

Car-Roofs.

No. 156,896.

Patented Nov. 17, 1874.

Fig. 1.

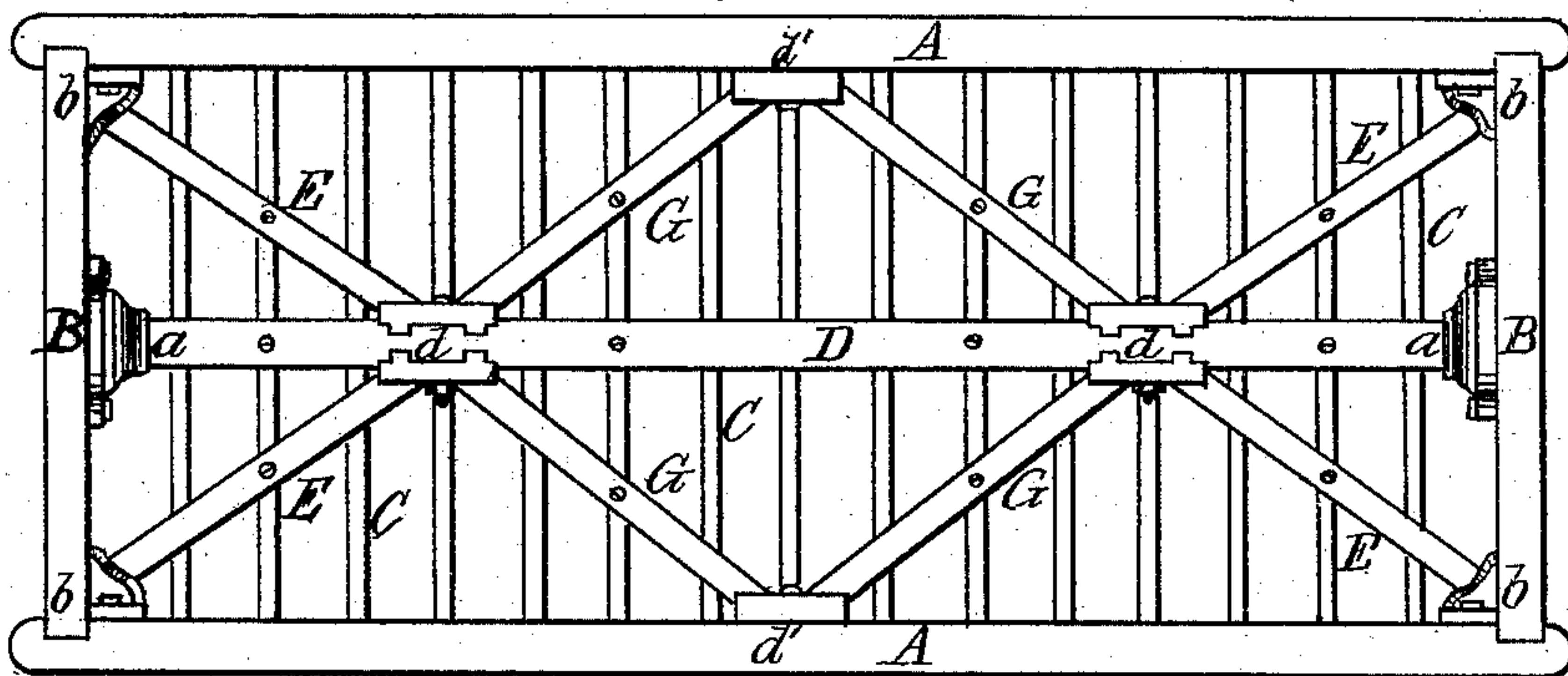


Fig. 2.

