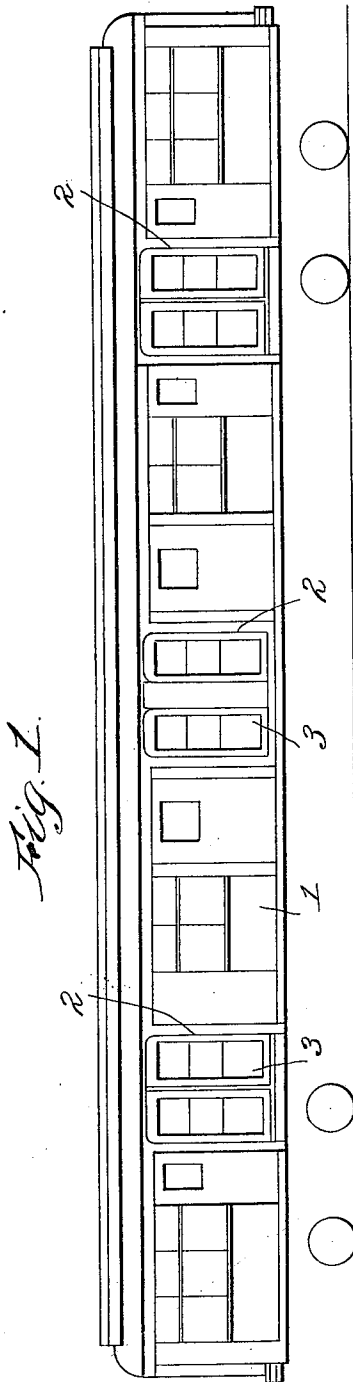


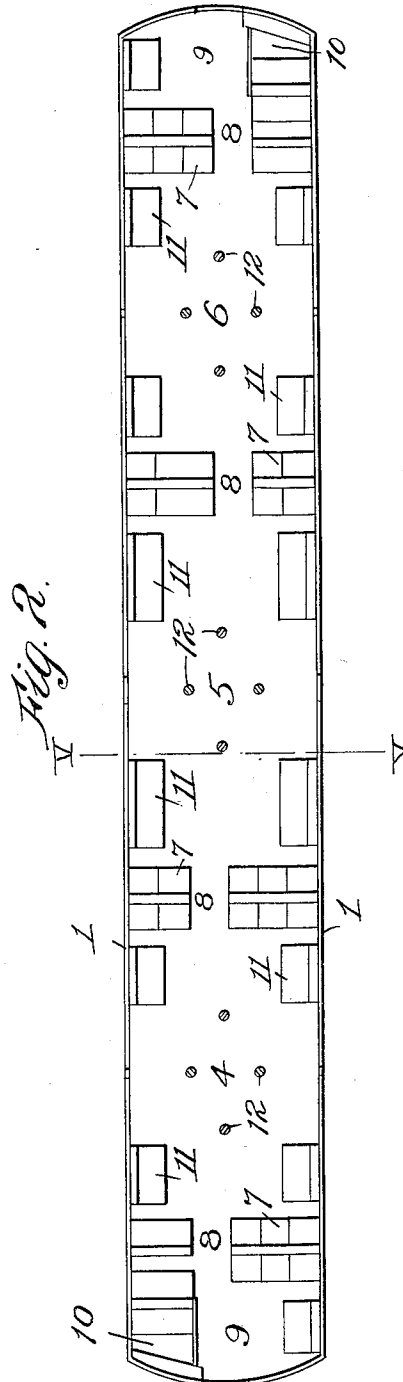
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W. S. MENDEN.  
PASSENGER CAR.  
APPLICATION FILED NOV. 3, 1914.

Patented June 8, 1915.  
3 SHEETS—SHEET 1.

