

G. P. FRICK.  
Street-Cars.

No. 156,698.

Patented Nov. 10, 1874.

Fig. 1.

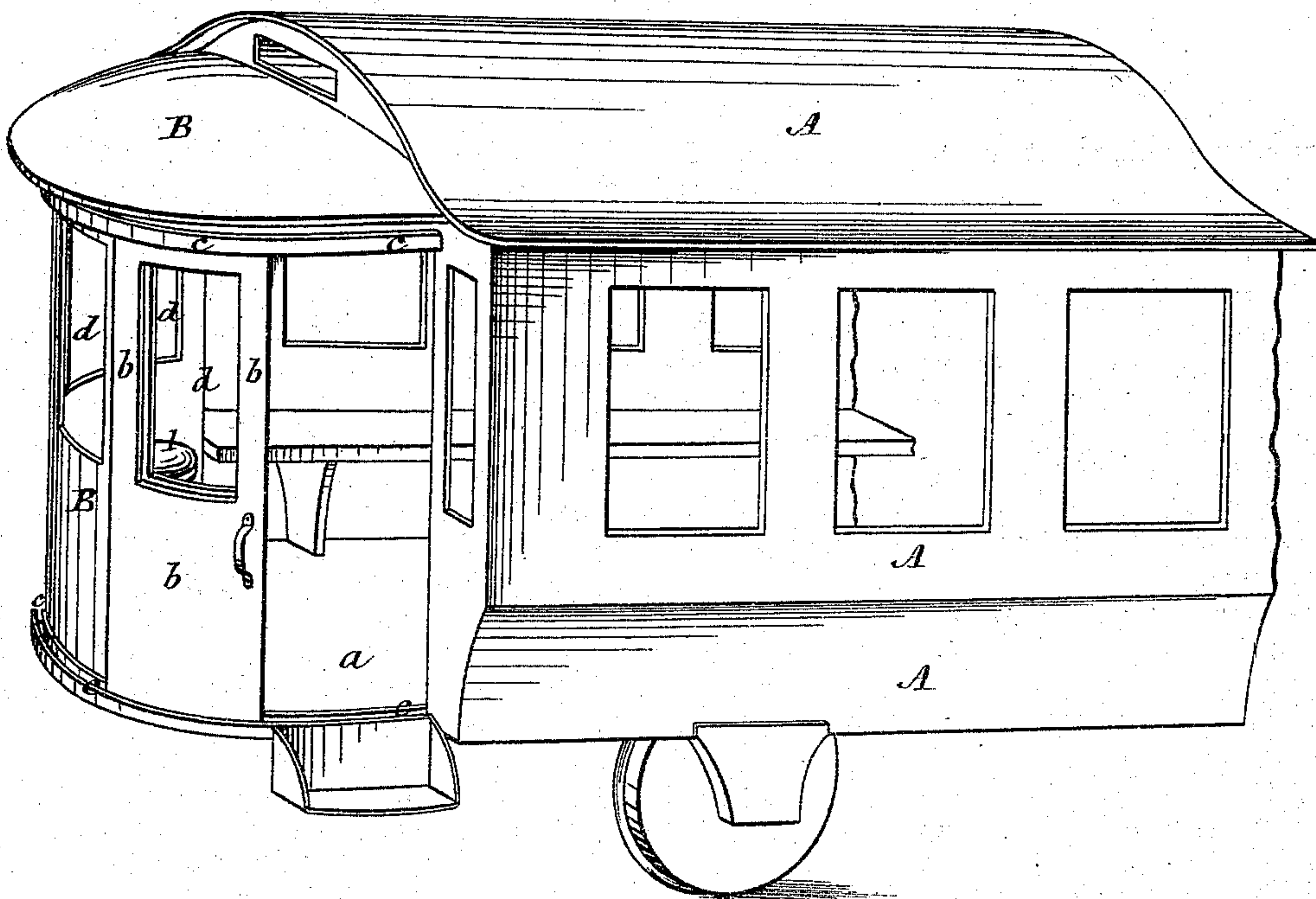
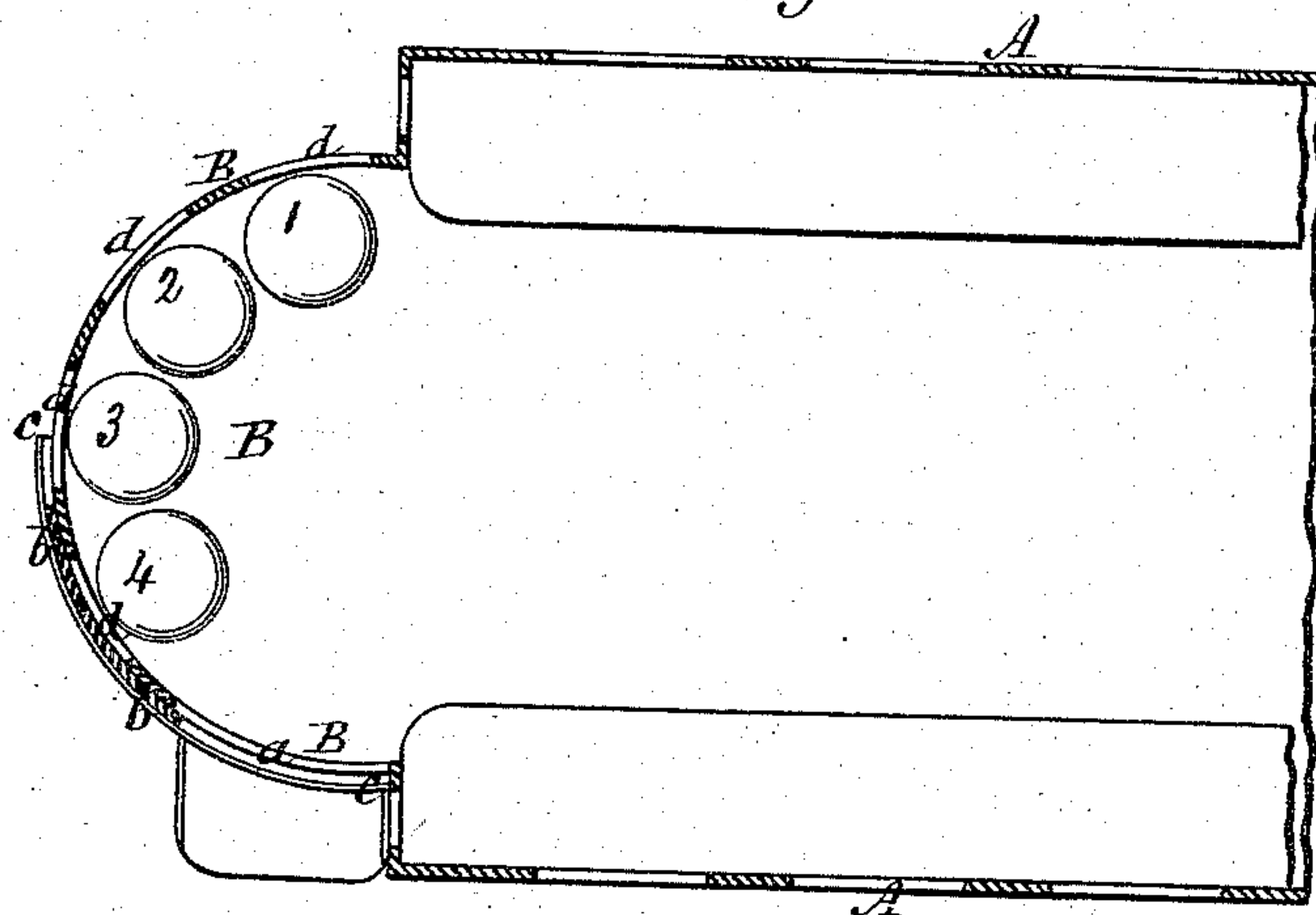


Fig. 2.



