

B. HASKELL.

CAR TRUCK.

(Application filed May 13, 1902.)

(No Model.)

2 Sheets—Sheet 1.

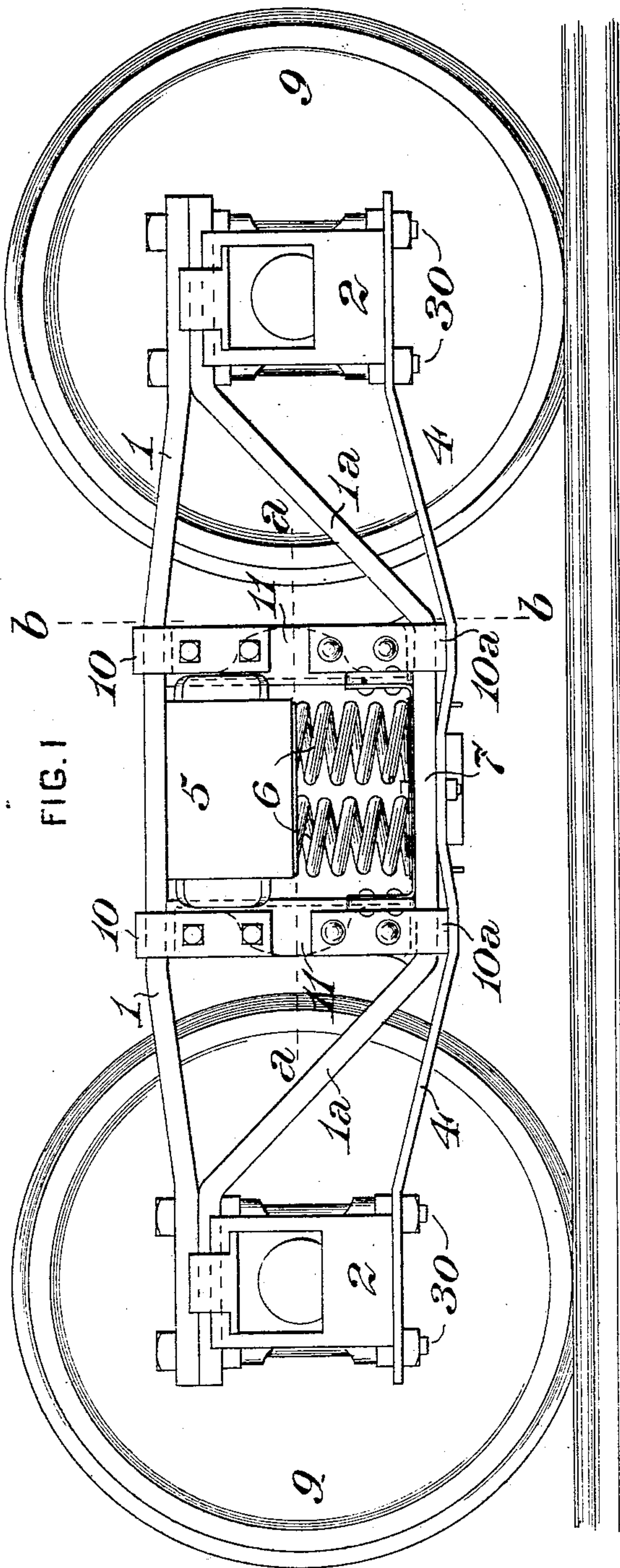


FIG. 1

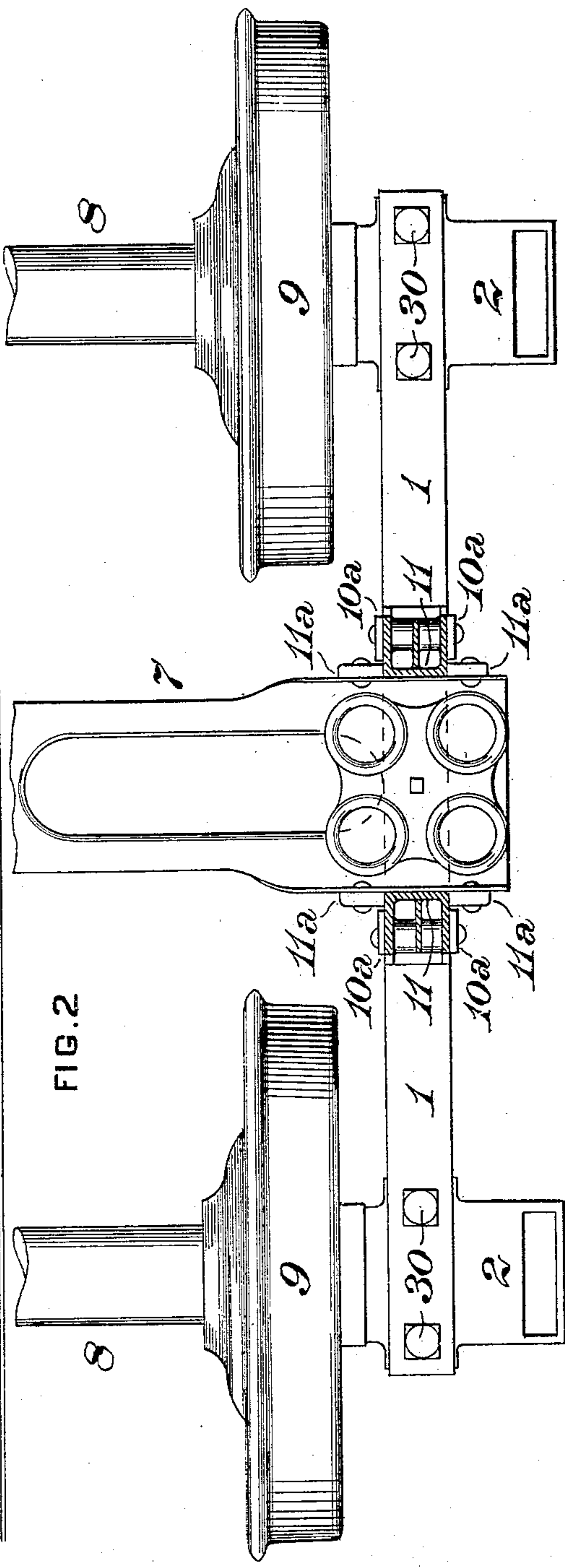


FIG. 2

WITNESSES:

