No. 819,188. PATENTED MAY 1, 1906.

J. C. WANDS.

CAR TRUCK BOLSTER.

APPLICATION FILED JAN. 8, 1906.

2 SHEETS—SHEET 1.

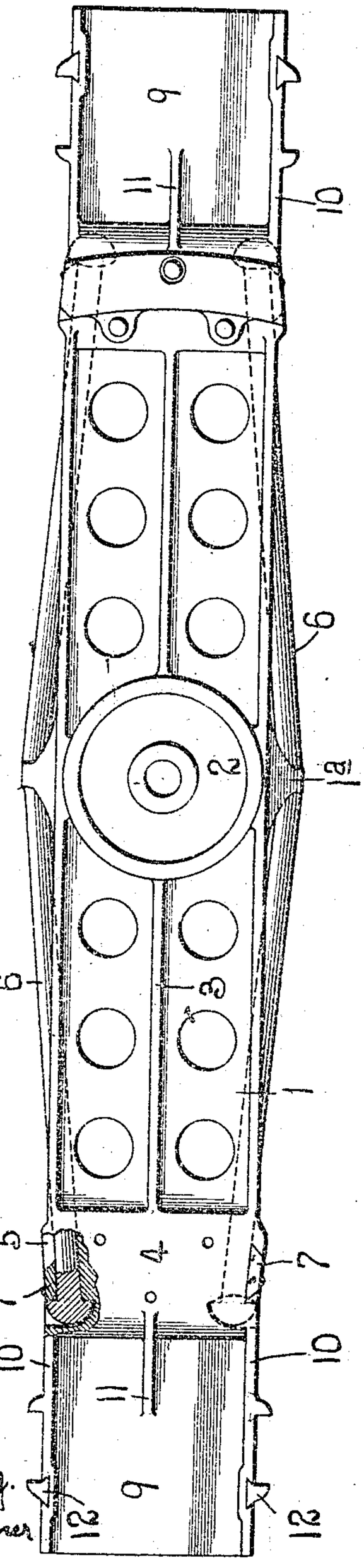


Fig. 1.

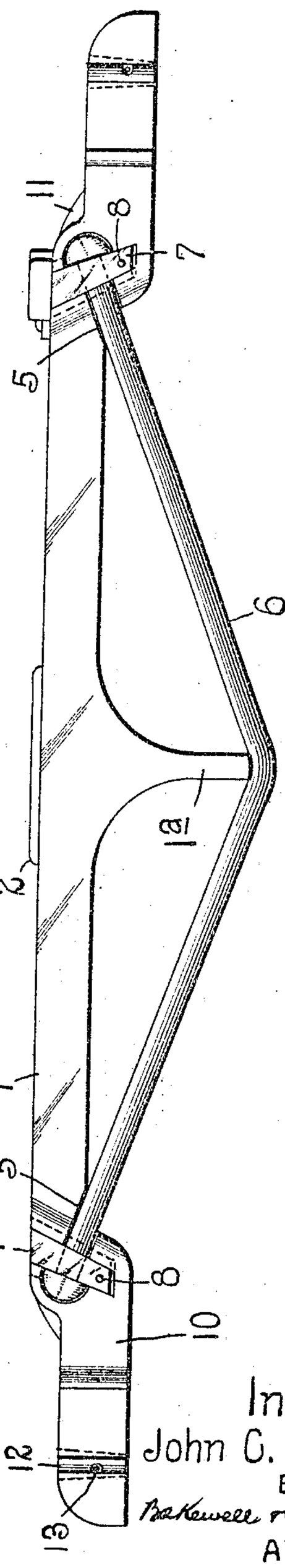


Fig. 2.

Witnesses
A. J. McCauley.
Edgar T. Farmer

Inventor
John C. Wands
BY
Bakewell & Cornwall
ATT'Y'S.

No. 819,188. PATENTED MAY 1, 1906.

J. C. WANDS.

CAR TRUCK BOLSTER.

APPLICATION FILED JAN. 8, 1906.

2 SHEETS—SHEET 2.

Fig. 5.

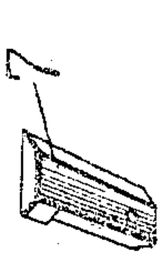


Fig. 4.

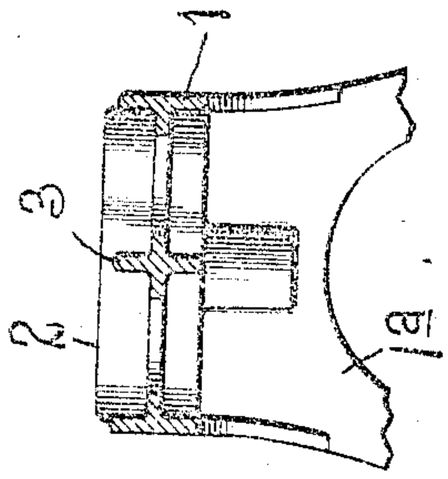


Fig. 6.