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# UNITED STATES PATENT OFFICE

GEORGE P. FRICK, OF BALTIMORE, MARYLAND.

## IMPROVEMENT IN STREET-CARS.

Specification forming part of Letters Patent No. **156,698**, dated November 10, 1874; application filed August 31, 1872.

*To all whom it may concern:*

Be it known that I, GEORGE P. FRICK, of the city of Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Street-Railroad Cars; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents, in perspective, a view of the rear end of a street-railroad car, showing my improvement attached thereto. Fig. 2 represents a horizontal and sectional plan of the same.

My invention relates to that class of street-cars in which the team is always hitched to, and the driver stands at, one and the same end of the car, and in which, also, the entrance and exit are at one and the same end of the car. In this class of cars the platform and roof, where the driver stands, are rounded off, while the other end of the car, having no platform, has a square termination, and the entrance and exit are generally at the rear of the car, though they have been arranged at the sides. Such cars are not symmetrical in form, are not properly balanced, and, besides, there is a loss of available space for passengers.

I am aware that ordinary railroad-cars have been devised with semicircular ends and ante-rooms in each of such ends; and I am aware that a rectilinear or angular projection or inclosure, with rectilinear or angular doors, has been devised for the rear of street-railroad cars, in which space or inclosure the conductor sits or stands, but neither of these involve the construction or the purpose and use of my invention.

My invention consists in a circular door sliding in a circular groove, grooves, or guides, in combination with a semicircular extension to the body of a street-railroad car, as and for a purpose that will be now described.

The platform where the driver stands and the roof over it project from the front end of the car-body, and they, together with the weight of the driver, overbalance the rear end of the car, where there is no platform. Such

a construction is unsightly, and has other inconveniences beside that of being unbalanced upon the wheels.

Platforms at the entrance and exit of any street-car are objectionable, because it is found impossible to prevent the passengers from standing thereon, and thus blocking the free entrance and exit to and from the car. To place the conductor, and to collect fares, at the exit and entrance of a street-car is objectionable, because it requires passengers to stop there in paying fares, and so block up the passage into or from the cars.

In the accompanying drawings, A represents the body of a street-car, such as is in common use. To the rear end of such a street-car body I make a semicircular, or nearly so, extension, B, at one or both sides of which there is an entrance and exit opening, *a*, which is controlled by a circular door, *b*, which slides in circular grooves or guides *c*; and this circular extension B may have windows *d* therein, and make available space for four seats, 1 2 3 4, without obstructing the inlet and exit passage-way. The circular form of this extension and the circular door afford several other advantages beside that of available passenger space. By the circular form the extension may be only three feet, which is about as far as it can go with due regard to other indispensable things, and with this three-foot extension a door and doorway can be made with a three-foot opening, if desired, while with the rectangular or angular projection a two-foot door requires a four-foot platform to receive it, and, as heretofore made, barely affords a passage-way and a conductor's seat, while by my construction I gain four passenger-seats, make the body of the car more symmetrical in form, and more uniformly balanced on the wheels.

In this form of car the entrance and exit can always be on the right-hand side of the car, and thus save passengers the necessity of crossing the adjacent track of the street-railroad, which in crowded cities is always dangerous.

The fare-box should always be at that end

of the car where the driver stands, so that he may inspect it and see the fares put in, and this avoids the necessity of a conductor.

My construction of circular extension in no way, either from the outside or interior of the car, obstructs the view of the driver, who can readily see who enters or leaves the car. The circular extension as I arrange it is a substitute for, or occupies the space of, a rear platform as ordinarily used, but it avoids all the objections of a rear platform and affords room or space for four more seats. It is much more symmetrical in form, and better balanced than the street-cars as now used.

I am aware that cars having circular ends

have heretofore been used. I do not claim any such car or circular end therefor; but

What I do claim, and desire to secure by Letters Patent, is—

A semicircular extension at the rear end of a street-railroad-car body having a circular door sliding in circular ways at the side of said rear extension, and seats placed in said extended space, as and for the purpose described and represented.

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Witnesses:

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