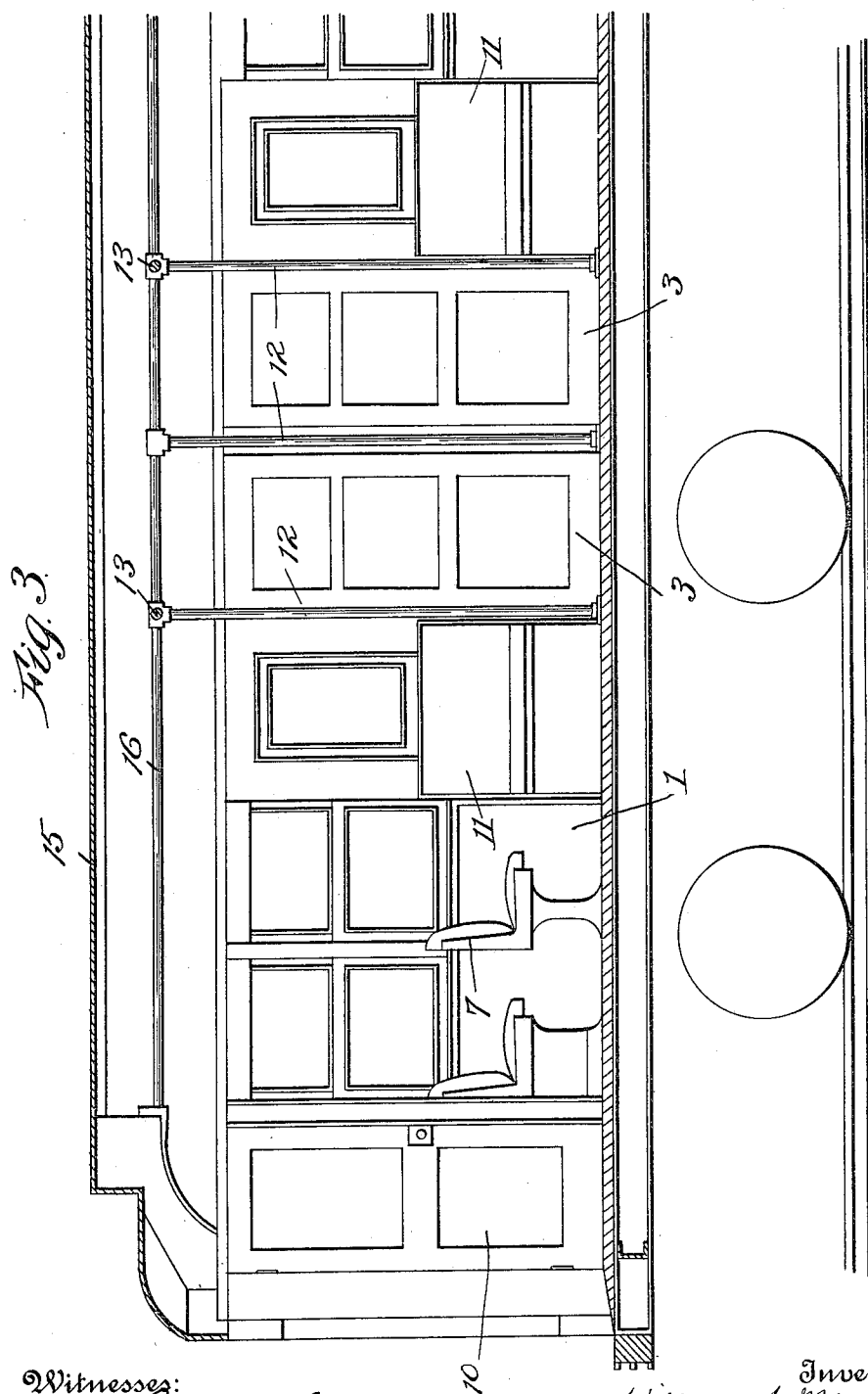


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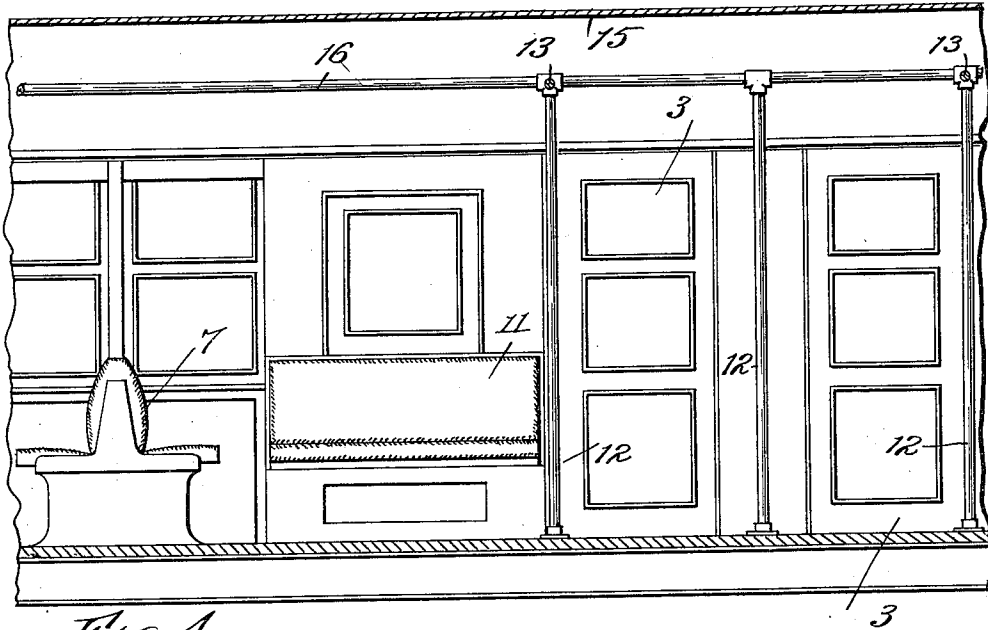


