

J. STEPHENSON.

Car Roof.

No. 61,482.

Patented Jan. 22, 1867.

Fig. 1.

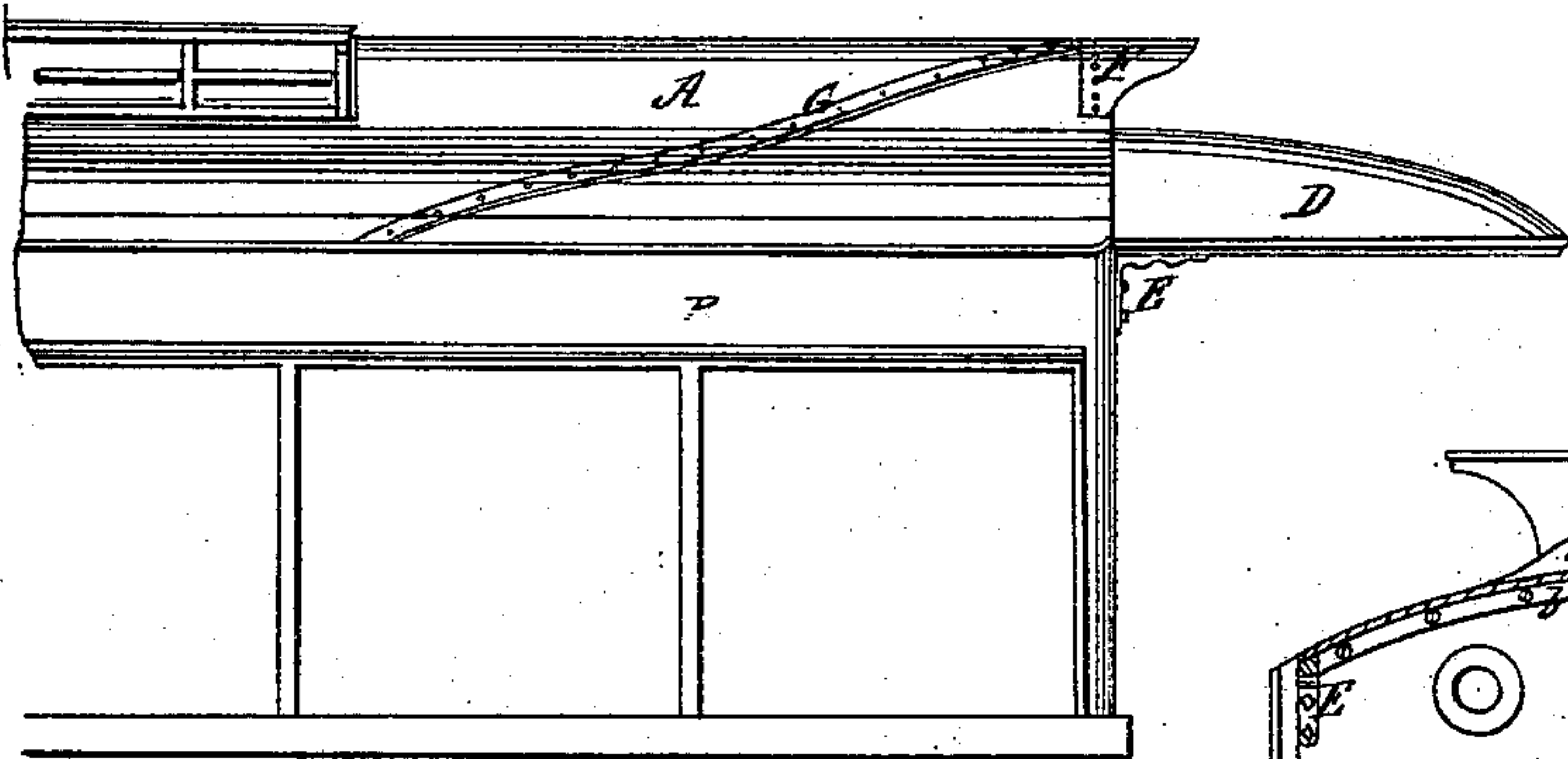


Fig. 2.

