

G. B. HIPPEE.
RAILWAY CAR.

APPLICATION FILED AUG. 10, 1908.

Patented July 11, 1911.

3 SHEETS—SHEET 1.

997,389.

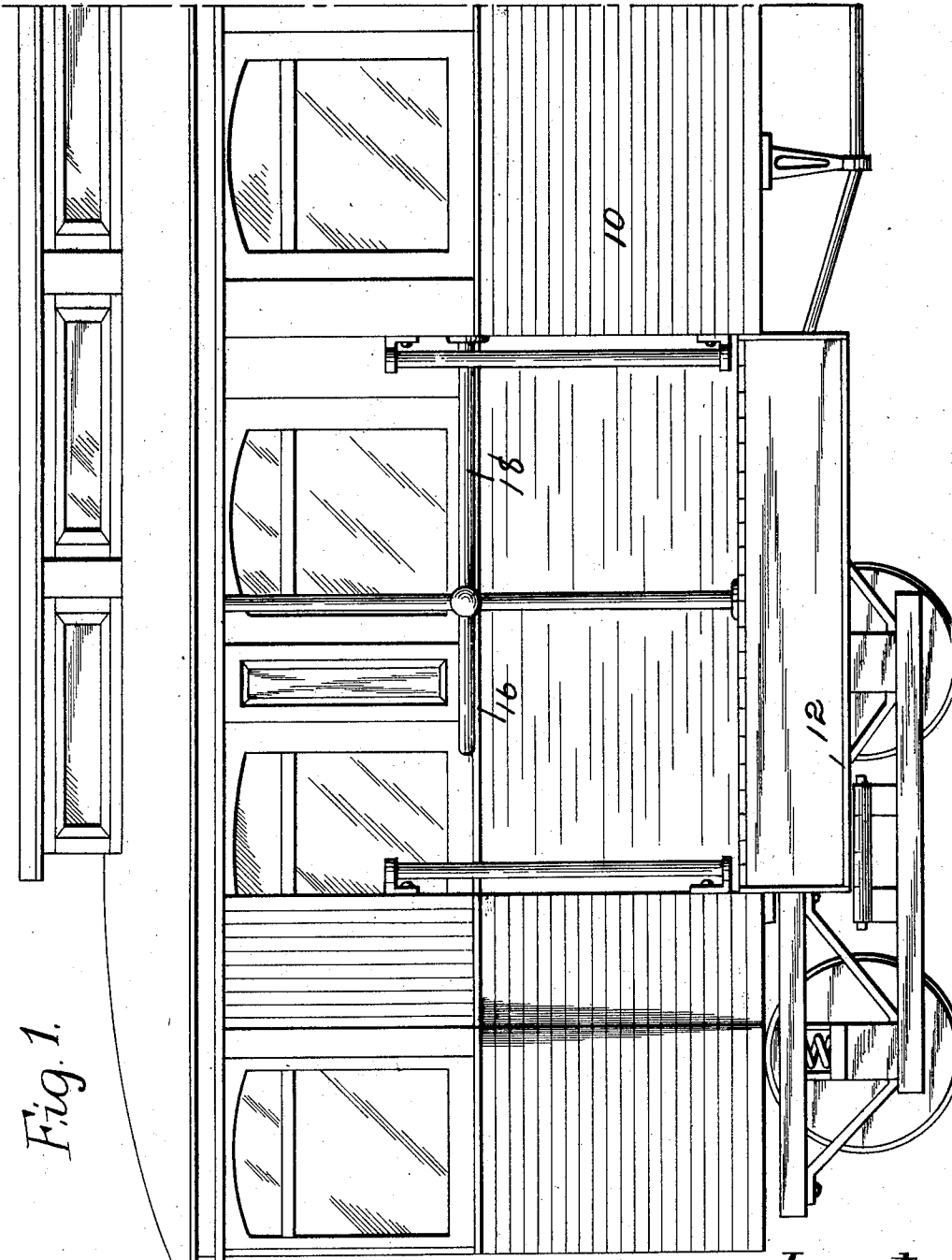


Fig. 1.

