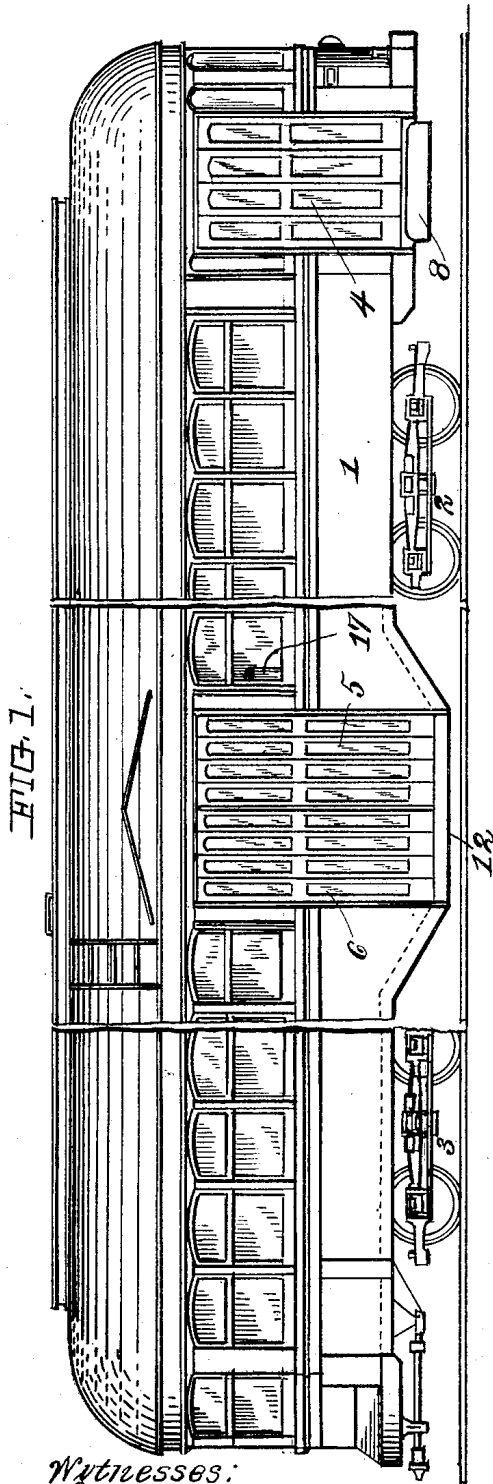


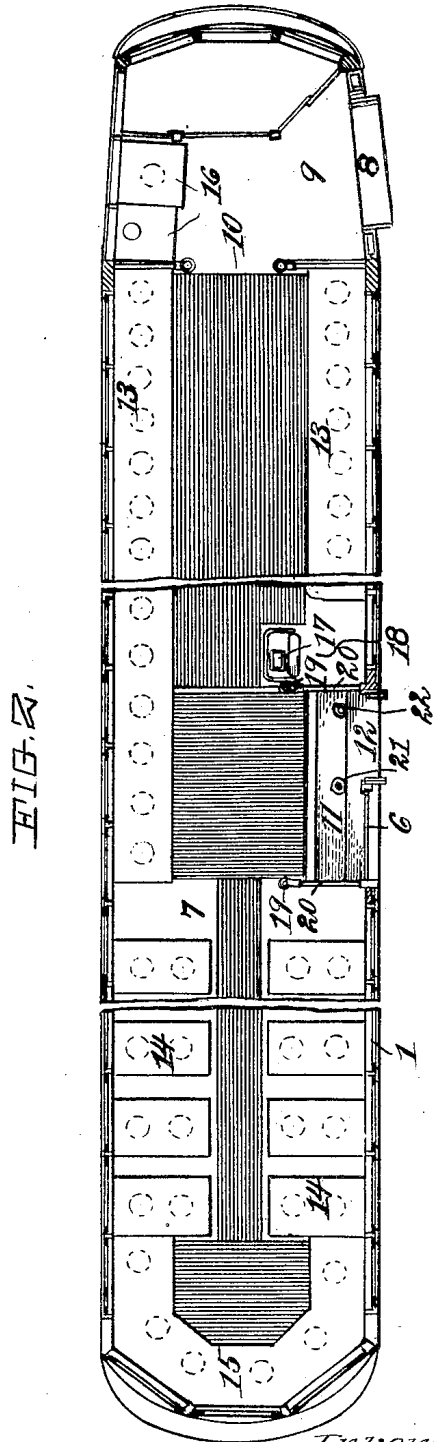
1,180,900.

