E. A. CURTIS.

CAR TRUCK.

APPLICATION FILED MAY 9, 1908.

940,133. Patented Nov. 16, 1909.

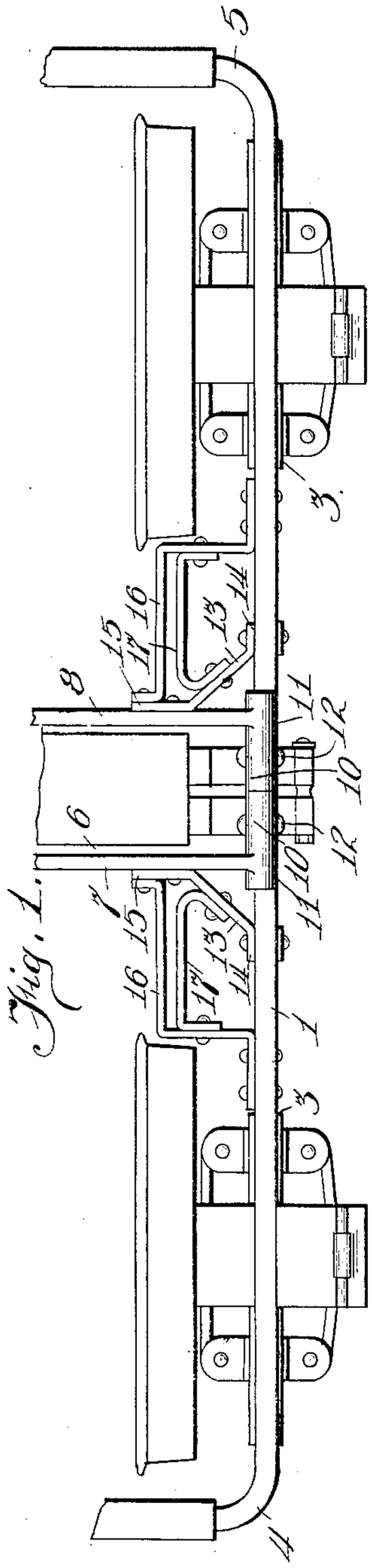

Fig. 1.

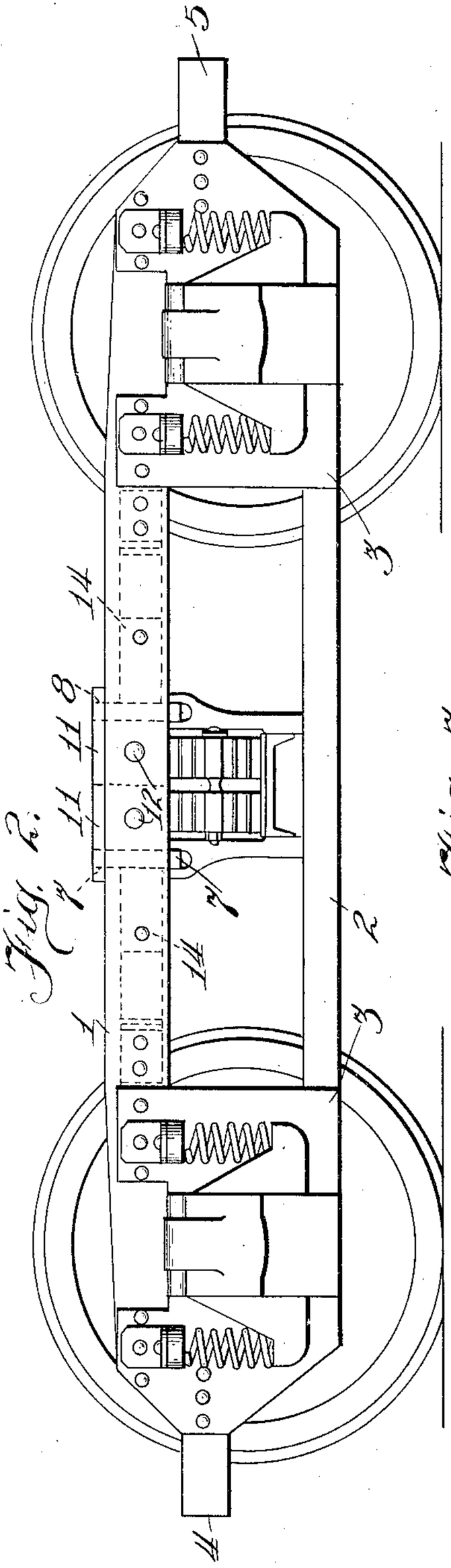

Fig. 2.

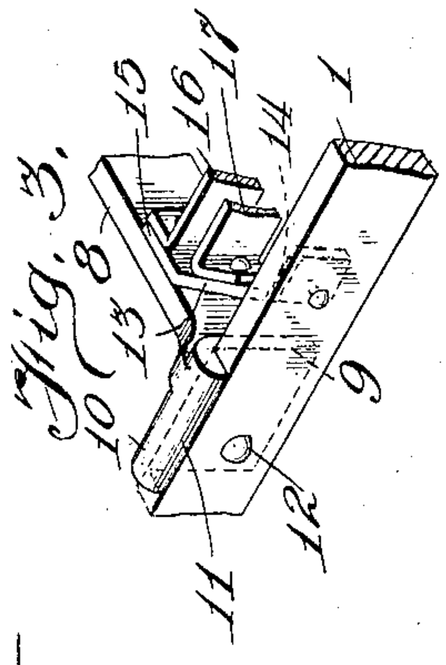

Fig. 3.

