

No. 684,816.

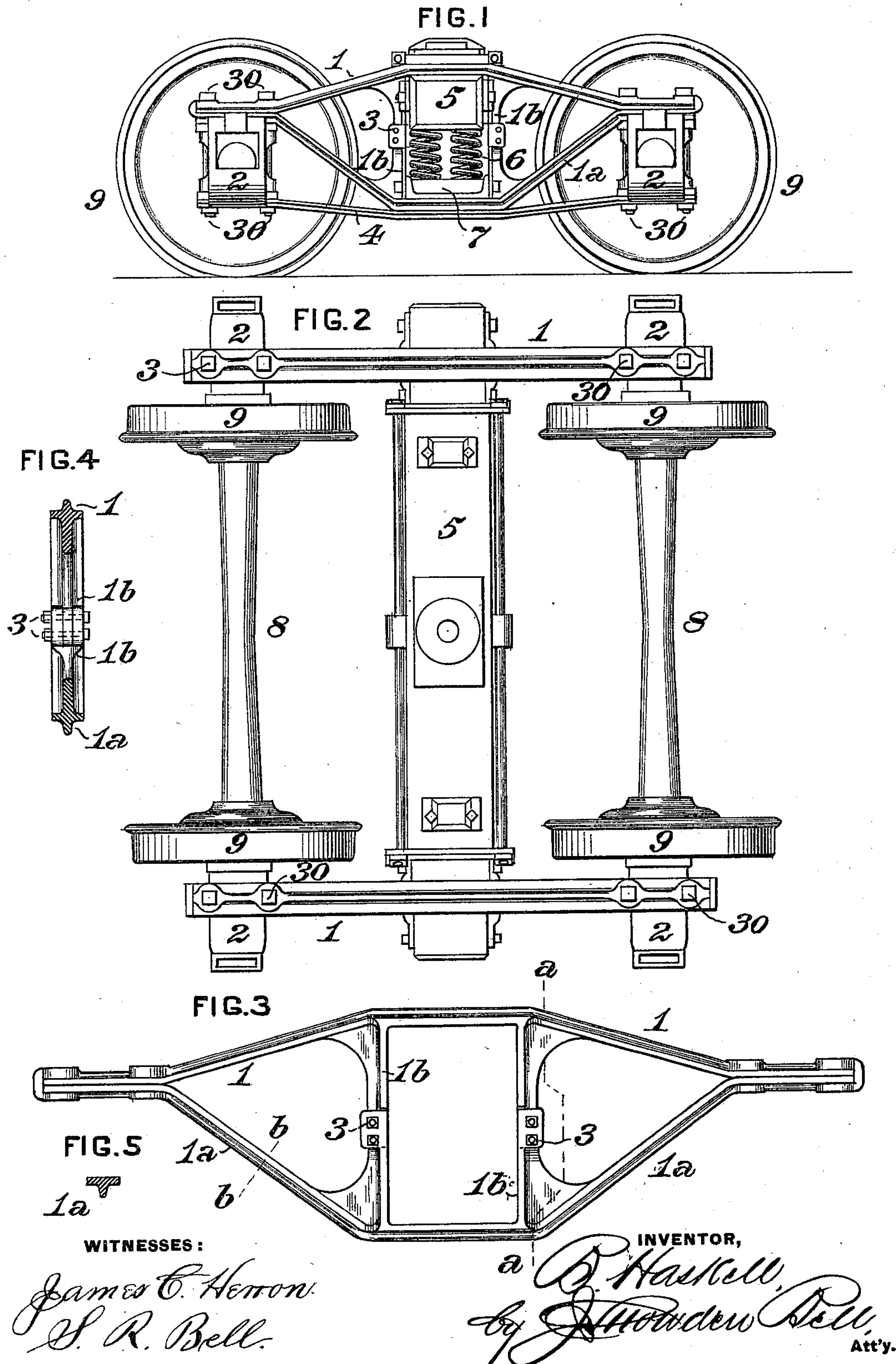
Patented Oct. 22, 1901.

B. HASKELL.

CAR TRUCK.

(Application filed Aug. 10, 1901.)

(No Model.)





# UNITED STATES PATENT OFFICE.

BRODERICK HASKELL, OF SAGINAW, MICHIGAN.

## CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 684,816, dated October 22, 1901.

Application filed August 10, 1901. Serial No. 71,620. (No model.)

*To all whom it may concern:*

Be it known that I, BRODERICK HASKELL, of Saginaw, in the county of Saginaw and State of Michigan, have invented a certain new and useful Improvement in Car-Trucks, of which improvement the following is a specification.

The object of my invention is to provide a car-truck of the arch-bar or diamond type which shall be of simple, strong, and inexpensive construction and in which a firm connection of the arch-bars and inverted arch-bars may be effected without involving the employment of the separate columns or bolster-guides and long column-bolts which have heretofore formed essential parts of trucks of this class.

The improvement claimed is hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a side view, in elevation, of a car or tender truck, illustrating an embodiment of my invention; Fig. 2, a plan or top view of the same; Fig. 3, a side view, in elevation and on an enlarged scale, of one of the side frames; and Figs. 4 and 5, transverse sections on the lines *a a* and *b b*, respectively, of Fig. 3.

In the practice of my invention I provide a truck-frame having each of its side-frame members composed of an arch-bar 1 and an inverted arch-bar 1<sup>a</sup>, each of which is an integral casting, preferably of steel. The relation and inclination of the horizontal and inclined portions of the bars 1 and 1<sup>a</sup> are substantially the same as in trucks of the Master Car-Builders' type, and they are made of such transverse section as will combine strength and lightness, being in the instance shown of T-section, although any other suitable and preferred form may be adopted.

A downwardly-depending bolster-guide 1<sup>b</sup> is cast integral with each of the arch-bars 1, at each end of the central horizontal portion thereof, and corresponding upwardly-projecting bolster-guides 1<sup>b</sup> are cast upon the ends of the central horizontal portion of each of the inverted arch-bars 1<sup>a</sup>. The inner faces of the bolster-guides stand at a proper distance apart to admit the bolster 5, which is supported by springs 6 upon a spring-plank 7 in the ordinary manner, and the faces are flat in order to properly guide the bolster in

its vertical movements. The adjoining ends of the bolster-guides, of the arch-bars, and inverted arch-bars are adapted to abut and are preferably, as shown in Fig. 4, fitted together by engaging tongues and grooves formed upon the abutting bolster-guides. The abutting portions of the bolster-guides on each side of the central spaces in the side frames are secured together by connecting-bolts 3, provided with nuts which may be brought to a proper tight bearing, and the solidity of the connection may be secured by keys, nut-locks, split pins, or other suitable known means.

The outer ends of the arch-bars and inverted arch-bars abut and are socketed to receive journal-box bolts 30, by which the bars are connected one to the other and to the journal-boxes 2, which are provided with proper journal-bearings for the axles 8, on which the wheels 9 of the truck are secured. The journal-box bolts pass through the pedestal tie-bars 4, which connect the two journal-boxes of each of the side frames and are fitted with nuts which bear on the lower sides of the pedestal tie-bars. The pedestal tie-bars may be either of cast metal of desired cross-section or of wrought metal, as preferred.

The bolster-guides 1<sup>b</sup> are filleted at and near their junction with the main bodies of the bars of which they form part in order to afford proper strength, and they afford facilities for the attachment of transoms of any preferred form by which the opposite side frames of the truck may be connected in the ordinary manner. It will be seen that under the construction above described the long and heavy column-bolts which are required for the connection of the independent columns or bolster-guide plates ordinarily employed are dispensed with.

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

1. In a car-truck, the combination of an arch-bar having a pair of integral bolster-guides depending from its middle portion, an inverted arch-bar having a pair of integral bolster-guides extending upwardly from its middle portion and adapted to abut against the bolster-guides of the arch-bar, and connections securing the abutting bolster-guides one to the other.

2. In a car-truck, the combination of an arch-bar having a pair of integral bolster-guides depending from its middle portion, an inverted arch-bar having a pair of integral  
5 bolster-guides extending upwardly from its middle portion and adapted to abut against and form a tongue-and-groove joint with the bolster-guides of the arch-bar, and connections securing the abutting bolster-guides  
10 one to the other.

3. In a car-truck, a side frame comprising a cast-metal arch-bar and a cast-metal inverted arch-bar, which abut and are directly connected at their ends, and abut and are connected intermediately of their ends through 15 integral bolster-guides.

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Witnesses:

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