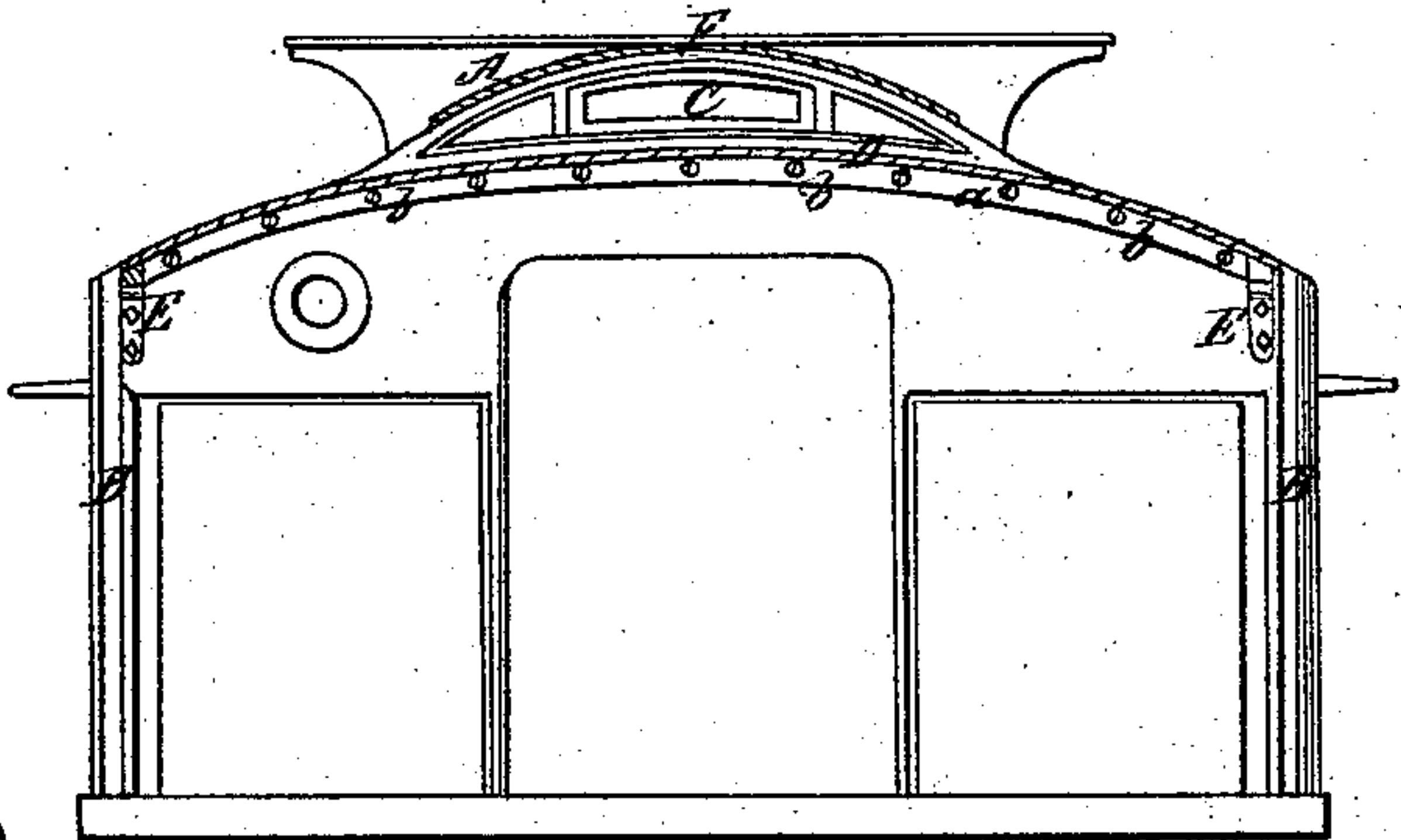
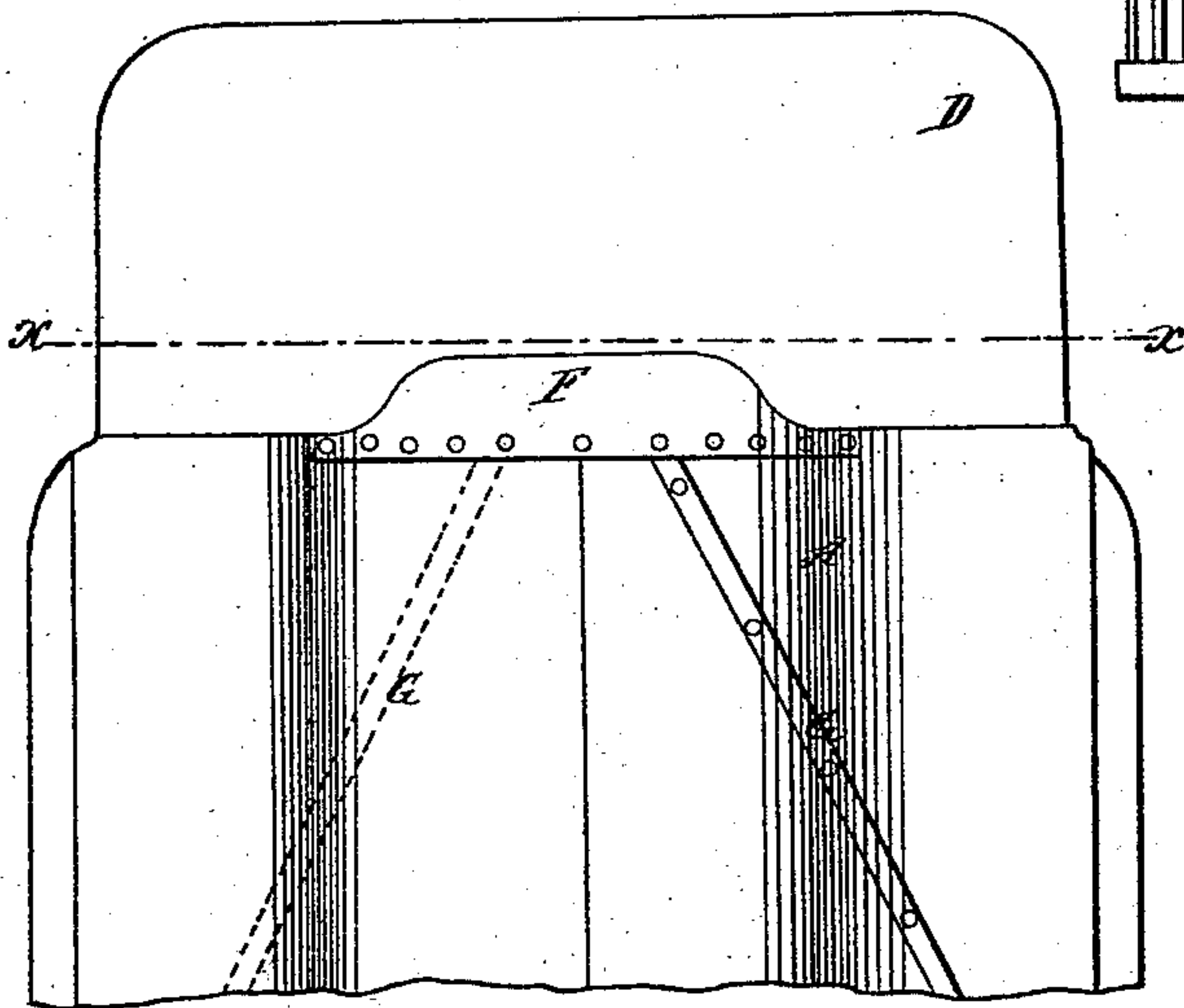


