No. 611,069. Patented Sept. 20, 1898.

R. P. LAMONT.

CAR CONSTRUCTION.

(Application filed July 16, 1898.)

(No Model.)

Fig. 1.

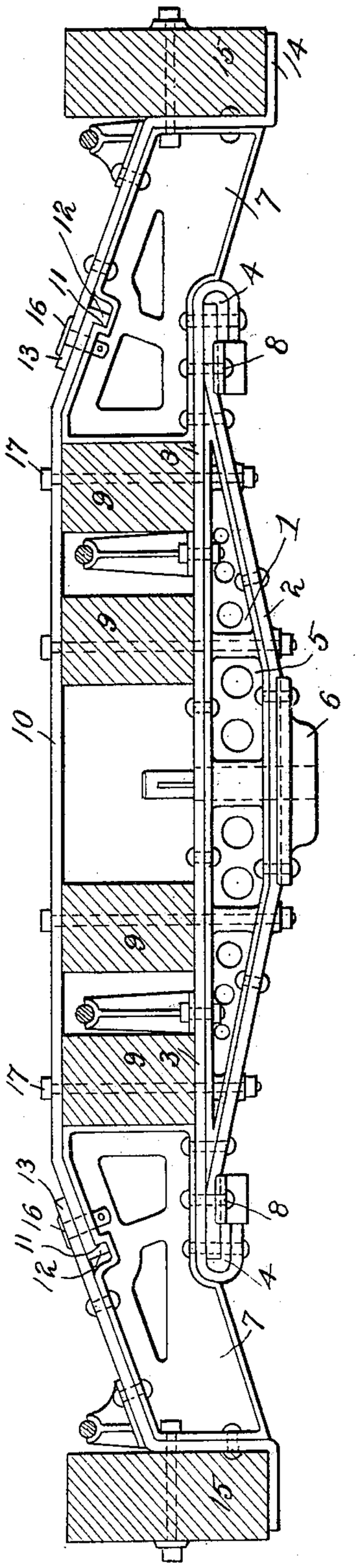
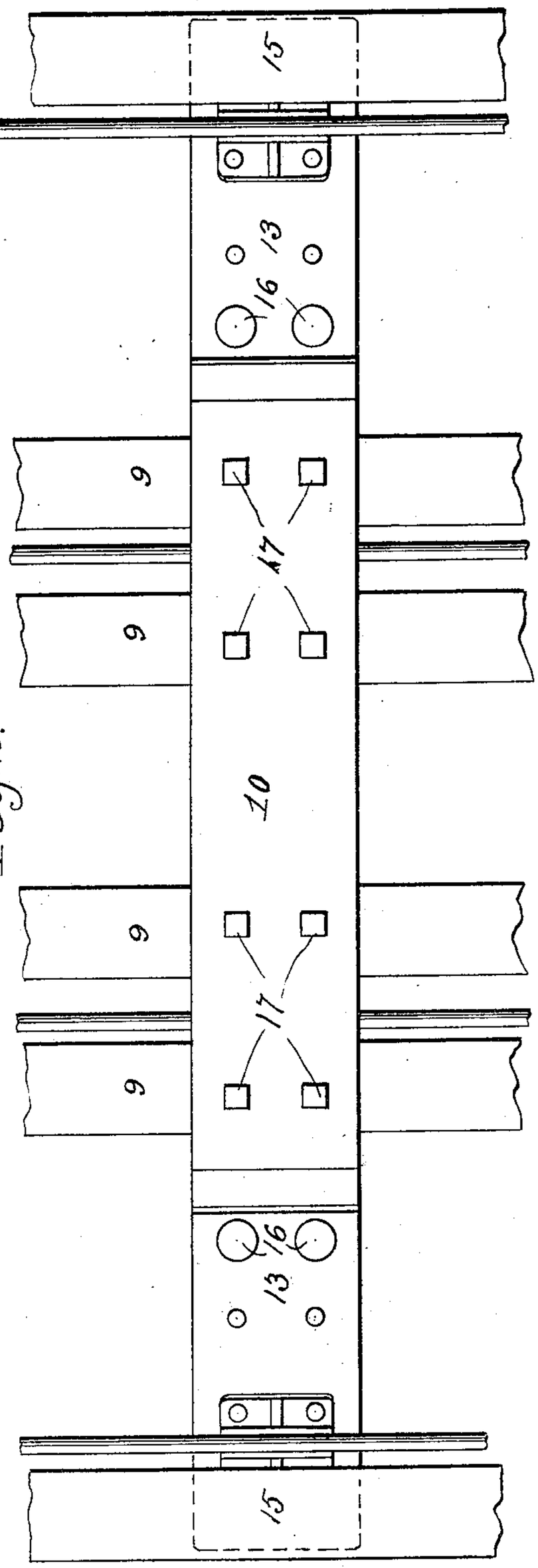


Fig. 2.



Witnesses.
Wm. M. Rheem
Harold G. Barnett

Inventor
Robert P. Lamont
by
Paul Synnestvedt atty.

UNITED STATES PATENT OFFICE.

ROBERT P. LAMONT, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE SIMPLEX RAILWAY APPLIANCE COMPANY, OF SAME PLACE.

CAR CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 611,069, dated September 20, 1898.

Application filed July 16, 1898. Serial No. 686,102. (No model.)

