No. 824,437. PATENTED JUNE 26, 1906.

O. S. PULLIAM.

SIDE FRAME FOR RAILWAY CAR TRUCKS

APPLICATION FILED JAN. 19, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

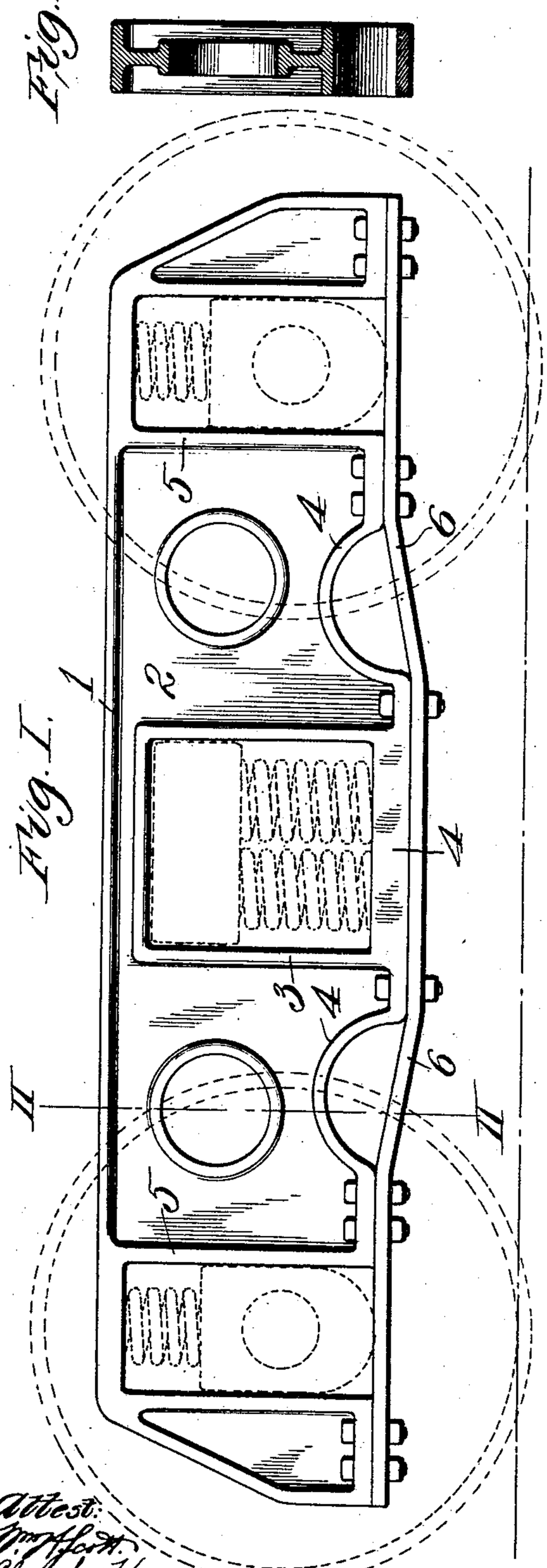
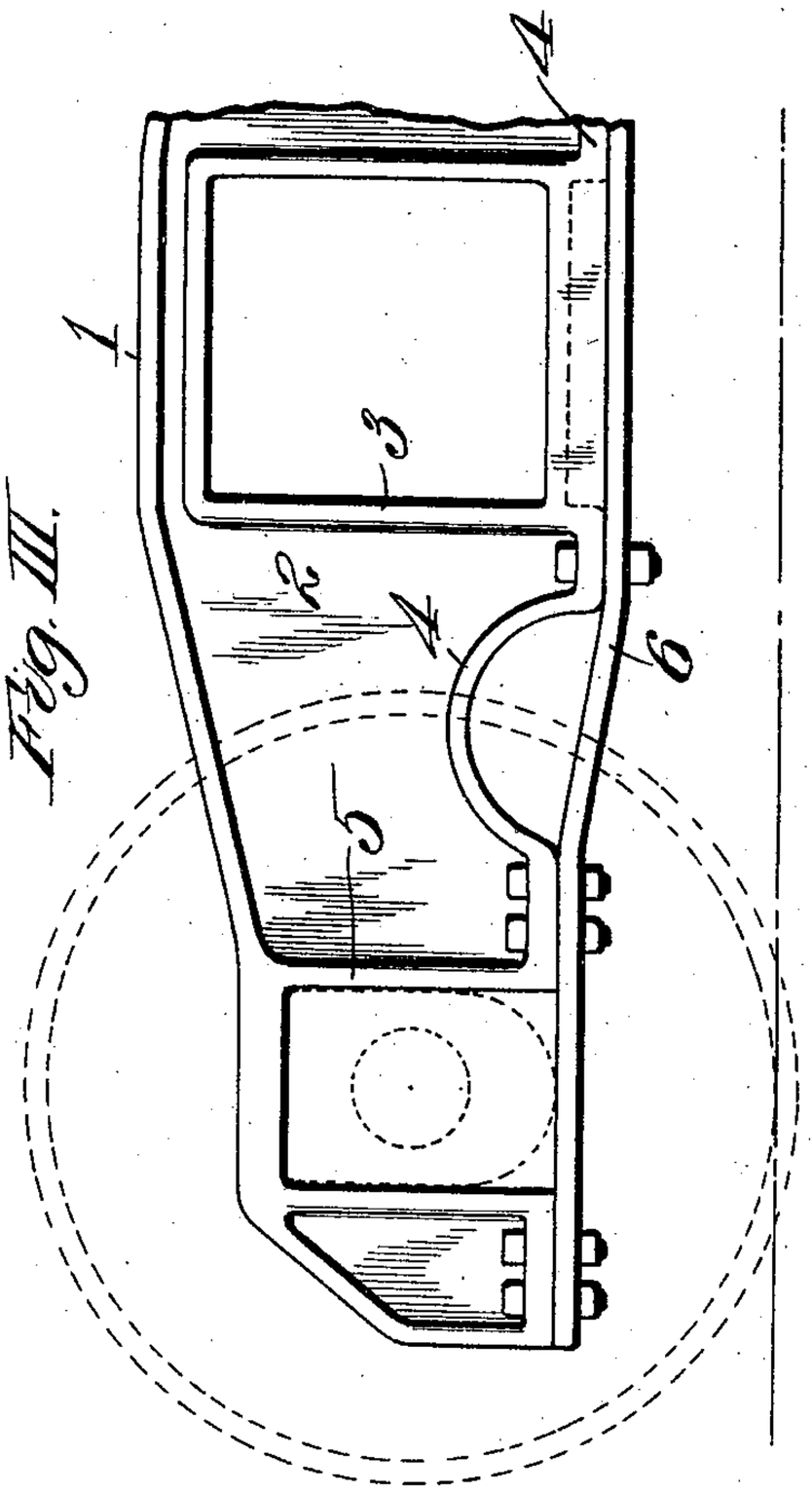


