I. BRIDGMAN.

Passenger-Car.

No. 160,079. Patented Feb. 23, 1875

Fig 1.

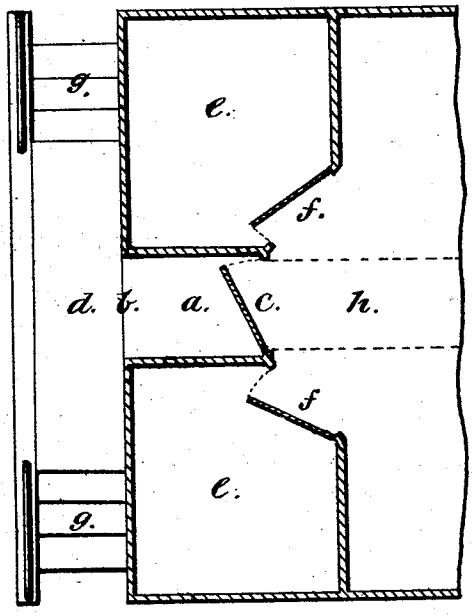


Fig 2.

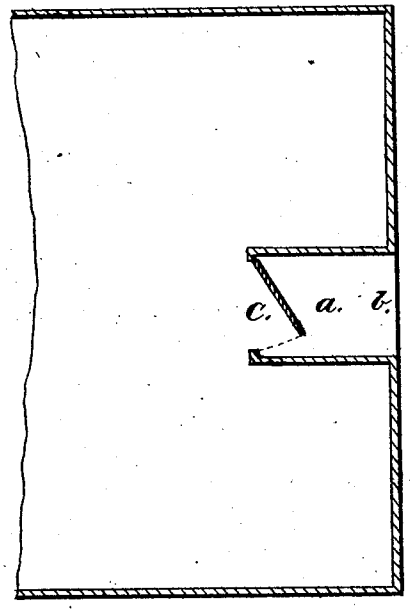
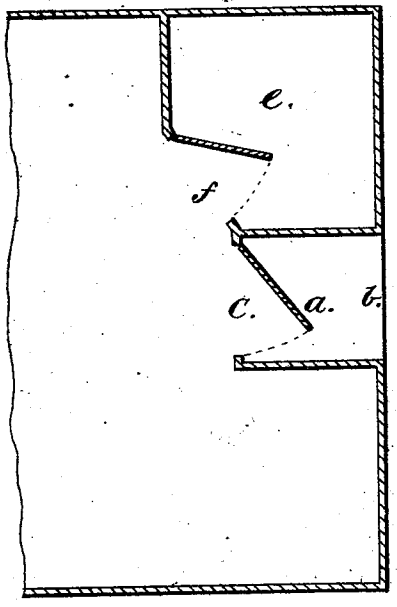


Fig 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

IRWIN BRIDGMAN, OF TORONTO, CANADA.

IMPROVEMENT IN PASSENGER-CARS.

Specification forming part of Letters Patent No. **160,079**, dated February 23, 1875; application filed April 23, 1874.

To all whom it may concern:

Be it known that I, IRWIN BRIDGMAN, of Toronto, Ontario, Canada, have invented an Improved Exit for Railway Passenger-Cars, of which the following is a specification:

The object of my invention is to enable the car-door to open outward without obstructing the platform; and consists, first, in having a porch or vestibule at each end of the car, extending inward a sufficient distance to allow the door, which is situated on its innermost side, to open outward without obstructing the platform; second, in making use, so far as may be, of the closets, in forming the side walls of the vestibule; third, in having the doors of the closet in the corner as an economy of space, and still to be within the car.

Figures 1 and 2 represent the vestibules as situated at each end of the car, Fig. 3 showing the application of the principle in another form.

The ordinary car-door *b*, from its position in opening outward, necessarily obstructs the passage on the platform; but if situated at *c*, the inner side of the vestibule can open outward without causing any obstruction to the passage on the platform, and by opening outward affords greater facilities for escape in case of fire or accident, because the ordinary car-door in such cases is liable to become closed by the jam or rush against it from behind, and great delay and danger will occur before it can be reopened.

The vestibule, comparatively speaking, takes up no unoccupied space, for the ordinary car-door situated at *b* has to open inward, and to hang it at the point to which it opens it would require no more space to open outward. The vestibule, being made a little wider than the aisle *h*, affords a jamb for the door to rest in when open, giving the vestibule, with the door open, the same width of passage as the aisle.

By arranging the closets one on each side of the car, as *e e*, they can be made to form two sides of the vestibule in one end of the car, the vestibule in the opposite end, as Fig. 2, being built independently of any such assistance, and the space at its sides may be occupied by heater and fuel-boxes, or by seats, so that no space is lost. Or the case may be varied, but the same principle applies by placing one closet at each end of the car, on the same or opposite sides, each closet then forming one side of each vestibule.

The closet-door being placed in the corner of the closet, as at *f f*, will require less space than if placed on the aisle side, as they now are, requiring the closet to be extended far enough inward beyond the vestibule-door to give room for the door. These improvements may be applied to any railroad-cars in ordinary use.

I claim as my invention—

A passenger railway-car having in each end a vestibule in which the car-door is hinged to swing outwardly, closets forming one side or both sides of one or both vestibules, all combined as and for the purpose set forth.

Toronto, December 26, 1874.

IRWIN BRIDGMAN.

Witnesses:

JNO. W. L. FORSTER,

JOHN W. BRIDGMAN.