No. 626,443. Patented June 6, 1899.

M. B. SCHAFFER.

CAR TRANSOM.

(Application filed Mar. 27, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

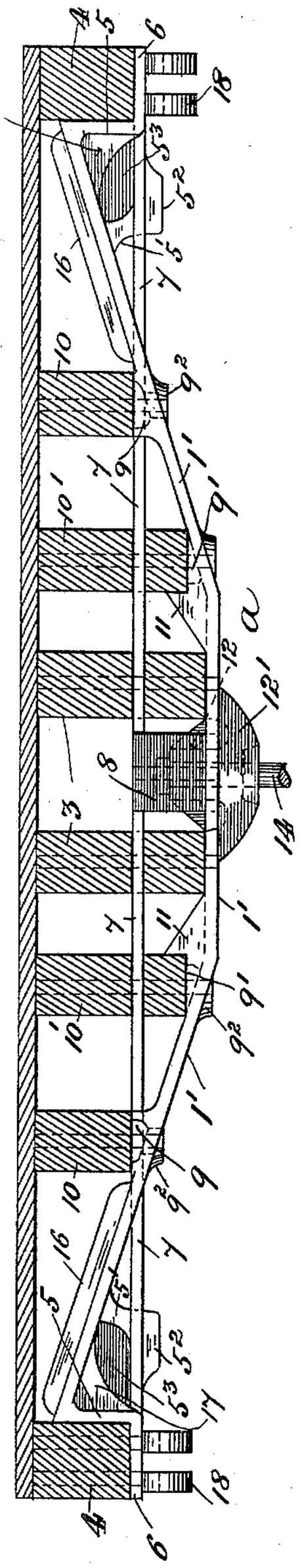


Fig. 3.

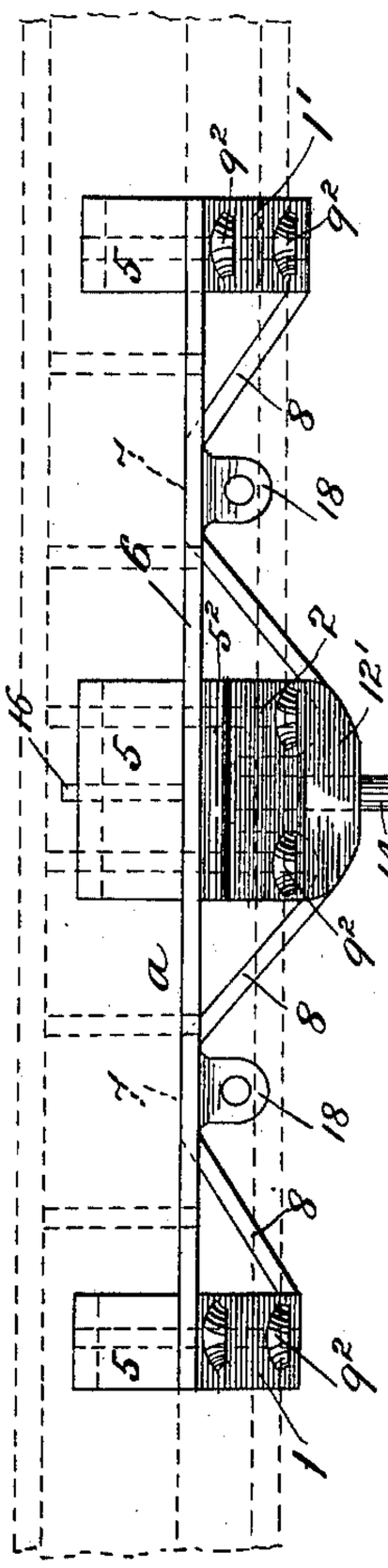
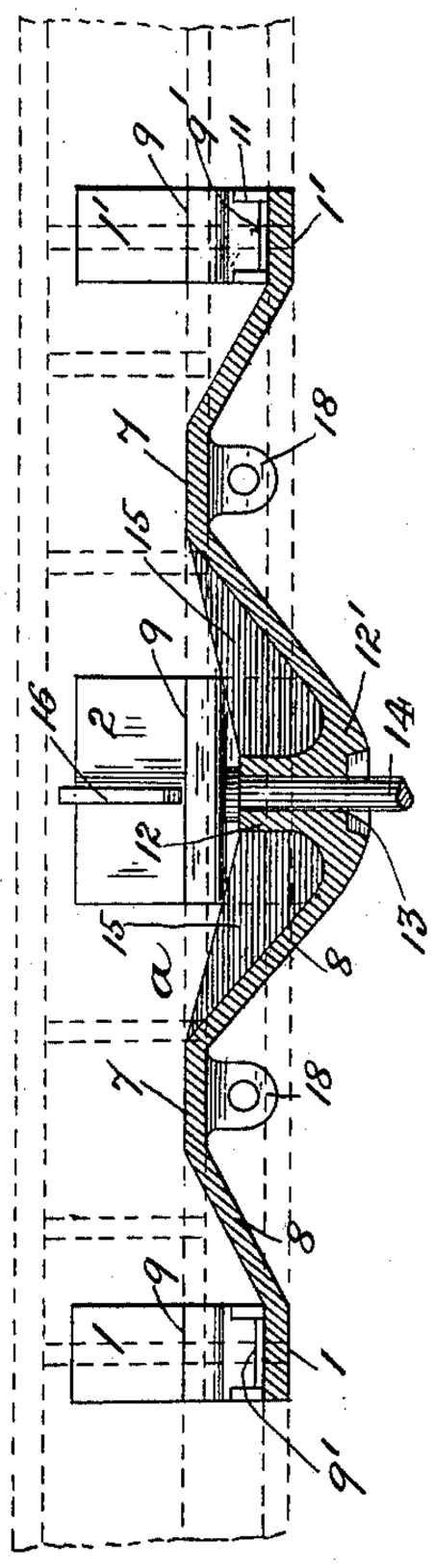


