Patented July 5, 1910.

963,722.

## UNITED STATES PATENT OFFICE.

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## PASSENGER RAILWAY-CAR.

963,722.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, Lewis E. Paden, a citizen of the United States, residing at the city of Philadelphia, in the county of Phila-5 delphia and State of Pennsylvania, have invented certain new and useful Improvements in Passenger Railway-Cars, of which

the following is a specification.

My invention relates to a passenger rail-10 way car of particularly the type, which has become known as a pay-within passenger car; and in such connection my invention relates more particularly, first, to the feature in such a car of registering or recording 15 every entering passenger thereby to prevent dishonesty by a conductor; second, the feature of closing hinged slidable door-members in unison with the movement of a step so that when the door is slid, the hinged 20 member thereof may be caused to swing outward to admit passengers and when slid to normal position, both door members protect against entrance, except under control of the conductor; and third, the feature of ar-25 ranging the conductor's station so as to be converted interchangeably into entrance and exit ways by simply shifting a bar and without interfering with regular registering or recording of entering passengers about the 30 conductor's station by the turnstile thereof.

My invention stated in general terms, consists of a passenger railway car, when constructively arranged for operation in substantially the manner hereinafter described

35 and claimed.

The nature and scope of my present invention will be more fully understood from the following description taken in connection with the accompanying drawings forming

40 part hereof, in which-

Figure 1, is a side elevational view of a pay-within car provided with hinged slidable door-members in which one, the hinged member is adapted to swing out. Fig. 2, is 45 a transverse sectional view of the car, showing a registering or recording turnstile, a conductor's station arranged adjacent thereto, hinged slidable door-members, the hinged one of which being shown so as to swing of outward to admit passengers and the doormembers so arranged as to work in unison with the movement of the step, in this view shown in an operative position, extended beyend the body of the car; and Fig. 3, is a 55 broken sectional view in longitudinal plan of the interior of a car, embodying the several defined features of my said invention.

Referring to the drawings, a is a car of the pay-within type, as shown. This car is provided with a closable vestibule or plat- 60 form  $a^1$ , which merges into the main body a<sup>2</sup>, of the car. At about where a vestibule merges into the main car-body is located beyoud a center point thereof, a registering or recording turnstile b, located in either or 65 both vestibules. Adjacent to the turnstile b, in either vestibule  $a^1$  is located the conductor's station  $a^4$ , within the main car-body  $u^2$ , as shown. This station is provided with vertical uprights c,  $c^1$  and  $c^2$ , supporting 70 two bars  $c^3$  and  $c^4$ , hinged to each other and suitably connected with the said uprights, that is, so as to be shifted onto each other to provide an aisle  $a^3$ , between the main body  $a^2$ , and a vestibule  $a^1$ , about the location of a 75 turnstile, to permit when the hinged bars  $c^3$ and  $c^4$ , occupy the right-angular relationship to each other, as shown in full and dotted outline in Fig. 3, the closing of the entrance-way to the main body  $a^2$ , except 80 through the turnstile by revolving one of the wings thereof. The turnstile b, is provided with a pawl and ratchet connection  $b^1$ and  $b^2$ , as clearly shown in Fig. 2, so as to be enabled to revolve the turnstile in one 85 direction only and to be locked against revolving in an opposite direction to prevent the exit of passengers.

It will thus be seen that each passenger entering the car will be registered by turn- 90 ings of the turnstile b. In case of undue congestion within the car at certain periods, constantly occurring, if desirable to discharge passengers from the entrance end of the car this may be facilitated by simply 95 swinging the bar  $c^3$ , over onto the bar  $c^4$ , as shown in Fig. 3, whereby then will be provided the aisle  $a^3$ , leading from about the conductor's station  $a^4$ , in the main body of the car to the vestibule or platform  $a^1$ , as 100 shown in Fig. 3, and with the hinged swinging door d, occupying the position as shown particularly in Fig. 2, to enable passengers then to readily alight from the car. The hinged slidable doors d and d', are shifted 105 into respectively operative as well as the closed position, in unison with the step e, by mechanism under the control of the conductor from his station a4, not shown, but familiar examples whereof, will be found in the 110

United States Letters Patent Nos. 824,209, dated June 26th, 1906, to Myron Rounds; 870,051, dated November 5th, 1907, to Harold Rowntree; and No. 935,853, dated October 5th, 1909, to Frederick H. Lincoln. I make no claim to any particular form of door and step operating mechanism for employment in connection with the door-members and steps of the car described, but may use any preferred type best adapted to the purpose in connection with the features defined as constituting my said invention.

It will be observed when the swinging door d, of the door-members occupies an outward position Figs. 2 and 3, a series of exitways  $a^5$  and  $a^6$ , will be provided in that portion of the car, if the registering or recording device  $b^2$ , of the turnstile b, is removed and it is intended to be so arranged, when

20 not in use.

Having thus described the nature and objects of my invention, what I claim as new and desire to secure by Letters Patent is:—

1. In a passenger railway car, hinged slidable door members, a conductor's station located in the main car-body immediately adjacent to a vestibule or platform of the car having uprights and a cross-bar about said station and which cross-bar by a movement thereof establishes an exitway and a turnstile in the vestibule or platform and serving as a barrier to the entrance of passengers from the vestibule or platform to said main car-body.

2. In a passenger railway car, hinged slidable door-members, a conductor's station having thereat shiftable bars, said station

located in the main car-body immediately adjacent to a vestibule or platform of the car and a turnstile located in the vestibule or platform and serving as a barrier to passengers from said vestibule or platform to the main car-body.

3. In a passenger railway car, hinged slidable door-members, a conductor's station lotated cated within the main car-body, a turnstile operative only in one direction and located in the vestibule or platform and said conductor's station having thereat shiftable bars to provide in one instance an exitway from 50 said main car-body to the platform of said car.

4. In a passenger railway car, a turnstile operative in one direction only, a conductor's station located adjacent thereto and having 55 thereat shiftable bars in which one is arranged to establish an exitway and doormembers in which one is adapted to be shifted outward.

5. In a passenger railway car, a turnstile 60 operative in one direction only, a conductor's station located adjacent thereto and having thereat shiftable bars which by one movement establish an exitway and door-members arranged to be shifted in the longitudinal 65 plane of the car and with one arranged to be opened outward.

In witness whereof, I have hereunto set my signature in the presence of two sub-

scribing witnesses.

LEWIS E. PADEN.

Witnesses:

THOMAS M. SMITH, ELISABETH A. SHELDRAKE.