P. WITT.
STREET RAILWAY CAR.
APPLICATION FILED SEPT. 11, 1915.

Patented Apr. 25, 1916.
2 SHEETS—SHEET 1.



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FIG. 3.

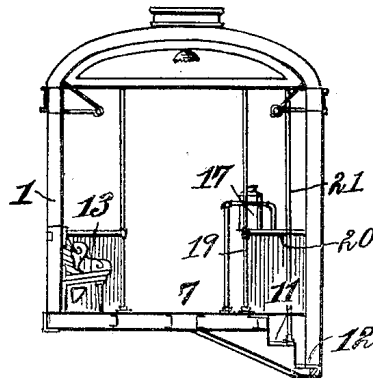


FIG. 4.

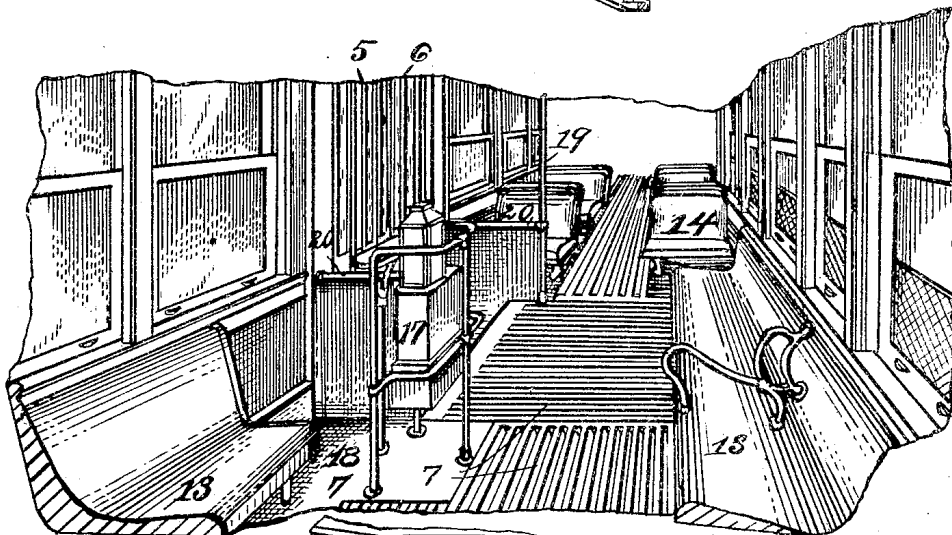
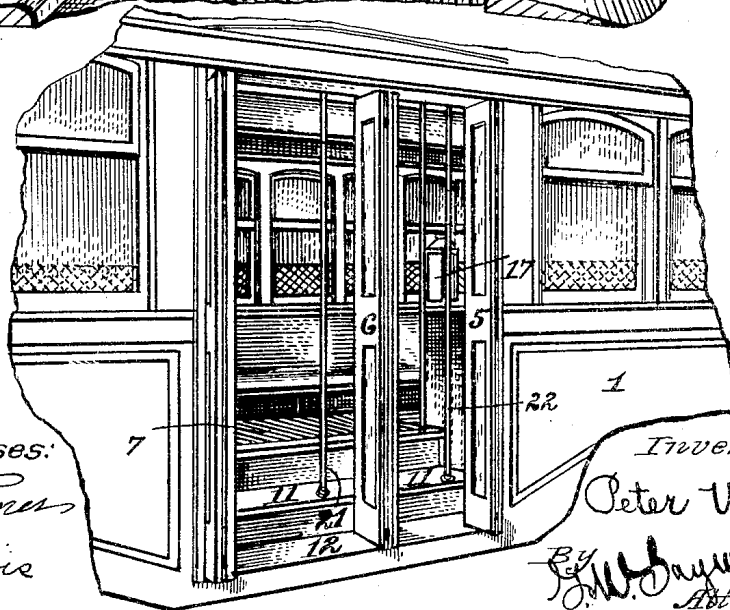


FIG. 5.



