

(No Model.)

A. N. MONTEER.

FREIGHT CAR.

No. 347,885.

Patented Aug. 24, 1886.

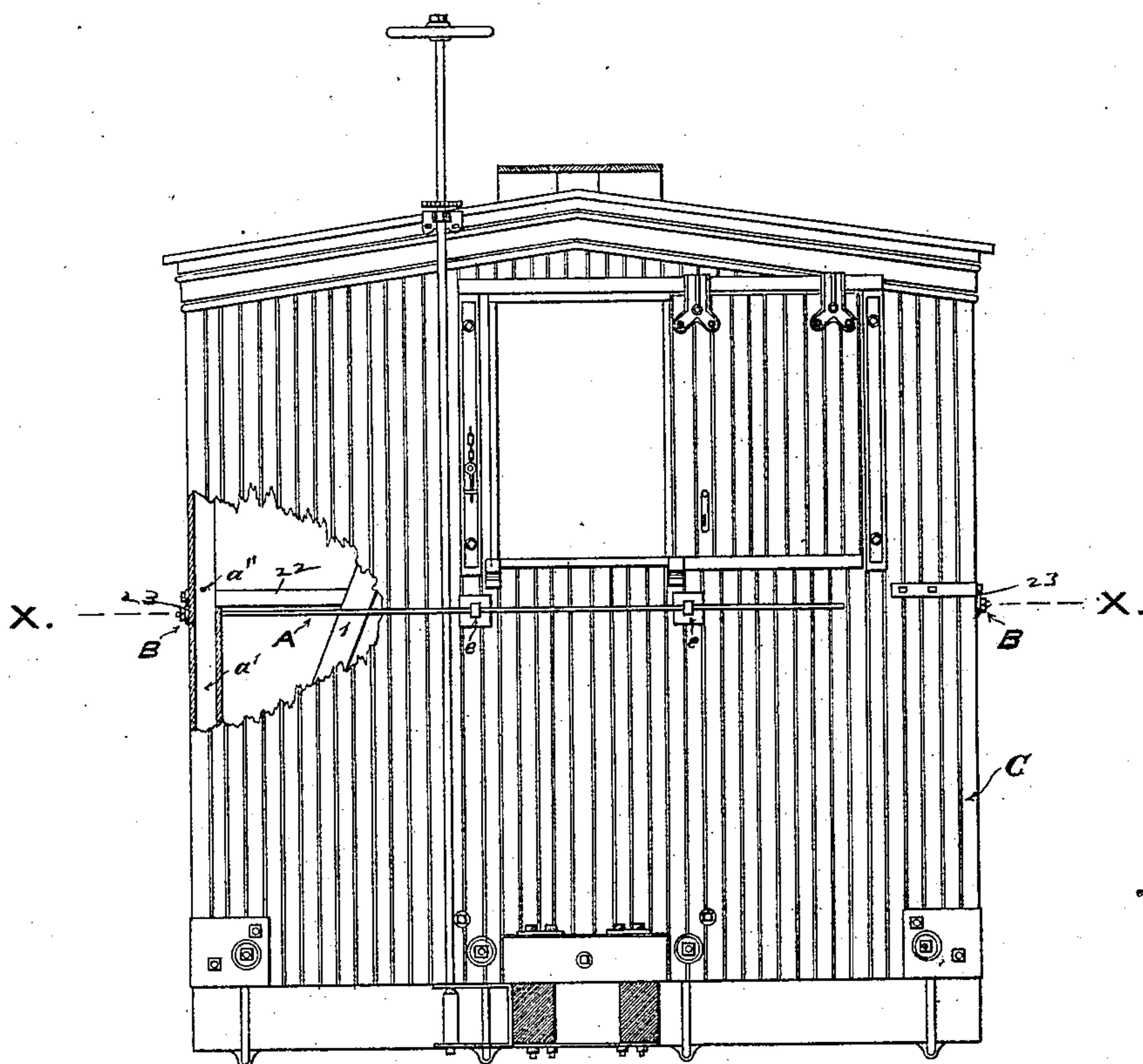


FIG. I

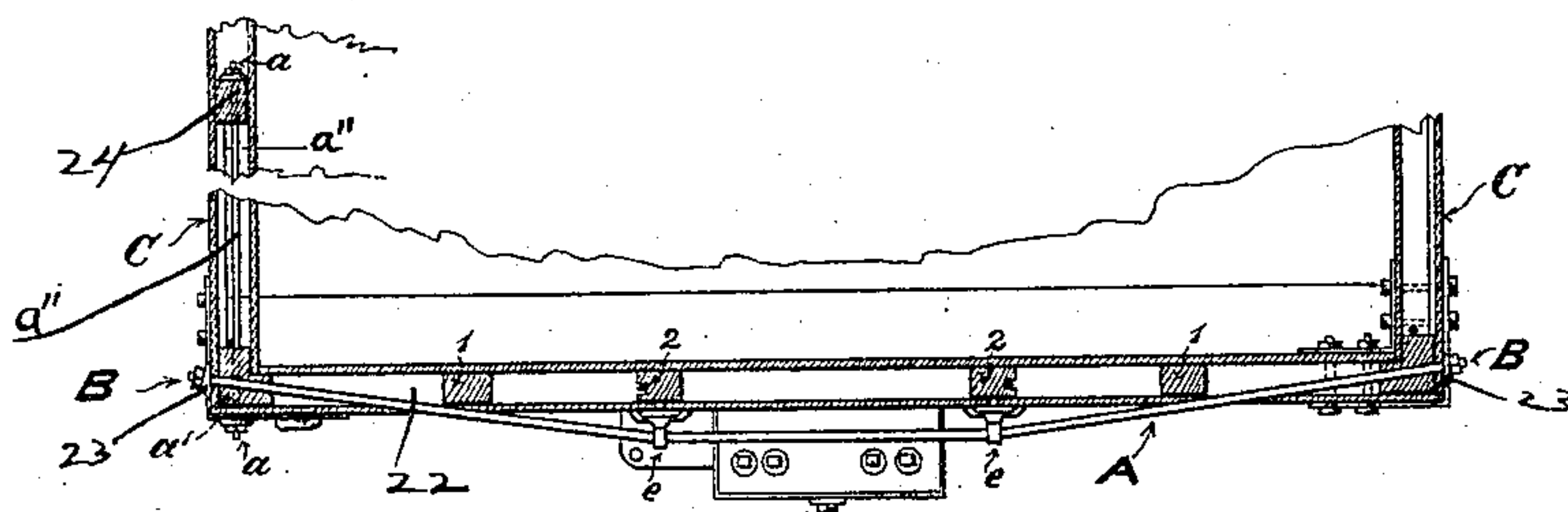


FIG. II

WITNESSES:  
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# UNITED STATES PATENT OFFICE.

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## FREIGHT-CAR.

SPECIFICATION forming part of Letters Patent No. 347,885, dated August 24, 1886.

Application filed May 13, 1886. Serial No. 202,033. (No model.)

*To all whom it may concern:*

Be it known that I, ALEXANDER N. MONTEER, of Kansas City, Jackson county, Missouri, have invented certain new and useful  
5 Improvements in the Construction of Freight-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

10 This invention relates more particularly to the construction of the ends of freight-cars; and it consists, substantially, in the combination, with the end of a freight-car and the corner-posts and other parts thereof, of a  
15 strengthening-truss extending across the end, as hereinafter set forth, and pointed out in the claims.

The objects which I seek to accomplish by my invention may be briefly recited as follows:

20 To strengthen the end of the car, so as to resist the pressure of loads of various material, particularly all kinds of lumber; to obviate the present liability of the end of the car to be broken out by the concussion caused by switch-  
25 ing the cars in the yards and along the line of the road, and to afford the train-men a convenient hand-hold while performing their duties between the ends of the cars, such as coupling and uncoupling.