Fig. 4.



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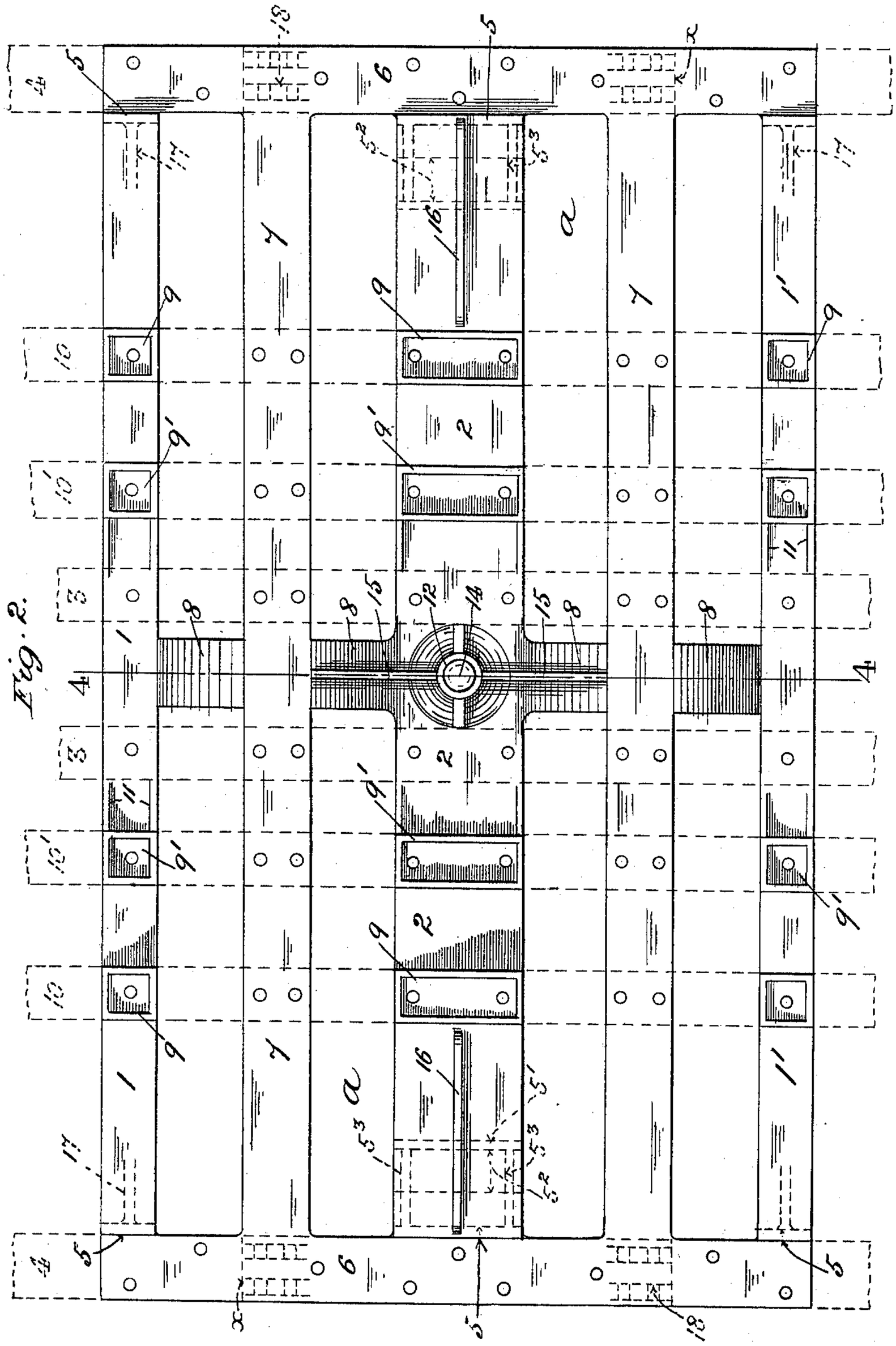