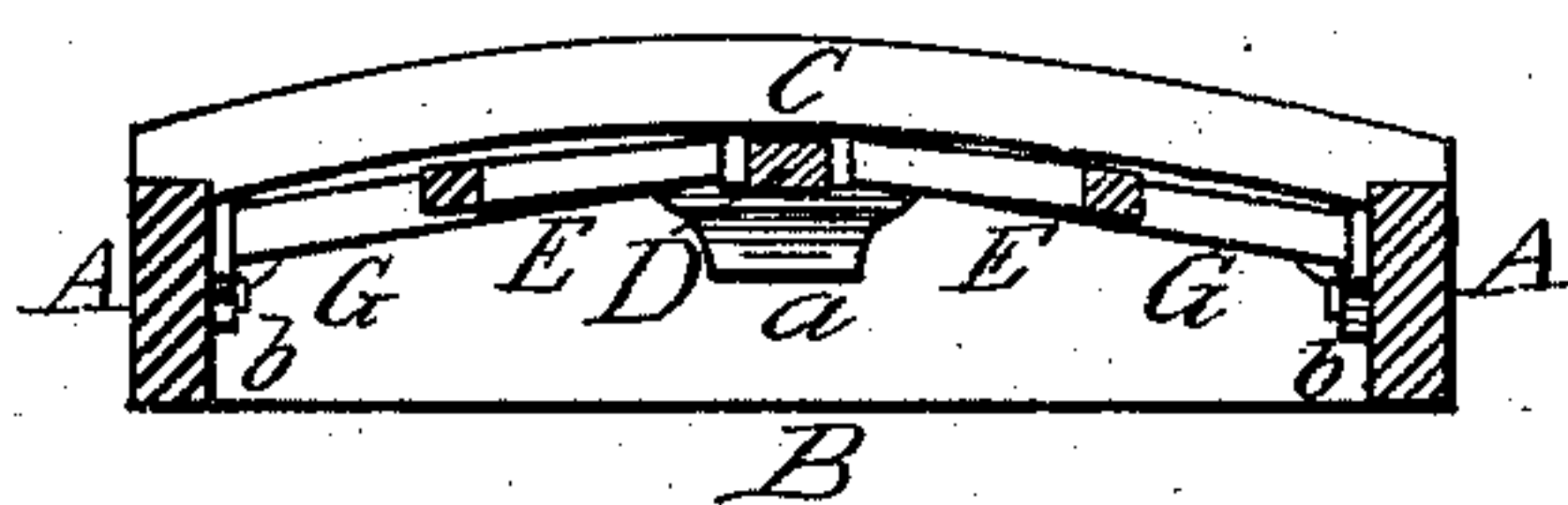
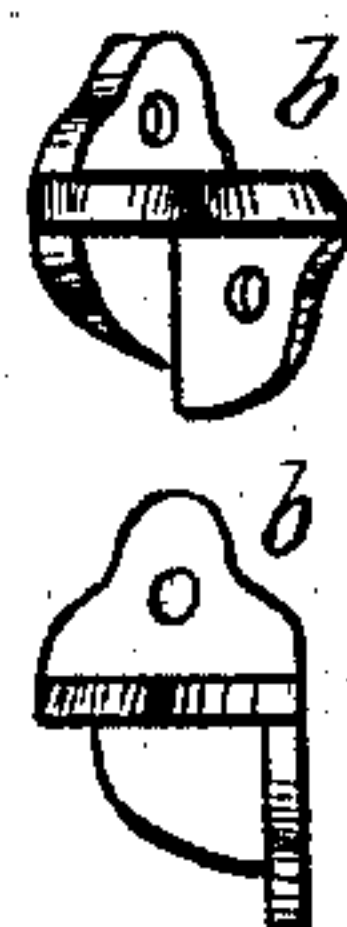
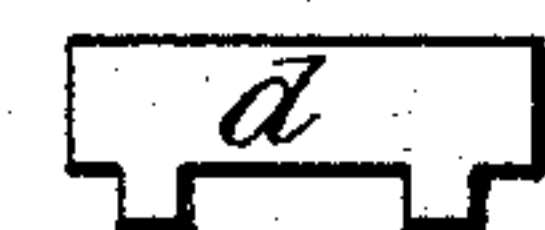
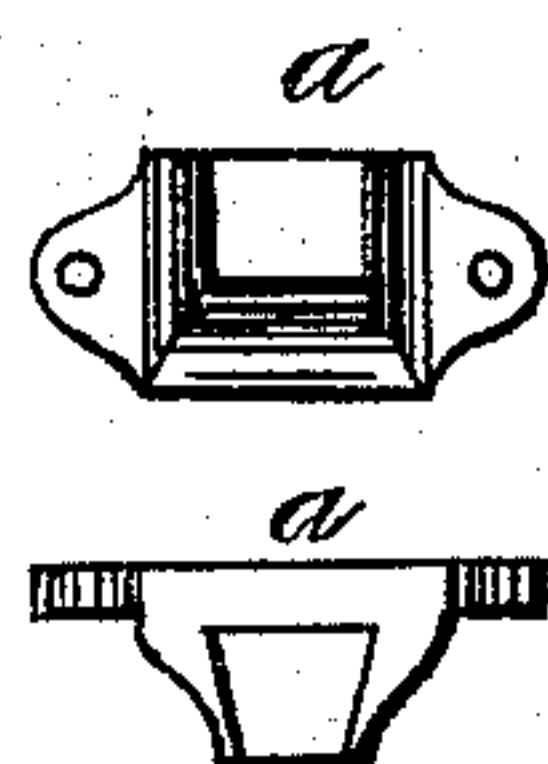