*James C. Heron.*  
*S. R. Bell.*

INVENTOR,

*B. Haskell.*  
*By J. H. Woodman.* Att'y.

**B. HASKELL.**  
**CAR TRUCK.**

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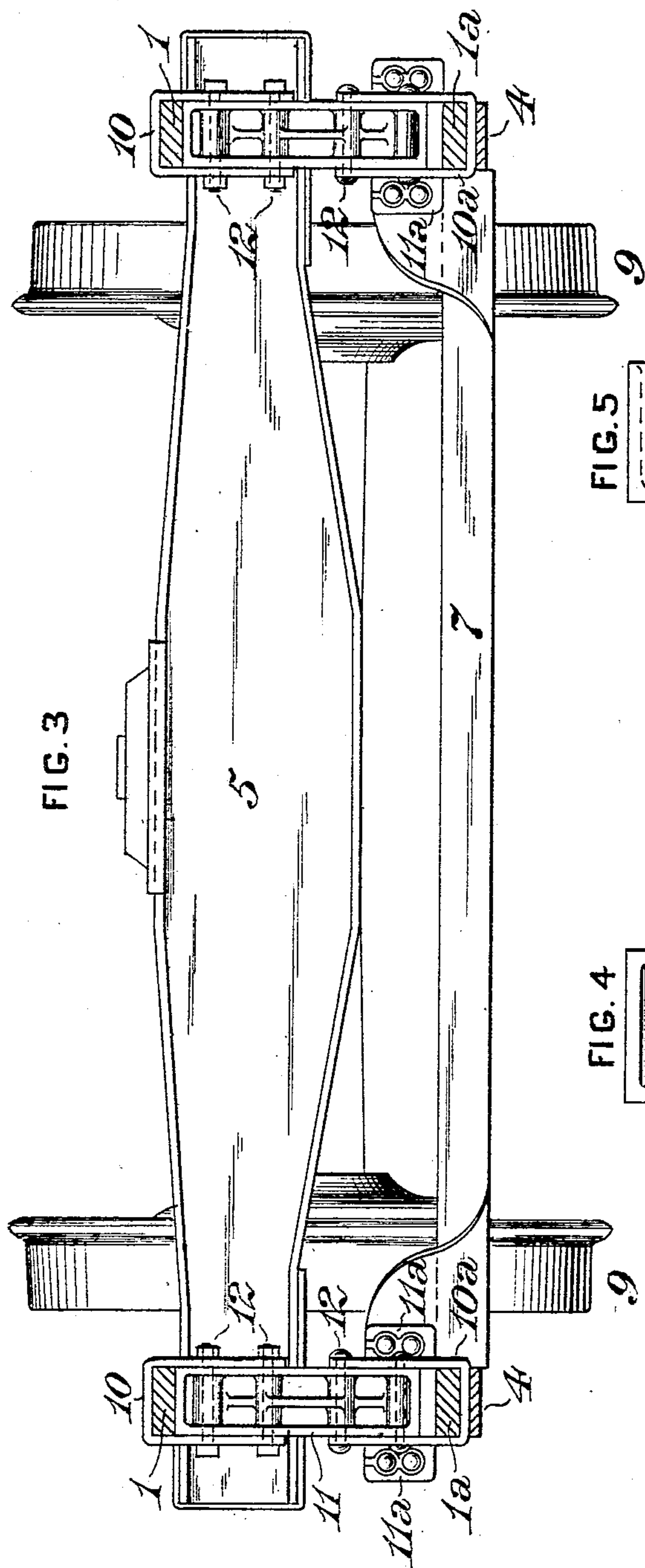