Fig. 2.

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UNITED STATES PATENT OFFICE.

MORSE B. SCHAFFER, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO CLARENCE H. HOWARD, OF SAME PLACE.

CAR-TRANSOM.

SPECIFICATION forming part of Letters Patent No. 626,443, dated June 6, 1899.

Original application filed February 25, 1899, Serial No. 706,893. Divided and this application filed March 27, 1899. Serial No. 710,661. (No model.)

To all whom it may concern:

Be it known that I, MORSE B. SCHAFFER, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented a new and useful Improvement in Car-Transoms, of which the following is a specification.

The present application is a division of my pending application filed February 25, 1899, Serial No. 706,893, for an improvement in car-transoms.

The invention relates to a double transom or body-bolster for railroad-cars, and has for its object to provide a double transom or body-bolster which will combine simplicity of construction with rigidity and durability.

The invention consists in features of novelty, as hereinafter described and claimed, reference being had to the accompanying drawings, forming part of this specification, whereon—

Figure 1 is a transverse section through the sills of a railroad-car, showing in corresponding elevation or end view a desirable form of my improved double transom or body-bolster; Fig. 2, a top plan of the transom; Fig. 3, a side elevation of the transom as seen from the side of the car, and Fig. 4 a longitudinal vertical section through the transom on line 4 4 in Fig. 2.

Like letters and numerals of reference denote like parts in all the figures.

An ordinary double transom or body-bolster usually comprises two single transoms having top and bottom plates or arch-bars, respectively, with their thimbles and connecting-bolts, a longitudinal truss connecting the two transoms together and having the body center-bearing and center-plate castings secured thereto, the side bearing arch-bars, and the truss-rod irons, all of said parts being separate pieces and built up or connected together by bolts or other fastenings, thereby rendering the structure as a whole complicated, cumbersome, and costly. Moreover, by the continual jar to which the parts are subjected the fastenings are liable to work loose, which impairs the rigidity of the transom and necessitates frequent repairs and constant watchfulness. By my invention I combine these separate parts in a single piece and thereby dispense with all fastenings, except the bolts for securing the transom to the car, and by this means I produce a transom which is simple in construction, non-composite, rigid, compact, and durable and adds to the strength of the car.

a represents a desirable form of my improved double transom, which is made in one piece throughout, preferably of cast-steel. The piece *a* is composed, preferably, of three bottom plates 1 1′ 2, which are arranged transversely to the car in different vertical planes and correspond to the bottom plate or arch-bar of an ordinary transom. The plates 1 1′ 2 bear at their lower central level portions against the under sides of the middle sills 3 of the car, and from the ends of these level portions the plates 1 1′ 2 incline upward to near the top of each side sill 4, where they are preferably formed, respectively, with a vertically-depending flange 5, which bears against the inner face of the side sill 4 and unites at the bottom with the horizontal side plate 6, which extends along and bears against the under side of the car-sill 4 for the entire length of the transom or piece *a*.

