collection of the fares as passengers enter the car. To accomplish this result I propose to employ a railing or guard 20 adjacent, for instance, the entrance doorway, and extending therefrom in a somewhat inclined or diagonal direction with reference to the length of the car. The conductor may be at any convenient point with reference to this guard, as, for instance, in the position indicated by reference sign C. This guard may be movable so that its position may be shifted, as occasion may require, and as indicated in dotted lines, Figs. 1 and 2, so as to restrict the entrance passageway more or less as may be desired.

Where a two door arrangement is employed, as above set forth, I have found a preferable arrangement to be to use the doorway nearest the end of the car as an entrance and the doorway farthest removed from the end of the car for exit. In this case the guard 20 is arranged near the forward edge of the entrance doorway. My invention, however, as defined in the claims, is not to be restricted, in its broadest scope to this arrangement, as other arrangements might readily suggest themselves to persons skilled in the art. For instance, and as indicated in Fig. 6, the same doorway 21, may be employed for entrance and also for exit. In this case the guard 22, may be arranged to extend from a point midway the breadth of the doorway, and in a somewhat diagonal direction with reference to the length of the car so as to form two restricted passageways, one for the use of passengers entering the car and one for use in leaving the car

and hence not only facilitating the entrance and exit of passengers to and from the car but also facilitating the collection of fares from the passengers as they enter. In this arrangement doorways may be provided in each side at the same end of the car in which case the guard may be shifted into required position with reference to either doorway according to which doorway is in use.

The doors may be moved or operated in any desired manner, either by hand or by mechanical or power connections, electrically, pneumatically or otherwise, together or separately, and may be controlled from any desired point. As merely illustrative of one form of door controlling and operating arrangement, I have shown an electric motor 24, controlled from the point indicated at A, and in convenient relation with reference to the station of the conductor, said motor operating a rack gearing connected to the doors. Many other door operating devices are now well known in the art and are well adapted for use in connection with my invention. I therefore do not desire to be limited or restricted in this respect.

Having now set forth the object and nature of my invention and a construction embodying the principles thereof, what I claim as new and useful and of my own invention and desire to secure by Letters Patent is:—

1. The combination with a car, of separate entrance and exit doorways formed in one side of the car, adjacent one end thereof, and opening into the body of the car, and a movable guard arranged within the car to form restricted passage ways from one of said doorways.

2. The combination with a car, of separate entrance and exit doorways formed in one side of the car adjacent one end thereof, and opening into the body of the car, steps for each doorway, and doors for closing said doorways said doors inclosing said steps within the car.

3. The combination with a car, of separate entrance and exit doorways formed in one side of the car adjacent one end thereof and opening into the body of the car, steps for said doorways, doors for closing said doorways and inclosing said steps and a cover for the steps.

4. The combination with a car, of separate entrance and exit doorways formed in one side of the car and adjacent one end thereof and opening into the car, a stationary panel in the side of the car between said doorways, doors for said doorway, and

steps arranged in said doorways and inclosed by said doors.

5. The combination with a car having side seats on each side thereof, the seat on one side extending to one end of the car, and the seat on the other side extending to the other end of the car, and separate entrance and exit doorways leading into the car at each end thereof, an entrance and exit doorway being arranged on one side of the car at one end, and an entrance and exit doorway being arranged on the opposite side of the car at the other end.

6. The combination with a car having side seats, the side seat on one side extending to the one end of the car, and entrance and exit doorways arranged in the sides of the car adjacent its ends, and opening into the car, an entrance and exit doorway being arranged on one side of the car at one end, and an entrance and exit doorway being arranged on the opposite side of the car at the other end, and removable seats for the doorway spaces.

7. The combination with a car having separate entrance and exit doorways in the side thereof at each end of the car, and opening into the car body, the doorways at one end being on one side of the car, and those at the other end being on the other side of the car, and removable seats for the doorways.

8. The combination with a car having separate entrance and exit doorways in the side thereof at each end of the car, and opening into the car body, the doorways at one end being on one side of the car, and those at the other end being on the other side of the car, and means adjacent each set of doorways for forming restricted passageways to and from said doorways.

9. The combination with a car having separate entrance and exit doorways in the side thereof at each end of the car, and opening into the car body, the doorways at one end being on one side of the car, and those at the other end being on the other side of the car, doors for controlling said doorways, and diagonally arranged guards to form restricted passageways from one of said doorways.

In testimony whereof I have hereunto set my hand in the presence of the subscribing witnesses, on this eleventh day of July A. D., 1908.

HAROLD ROWNTREE.

Witnesses:

L. M. SHIMLER,
F. A. PUTNEY.