FIG. 5

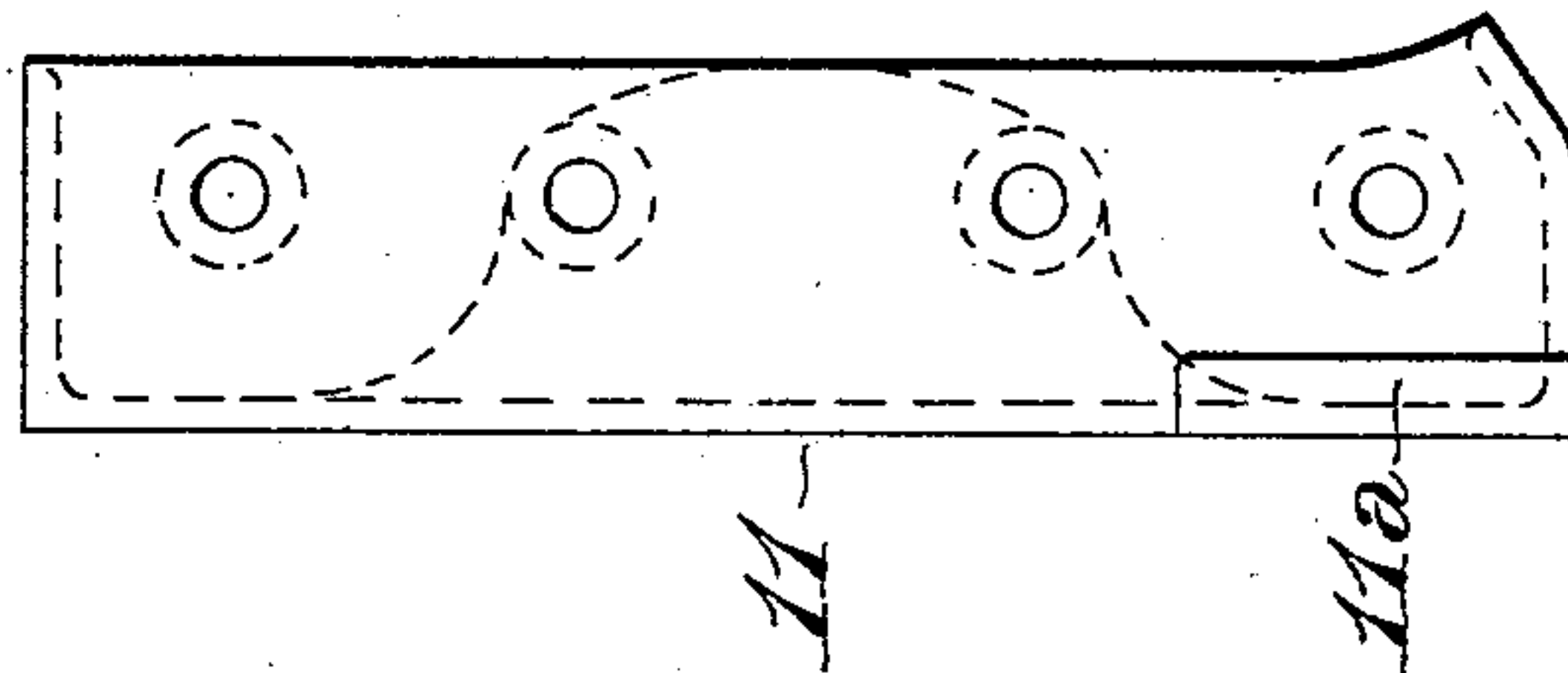
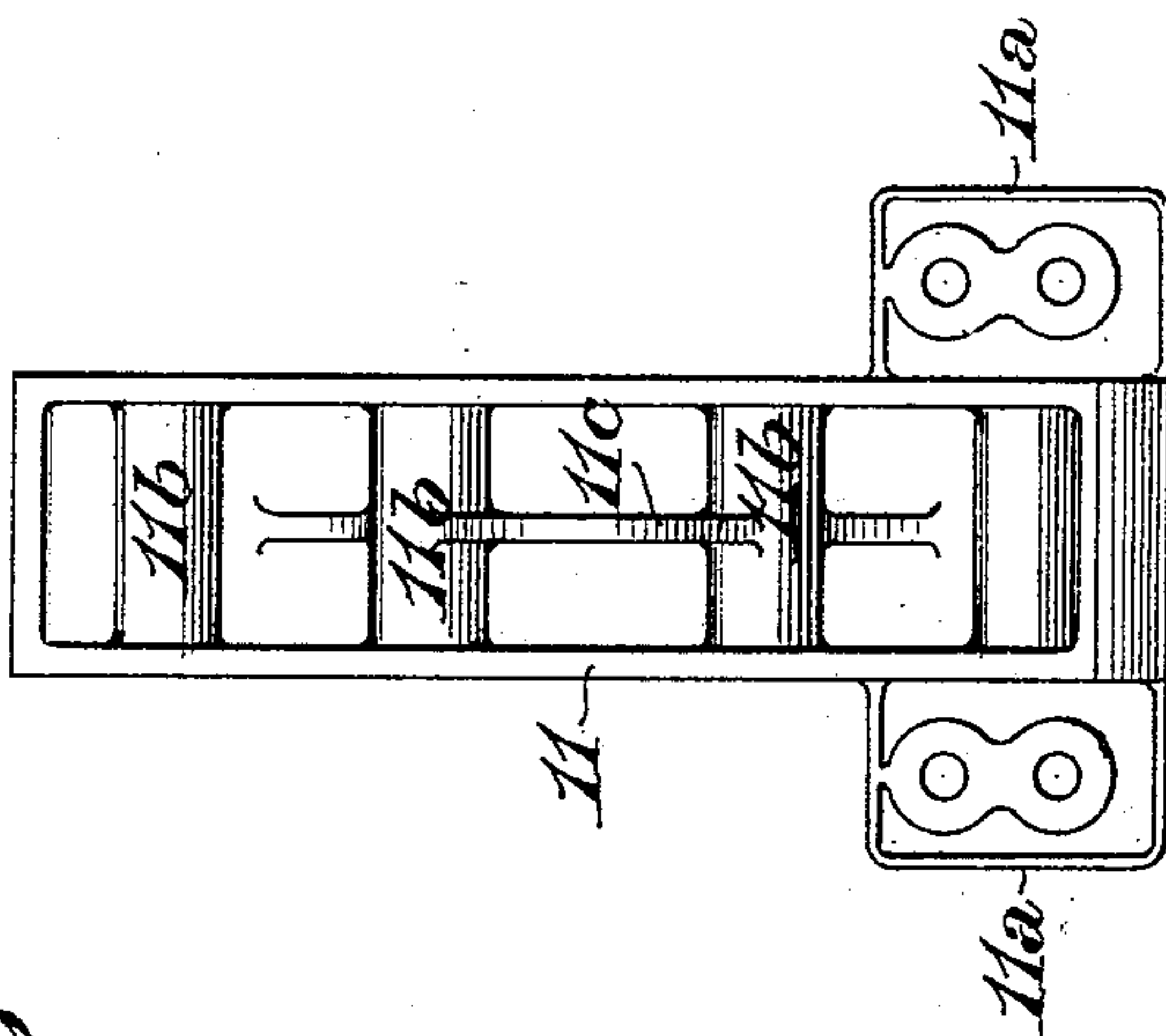


FIG. 4



**WITNESSES:**

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# UNITED STATES PATENT OFFICE.