Fig. 3.



Witnesses;

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Inventory;

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UNITED STATES PATENT OFFICE.

JAMES G. THAYER, OF ATCHISON, KANSAS.

IMPROVEMENT IN CAR-ROOFS.

Specification forming part of Letters Patent No. **156,896**, dated November 17, 1874; application filed October 16, 1874.

To all whom it may concern:

Be it known that I, JAMES G. THAYER, of Atchison, county of Atchison and State of Kansas, have invented certain new and useful Improvements in Roof for Railway-Car, of which the following is a specification:

The nature of my invention consists in the construction of a car-roof, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which forms a part of this specification, and in which—

Figure 1 is a view of the under side of my improved car-roof. Fig. 2 is a plan view of one end thereof. Fig. 3 shows the various castings used in the construction of my car-roof.

A A represent the side plates, and B B the end plates, of the roof-frame. C C represent the arched cross-beams secured on the side plates A A. D represents a beam running longitudinally through the center against the under sides of the arches C C. The ends of the beam D are dovetailed into cast-iron blocks *a a*, fastened to the inner sides of the end plates B B by bolts or screws, by which means the ends of the car are kept from being forced out. In each corner of the roof-frame A B is a casting, *b*, fastened by one bolt into the side plate A, and one bolt into the end plate B, which castings add considerable strength to the corners. A brace, E, runs from each corner cast-

ing *b* to a casting, *d*, on the center beam D, one-fourth the length of the car. From a similar casting on the other side of the center beam a brace, G, runs to the center of the side plate A, these braces thus forming a direct brace from each corner to the center on the opposite side. Another casting, *d'*, is fastened in the center, on the inner side of each side plate A, in which casting the ends of the braces G G are placed. This form of bracing is adapted to any style of car-roof, though especially designed for the roof known as the Winslow roof.

In place of having separate braces E and G, rods may be used running one from each corner casting *b* to the casting on the center beam D, and to the casting on the side plate of the same side, by constructing the castings on the center beam in such a manner that the rods can pass through them.

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

In combination with a car-roof frame, A B, the longitudinal center beam D, diagonal braces E E and G G, and the castings *a b d*, all substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my invention I hereunto affix my signature this 10th day of October, 1874.

JAMES G. THAYER.

Witnesses:

HENRY R. BOSTWICK,
CHARLES N. SEIP.