

J. BUSSER.  
Freight Car.

No. 98,227.

Patented Dec. 28, 1869.

Fig. 1  
A

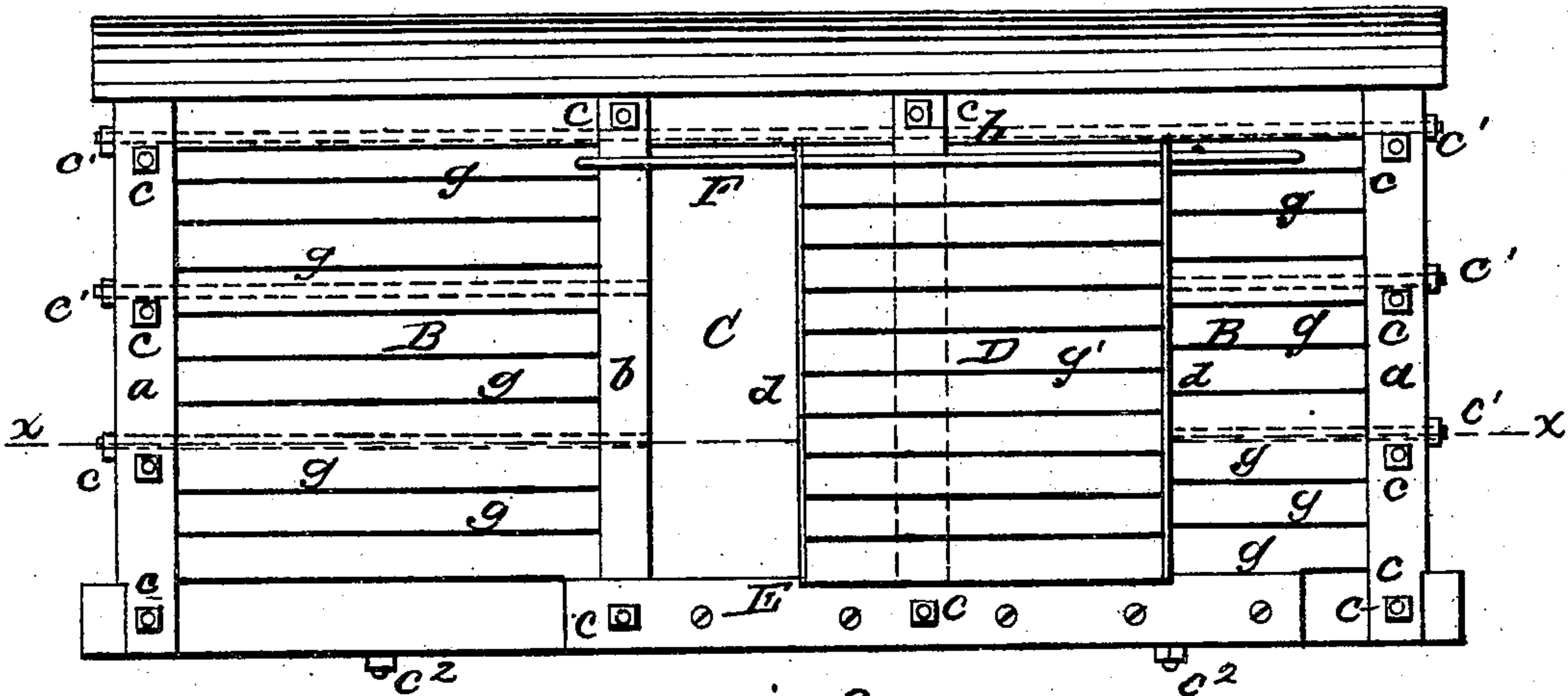


