

No. 684,817.

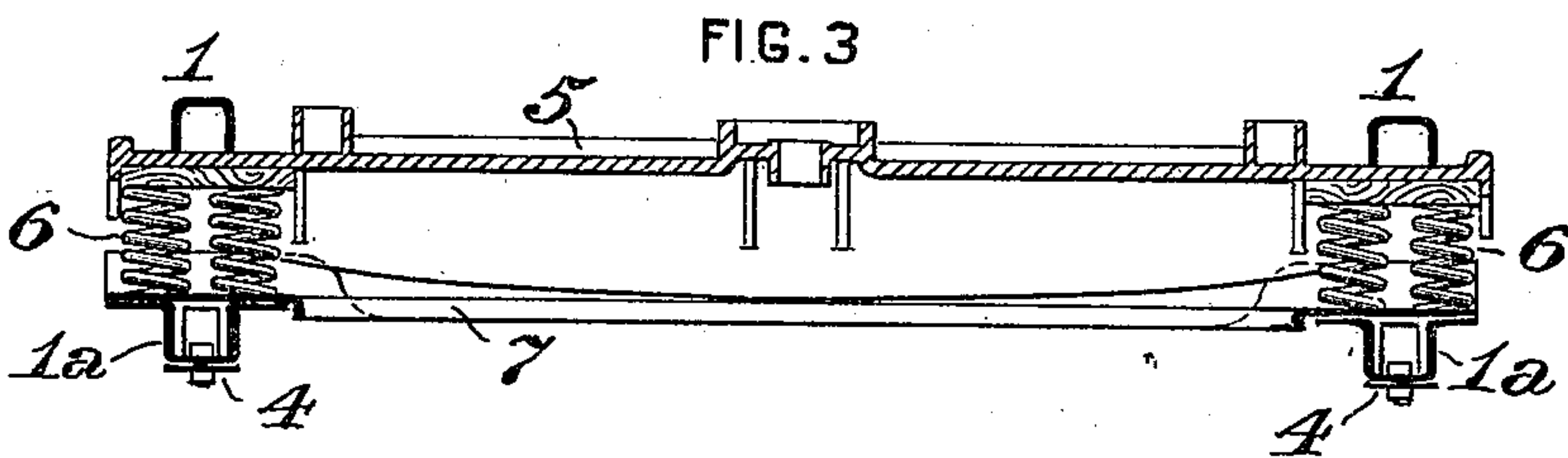
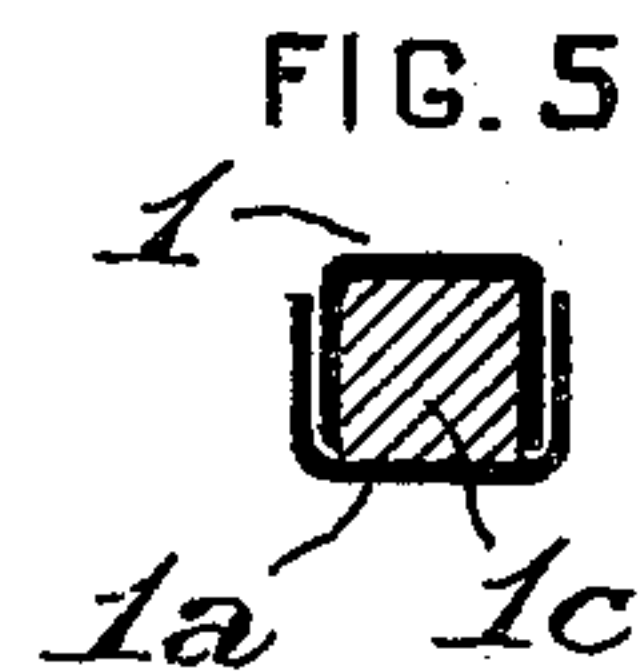
