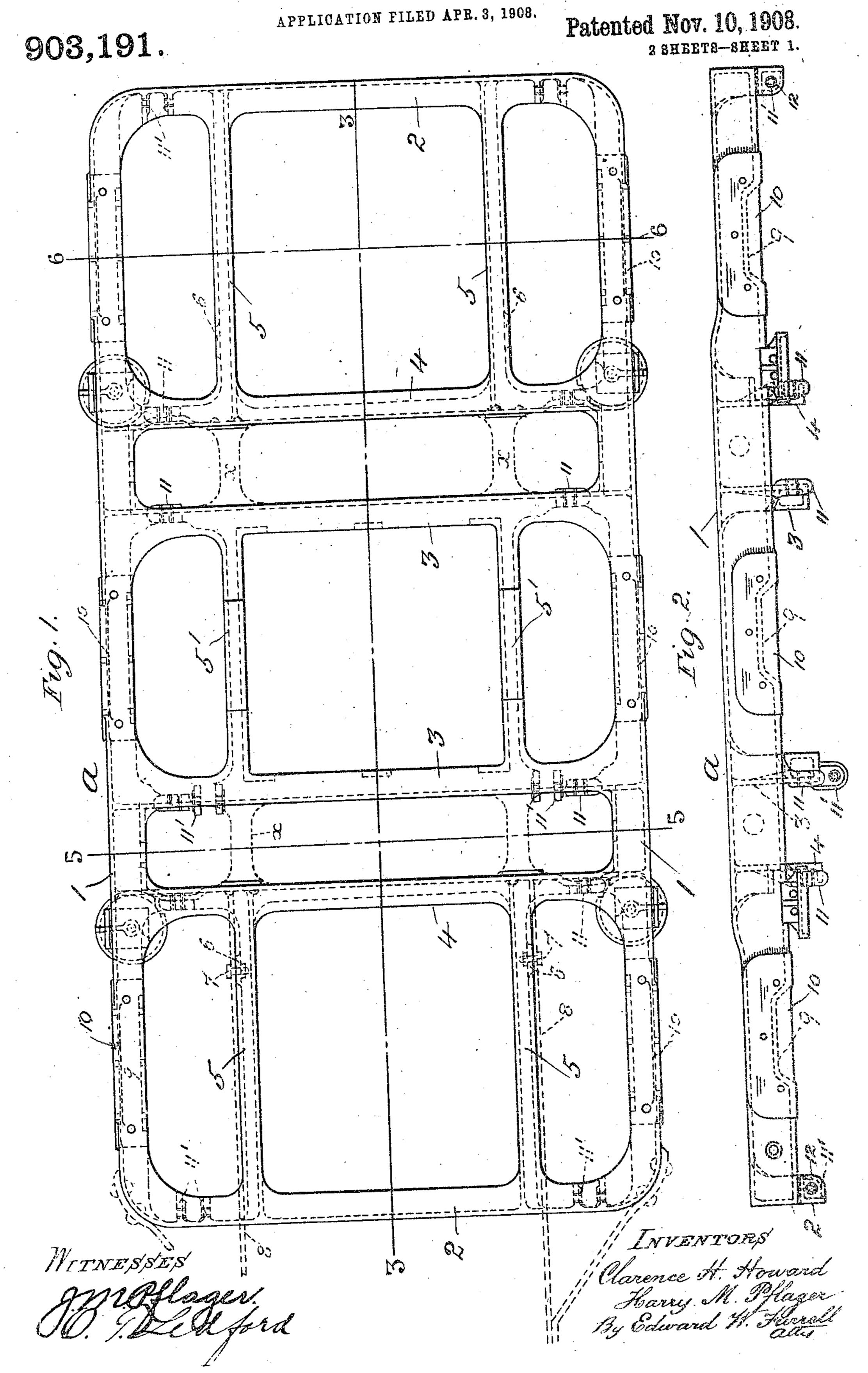
C. H. HOWARD & H. M. PFLAGER.