Fig. 2  
D

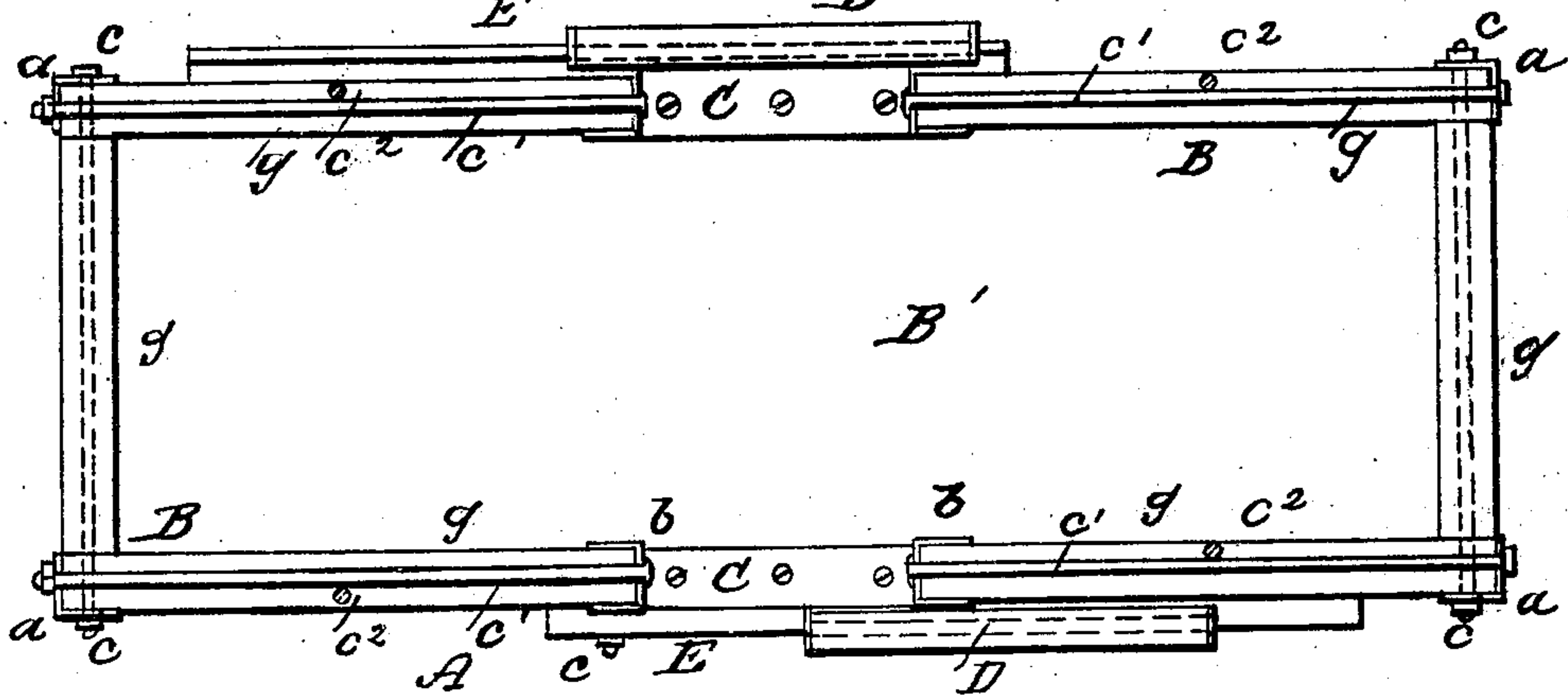
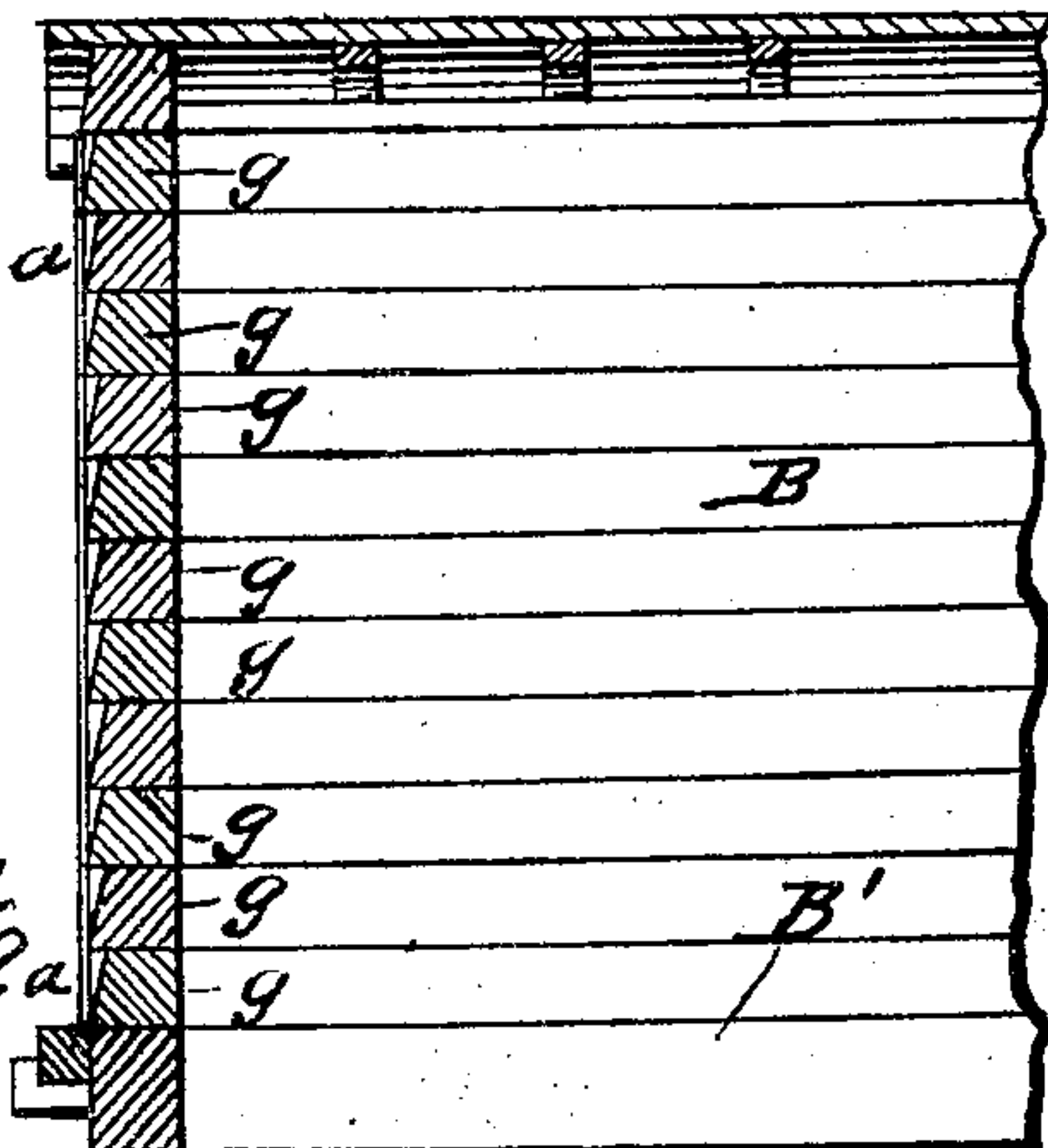