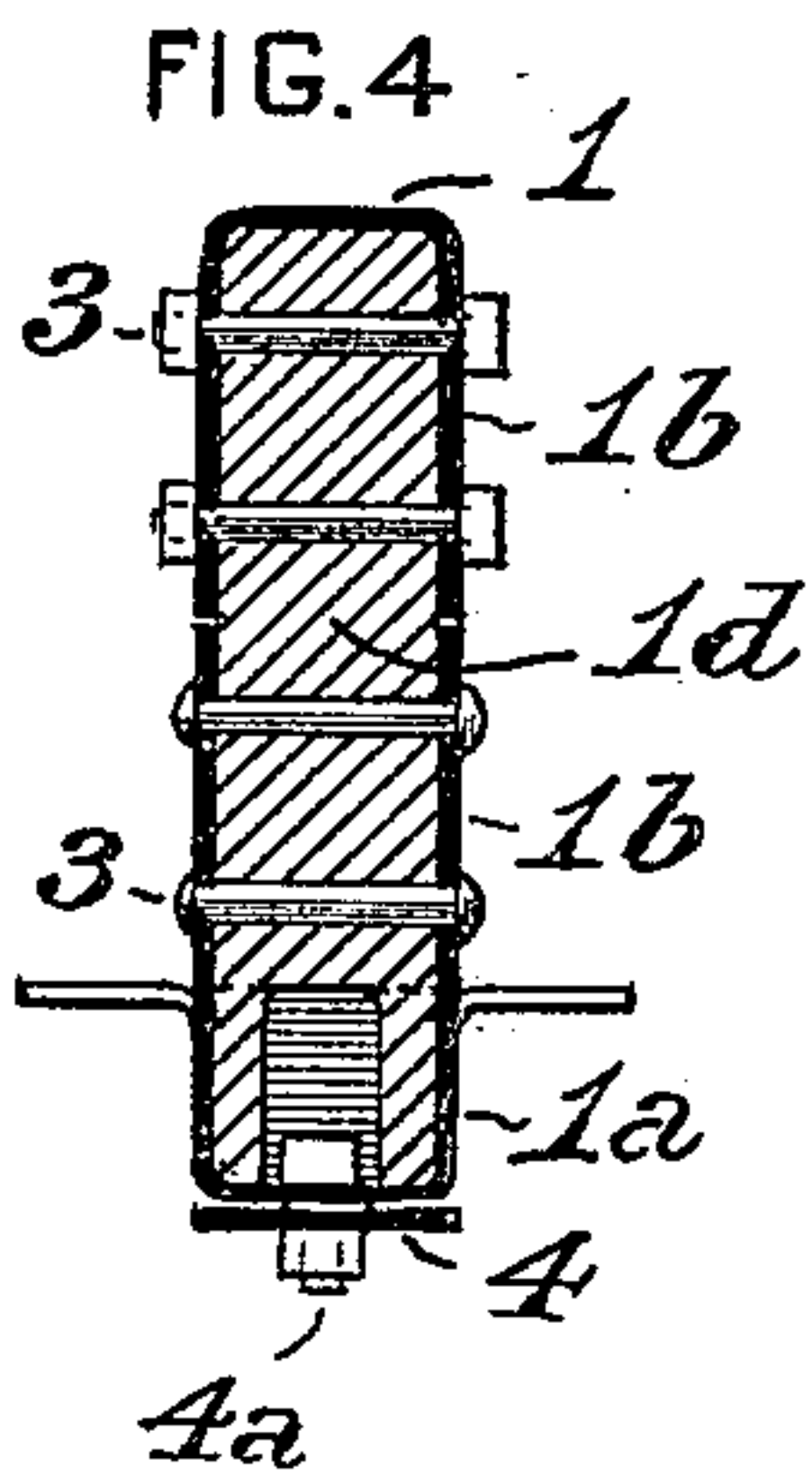
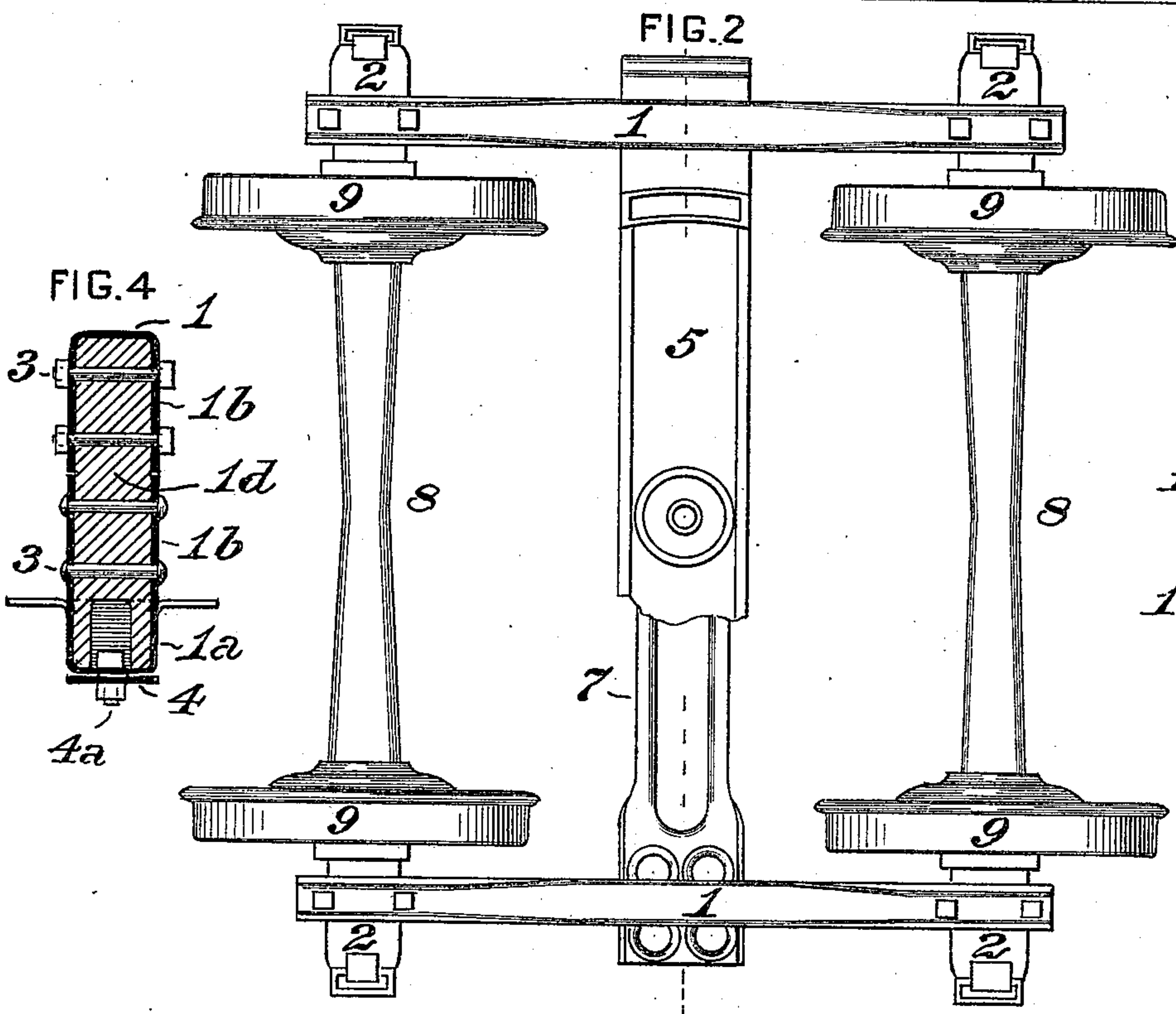