Fig. 4

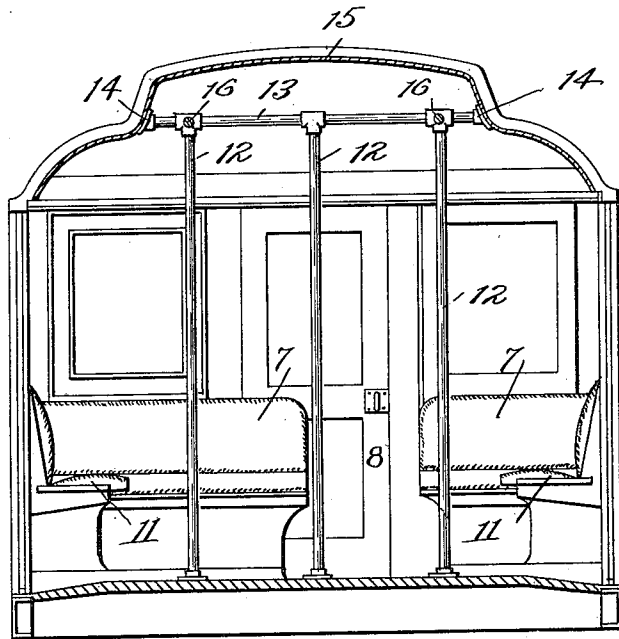


Fig. 5.

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# UNITED STATES PATENT OFFICE.

WILLIAM S. MENDEN, OF BROOKLYN, NEW YORK, ASSIGNOR TO MEGOSIN COMPANY, INC., A CORPORATION OF NEW YORK.

## PASSENGER-CAR.

1,142,263.

Specification of Letters Patent.

Patented June 8, 1915.

Application filed November 3, 1914. Serial No. 870,122.

*To all whom it may concern:*

Be it known that I, WILLIAM S. MENDEN, a citizen of the United States, and resident of the borough of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Passenger-Cars, of which the following is a full and clear specification.

This invention relates primarily to passenger cars intended for rapid transit service in congested districts, the main object being to provide for the ingress and egress of any given number of people in the shortest possible period of time. Toward the attainment of this object, I not only provide a sufficient number and size of doorways on each side of a car to accommodate any required number of passengers that may desire to enter or leave the car at any one stop, but also arrange said doorways so that each will be centrally disposed with respect to predetermined zones or compartments within said car.

Moreover, the present invention contemplates an improved arrangement of seats which outline the zones respectively allotted to the different doorways and while ample passageways extending between said zones or compartments, are provided, the seats are so arranged that the passengers arising therefrom, naturally face the doorway which they are intended to use.

In modern rapid transit systems for handling the traffic in congested districts, it is customary to provide cars of great length with entrance and exit platforms on opposite ends from which the passengers are excluded while the car is in motion. It will be seen therefore that the platforms are not available for the accommodation of passengers and furthermore, being at the extreme ends of the car, the passengers must all move in one direction toward that end. The present invention contemplates an improvement over this arrangement by abolishing the end platforms and providing doorways which are central with respect to zones including the end spaces within the car as well as portions of the floor spaces extending toward the center of the car.

Another object is to provide an improved arrangement of stanchions with respect to the seats and doorways.

Other and further objects will appear in the specification, reference being had to the

accompanying drawings and appended claims.

In the drawings,—Figure 1 is a side elevation of a passenger car constructed in accordance with the principles of the present invention; Fig. 2 is a horizontal section of the same; Fig. 3 is a vertical longitudinal section of one end of the car on an enlarged scale; Fig. 4 is a similar section of a central portion of the car, parts being broken away; Fig. 5 is a transverse section of the car on the line V—V, Fig. 2.