Fig. 3



Witnesses

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# United States Patent Office.

J O S E P H B U S S E R, O F T R O Y, O H I O.

Letters Patent No. 98,227, dated December 28, 1869.

## IMPROVED RAILWAY-CAR.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, JOSEPH BUSSEER, of Troy, in the county of Miami, and State of Ohio, have invented an Improved Railroad-Car Body; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is an elevation of one side of the body of a freight-car.

Figure 2 is a section, taken through fig. 1, in the horizontal plane indicated by line *x x*.

Figure 3 is a vertical longitudinal section, through one end of the car-body.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to secure greater strength, durability, and rigidity, in the construction of the side and end walls of railroad-car bodies.

The nature of my invention consists in constructing the walls of freight or passenger-cars of planks, of proper width and thickness, laid down flatwise, one upon another, and confined by means of clamping-bolts and angle-irons, as will be hereinafter explained.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawings, I have represented the body of a freight-car, constructed upon my improved plan; but I do not confine my invention to freight-cars, as it is equally applicable to passenger-coaches or cars.

The bed of the car-body B may be made up of longitudinal and transverse beams, and braced and stayed in the usual well-known manner, and upon such a bed, I construct my improved walls, by laying down planks flatwise, one upon another, and securing each layer or course upon the preceding one, as shown.

These planks, which are lettered *g*, may be bevelled on their outer edges, so that the bottom edge of one plank will overhang the top edge of the plank lying next below it, thereby causing the wall to shed water freely, and preventing water from getting between the planks; or, if desirable, each plank may be dressed on its outer edge, so as to leave a neat bead or moulding, or the external edges of the planks may be dressed plain, and laid down in the wall, so as to leave flush surfaces inside and outside.

At the corners of the body B, the inner edges of the longitudinal planks of one course may abut against the ends of the transverse planks, and the next course may have the ends of the transverse planks abutting against the inner edges of the longitudinal planks, or the planks of each course, or every alternate course, may be halved together.

For rigidly securing together and shielding the corners of the walls, I employ angle facing-strips *a*, through which bolts *c c'* are passed horizontally, which bolts are also passed through grooves made in the planks *g*.

By means of strong nuts and washers, applied to the ends of said bolts *c c'*, the planks are drawn firmly together laterally, and the end and side walls of the body are rigidly held against lateral strain.

Holes are made vertically through the walls, at suitable distances apart, and through these holes, bolts *c''* are pivoted, which receive nuts upon their ends, by means of which the planks are all drawn together, and the walls firmly secured down to the bed or sill-beams.

Where door or window-openings are made, I use facing-plates *b* of angle-metal, and secure them by means of the longitudinal bolts *c'*, and transverse bolts *c*.

In the drawings, figs. 1 and 2, I have represented door-openings C C, provided with sliding doors D D, which are held in place and guided by the bars F F and sill-pieces E.

These doors may also be made of plank, laid flatwise, one upon the other, and secured together by bolts and end-strips.

I do not claim, broadly, the construction of walls of planks, laid down flatwise, as this is fully described in my Letters Patent of the United States, dated on the 19th day of November, 1867. Such walls were designed and adapted for permanent structures, and would not answer for railroad-cars.

I have now invented a wall which can be confined to a car-bed, in such manner as to make a very substantial car-body, which will withstand the shocks and concussions incident to travel upon a railway, and which will not be so liable to become crushed, in case of accident, as car-bodies hitherto constructed.

The joints between the planks may be hermetically sealed, by using white lead, or some other suitable cement, between the planks, and, if desirable, each successive layer of planks may be nailed upon the preceding layer.

Having described my invention,

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

A railroad-car body, having its walls composed of planks, laid flatwise, one upon another, and secured down to the sill-beams of the bed by means of bolts, in combination with the vertical corner-facings *a* and tie-bolts, which are enclosed within the plank walls, substantially as described.

JOSEPH BUSSEER.

Witnesses:

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