S. M. CURWEN & W. M. SMITH.

PASSENGER CAR.

APPLICATION FILED MAY 4, 1908.

1,032,884.

Patented July 16, 1912.

2 SHEETS—SHEET 1.

Fig. 1.

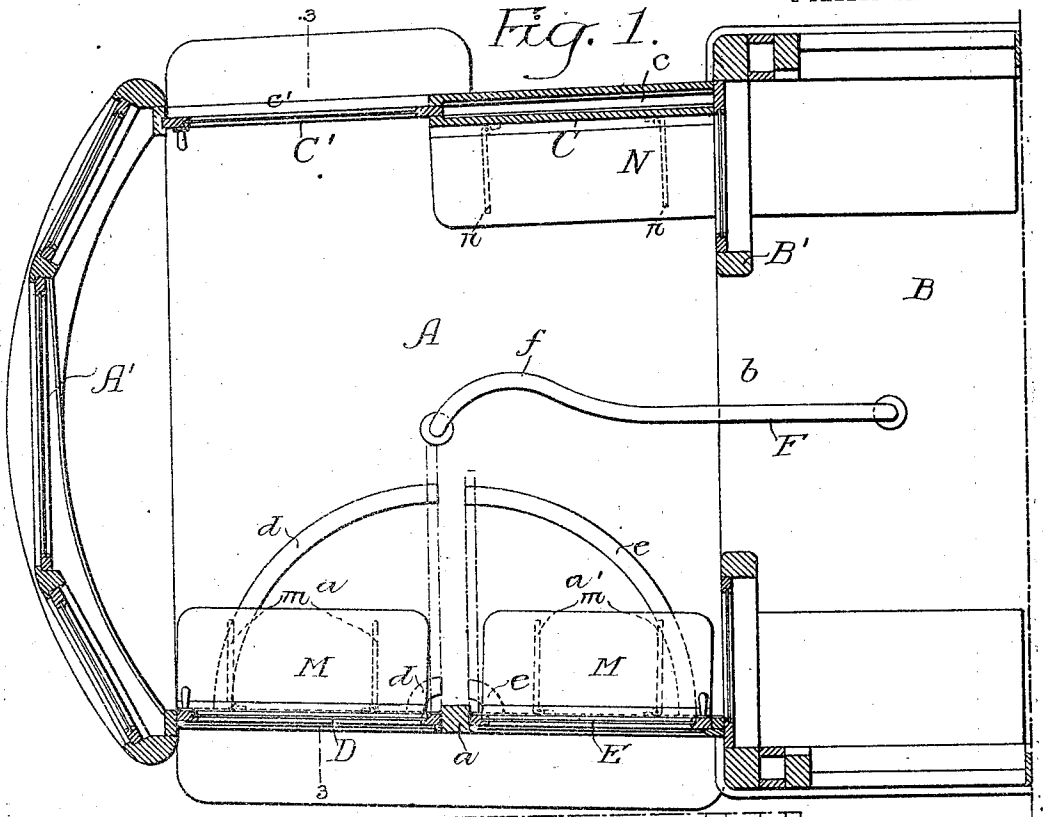


Fig. 2.

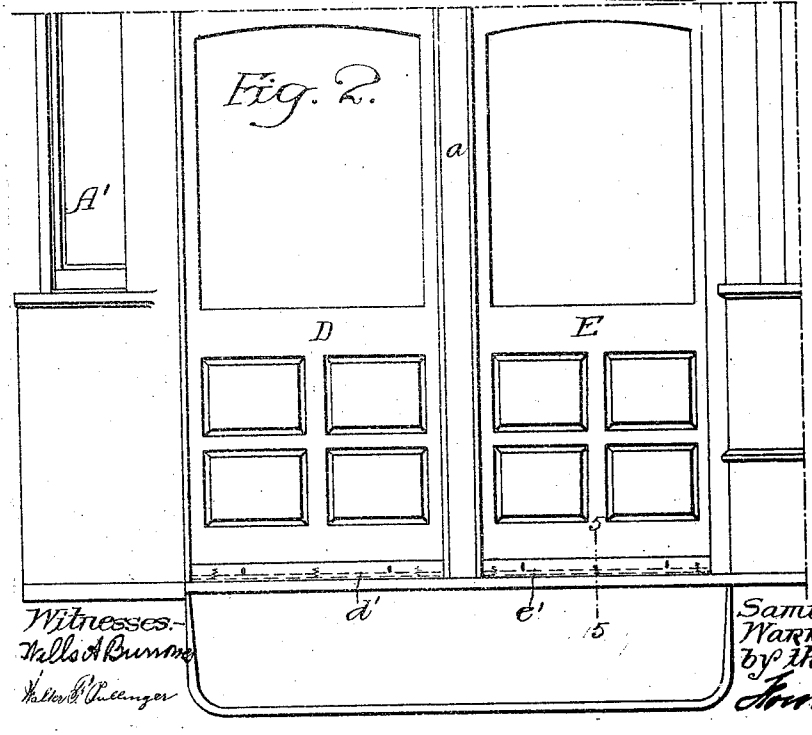
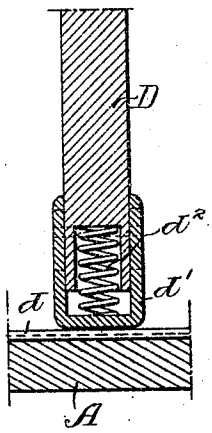


Fig. 5.



