

H. B. DUNHAM.
Street-Cars.

No. 149,033.

Patented March 31, 1874.

Fig. 2.

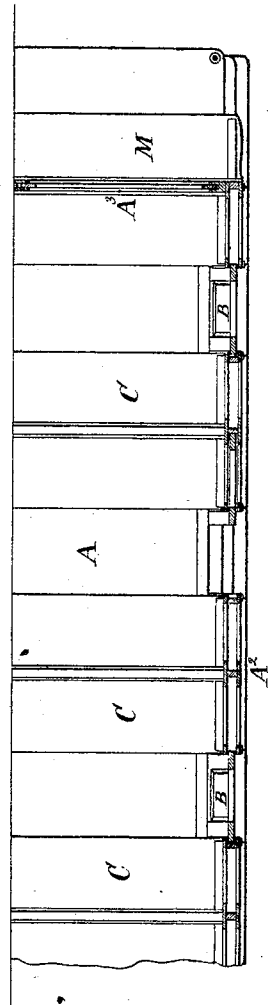
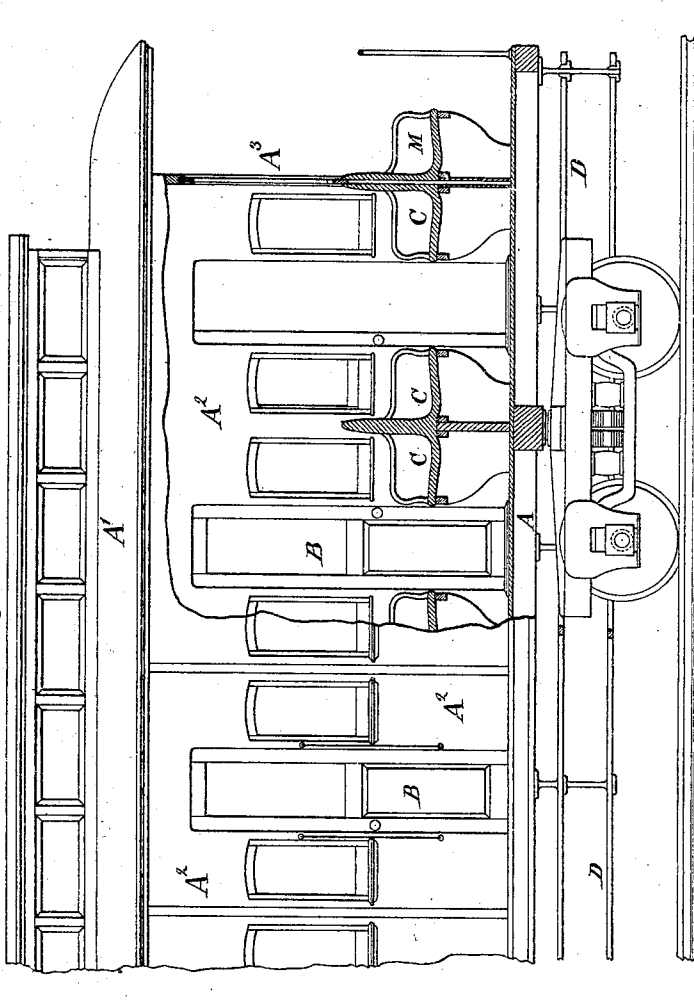


Fig. 1.

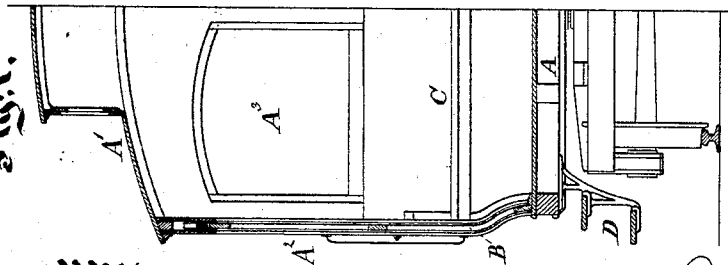


Fig. 3.

Witnesses:

Arnold Hornum.
Wm C. Day

Inventor:

H. B. Dunham
by his attorney J. L. Stearns

UNITED STATES PATENT OFFICE.

HUMPHREY B. DUNHAM, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN STREET-CARS.

Specification forming part of Letters Patent No. **149,033**, dated March 31, 1874; application filed May 14, 1873.

To all whom it may concern:

Be it known that I, HUMPHREY B. DUNHAM, of Newark, Essex county, State of New Jersey, have invented certain Improvements Relating to Railroad-Cars, of which the following is a specification:

I so construct the car-body that it is capable of seating the maximum number, and is adapted to serve both as a close car for winter and bad weather, and as an open car for summer use, pic-nic parties, &c.

The following is a description of what I consider the best means of carrying out the invention. The accompanying drawings form a part of this specification:

Figure 1 is a transverse section of half of the car; Fig. 2 is a longitudinal section of a portion, or rather a side elevation, with a portion thereof in section; and Fig. 3 is a horizontal section of a part.

Similar letters of reference indicate like parts in all the figures.

A is the floor, A¹ the roof, and A² A² the fixed portions of the sides curved as shown in Fig. 1. B B, &c., are correspondingly curved sliding doors which can close the liberal spaces in the sides at will. The doors are provided with suitable fastenings, not shown, adapted to hold them either in their closed positions during cold or bad weather, or in their open position in warm and pleasant weather, to make the structure a holiday car. In this latter condition they lie within suitable recesses in the fixed sides A², as will be understood. The seats extend across the car, placed back to back, as indicated by C C. This construction allows the maximum number to be seated. Suitable steps, D, extend along the side just sufficiently under the swelled sides and doors to cause the outer

edge of the lowest to lie flush with the projecting portions of the side.

My improved cars may form the whole or any portion of a train, but they are particularly adapted for working singly on metropolitan and suburban railroads. They may be operated by horses or by steam.

At each end of the car is a seat, M, to accommodate smokers. The ends A³ of the car are formed with sashes which are capable of dropping out of the way, so that when used for pic-nics, and the like, the seats M form a part of the series C. In winter or bad weather when the car is made close, these seats M, being outside of the closed portion, allow smoking without offense to the inside passengers.

I am aware that cars in compartments having doors at the sides have been long used; that sliding doors are in common use for various purposes; and that seats arranged like mine have been long known and appreciated, but I believe that my car as a whole presents advantages not before attainable. The width of the doors, being nearly equal to that of the fixed parts A², makes the sides very open when desired, and with good workmanship the doors when closed make the sides as tight as is consistent with proper ventilation.

I claim as my invention—

The described changeable car, having the body A A¹ A², doors B, and seats C, constructed and combined substantially as and for the purposes specified.

In testimony whereof I have hereunto set my hand this 10th day of May, 1873, in the presence of two subscribing witnesses.

HUMPHREY B. DUNHAM.

Witnesses:

WM. C. DEY,
CHAS. RAETTIG.