Witnesses

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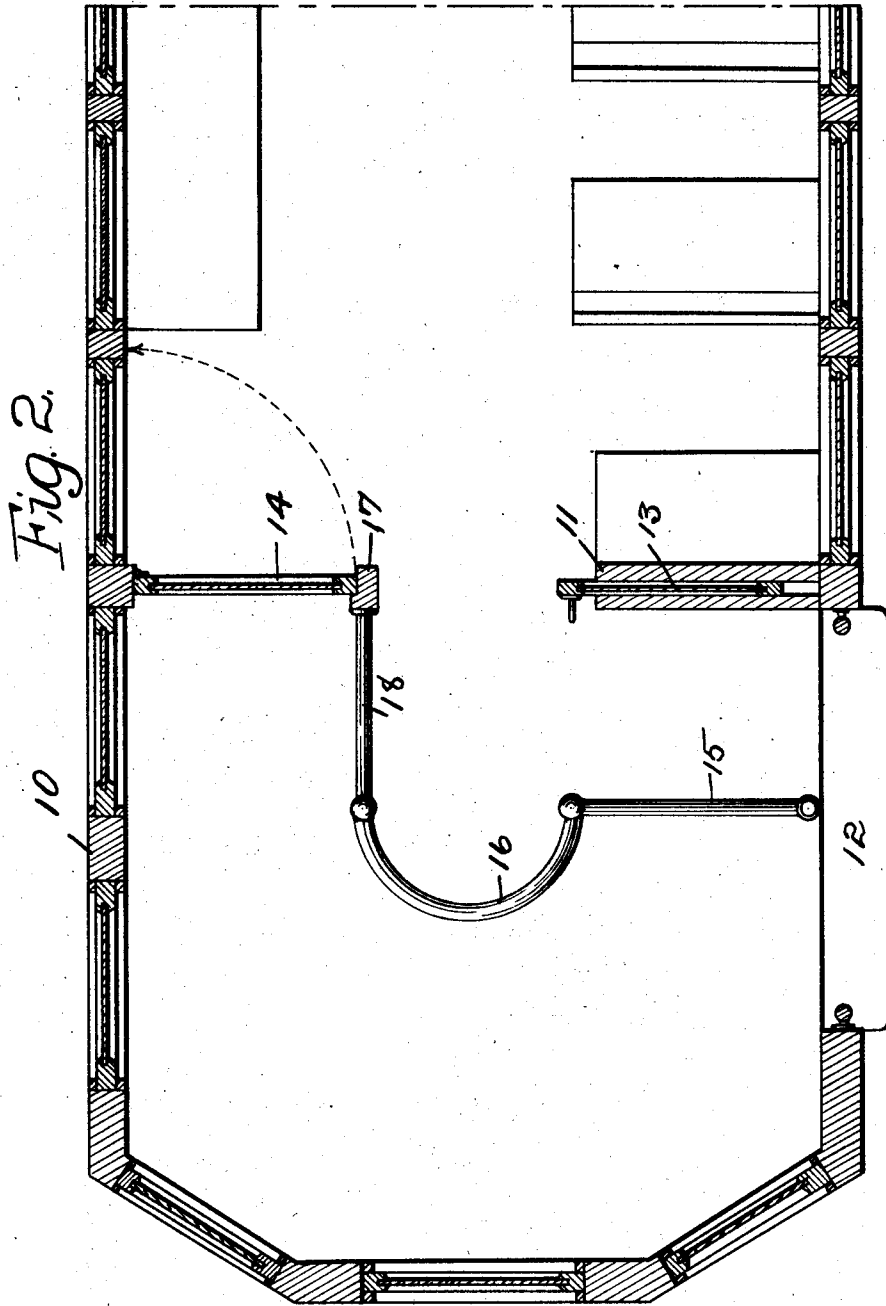
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3 SHEETS—SHEET 3.