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UNITED STATES PATENT OFFICE.

PETER WITT, OF CLEVELAND, OHIO.

STREET-RAILWAY CAR.

1,180,900.

Specification of Letters Patent. Patented Apr. 25, 1916.

Application filed September 11, 1915. Serial No. 50,212.

To all whom it may concern:

Be it known that I, PETER WITT, a citizen of the United States, and a resident of Cleveland, county of Cuyahoga, and State of Ohio, have invented new and useful Improvements in Street-Railway Cars, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

My invention relates to street railway cars, and particularly to such cars provided with end and side door-ways.

More particularly, my invention relates to street railway cars provided with a forward entrance and a central side exit and with a flooring for substantially the whole car entirely disposed above the car trucks and in one horizontal plane.

Further, my invention relates to street railway cars in which the fare-box is so disposed as to provide unimpeded passage from the seats and flooring of the car to the side exit from both the front and rear ends of the car.

The invention provides means whereby the interference between the in-coming and out-going passengers is obviated, whereby the collection of fares is facilitated, whereby speedy loading and unloading is obtained, whereby the passengers can be easily moved and closely watched, and whereby the responsibility of looking after the safety of the entering and out-going passengers is in the preferred use of the car divided between the motorman and the conductor.

Further details of the construction and the advantages incident thereto will be fully described hereinafter.

The annexed drawings and the following description set forth in detail certain means embodying my invention, such disclosed means constituting, however, but one of the various forms in which the principles of my invention may be used.

In said annexed drawings: Figure 1 represents a broken side elevation of a street-railway car embodying my invention; Fig. 2 represents a broken plan view of the interior of such a street-railway car; Fig. 3 represents a transverse central vertical section of said car; Fig. 4 represents a broken perspective of the interior of the car looking toward the rear thereof; and Fig. 5 represents a broken perspective of the side of the

car showing the doors of the central exit in open position.

Referring particularly to the said drawings, in which the same reference figures designate identical parts, my invention comprises a car-body 1 provided with the front and rear trucks 2 and 3. The front door 4, and double side doors 5 and 6, are provided, as clearly indicated in the drawings. By a "front door" is meant a door in the side of the car and at the forward end thereof. The "side door-way", consisting, in the form of the invention shown, in double side doors 5 and 6, is designed to be located a substantial distance from both ends of the car so as to provide substantial seating facilities between said side door-way and each end of the car. A generally plane floor 7 is disposed above the trucks 2 and 3 and is, as plainly indicated in the drawings, a continuous floor all disposed in the same horizontal plane. There is provided for the front door 4 a folding front step 8 exteriorly of the car, which leads to a depressed platform 9 located to the rear of the motorman's vestibule, from which platform 9 riser 10 leads to the main floor 7 of the car. This depressed platform 9 is in reality a landing in the short stairway or set of steps which lead from the exterior of the car through the front door-way 4, to the flooring 7, such landing being amplified to extend transversely across the whole car and thus provide at its inner end some limited seating facilities, or space for a stove, etc., as desired, as plainly shown in the drawing and hereinafter fully described. Two steps 11 and 12 lead from the main floor 7 to the exterior of the car through the doors 5 and 6.

The seating arrangement comprises the longitudinal seats 13 accommodating the general front half of the car and the transverse seats 14 accommodating the general rear half of the car. A peripheral seat section 15 at the rear of the car, and incidental individual seats 16 at the front of the car, complete the seating arrangements. As a matter of detail, one of said seats 16 is intended to be removed during the winter season to provide space for heating apparatus.