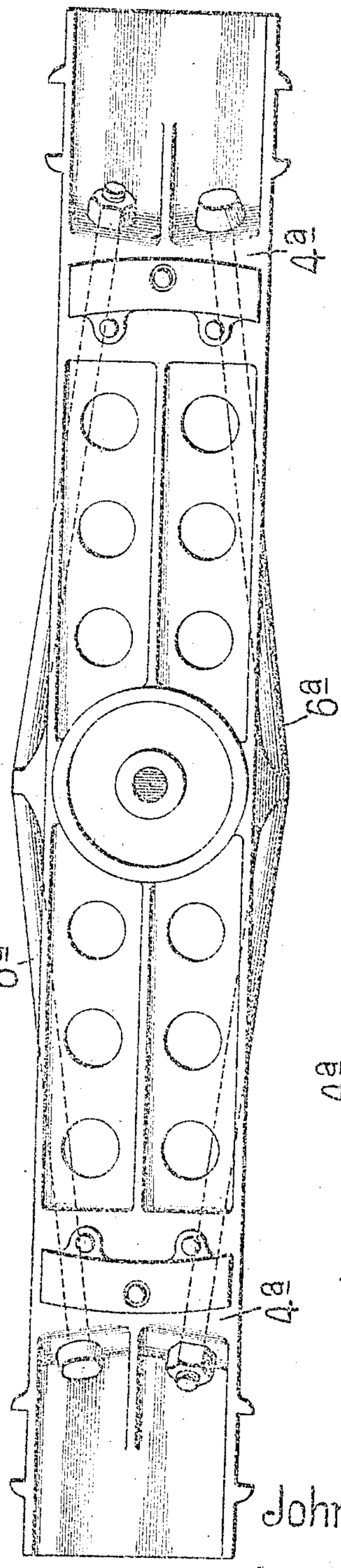


Fig. 3.

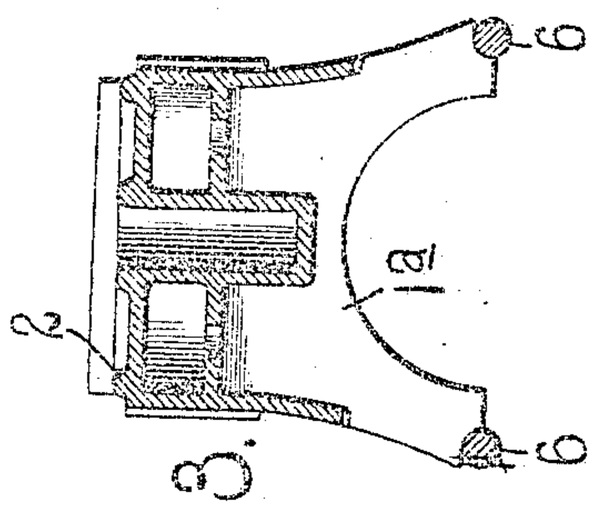
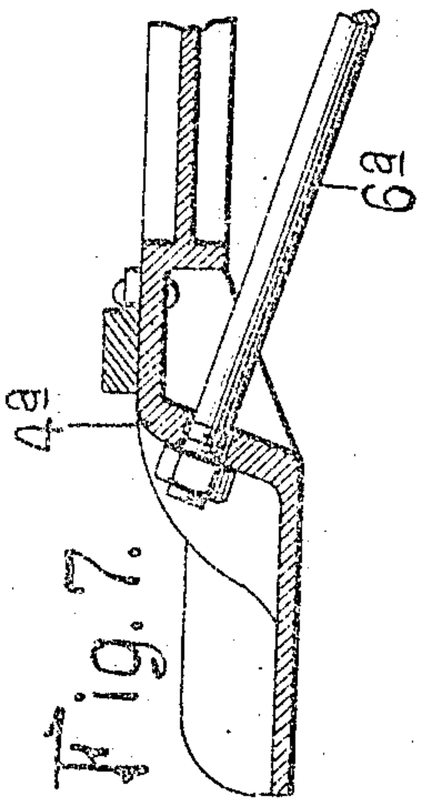


Fig. 7.



Witnesses
A. J. McCauley.
Edgar T. Farmer

Inventor:
John C. Wands
BY
Parker Burwell & Cornwall
ATTY'S.

UNITED STATES PATENT OFFICE.

JOHN C. WANDS, OF ST. LOUIS, MISSOURI.

CAR-TRUCK BOLSTER.

No. 819,186. Specification of Letters Patent. Patented May 1, 1906.

Application filed January 8, 1906. Serial No. 295,104.