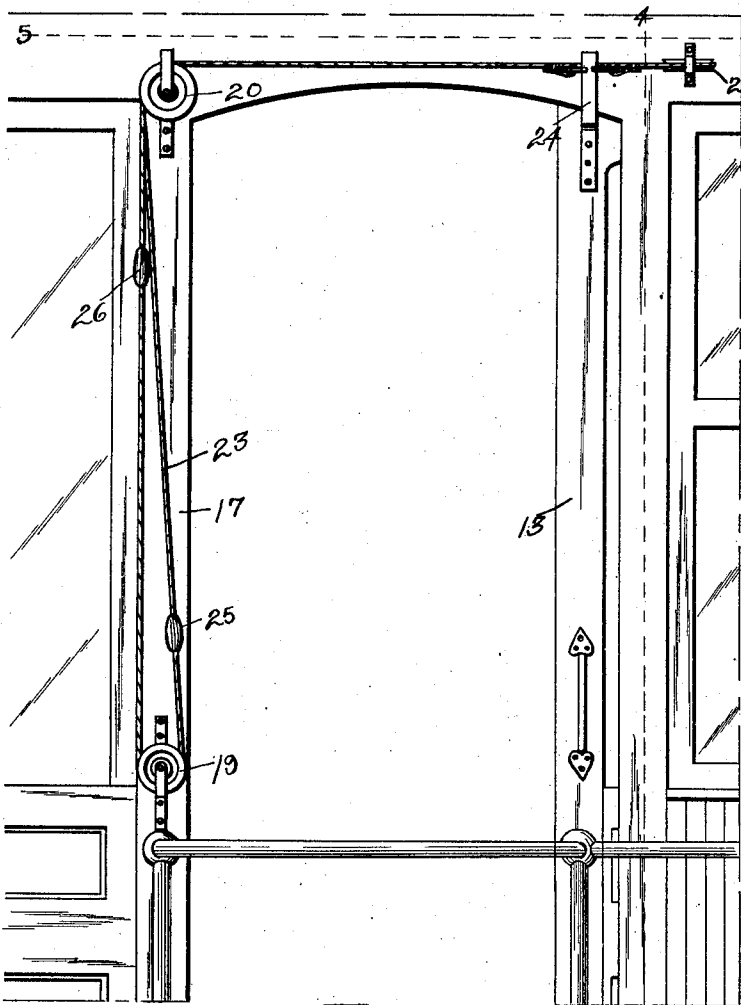


Fig. 3.

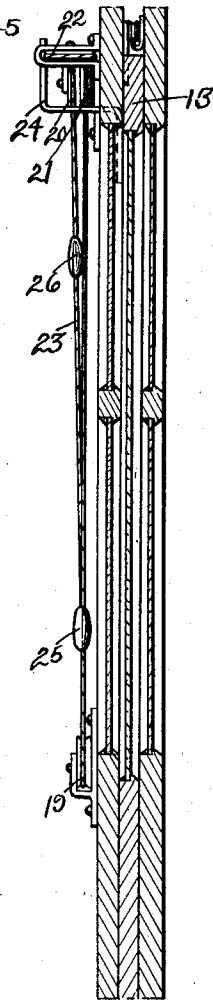


Fig. 4.

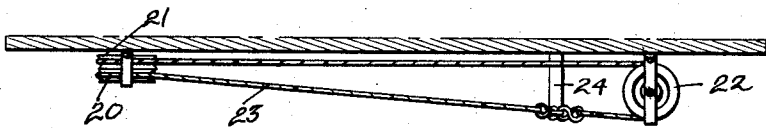


Fig. 5.

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UNITED STATES PATENT OFFICE.

GEORGE B. HIPPEE, OF DES MOINES, IOWA.

RAILWAY-CAR.

997,389.

Specification of Letters Patent. Patented July 11, 1911.

Application filed August 10, 1908. Serial No. 447,689.

To all whom it may concern:

Be it known that I, GEORGE B. HIPPEE, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented a certain new and useful Railway-Car, of which the following is a specification.