To all whom it may concern:

Be it known that I, ROBERT P. LAMONT, a citizen of the United States, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Car Construction, of which the following is a specification.

The invention relates particularly to that portion of the car construction which is arranged within and below the floor of the car, and has reference to the support of the side sills of the car and the transmission of the weight of the load which rests thereon to the ends of the bolster and thence to the center plate or point of support on the car-truck.

More specifically my invention has for its object the provision of an improvement in car construction comprising the combination, with the center, intermediate, and side sills of the car, of a bolster arranged below the center sills, end pieces forming supports for the side sills, and a tension member forming a connection between the end pieces and located above the center sills.

A further object of my invention is to arrange the parts of the car above referred to in such manner that the bolster can be made very short in proportion to its depth and the end pieces which support the side sills be carried upon the extremities of the bolster and secured in an effective and firm manner without any unnecessary weight or loss of available space.

A further object of my invention is the provision of a construction, such as has been referred to, in which, while the center and intermediate sills shall rest upon the upper side of the bolster and the end pieces which carry the side sills shall be connected by a tension member extending across and above the center and intermediate sills, thereby greatly economizing space, still there shall be no compression strain carried by the center and intermediate sills themselves.

Still another object of my invention is to provide such a tension-member connection between the end pieces as will be readily removable to enable the various parts to be assembled about the sills of the car with the minimum amount of inconvenience and loss of time.

Still another object of my invention is the provision of recesses in the end pieces and projecting lips upon the connecting tension member, the lips being adapted to engage the recesses and the tension member and the end pieces being secured together in a novel manner, all as will be hereinafter more particularly described in connection with the accompanying drawings, in which—

Figure 1 is a side elevation of my invention, showing the side, intermediate, and end sills of the car in section; and Fig. 2 is a partial plan view of the same.

As a basis for my construction I provide in the first place a bolster 1, composed, essentially, of a compression member 2 and a tension member 3, the end of the tension member being preferably bent around the end of the compression member in the manner shown at 4 and the whole united about a center casting or middle support 5 and carried upon a center plate 6, which may be of any preferred construction. Upon each end of the bolster I arrange a casting 7, which I shall hereinafter designate as an "end piece." This casting extends above both members of the bolster for some distance back from the end toward the center and is secured by means of a plurality of rivets or other preferred fastening devices 8, so as to be firmly supported in such position. Resting upon the upper side of the bolster are the center sills 9 of the car, and extending across and above them is a tension member 10, which locks into a recess 11 in the end pieces 7 by means of a downwardly-projecting lip 12, as clearly shown in Fig. 1. Above each end of the connecting-strip 10 I arrange another strip 13, which passes down above the end piece and at its outer extremity forms a seat 14, upon which rests the side sill 15, and in order to secure the strip 13 and the tension member 10 firmly to the end piece I insert a bolt or fastening device 16.

While my improved construction is de-

signed with the idea that the center and intermediate sills shall not carry any compression strain exerted from the tension member 10, still it is desirable that they be secured in place between such tension member and the bolster by means of the bolts 17 or other equivalent fastening devices.

From a careful examination of the construction just described it will be seen that I secure a strong, economically-constructed, and conveniently-applied arrangement of bolster and coacting parts which will transmit the weight of the side sills to the extremities of the bolster, and thence to the center plate, which will not permit depression such as would result in contact of the side bearings of the car, which will make it practicable to use a bolster much shorter in proportion to its depth than must necessarily be employed when the bolster has to be extended clear out to the side sills of the car, and, further, that I have secured these desirable ends without any excessive depth in the car-floor (by arranging the bolster below the center and intermediate sills and passing the tension member above them) and without in any way placing dependence upon the sills themselves as a part of the truss construction.

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

1. An improvement in car construction comprising the combination with the center and side sills, of a bolster arranged below the center sills, end pieces forming supports for the side sills, and a tension member forming a connection between said end pieces above said center sills.

2. An improvement in car construction comprising the combination with the center, intermediate and side sills, of a bolster arranged below the center and intermediate sills, end pieces forming supports for the side sills, and a tension member forming a connection between said end pieces above said center and intermediate sills.

3. An improvement in car construction comprising the combination with the center, intermediate and side sills, of a bolster arranged below the center and intermediate sills, end pieces carried upon the extremities of said bolster and forming supports for the side sills, and a tension member forming a connection between said end pieces above said center and intermediate sills.

4. An improvement in car construction comprising the combination with the center and side sills, of a bolster arranged below the center sills, end pieces forming supports for the side sills, and a tension member forming a removable connection between said end pieces above said center sills.

5. An improvement in car construction comprising the combination with the center and side sills, of a bolster arranged below the center sills, end pieces forming supports for the side sills, a tension member forming a removable connection between said end pieces above said center sills, such removable connection being formed by the provision of recesses in the end pieces, and suitable projections upon the ends of the tension member adapted to engage said recesses.

6. An improvement in car construction comprising the combination with the center and side sills, of a bolster arranged below the center sills, end pieces carried upon the extremities of said bolster, a tension member forming a removable connection between said end pieces above said center sills, and a projecting strip secured upon the upper side of each of said end pieces and arranged to form seats for the support of the side sills.

ROBERT P. LAMONT.

Witnesses:
PHILIP A. ANDERSON,
PAUL SYNNESTVEDT.