To all whom it may concern:

Be it known that I, JOHN C. WANDS, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Car-Truck Bolsters, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view of my improved bolster. Fig. 2 is a side elevational view. Fig. 3 is a sectional view through the center of the bolster. Fig. 4 is a similar view taken at one side of the center of the bolster. Fig. 5 is a detail view of a key. Fig. 6 is a plan view of a modified form of a bolster, and Fig. 7 is a vertical sectional view through one end of said modified form.

This invention relates to a new and useful improvement in car-truck bolsters of the trussed type, the object being to construct the compression member of cast-steel, whereby the struts may be made integral therewith, the tension members being preferably in the form of rods which are removably inserted in position.

The construction shown is simple, cheap to manufacture, in addition to being exceedingly strong and well able to sustain the load and shocks to which devices of this character are subjected in service.

With these objects in view the invention consists in the construction, arrangement, and combination of the several parts, all as will be afterward described, and pointed out in the claims.

In the drawings, 1 indicates a casting provided with the usual center bearing 2, said casting being essentially I-shaped in section on each side of the center bearing and provided with a centrally-arranged strengthening-rib 3. At the ends of the I-shaped portions are heads 4, having recesses 5 in their side faces to receive the ends of the tension members 6. The tension members are shown in the form of headed rods, the heads of said rods fitting against shoulders in the recesses 5; but it is obvious that other forms of tension-rods could be employed, if desired. Key-seats are also arranged in the side faces of the heads, these key-seats accommodating keys 7, whose edges dovetail into the key-seats, said keys being preferably wedge-shaped and arranged outside of rods 6 and engaging under the heads thereof, so as to afford a solid support for said heads. These keys may be secured in position by rivets 8. Where separable side bearings are used, the bottom plate thereof may be extended laterally, so as to lie over the keys 7, and thus hold said keys in position. Beyond the heads 4 are horizontal webs 9, forming spring-seats, which webs are strengthened by the side flanges 10 and an intermediate flange 11. The side flanges 10 are provided with parallel vertically-disposed dovetailed seats preferably formed slightly tapering, so as to receive the removable column-guides 12, which column-guides are preferably held in position by rivets 13. The purpose of having the column-guides removable is to enable the bolsters to be removed from the truck without dismantling the side frame thereof. The casting 1 is provided with depending lugs 1^a at its center, constituting struts; but it is obvious that the struts could be formed separable.

In assembling the parts after the casting is in condition to receive the tension-rods said tension-rods are headed and heated, so as to readily fit into the recesses in the heads of the bolster, after which the keys 7 are arranged in position to hold the tension-rods in place. When the tension-rods shrink, they will draw the heads firmly against the shoulders and keys, so that the said heads will be firmly seated home.

By referring to Fig. 3 it will be observed that the recesses in the extension 1^a for the reception of the tension-rods are such as to permit the lateral introduction of the tension-rods into position.

Referring to the modification shown in Fig. 6, it will be observed that the tension-rods 6^a are headed at one end and pass through the openings formed in the outer inclined end wall of the head 4^a, the opposite end of each tension-rod being threaded to receive nuts which impinge against the inclined wall of the opposite end of the bolster.

I am aware that minor changes in the construction, arrangement, and combination of the several parts of my device can be made and substituted for those herein shown and described without departing from the nature and principle of my invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In a car-truck bolster, the combination

with a casting constituting a compression member, said casting having recesses formed in the side faces thereof at each end, and tension members which are seated in said recesses; substantially as described.

2. In a car-truck bolster, the combination of a casting constituting a compression member, said casting having heads at each end, the side walls of said heads being recessed, tension members seated in said recesses, and extensions projecting beyond the head portions, said extensions forming spring-seats; substantially as described.

3. In a car-truck bolster, the combination of a casting constituting the compression member, said casting having recesses forming seats for the headed ends of the tension member, a headed tension member, and means for holding said tension member in position; substantially as described.

4. In a car-truck bolster, the combination with a casting forming a compression member, said casting having a center bearing, heads at each end of the casting for supporting the side bearing, recesses in the sides of said heads, headed tension-rods whose ends are arranged in said recesses, keys for holding the ends of said tension-rods in position, and extensions projecting beyond each head and forming spring-seats; substantially as described.

5. In a car-truck bolster, the combination of a casting forming a compression member, said casting having shouldered recesses near each end, headed tension-rods having their ends arranged in said recesses, wedge-shaped keys coöperating with the ends of said tension-rods to hold them in position; and means for holding said keys in place; substantially as described.

6. In a car-truck bolster, the combination of a casting having dovetailed grooves at its ends, and column-guides arranged in said dovetailed grooves; substantially as described.

7. A car-truck bolster having tapered dovetailed grooves, and wedge-shaped column-guides arranged in said grooves; substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 5th day of January, 1906.

JOHN C. WANDS.

Witnesses:
F. R. CORNWALL,
GEORGE BAKEWELL.