The fare-box 17 is disposed forwardly of the transverse vertical plane passing through the front line of the door 5 and also disposed laterally of the central vertical longitudinal plane of the car, the lateral disposi-

tion being upon the door side of the car. The fare-box 17 is located a substantial distance from the front door-way 4, so as to leave considerable seating facilities inter-
 5 mediately of the fare-box and the front door-way, and is preferably located immediately adjacent to the side door-way as shown.

The conductor's stand or space is provided as shown at 18 to the rear of the fare-
 10 box 17 and forwardly of the door 5. To facilitate the movement and safety of the passengers using the doors 5 and 6, the lateral uprights 19, and rails 20 upon the
 15 floor 7 and the central upright 21 and lateral upright 22 on the step 11 are provided.

It will be readily understood from the foregoing description and the accompany-
 20 ing drawings that the construction contemplates that passengers pay their fare whenever passing the fare-box 17. In the case of using the car as a front-entrance, side-
 25 exit car, for which it is primarily, although not necessarily, intended, it is very evident that the passengers will enter the car through
 30 the front door 4 without the necessity of congesting or blocking the doorway for paying fares or any other arrangements, and that they will dispose themselves in the car
 35 as suits their convenience, paying their fares when they enter if they go to the general rear half of the car, or paying their fares when they leave if they dispose themselves
 40 forwardly of the fare-box 17. This arrangement renders the car a "pay-as-you-pass" car; enables very speedy loading to be obtained and provides such a well scattered and distributed paying of fares as to
 45 result in the least loss of time and delay to schedule for this purpose of any type of car with which I am familiar. This arrangement also, consequently, greatly facilitates the discharge of passengers. Fur-
 50 ther, by this method of fare payment, all who go to the general rear half of the car during their trip for the purpose of obtaining a seat changing seats, or other reasons, pay as they pass the fare-box, which
 55 greatly assists in maintaining a rapid schedule, since the time consumed in collecting fares, making change, issuing transfers, answering questions, etc., is all spent while the car is in motion. It should also be noted that by reason of requiring the passengers
 60 to enter at the front only and to leave by a side door-way located a substantial distance from both ends of the car and preferably at approximately the center of the car, in-coming and out-going passengers can not interfere one with the other in the rear half of the car—which is the only place they possibly could interfere—until the minimum distance which an in-coming passenger must
 65 have traveled, viz., half the length of the

car, is the maximum distance which an out-
 going passenger must have traveled in order to create such interference. Further, the in-
 coming passenger quite likely secured a later
 start in traveling this distance than the out-
 70 going passenger inasmuch as the latter could have prepared to leave the car when he desired, whereas, the in-coming passenger
 could not have boarded the car at the front
 until the car had been stopped and the front
 75 door opened. Further, the incoming passenger before he could have reached an out-
 going passenger, must have paid his fare, thereby consuming some more of his time. All of these considerations render interfer-
 80 ence of in-coming and out-going passengers practically negligible. By reason of locating the fare-box laterally of the side door-
 way, the conductor is in a better position to watch all of the passengers and to prevent
 85 any passengers entering by the side door-way, and the free space in front of the side door-way thus provided, in conjunction
 with the two longitudinal seats in the general front half of the car, renders it very
 90 easy to move passengers going to the rear of the car or any comparatively large body of passengers entering at one point, such as terminals and transfer stations.

It is also apparent that the floor 7, being
 95 generally level, provides the most convenient and consistent type of floor for the convenience and safety of all concerned in the operation or use of the car. Particularly, it is
 100 apparent that, since the small forwardly-located depressed platform 9 renders the provision of only one step to the front entrance necessary, the construction is phys-
 105 ically very practicable since this one step can be conveniently folded. Further, in the preferred use of the car, as indicated above, the
 motorman cares for the safety of all in-coming passengers in addition to his ordi-
 nary duties, and the conductor watches for the safety of all out-going passengers in
 110 addition to his ordinary duties.

What I claim, is—

1. A street railway car provided with a front door-way and a side door-way, the
 115 latter of which door-ways is located a substantial distance from both ends of the car; and a fare-box located intermediately of said two door-ways, laterally of, and adjacently to, said side door-way.