Fig. 3.



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# UNITED STATES PATENT OFFICE.

JOHN STEPHENSON, OF NEW YORK, N. Y.

## IMPROVEMENT IN ROOFS FOR RAILROAD-CARS.

Specification forming part of Letters Patent No. 61,482, dated January 22, 1867.

*To all whom it may concern:*

Be it known that I, JOHN STEPHENSON, of the city, county, and State of New York, have invented a new and useful Improvement in the Construction of Roofs for Railroad-Cars; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a side view of my invention; Fig. 2, a transverse vertical section of the same, taken in the line *x x*, Fig. 3; Fig. 3, a plan or top view of the same.

Similar letters of reference indicate like parts.

This invention relates to a new and useful improvement in the construction of the roofs of horse or street cars; and has for its object durability, a greater convenience than hitherto in shipping cars of this class, and a greater facility and economy in repairing the roof.

That part of the roof of horse or street cars projecting over the platform is most subject to breakage, and, as ordinarily constructed, the "top rails," continuing beyond the corner pillars, are apt to be broken at their juncture with the corner pillar. For this and other reasons I limit the roof of car to the size of the body, and have the coverings of the platforms separate structures, forming canopies, which are made much lighter by having the rails of bent wood. These canopies are attached to the body of the car at the proper locality, by the ordinary means of screws, bolts, brackets, or other fastenings, and in such a manner that they may be removed or detached with facility when necessary for repairs, or for convenience in shipping.

Above the canopies, and as a protection to the end ventilators, I attach smaller canopies or "frontlets," made of metal or other suitable material, and for readiness of repairs and convenience of shipments these frontlets are also made to be easily detached from the car-body.

A represents a portion of the roof of a car, and B B the upper parts of the sides of the body of the car. This roof extends the length of the body, and it may be constructed in any of the known ways or forms, but with sufficient rise or arch to admit of end windows or ventilators C being applied. (See Fig. 2.) D represents a canopy or roof portion, which

extends over the platform, and forms the covering for the same.

This canopy is made separate from the roof, and may have its rails *a* formed of bent wood, and consequently be made lighter than if formed by a continuation of the roof A, as hitherto.

This canopy may be secured to the end of the car by means of screw *b* passing through the innermost rail *a* into the end of the car, and by metal brackets E, bolted to the end of the car and to the canopy at the angles formed at the juncture of said parts at each side of the canopy.

It will be seen that by this arrangement the canopy may, when necessary, be readily detached from the car for repairs or to facilitate shipment.

F represents a smaller canopy or frontlet, which may be of metal or other suitable material, attached to the center of the end of the roof A, so as to project over and serve as a protection to the end ventilator C. This canopy or frontlet F prevents storms beating into or through the ventilator C. G G are two diagonal strips or bars of metal or wood attached at one end to the center of one end of the car, and diverging from each other from said point of attachment to each side of the body of the car, to the top of which they are secured, the strips being bolted or screwed to the roof at suitable intervals throughout their entire length.

These diagonal strips greatly strengthen the roof, and effectually prevent the sagging or settling of the same and the sides of the car being forced out under any lateral thrust or pressure of the roof.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The canopy D, for the covering of the platforms of cars, constructed separately from the roof and body of the car, and attached thereto, substantially as and for the purpose specified.

2. The smaller canopy or frontlet F, applied to the end of the car-roof A, over the end ventilators C, substantially as and for the purpose set forth.

The above specification of my invention signed by me this 11th day of June, 1866.

JOHN STEPHENSON.

Witnesses:

WM. F. McNAMARA,  
ALEX. F. ROBERTS.