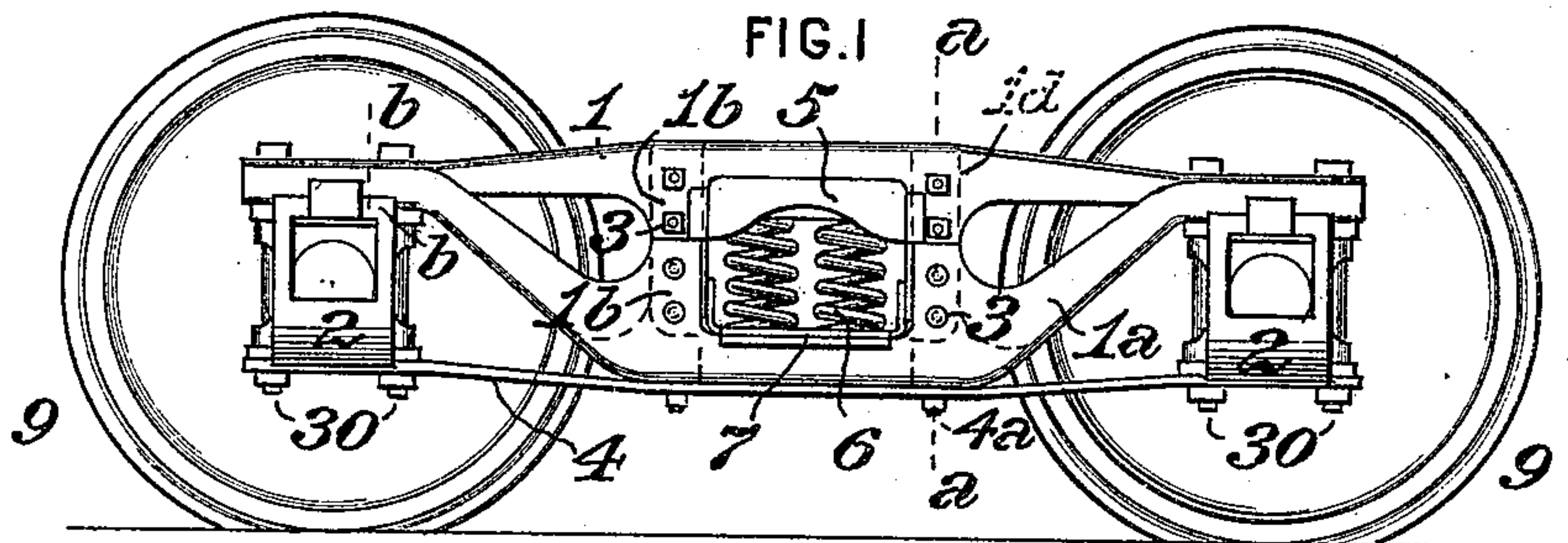
Patented Oct. 22, 1901.