Fig. 2.

Fig. III.



Attest:
Wm. Hoff.
Blakeslee Hogan.

Inveton:
O. S. Pulliam,
by Wright Bros
Attys.

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FIG. VI.

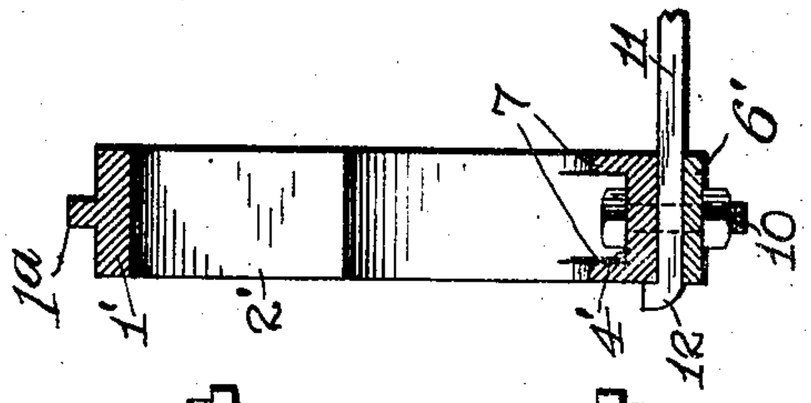


FIG. IV.