My invention relates to that class of cars known as the "pay as you enter cars" which cars are usually so arranged that a conductor may stand at the entrance platform and receive fares from incoming passengers and at the same time passengers may pass out of the car without interfering with the incoming passengers.

My object is to provide a car of this class so arranged that the conductor may stand in position in line with the central aisle of the car, so that he may see the passengers within the car and also be in position for receiving fares from incoming passengers.

Another object is to provide a car of this kind in which a maximum amount of the interior of the car may be utilized for seating purposes and also a maximum amount of the rear platform of the car may be used for the incoming passengers, so that in the event that there is any delay in the collection of fares, the passengers may stand on the rear platform until their fares are collected, thus avoiding the necessity of having the car stand still until all of the passengers have paid and entered the interior of the car.

A further object is to provide a car of this kind of simple, durable and inexpensive construction and so arranged that a car of the ordinary type, having a partition near its rear end with a central door, may have my improvements applied thereto quickly and easily and with a minimum of expense.

A further object is to provide a simple, durable and inexpensive means whereby the operator may readily and easily open the sliding door at the exit passage way of the car while facing the entrance passage way.

My invention consists in the construction, arrangement and combination of the various parts of the device whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims and illustrated in the accompanying drawings, in which—

Figure 1 shows a sectional plan view of the rear portion of a car with my improvements applied thereto. Fig. 2 shows a side elevation of same taken from the side of

the car containing the steps. Fig. 3 shows an enlarged detail rear elevation of a portion of the partition extended across the car and a portion of the hinged door and the sliding door to illustrate the means for operating the sliding door. Fig. 4 shows a vertical sectional view on the line 4—4 of Fig. 3, and Fig. 5 shows a sectional view on the line 5—5 of Fig. 3.

Referring to the accompanying drawings, I have used the reference numeral 10 to indicate the car body. In the rear end of the car is a transverse partition 11, hereinafter more fully described. At the rear of the partition, the side of the car is formed with an opening and with a step 12 leading to the opening to facilitate passengers in entering and alighting from the car. The forward portion of this opening is intended for use as an exit and the rear portion for use as an entrance, and for convenience in the description and claims, I have used the term "exit and entrance openings." The said partition 11 extends from the right side of the car inwardly toward the center of the car to a point about one-third ($\frac{1}{3}$) the width of the car. There is a door opening in the partition which occupies the second one-third ($\frac{1}{3}$) of the width of the car, and a door 13 is provided for said opening, which door slides in the partition 11. A hinged door 14 is secured to the side of the car opposite from the partition 11 and is designed to swing inwardly toward the interior of the car and when in its closed position its outer end will be in line with the partition 11.

At about the central portion of the step 12, I have erected a railing 15 extended inwardly toward the longitudinal center of the car to a point about one-third ($\frac{1}{3}$) the width of the car. Connected with said railing is a rail member 16, semi-circular in shape and extended first rearwardly from the railing 15, then transversely of the car and then forwardly, the latter end of said railing being in line with the upright 17 between the doors 13 and 14, and a rail member 18 extends from the last mentioned end of the curved rail 16 forwardly to said upright 17.

I have provided means whereby the conductor may readily and easily open and close the sliding door while he is standing in a position facing the passage way by which passengers enter the car. In Fig. 3 of the drawings, I have shown a pulley 19 on the part of the partition 17 that is ad-

jacent to the free end of the entrance door. At a point above the pulley 19 are two pulleys 20 and 21 and on the frame 17 above the sliding door is a pulley 22. A rope 23 is attached at one end to a bracket 24 on the upper portion of the sliding door. The rope then passes around the pulley 22, then over the pulley 21, then downwardly and under the pulley 19, then upwardly and over the pulley 20, and its other end is attached to the bracket 24. Fixed in position on the rope are two handles 25 and 26 so arranged that they may be easily grasped and pulled by the operator. Assuming that the slide door 13 is in its open position as shown in Fig. 3, and that it is desired to close it, the operator then grasps the handle 26 and pulls downwardly upon it, thus moving the door to its closed position and elevating the handle 25 and when it is desired to open the door, the operator grasps and pulls down upon the handle 25.