B. HASKELL.

CAR TRUCK.

(Application filed Aug. 10, 1901.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

BRODERICK HASKELL, OF SAGINAW, MICHIGAN.

## CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 684,817, dated October 22, 1901.

Application filed August 10, 1901. Serial No. 71,621. (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  
5 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,  
10 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  
15 heretofore formed essential parts of trucks of this class.

The improvement claimed is hereinafter fully set forth.

20 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 vertical transverse central  
25 section; and Figs. 4 and 5 transverse sections, on an enlarged scale, through one of the side frames on the lines *a a* and *b b*, respectively, of Fig. 1.

In the practice of my invention I provide  
30 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 formed of sheet or plate metal bent or pressed into U or channel section. The relation and inclination of the horizontal and inclined portions of the bars 1 and 1<sup>a</sup> are substantially  
35 the same as in the trucks of the Master Car-Builders' type, and their flanges or vertical members are turned in opposite directions, those of the arch-bar 1 extending downwardly and those of the inverted arch-bar 1<sup>a</sup> extending upwardly. One of said bars, in  
40 this instance the inverted arch-bar 1<sup>a</sup>, is made wider at its ends than the other, so that  
45 the horizontal end portions of the latter fit within the corresponding portions of the former, as shown in Figs. 1 and 5.