BRODERICK HASKELL, OF SAGINAW, MICHIGAN.

## CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 704,188, dated July 8, 1902.

Application filed May 13, 1902. Serial No. 107,098. (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.

My present invention relates to car-trucks of the arch-bar or diamond type and of the same general character as those set forth in Letters Patent of the United States, Nos. 684,816 and 684,817, granted and issued to me under date of October 22, 1901.

The object of my invention is to provide a car-truck of the type above specified 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 employing the ordinary column-bolts.

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 view of one side of the same, partly in section, on the line *aa* of Fig. 1; Fig. 3, a transverse section on the line *bb* of Fig. 1; Fig. 4, a view in elevation and on an enlarged scale of one of the bolster-guides detached and as seen from one end of the truck, and Fig. 5 a similar view of the same as seen from the side of the truck.

In the practice of my invention I provide a truck-frame having each of its side-frame members composed of an ordinary metal arch-bar 1 and an inverted arch-bar 1<sup>a</sup>, the relation and inclination of the horizontal and inclined portions of the bars 1 and 1<sup>a</sup> being substantially the same as in trucks of the Master Car-Builders' type. Two downwardly-depending straps 10, each consisting of a flat bar of metal bent into U form and of such internal width as to fit neatly over the arch-bar 1, are connected to said bar at the ends of the central horizontal portion thereof by being welded thereto by the use of a press or hammer, and two corresponding upwardly-extending straps 10<sup>a</sup> are similarly connected to the ends of the central horizontal portion of the inverted arch-bar 1<sup>a</sup>. A bolster-guide

11, which is a casting of box or channel form, is fitted between the arms of each pair of vertically-alined straps 10 and 10<sup>a</sup> and is secured thereto by bolts or rivets 12, passing through transverse lugs 11<sup>b</sup> on the bolster-guide. The bolster-guides are strengthened by a central plate or rib 11<sup>c</sup> and are provided at their lower ends with lateral flanges 11<sup>a</sup>, which abut against and are secured by bolts or rivets to the spring-plank 7. 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 the spring-plank in the ordinary manner, and said faces are made flat in order to properly guide the bolster in its vertical movements. 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 bolster-guides afford suitable 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 above construction the long and heavy column-bolts which are required for the connection of the columns or bolster guides ordinarily employed are dispensed with, and the further substantial advantage is attained of positively strengthening the arch-bars by the straps which are welded thereto, instead of weakening them by holes for the reception of the column-bolts, as in ordinary practice.

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 U-shaped straps fixed to and depending from its middle portion, an inverted arch-bar having a pair of similar straps fixed to and extending upwardly from its middle portion, bolster-guides fitting, at one end, between the arms of a strap of the arch-bar, and, at the other, between



the arms of a strap of the inverted arch-bar, and connections securing the bolster-guides to the straps.

2. In a car-truck, the combination of an arch-bar having a pair of U-shaped straps fixed to and depending from its middle portion, an inverted arch-bar having a pair of similar straps fixed to and extending upwardly from its middle portion, bolster-guides fitting, at one end, between the arms of a strap of the arch-bar, and, at the other, between the arms of a strap of the inverted arch-bar, flanges projecting laterally from the lower ends of the bolster-guides for the attachment of a spring-plank, and connections securing the bolster-guides to the straps.

3. In a car-truck, the combination of an arch-bar having a pair of U-shaped straps fixed to and depending from its middle portion, an inverted arch-bar having a pair of similar straps fixed to and extending upwardly from its middle portion, bolster-guides, of channel-section, fitting, at one end, be-

tween the arms of a strap of the arch-bar, and, at the other, between the arms of a strap of the inverted arch-bar, and bolts or rivets passing through transverse lugs on the bolster-guides and securing said guides to the straps.

4. In a car-truck, a side frame comprising an arch-bar and an inverted arch-bar, each having inwardly-projecting U-shaped straps, fixed to its middle portion without the employment of bolts or other independent connections, and bolster-guides fitting between, and connected to, the arms of said straps.

5. A bolster-guide for car-trucks, consisting of a casting of box or channel form, having transverse lugs for the reception of bolts to connect the guide to the arch-bars of a truck, and lower lateral flanges for connection to a spring-plank.

BRODERICK HASKELL.

Witnesses:

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J. W. STEPHENS.