In practical use and assuming that the conductor is standing within the curved rail member 16, he is obviously in position where he can see straight down the central aisle of the car between the seats when facing forwardly, and by turning around, he can see and receive fares from all of the passengers that are entering the car or standing anywhere on the rear platform between the step and the hinged door. Passengers desiring to alight from the car may pass straight down the central aisle and the presence of the conductor standing within the semi-circular rail member 16 will not in any way interfere with their exit.

By having a solid partition extended one-third ($\frac{1}{3}$) of the distance of the width of the car with two door openings occupying the remaining space in the width of the car, it is obvious that a maximum of the interior of the car may be utilized for seating purposes. This cannot be done where the entrance and exit doors are arranged on opposite sides of the center of the car as in that case, seats on both sides must be sacrificed for the passage ways. Furthermore, by having a semi-circular portion in the rail, passengers entering the car and standing on the rear platform are within convenient access of the conductor when at any part of said rear platform, and furthermore, the conductor when in position within the curved rail will not interfere with passengers passing out of the car.

In the foregoing description, I have described the rails 15, 16, and 18 as comprising three rail members. This is for the purpose only of convenience in description and by it I do not desire to be understood as limiting the scope of the application to a rail made of more than one part, as a rail of the same size and shape can, obviously, be made of one or more pieces of material.

I claim as my invention—

1. In an improved railway car, a transverse partition having an entrance and an exit passage way, a slide door to cover the exit passage way, and manually operated means arranged on the partition, at the side thereof to which the door moves when closing, for opening and closing the door.

2. In an improved railway car, a transverse partition having an entrance and exit passage way, and a slide door to cover the exit passage way, and manually operated means arranged on the partition, at the side thereof to which the door moves when closing, for opening and closing the door, said means comprising a single pulley on the partition near its lower end, two pulleys on the partition near the top of the door, and a single pulley on the partition at the side of the door opposite from the said two pulleys, a bracket fixed to the door, and a rope or cable having one end fixed to the bracket and then passed around the last mentioned pulley, then over one of the double pulleys, then under the first mentioned pulley, and then over the other one of the double pulleys, and having its other end fixed to said bracket substantially as set forth.

3. In a railway car having side entrance and exit openings, the combination of a rail member extended from a point between the said entrance and exit openings inwardly toward the center of the car, a rail member extended from the inner end of the first mentioned rail member, first rearwardly, then across the car and then forwardly, and a partition in front of and substantially parallel with the first mentioned rail member, said partition being of substantially the same length as the first mentioned rail member.

4. In a railway car having side entrance and exit openings, the combination of a rail member extended from a point between the said entrance and exit openings inwardly toward the center of the car, a rail member extended from the inner end of the first mentioned rail member, first rearwardly, then across the car and then forwardly, and a partition in front of and substantially parallel with the first mentioned rail member, said partition being of substantially the same length as the first mentioned rail member, and said partition also having an exit passage way substantially in line longitudinally of the car with the second mentioned rail member.

5. An improved railway car, having side entrance and exit openings, a transverse partition in front of said openings, comprising a solid wall extended about one-third of the distance across the car from the side adjacent to said openings, and having an exit passage way therein at the central portion of the car, a slide door designed to cover

the exit passage way in the partition, said partition also having an entrance passage way at the side of the car opposite from the said solid portion thereof, a swinging door
5 to cover said entrance passage way, and a railing extended from a point between the side entrance and exit openings inwardly and then forwardly to a point between the two passage ways in the partition, for the
10 purposes stated.

6. In an improved railway car, a transverse partition having entrance and exit

passage ways, a slide door to cover the exit passage way and movable, when being closed, toward the entrance passage way, 15 and manually operated means arranged at a point midway between the two passage ways for opening and closing said slide door.

Des Moines, Iowa, July 14, 1908.

GEORGE B. HIPPEE.

Witnesses:

GEORGE MANKLE,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