A downwardly-depending bolster-guide 1<sup>b</sup> is formed integral with each of the arch-bars 1,  
50 at each end of the central horizontal portion thereof, and corresponding upwardly-projecting bolster-guides 1<sup>b</sup> are formed 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  
55 proper distance apart to admit the bolster 5, which is supported by springs 6 upon a spring-plank 7 in the ordinary manner, and said inner faces are flat in order to properly guide the bolster in its vertical movements.  
60 The adjoining ends of the bolster-guides of the arch-bars and inverted arch-bars are preferably adapted to abut, and filling-blocks 1<sup>d</sup> are fitted in the space between the side flanges of the bolster-guides, said blocks  
65 serving to stiffen and strengthen the frames at these points and to serve as distance-pieces for connecting bolts or rivets 3, which pass through the side flanges and filling-blocks and firmly secure the arch-bars and  
70 inverted arch-bars together. When bolts are employed, they are provided with nuts, which may be brought to a proper tight bearing, and the solidity of the connection may be insured by keys, nut-locks, split pins, or other  
75 suitable known means. If desired, the ends of the upper and lower bolster-guides may be separated sufficiently far to allow lateral projections or shoulders on the filling-pieces to be interposed between them, in which case  
80 they may abut against said interposed projections.

As before mentioned, the horizontal end portions of the arch-bars and inverted arch-bars overlap or are fitted one within another,  
85 and filling-blocks 1<sup>d</sup> are inserted in the spaces within said horizontal end portions. The arch-bars and inverted arch-bars are connected at these portions of their length one to the other and to the journal-boxes 2 by  
90 journal-box bolts 30, which pass through sockets in the arch-bars, inverted arch-bars, filling-blocks, journal-boxes, and pedestal tie-bars 4 and are fitted with nuts which bear on the lower sides of the pedestal tie-bars.  
95 The journal-boxes are provided with proper journal-bearings for the axles 8, on which the wheels 9 of the truck are secured.

The bolster-guides 1<sup>b</sup> afford facilities for the attachment of transoms of any of the various known forms by which the opposite side  
100 frames of the truck may be connected in the ordinary manner, or, if preferred, these transverse connecting members may be attached



to the bodies of the arch-bars and inverted arch-bars. 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—

10 1. In a car-truck, the combination of an arch-bar of U or channel section, having a pair of integral bolster - guides depending from its middle portion, an inverted arch-bar, of similar section, having a pair of integral  
15 bolster-guides extending upwardly from its middle portion, filling-blocks fitting within the bolster-guides, and connections securing the adjoining bolster-guides one to the other and to a filling-block.

20 2. In a car-truck, the combination of an arch-bar of U or channel section, an inverted arch-bar of similar section, said bars overlapping or fitting one within the other at their horizontal end portions, filling-blocks fitting  
25 within the horizontal end portions of said bars, and connections securing said bars one to the other and to the filling-blocks.

3. In a car-truck, the combination of an arch-bar of U or channel section, having a

pair of integral bolster - guides depending 30 from its middle portion, an inverted arch-bar, of similar section, having a pair of integral bolster-guides extending upwardly from its middle portion, filling-blocks fitting within the bolster-guides, connections securing the  
35 adjoining bolster-guides one to the other and to a filling-block, filling-blocks fitting within the horizontal end portions of the arch-bars and inverted arch-bars, and connections securing said bars one to the other and to said  
40 filling-blocks.

4. In a car-truck, a side frame comprising a bent or pressed metal arch-bar, of U or channel section, and a bent or pressed metal  
45 inverted arch-bar, of similar section, said bars being connected at their end portions through their main bodies, and connected, intermediately of their ends, through bolster-guides integral therewith.

5. A bent or pressed metal arch-bar for the 50 side frame of a car-truck, which is of U or channel section and is provided with a pair of bolster-guides integral therewith, extending from its middle portion.

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Witnesses:

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