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UNITED STATES PATENT OFFICE.

EDMUND A. CURTIS, OF DECATUR, ILLINOIS.

CAR-TRUCK.

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Application filed May 9, 1908. Serial No. 431,738.

To all whom it may concern:

Be it known that I, EDMUND A. CURTIS, a citizen of the United States, residing in the city of Decatur, in the county of Macon and State of Illinois, have invented certain new and useful Improvements in Car-Trucks, of which the following is a specification.

This invention relates to improvements in car trucks of that class more commonly used in connection with street railways.

Among the salient objects of the invention are to provide an improved construction in the connections between the ends of the transom bars and the wheel pieces of the truck frame in which the transom bars directly engage and over-lie the wheel pieces thus securing increased strength and rigidity in the structure; to provide a construction in which the adjacent ends of the transom bars coöperate to act as braces for each other against side thrusts, thus obviating the necessity of separate angle braces between the ends of the respective transom bars, and in general to provide a construction which is extremely simple and economical to manufacture.

The invention consists in the matters hereinafter described and pointed out in the appended claims, and will be understood from the following description, reference being had to the accompanying drawings, in which—

Figure 1 is a fragmentary plan view of a car truck embodying my invention. Fig. 2 is a side elevation of the view shown in Fig. 1. Fig. 3 is a fragmentary detailed view showing the manner of connecting the transom bars to the wheel pieces.

Referring to the drawings 1 designates the wheel pieces, 2 the equalizer and 3 the pedestals, which members together constitute the side frame of the truck. The two side frames are connected as usual by the end frame bars 4 and 5 and a transom frame designated as a whole 6 comprising the usual pair of transom bars 7 and 8. These transom members 7 and 8 take the usual form of plate bars having their plates parallel and are constructed to fit between the wheel pieces 1. As an important feature of my invention each transom bar is so constructed as to directly engage and fit over the wheel pieces. Accordingly each end of the transom bars is provided with an abutting flange 9 arranged at right angles to the main body of the transom bar and formed integrally therewith. This abutting flange 9 comprises the vertically and transversely disposed main member 10 of substantially the same width as the transom bar proper, and an overhanging flange 11 arranged at right angles to the vertical flange 10. The arrangement is such that when the transom bars are in position the vertical extension 10 and overhanging flange 11 lie against the respective inner and upper faces of the side-frame and are suitably secured to the latter by through-bolts 12. It is to be noted that the transom bars are connected to the abutting members 9 off centers of the latter, and the longer ends thereof engage each other when the transom bars are in position, as shown in Fig. 1. These abutting plates not only more effectively connect the transom bars to the wheel pieces, but also serve to brace the former against side thrust and thus dispense with the usual inner angle braces.

In order to more securely hold the transom bars in proper relation to the wheel pieces they are likewise provided with three-sided strut like braces 13. Each of these braces is of substantially the same width as the wheel pieces and transom bars, and one end of the brace is connected at 14 to the adjoining wheel piece, and the opposite end to the outer face of the transom bar as shown at 15. It will be noted that each brace 13 is so shaped that it does not conform to the angle between the wheel piece and the transom bar, but engages these members at points remote from this angle, and thus more effectively serves as a strut brace. The guide bars 16 and 17 for the brake levers are secured to the exterior brace 13 and the wheel pieces in the usual manner.

By means of the construction described the transom bars are united with absolute rigidity to the wheel pieces and the weight upon the transom is transmitted to the side frames of the truck through the abutting members seated against and resting directly upon the wheel pieces instead of through the medium of bolts. Moreover the braces 13 and the marginal flanges 9 coöperate to relieve the securing bolts of any lateral sheathing stresses. The construction of the transom bars is such as to also obviate the necessity of notching or otherwise mutilating the wheel pieces and weakening the latter and for the purpose of securing the necessary rigidity of union between the parts.

While I have herein shown and described

a preferred embodiment of the invention, the details thereof may be somewhat modified without departing from the spirit of the invention.

I claim as my invention:

1. In a truck frame, the combination with upper side frame members or wheel pieces, of a pair of transom bars fitting between said wheel pieces and provided at their ends with integral abutting members extending at right angles to the ends of the transom bars and engaging the inner ends of adjacent flanges coöperating with each other to act as transverse braces for the transom bars.

2. In a truck frame, the combination with upper side frame members or wheel pieces, of a pair of transom bars fitting between said wheel pieces and each provided at each end with a right angled extension over-lying and resting directly upon the upper edge of the corresponding wheel piece, the adjacent extensions being arranged to engage each other at their inner ends, and an angle brace connected to the outer face of each end of each transom bar and to the inner face of the adjacent wheel piece.

3. In a truck frame, the combination with upper frame members or wheel pieces, of transverse bars spaced apart and fitting between said wheel pieces and each provided at each end with an extension over-lying and resting directly upon the upper edge of the corresponding wheel piece, and independently formed three-sided strut braces secured to and engaging the outer faces of the transom bars and the corresponding wheel pieces at points remote from the exterior angle formed between the wheel pieces and transom bars.

4. In a truck frame, the combination with upper side frame members or wheel pieces, of spaced apart transom bars fitting between said wheel pieces and each provided with a right angled extension over-lying and resting directly upon the upper edge of the corresponding wheel piece, adjacent ones of said extensions coöperating with each other to form brace members, and independently formed three-sided angle braces secured to and engaging the outer faces of the transom bars and the corresponding wheel pieces at points remote from the exterior angles formed by said transom bars and wheel pieces.

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Witnesses:
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