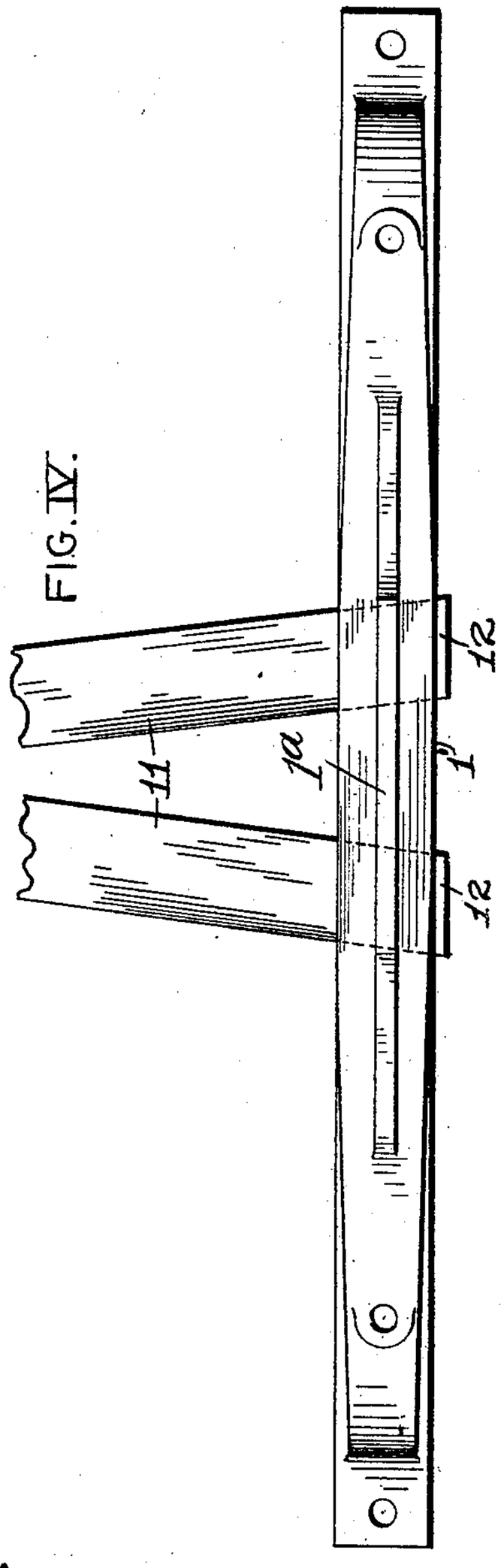
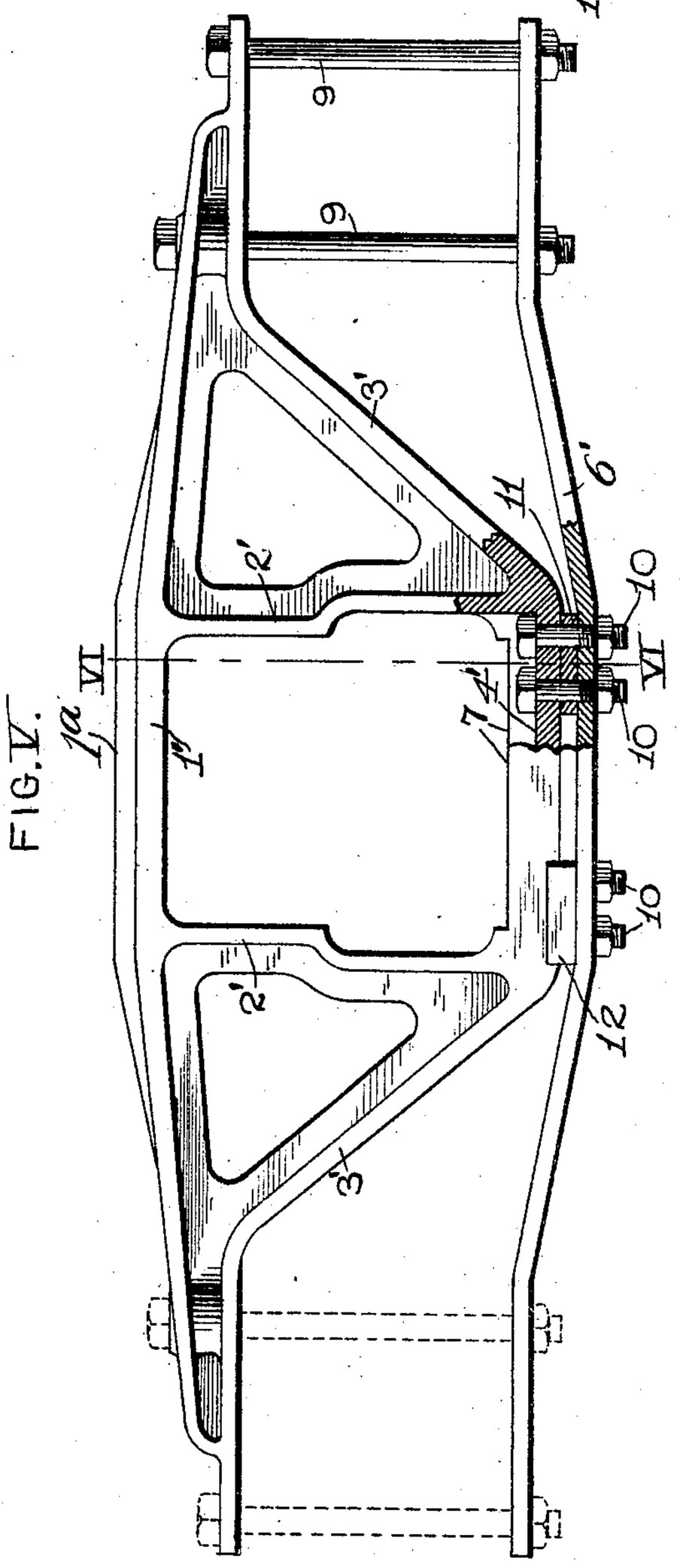


FIG. V.