Between the bottom plates 1 1′ and intermediate bottom plate 2, respectively, is a horizontal top plate 7, arranged transversely to the car, which corresponds to the top plate or arch-bar of the ordinary transom and unites at its ends with the horizontal side plates 6 and is united, preferably in the middle, to the bottom plates 1 1′ 2 by the inclined plates 8.

On the inclined portions of the bottom plates 1 1′ 2 are formed brackets or bosses 9 9′, which bear against the under sides of the intermediate sills 10 10′ of the car, the brackets 9′ having strengthening-ribs 11, which butt against the inner faces of the sills 10′ and unite at their base with the lower level portions of the bottom plates 1 1′ 2. On the under side of the inclined portions of the plates 1 1′ 2 are bosses 9^2, which correspond to the upper bosses 9 9′, and through the bosses 9, 9′, and 9^2 are holes for receiving the bolts (not shown) by which the transom or piece *a* is secured to the sills 4 10 10′ 3 of the

car, the holes through the said sills for this purpose being indicated by broken lines in the various figures.

Formed integrally with the bottom plate 2 in the middle of its central level portion are the upwardly-projecting body center bearing 12 and the downwardly-projecting center plate 12′, having the hole 13 for receiving the king-bolt 14 and having preferably strengthening-ribs 15, which extend from the center bearing 12 to the adjacent edges of the horizontal top plates 7, respectively.

Strengthening-ribs 16 are preferably formed on the inclined portions of the bottom plate 2 and extend from or adjacent to the side sills 4 for a suitable distance toward the sills 10.

Between the inclined portions and depending flanges 5 of the bottom plates 1 1′ are strengthening-ribs 17. Other strengthening-ribs may be disposed about the piece *a*, as found desirable.

On the under side of each horizontal side plate 6 are formed lugs 18, to which the ends of the truss-rods (not shown) are coupled.

On the under side of each inclined portion of the bottom plate 2 at a suitable distance from the depending flange 5 is a second dedending flange 5′, which is united at the bottom horizontally with the horizontal side plate 6 and formed thereat with a projecting portion 5^2, which constitutes the side bearing of the transom *a*, the flanges 5 5′ and bearing 5^2 being strengthened intermediately by a rib 5^3.

The entire piece *a*, comprising the body center bearing 12, the center plate 12′, the side bearings 5^2, and the lugs 18 for the truss-rods, is integral throughout.

If desired, the bottom plates 1 1′ may be dispensed with, in which case the horizontal side plates 6 may either be made their full length, as shown, or shortened to the distance between the outer edges of the top plates 7, as indicated by the broken lines *x* in Fig. 2.

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

1. A car-transom composed of one piece having top and bottom plates, arranged transversely to the car in different vertical planes, and united to each other by inclined connecting-plates, each end of the bottom plates respectively having a depending flange, one of the bottom plates having the body center bearing, the center plate and the side bearings, and the said piece having a horizontal plate arranged longitudinally to the car at each side thereof and united to the corresponding ends of the top plates and to the corresponding flanges of the bottom plates, the said horizontal side plates having lugs for the truss-rods, all the said parts being integral with the said piece, substantially as described.

2. A car-transom composed of one piece having top plates, and a bottom plate, arranged transversely to the car in different vertical planes, the bottom plate having the body center bearing, the center plate and the side bearings, and each end of the bottom plate having a depending flange, and the said piece having a horizontal plate arranged longitudinally to the car at each side thereof, and united to the corresponding ends of the top plates and to the corresponding flange of the bottom plate, the said horizontal side plates having lugs for the truss-rods, all the said parts being integral with the said piece, substantially as described.

3. A car-transom composed of one piece having bottom plates arranged transversely to the car in different vertical planes, each end of the bottom plates respectively having a depending flange, one of the bottom plates having the body center bearing, the center plate, and the side bearings, and the said piece having a horizontal plate arranged longitudinally to the car at each side thereof and united to the corresponding flanges of the bottom plates, the said horizontal side plates having lugs for the truss-rods, all the said parts being integral with the said piece, substantially as described.

4. A car-transom composed of one piece having a plurality of surfaces arranged transversely to the car in different vertical planes, and having a horizontal surface arranged longitudinally to the car at each side thereof, and uniting with the said transverse surfaces, the said surfaces bearing upon the under sides of the car-sills, and the said piece having integral therewith the body center bearing, the center plate, the side bearings and the lugs for the truss-rods, substantially as described.

MORSE B. SCHAFFER.

Witnesses:
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