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A

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Fig. 3.

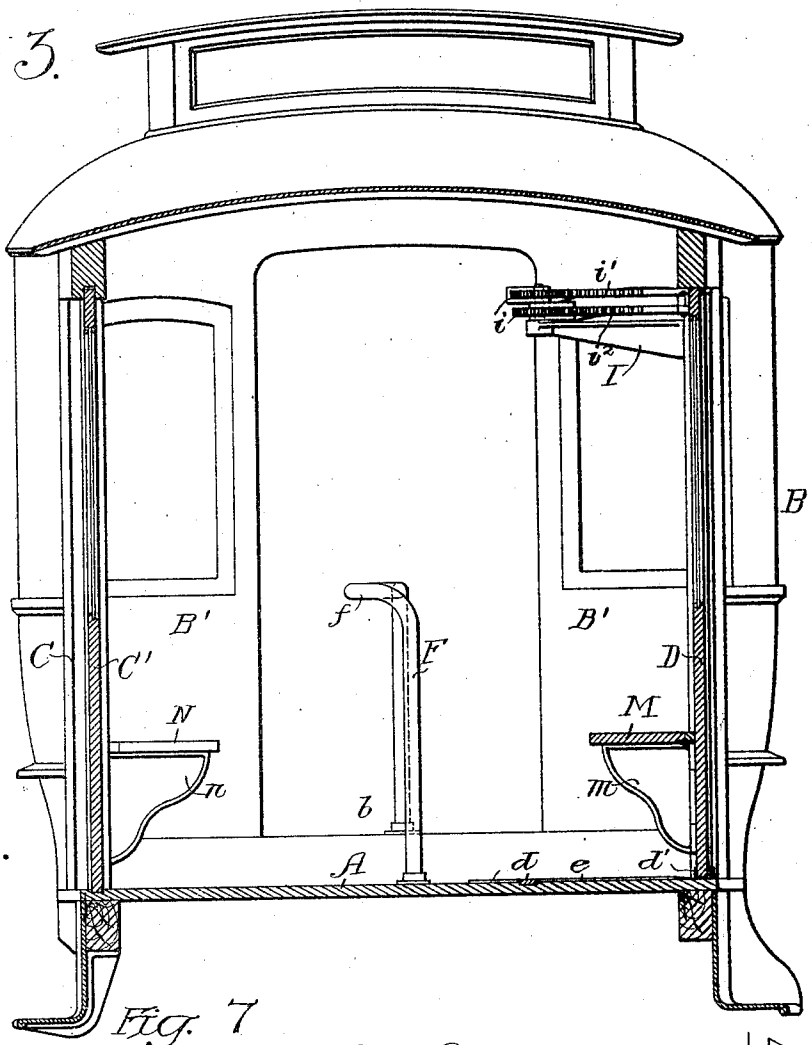


Fig. 7

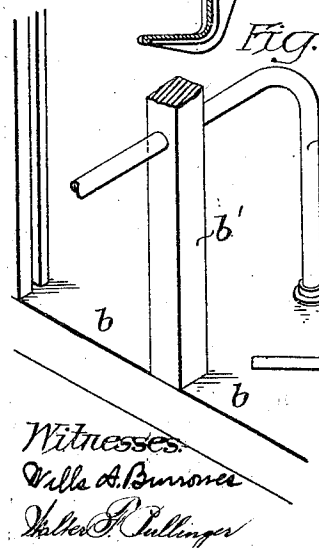


Fig. 4.

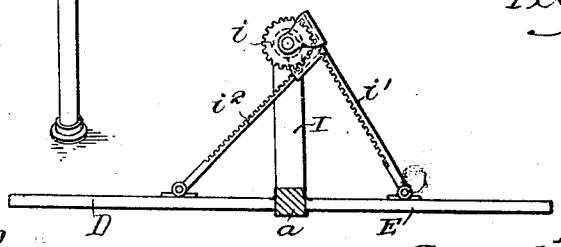
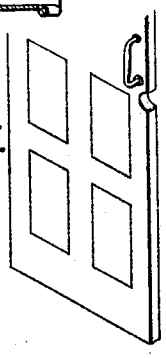


Fig. 6.



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UNITED STATES PATENT OFFICE.

SAMUEL M. CURWEN, OF HAVERFORD, AND WARREN M. SMITH, OF MOORES, PENNSYLVANIA, ASSIGNORS TO THE J. G. BRILL COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

PASSENGER-CAR.

1,032,884. Specification of Letters Patent. Patented July 16, 1912.

Application filed May 4, 1908. Serial No. 430,819.

To all whom it may concern.

Be it known that we, SAMUEL M. CURWEN and WARREN M. SMITH citizens of the United States, residing in Haverford and Moores, Pennsylvania, respectively, have invented certain Improvements in Passenger-Cars, of which the following is a specification.