30 In the accompanying drawings, which illustrate the manner of carrying out my invention, Figure I is an elevation of the end of a freight-car having my invention applied thereto, and having a portion broken away on one  
35 side to exhibit the fastening of the truss-rod; and Fig. II is a sectional plan view of the same, the section being taken on line *x x*, Fig. I.

Referring to the drawings, A represents a truss-rod of any approved form, which extends  
40 across the end of the car C, upon the outside, for the most part, and which has its respective ends secured to the corner-posts *a'*.

Although the ends of the truss-rod A are secured to the corner-posts by passing through  
45 a suitably-sized hole in their body, as shown, yet I may say that the rod can be secured to said corner-posts in other ways, if found preferable. The ends of said rod are provided with a screw-thread, which is engaged by a nut,  
50 B, and which in turn engages the beveled washer 23, all as shown, and whereby the tension of said rod can be adjusted when required.

A pair of metal supports or bearing-blocks, *e*, are placed along the length of the rod A, directly opposite the two main end posts 2, so  
55 that when any extraordinary strain comes upon the end of the car it will be transferred through them to the truss-rod, and through it to the sides of the car. In this connection I may say that supports such as *e* may be located  
60 on the rod A so as to bear against the end of the car opposite the end posts 1, as the number of supports above two is immaterial, in my estimation.

For the purpose of further strengthening the  
65 corner-posts *a'*, an iron rod, *a''*, is extended from the corner-posts to the first post, 24, on the side of the car, and is secured in place by means of the nut *a*, which is the same on each  
70 of its ends, and a common washer. With this construction it should be obvious that before the end of the car can be broken out—as by the concussion of a heavy load of lumber—the truss-rod A must be ruptured or the short rods *a''*  
75 broken; or else the posts 24 must be pulled out with the end of the car, which latter occurrence would be a practical impossibility.

The truss-rod A is so located upon the end of the car C that its direct “pull” or tension will be met by the girt-timbers 22, and said  
80 timbers should be located in a plane that is very nearly the same as that in which said rod is located. This construction is clearly shown in the drawings, however, and I do not consider it necessary to dilate upon its workings.  
85 If it should be desired, the short rods *a''* can be dispensed with, and the corner-posts *a'* can be secured by means of ordinary angle-irons—one angle-iron on the outside of the car and one directly opposite the other upon the inside  
90 of the car—a suitable number of bolts being passed through both angle-irons, corner-posts, end girts, and side girts, as shown upon the right-hand side of Fig. II. It should be noticed that the end girts extend across the end  
95 of the car and are firmly secured between each post and brace of the framing, and that they form a rigid resistance to the tightening up of the truss-rod.

In concluding this description of my inven-  
100 tion, I would say that I do not wish to be restricted to the use of the exact construction of truss that I have here shown, nor to the exact manner of constructing the different parts of.



the car with which the truss-rod co-operates for useful effect.

Having thus described my invention, what I claim is—

- 5 1. An end truss for freight-cars, consisting of a bar or rod extending across the end of the car and connecting with the corner-posts thereof, substantially as and for the purposes set forth.
- 10 2. In combination with the end of a freight-car, the strengthening truss-rod A, extending from one corner-post to the other and having its ends secured thereto, end girts, 22, and supports e, located intermediately of the corner-posts, substantially as and for the purpose set forth.
- 15 3. As an improvement in the construction of freight-cars, the combination of the truss-rod A, the corner-posts a', girts 22, or equiv-

alent means for opposing the strain of said 20 truss-rod, end posts, 1 and 2, and supports e, located upon the outside of the car and between the end posts and the truss-rod, substantially as and for the purpose set forth.

4. As an improvement in the construction 25 of freight-cars, the combination of the truss-rod A, corner-posts a', short rods for connecting the corner-posts to the side posts, girts 22, end posts, 1 and 2, and supports e, located intermediately of the corner-posts, substantially as and for the purpose set forth. 30

In testimony whereof I affix my signature in presence of two witnesses.

ALEXANDER N. MONTEER.

Witnesses:

J. W. NORTON,  
JAMES F. MISTER.