2. A street railway car provided with a
 120 front door-way and a side door-way, the latter of which door-ways is located a substantial distance from both ends of the car; and a fare-box located laterally of, and ad-
 125 jacently to, said side door-way.

3. A street railway car provided with a front door-way and a central side door-
 way; and a fare-box located laterally of, and
 adjacently to, said central side door-way.

4. A street railway car provided with an 130

end entrance and a side exit, the latter being located a substantial distance from both ends of the car; a fare-box located intermediately of said entrance and exit, and laterally of, and adjacently to, the latter, and substantial seating facilities intermediate said entrance and said fare-box.

5. A street railway car provided with a front door-way and a central side door-way; a flooring for substantially the whole car disposed in one horizontal plane; steps intermediate said flooring and said side door-way; a landing disposed below said flooring, intermediate the latter and said front door-way, and providing passage-way between said front door-way and said flooring; and a fare-box disposed upon the front end portion of said flooring laterally of, and adjacently to, said central side doorway.

6. A street railway car provided with a front entrance and a side exit, the latter being located a substantial distance from both ends of the car; and a fare-box located laterally of, and adjacently to, said exit.

7. A street railway car provided with an end entrance and a side exit, the latter being located a substantial distance from both ends of the car; a fare-box located intermediately of said entrance and exit laterally of, and adjacently to, the latter, substantial seating facilities intermediate said entrance and said fare-box; a flooring for substantially the whole car disposed in one horizontal plane; steps intermediate said flooring and said exit; and a landing disposed below said flooring, intermediate the latter and said entrance, and providing passage-way between said entrance and said flooring.

8. A street railway car provided with a front entrance and a central side exit and doors for said entrance and exit; a flooring for substantially the whole car disposed in one horizontal plane; steps intermediate said flooring and said exit; a landing disposed below said flooring, intermediate the latter and said entrance, and providing passage-way between said entrance and said flooring; and a fare-box disposed upon the front end portion of said flooring laterally of, and adjacently to, said central exit.

9. A street railway car provided with a front door-way and a side door-way, the latter of which door-ways is located a substantial distance from both ends of the car; a flooring for the car; longitudinal seats disposed upon that portion of said flooring forwardly of said side door-way; transverse seats disposed upon that portion of said

flooring to the rear of said side door-way; and a fare-box disposed adjacently to said side door-way.

10. A street railway car provided with a front door-way and a side door-way, the latter of which door-ways is located a substantial distance from both ends of the car; a flooring for the car; longitudinal seats disposed upon both sides of that portion of the flooring forwardly of said side door-way and also upon that portion opposite said side door-way; transverse seats disposed upon that portion of the flooring to the rear of said side door-way; and a fare-box disposed forwardly of said side doorway and a substantial distance from said front door-way.

11. A street railway car provided with a front door-way and a side door-way, the latter of which door-ways is located a substantial distance from both ends of the car; a flooring for substantially the whole car disposed in one horizontal plane; steps intermediate said flooring and said side door-way; a folding step exterior of said front door-way; longitudinal seats disposed upon both sides of the front end portion of said flooring and also upon that portion opposite said side door-way; transverse seats disposed upon the portion of said flooring to the rear of said side door-way; and a fare-box disposed upon the front end portion of said flooring a substantial distance from said front door-way.

12. A street railway car provided with a front entrance and a central side exit and doors for said entrance and exit; a flooring for substantially the whole car disposed in one horizontal plane; two steps between said flooring and said exit; a folding step exterior of said entrance; a landing disposed below said flooring, in the same horizontal plane as the bottom of said entrance, and providing passage-way between the latter and said flooring; longitudinal seats disposed upon both sides of the front end portion of said flooring and also upon that side of the central portion opposite said central exit; transverse seats disposed upon the rear end portion of said flooring; and a fare-box disposed upon the front end portion of said flooring a substantial distance from said entrance.

Signed by me, this 9th day of September, 1915.

PETER WITT.

Attested by—

J. H. ALEXANDER,
R. C. GREEN.