Our invention relates to certain improvements in passenger cars of the type known as "pay-as-you-enter" cars in which the platform end of the car is divided into ingress and egress sections so as to separate the passengers entering the car from those leaving it.

One object of our invention is to so construct a car of the type described, that the incoming passengers will not only be separated from those leaving the car at the platform, but will also be separated within the car. This object we attain by extending the rail or partition through the doorway.

A further object is to so arrange the side doors of the platform that they can be opened or closed in unison; and a still further object is to utilize the doors as part of the partition separating the ingress section from the egress section of the platform.

Our invention relates further to certain improvements in seat structures.

In the accompanying drawings: Figure 1, is a sectional plan view of a passenger car illustrating our invention; Fig. 2, is an elevation showing the egress and ingress doors closed; Fig. 3, is a transverse sectional view on the line 3—3, Fig. 1; Fig. 4, is a sectional plan view showing means for working the doors so that they will work in unison; Fig. 5, is an enlarged sectional view on the line 5—5, Fig. 2; Fig. 6, is a perspective view illustrating a door notched for the reception of the rail, and Fig. 7, is a view showing a central post in the doorway leading from the body of the car.

A is the platform of the car.

B is the body of the car separated from the platform by a transverse partition B′, in which there is a wide passage-way *b*.

A′ is the section of the vestibule in closing the end of the platform.

C is a fixed section of the vestibule on one side of the platform made double to allow a channel *c* for the door C′ to slide in. This door is arranged to close the exit door-way *c*′ when the platform is at the front of the car, and the door can be either operated by a passenger or can be under the control of the motor man. On the opposite side of the platform from the sliding door C′ is a post *a* separating the ingress section *a*′ from the egress section a^2, and hinged to this post are two doors D and E both swinging inward over the platform and forming, when in the position shown by dotted lines in Fig. 1, part of a partition to prevent a passenger leaving the car from passing onto the ingress section of the platform, or a passenger entering the car from passing into the car by way of the egress section of the platform.

F is a partition rail which extends from the platform through the passage-way *b* into the body of the car. This rail separates the ingress and egress sections of the platform and divides the passage-way *b* in the partition into two parts. The rail is preferably offset at *f* so as to increase the area of the egress section of the platform, and terminates at a point at the edge of the doors D and E when they are in the open position as shown by dotted lines in Fig. 1, so that the ingress and egress sections of the platform are separated by the doors and the rail and the partition is continuous from the edge of the platform at one side of the car well into the body of the car.

On the platform are two sets of curved rails *d*, *d* and *e*, *e*, and on the door D′ is a shoe *d*′ extending the full width of the door, and pressing against this shoe is a series of spiral springs d^2 in the present instance, causing the shoe to press upon the rails, making a neat fit at the base of the door. (Fig. 5.) The door E has a similar shoe *e*′ forced out by springs and adapted to travel on the rails *e*, *e* for a similar purpose. The doors D and E may be operated independently by the conductor, if desired, but we prefer to connect them in such a manner that when one door is opened the other will also be opened. Several different methods may be used for accomplishing this purpose, and in Fig. 4 we have shown a pinion *i* mounted on a bracket I or other support, and pivoted to the door E is a rack bar *i*′, the teeth of which mesh with the pinion, and pivoted to the door D is a rack

bar i^2 and having teeth meshing with the pinion i. As the door E is within easy reach of the conductor, and when opened or closed by him the door D will be opened or closed simultaneously. In some instances a central post b' may be placed in the doorway. In this case the rail F may pass through the post as in Fig. 7 and doors may be used to close the passage-way b, and if a central post is not used then each door B^2 is notched at b^2 to receive the rail, as in Fig. 6. In the construction where the platform is entirely inclosed, we may provide a folding seat N on the fixed section C of the vestibule, and may support this seat by hinged brackets n, clearly shown in Fig. 3, and on each door D and E are hinged seats M which are supported by pivoted brackets m. When the platform A is at the rear of the car, then these seats are folded out of the way so as not to interfere with the ingress and egress of passengers, but when the platform is at the forward end of the car and the doors D and E closed and locked, if desired, then the seats M and N are extended so that they can be used by the passengers. The rail F is so shaped as not to interfere with the egress of passengers from the front of the car through the door-way c'.

We claim.

1. The combination in a passenger car, of a platform, a post at one side of the platform dividing the platform into ingress and egress sections, two doors hinged to the post inclosing the side of the platform, a gear wheel and two racks meshing with the gear wheel, one rack being pivoted to one door and the other being pivoted to the other door so that on the movement of one door the other will move.

2. The combination in a passenger car, of a rear platform, a rail dividing the platform into ingress and egress sections, two doors closing one side of the platform, a single sliding door closing the opposite side of the platform, a hinged seat attached to the two doors on one side of the platform, and a hinged seat adapted to the fixed portion of the framework of the vestibule on the other side of the platform.

In testimony whereof, we have signed our names to this specification, in the presence of two subscribing witnesses.

SAMUEL M. CURWEN.
WARREN M. SMITH.

Witnesses:
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Wm. A. Barr.