ATTEST.

H. J. Fletcher.

Blanche Hogan.

INVENTOR.

O. S. PULLIAM.

BY. Wright & Bro

ATTYS.

UNITED STATES PATENT OFFICE.

OSWALD S. PULLIAM, OF PITTSBURG, PENNSYLVANIA.

SIDE FRAME FOR RAILWAY-CAR TRUCKS.

No. 824,437. Specification of Letters Patent. Patented June 26, 1906.

Application filed January 19, 1906. Serial No. 296,775.

To all whom it may concern:

Be it known that I, OSWALD S. PULLIAM, a citizen of the United States, residing in the city of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Side Frames for Railway-Car Trucks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to cast-metal side frames for railway-car trucks; and it has for its object to provide for the reinforcement of frames of this description by the use of worked metallic reinforcing members which have the character of safety parts and which may be more dependently relied on, due to their being less subject to defects than cast metal. These reinforcing members also resist tendency of the cast-metal structure to break under strain and also provide for the temporary support of the load borne by the side frames in a railway-car in the event of breakage or fracture of the cast-metal frames.

Figure I is a side elevation of one of my reinforced side frames. Fig. II is a vertical section taken on line II II, Fig. I. Fig. III is a side elevation of a portion of a side frame of modified construction and showing my reinforcing member incorporated therein. Fig. IV is a top or plan view of a side frame and brace-bars by which a pair of said frames are united. Fig. V is a side elevation with portions in vertical section of another modification of my side frame. Fig. VI is a vertical section taken on line VI VI, Fig. V.

The side frame shown in Figs. I and II consists of a top chord 1, a web 2, a bolster-pocket 3, a bottom chord 4, and axle-box pockets 5, the said axle-box pockets being closed at their upper ends and open at their lower ends. 6 designates a metal reinforcing-bar that is of worked metal and may be of either wrought or rolled iron or rolled steel. The reinforcing-bar extends longitudinally of the bottom chord 4 of the side frame proper, to which it is bolted or otherwise secured at intervals, and it serves while reinforcing and bracing the members of the side frame proper to also close the lower ends of the axle-box pockets 5 for the purpose of confining the axle-boxes of the car-truck in said pockets. The side frame, as illustrated in Figs. I and II, has the axle-box pockets of sufficient height to accommodate the axle-boxes that enter thereinto and also to accommodate springs surmounting said boxes and located between their top surfaces and the upper ends of the pockets.

The side frame shown in Fig. III corresponds to that in Figs. I and II in construction, with the exception that the axle-box pockets are made of a size sufficient only to receive the axle-boxes, and when this form of frame is used the springs above the boxes are omitted.

In Figs. IV to VI, inclusive, I have illustrated a modification of my side frame and reinforcing-bar associated therewith. In this modification the side frame proper consists of a top chord 1′, bolster-columns 2′, truss members 3′, and a bottom chord 4′. The top chord is reinforced by a rib 1^a, and the bottom chord is provided with flanges 7. 6′ designates the reinforcing-bar, by which the side frame proper is reinforced in the same manner as the side frame previously described, the bar 6′ being of the same nature as the bar 6—viz., being of greater tensile strength than the cast frame proper. This reinforcing-bar is connected to the ends of the side frame by vertical bolts 9 and also connected to the bottom chord of the side frame by bolts 10. Interposed between the arch-bar and bottom chord of the side frame are rolled-metal tie-bars 11, that unite pairs of the side frames at opposite sides of the car to which they are applied, these tie-bars being provided with upturned lips 12, that engage the bottom chord of the side frame, as seen most clearly in Figs. II and III.

A side frame constructed in accordance with my improvement is readily made and affords great strength to resist any strain to which it may be subjected, and by providing the rolled-metal tie-bars to unite the pairs of side frames and furnishing said bars with upturned lips to engage the frames I securely hold the frames in the same relative positions at all times.

I claim—

1. A side frame proper for car-trucks consisting of an integral casting having axle-box pockets open at their lower ends, and a rolled-metal reinforcing-bar secured to the bottom of said casting and extending continuously from end to end thereof and across the open ends of said pockets, substantially as set forth.

2. The combination with a pair of cast-

metal side frames, of reinforcing-bars secured to said frames and forming parts thereof; and tie-bars connecting said frames and having their ends held between said frames and said reinforcing-bars, substantially as set forth.

3. The combination with a pair of cast-metal side frames, of reinforcing-bars secured to said frames and forming parts thereof, and tie-bars connecting said frames and having their ends held between said frames and said reinforcing-bars; said reinforcing-bars terminating in lips engaging said side frames, substantially as set forth.

OSWALD S. PULLIAM.

In presence of—
AUGUSTUS STUMP,
JOHN BRIGHT.