In the embodiment of my invention shown on the drawings, the car is designed primarily for service in a subway for downtown or congested districts of large cities. Such car is preferably made of more than the usual length and subdivided into compartments or zones as hereinbefore pointed out. Within the side walls 1 of the car are provided at regular spaced intervals, doorways 2, those on opposite sides of the car being preferably centrally disposed with respect to the same transverse planes. Each doorway is provided with doors 3, the doorways nearest the ends of the car being spaced from said ends so that said doorways will be available for passengers coming from opposite directions or going in opposite directions in leaving or entering the car. Such an arrangement makes it possible to provide a plurality of compartments 4, 5 and 6 with their respective doorways centrally disposed with respect thereto. Said compartments, according to the present invention, are formed by rows of transversely arranged seats 7 at intervals along the length of the car, said seats being interrupted to provide passageways 8 whereby the several compartments are placed in communication one with the other. It will thus be seen that the interior of the car is substantially free of all obstruction with the exception of the seats which form the boundaries of the compartments. On the ends of the car, end compartments 9 are formed in which all of the seats are readily accessible to the adjacent passageways 8 leading to the compartments 4 and 6 respectively. Sub-compartments 10 are formed in each of the end compartments for the use of the motorman when the car is run singly or when forming the head of a train. Disposed along the lateral walls 1 of the car are seats 11 which, as shown in Fig. 2, are disposed intermediately of the trans-

verse seats 7 and the central transverse planes of the several compartments. It will be seen therefore that in each compartment, all of the seats 7 and 11 are arranged about the centrally disposed doorways and the floor space around which said seats are arranged is entirely free, thus providing direct and unobstructed passageway from any of the seats to the doorway. By means of this arrangement, the passengers are automatically assigned to certain doorways in such a manner that on the average the same number of passengers will pass through each of said doorways, thus tending to eliminate, in so far as is possible, all crowding and confusion when the traffic is moving. If desired, suitable stanchions 12 may be arranged in each of said compartments in suitable positions to afford hand-hold supports for the passengers in passing to and from the doors to the seats. As shown in Fig. 5, the stanchions 12 which are arranged in the central longitudinal plane of the car may be supported at the top by transverse rails 13 which are socketed at 14 in the roof 15 of the car. Extending longitudinally of the car are side rails 16 which are connected to the cross rails 13 and serve to support the upper ends of the lateral stanchions 12.

The advantages of this construction are obvious. Each passenger on entering any compartment of the car has direct and unobstructed access to any seat within the compartment, and all of the seats are arranged within easy distance of the doorway. On the other hand, upon rising from any seat in any of the compartments 4, 5 and 6, the doorway is within easy reach over the ample and unobstructed floor space. In each compartment, the seats are so disposed that the passengers are distributed in all directions from the doorways so that no delay is caused by forcing comparatively large numbers of people to move all in one direction toward a distant doorway. Seated passengers always face the exit. Incoming passengers always face the seats. All doorways are left unobstructed and the center of each compartment is free from seats or encumbrances of any kind.

I claim:

1. In a passenger car having its opposite lateral walls provided with doorways spaced longitudinally of the car, seats arranged transversely of said car and spaced from said doorways to form compartments corre-

sponding to the doorways and other seats in each of said compartments arranged along the lateral walls between said doorways and the transversely arranged seats, all of said seats being faced inwardly into said compartments.

2. A passenger car having a lateral wall provided with doorways spaced longitudinally of the car and from the ends of said car, and a plurality of seats disposed transversely of said car on opposite sides of and spaced from each of said doorways to form compartments corresponding to said doorways respectively.

3. In a passenger car having lateral walls, seats arranged transversely of said car to form a plurality of compartments, said seats within each compartment being faced inwardly toward the central transverse plane of said compartment, and doorways for said compartments respectively in one of said lateral walls of the car.

4. In a passenger car having lateral walls, seats arranged transversely of said car to form a plurality of compartments, said seats within each compartment being faced inwardly toward the central transverse plane of said compartment, and doorways for said compartments respectively in each of said lateral walls of the car.

5. In a passenger car having lateral walls, seats arranged transversely of said car to form a plurality of compartments, said seats within each compartment being faced inwardly toward the central transverse plane of said compartment, and doorways for said compartments respectively in one of said lateral walls of the car, said doorways being respectively centrally disposed with respect to the central transverse planes through said compartments.

6. In a passenger car having lateral walls, seats arranged transversely of said car to form compartments, said seats being faced inwardly toward the central transverse planes of said compartments respectively, doorways for said compartments in the lateral walls of said car, and other seats arranged along said lateral walls between said doorways and said transversely arranged seats.

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