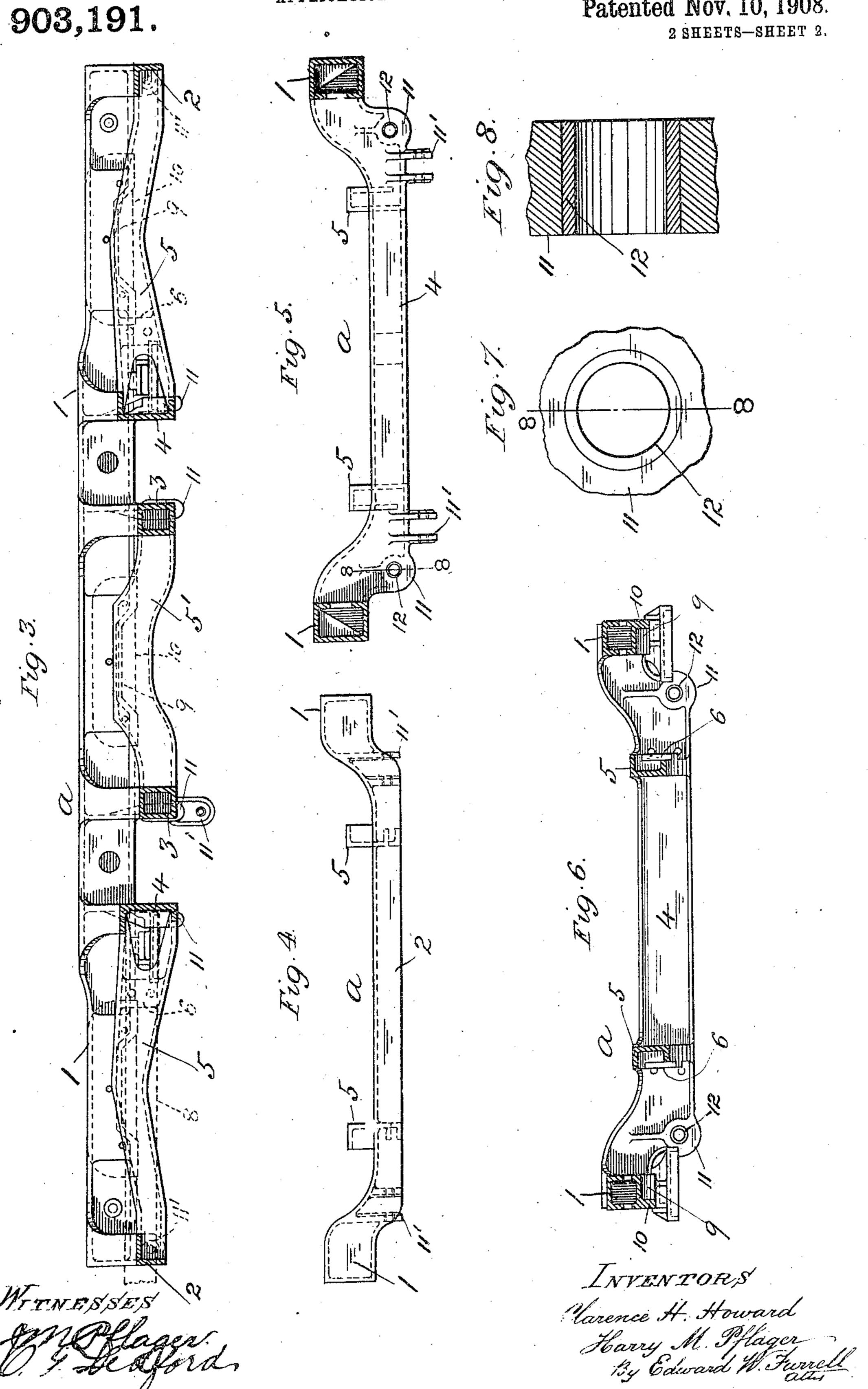
CAR TRUCK.



## C. H. HOWARD & H. M. PFLAGER. CAR TRUCK.

APPLICATION FILED APR. 3, 1908.

Patented Nov. 10, 1908. 2 SHEETS—SHEET 2.



## UNITED STATES PATENT OFFICE.

CLARENCE H. HOWARD AND HARRY M. PFLAGER, OF ST. LOUIS, MISSOURI, ASSIGNORS TO DOUBLE BODY BOLSTER COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF NEW JERSEY..

CAR-TRUCK.

No. 903,191.

Specification of Letters Patent.

Patented Nov. 10, 1908.

Application filed April 3, 1908. Serial No. 425,019.

To all whom it may concern:

Be it known that we, CLARENCE H. Howard and Harry M. Pflager, citizens of the United States, residing at St. Louis, in the 5 State of Missouri, have invented a new and useful Improvement in Car-Trucks, of which

the following is a specification.

Our invention relates particularly to a sixwheeled passenger railroad car truck and is 10 in the nature of an improvement on the Letters Patent of the United States granted to us November 8, 1904, Number 774,492, for an improvement in car trucks, in which the wheel-pieces, the end-pieces, and the 15 cross-pieces or "transoms" (respectively I-shaped in cross section) of the truckframe are combined, with or without gussets at their junction to each other, in a single piece of cast metal, preferably cast steel; 20 and our invention has for its object to increase the strength and rigidity of the truck-frame and amplify its adaptability to the exigency of service.

The invention consists in features of nov-25 elty as hereinafter described and claimed, reference being had to the accompanying drawing forming part of this specification,

whereon,

Figure 1, is a top plan view of our improved six-wheeled car truck frame; Fig. 2, a side elevation thereof; Fig. 3, a vertical longitudinal section through the frame on line 3, 3, in Fig. 1; Fig. 4, an end elevation thereof; Figs. 5 and 6, vertical transverse sections through the frame on lines 5, 5, and 6, 6, respectively in Fig. 1; Fig. 7 a side view to enlarged scale of one of the swing hanger brackets (broken away) forming an integral part of the frame, showing the bear-tog therein for the hanger-pin, and Fig. 8 a vertical transverse section through the same on line 8, 8, in Figs. 5 and 7.

Like letters and numerals of reference

denote like parts in all the figures.

truck-frame, composed preferably of cast steel integral throughout, and having the wheel-pieces 1, end-pieces 2, middle cross-pieces or "transoms" 3, and outside cross-pieces or "transoms" 4, of the same general configuration, and arranged in a similar manner to the corresponding parts of the truck-frame described and shown in the said

patent, except that they are different therefrom in cross section, to wit, respectively, 55 box, L, and channel-shaped, in lieu of I-shaped, as contemplated and specified on page 2, lines 1 to 4 in the specification of the said patent; and that the horns of the pedestals for the journal boxes are preferably omitted as an integral feature of the

wheel-pieces...

Each end-piece 1 is united to the corresponding cross-piece or outside "transom". 4, at each side of the longitudinal center of 65 the truck-frame a, by a longitudinal member 5 which is parallel to the wheel-piece 1 at a suitable distance therefrom, while the middle cross-pieces or "transoms" 3 are similarly united to each other by longitudi- 70 nal members 5' which are preferably alined to the members 5 and adapted at the top for the attachment thereto of a brake-hanger bracket, the members 5 and 5' being in the present case channel-shaped in cross section 75 and suitably shaped on their underside to form the axle-guards of the truck. By uniting the longitudinal members or axle-guards 5 and 5' in this manner integrally at their ends to the cross members 2, 3, and 4, inter-80 mediately to the wheel-pieces 1, the truckframe a is reinforced and its rigidity increased.

On the outer side of each longitudinal member or axle-guard 5, preferably between 85 and uniting its top and bottom flanges, is formed an upright bracket or web 6 for the attachment thereto by bolts (or screws) 7 of a horizontal bar 8 (indicated by dotted lines in Figs. 1 and 3) which is adapted to 90 carry the axle lighting device (not shown).

Each wheel-piece 1 is formed on its underside with recesses 9 for the clearance of the equalizer-bar (not shown), each recess 9 being spanned or completely closed at preferably, its outer side, by an upright web 10 which is integral at its junction with and strengthens the wheel-piece 1 thereat.

For obviating the wear and increasing the durability of the spring-beam and brake- 100 hanger brackets 11, 11', which are integral with the body of the frame a, each bracket 11, 11', is formed with a preferably circular opening transversely therethrough, and in this opening is cast a metallic bushing 12 105 which is adapted internally to form a bear-

ing for the corresponding hanger-pin, whereby when the bearings 12 become worn they can be removed and replaced without injury to the brackets 11, 11', and body of the 5 frame a.

It is here noted that if desired each outer cross-piece or "transom" 4 may be united to the adjacent inner cross-piece or "transom" 3 by a member x, preferably alined to and forming practically a continuation of the members or axle-guards 5 and 5' as indicated by dotted lines in Fig. 1.

What we claim as our invention and de-

sire to secure by Letters Patent is:

15 1. In a car truck frame of the character described, the combination of the wheelpieces, the end-pieces, the cross-pieces or "transoms", a member intagral with and uniting each end-piece to the adjacent outer cross-piece or "transom", at each side of the longitudinal center of the frame, and a bracket integral with the said member and adapted for the attachment thereto of a bar for carrying an electric light device, substantially as described.

2. In a car truck frame of the character described, the combination of the wheelpieces, the end-pieces, the cross-pieces or "transoms", and a member integral with and uniting the inner cross-pieces or "transoms" to each other at each side of the longitudinal center of the frame, the said members being adapted to form guards for the axle of the middle wheels of the truck,

35 substantially as described.

3. In a car truck frame of the character described, the combination of the wheelpieces, the end-pieces, the cross-pieces or "transoms", a member integral with and uniting each end-piece to the adjacent outer cross-piece or "transom" at each side of the longitudinal center of the frame, and a member integral with and uniting the inner cross-pieces or "transoms" to each other at each side of the said center, the said members being adapted to form guards for the axles

of the truck wheels, substantially as described.

4. In a car truck frame of the character described, the combination with the wheel- 50 pieces having respectively, a recess in its underside for the clearance of the equalizer-bar, of an upright web adapted to close one side of the said recess and integral with the said piece, substantially as described and for 55 the purpose set forth.

5. In a car truck frame of the character described, the combination with the spring-beam brackets cast integral with the frame, and having respectively, an opening trans- 60 versely therethrough, of a metallic bushing cast in and removable from the said opening and adapted to form a bearing for the corresponding hanger-pin, substantially as

described.

6. In a car truck frame of the character described, the combination with the brake-hanger brackets cast integral with the frame, and having respectively, an opening trans-

versely therethrough, of a metallic bushing 70 cast in and removable from the said opening and adapted to form a bearing for the corresponding hanger-pin, substantially as de-

scribed.

7. In a car truck frame of the character 75 described, the combination with the springbeam and brake hanger brackets cast integral with the frame, and having respectively, an opening transversely therethrough, of a metallic bushing cast in and removable 80 from the said opening and adapted to form a bearing for the corresponding hanger-pin, substantially as described.

In testimony whereof we have signed our names to this specification in the presence 85

of two subscribing witnesses.

CLARENCE H. HOWARD. HARRY M. PELAGER.

Witnesses:

H. C. Bellville, Edward W. Furreel.