

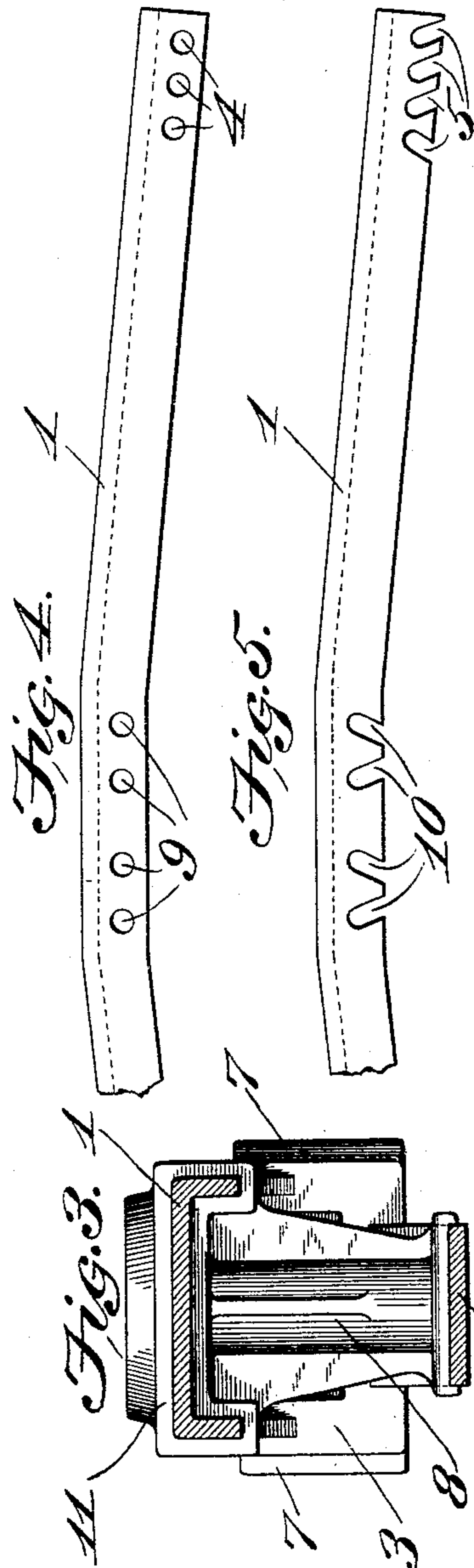
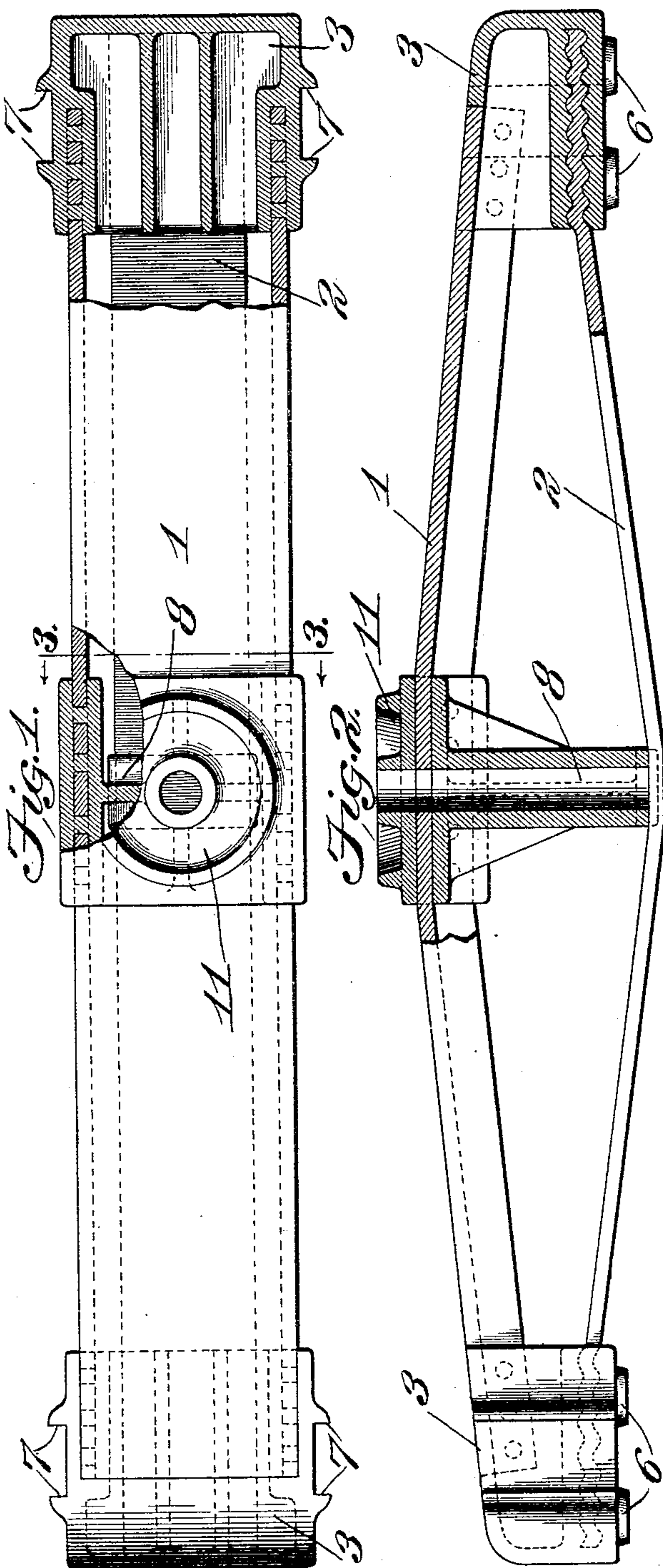
No. 713,368.

Patented Nov. 11, 1902.

J. C. WANDS.
CAR TRUCK BOLSTER.

(Application filed Aug. 11, 1902.)

(No Model.)



Witnesses:
G. A. Pennington
Ralph Talish

Inventor:
John C. Wands,
by R. A. Lowell Cornwall
Attys.

UNITED STATES PATENT OFFICE.

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

CAR-TRUCK BOLSTER.

SPECIFICATION forming part of Letters Patent No. 713,368, dated November 11, 1902.

Application filed August 11, 1902. Serial No. 119,280. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. WANDS, a citizen of the United States, residing at 5642 Von Versen avenue, St. Louis, Missouri, have invented a certain new and useful Improvement in Car-Truck Bolsters, (Case B,) 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 top plan view, partly in horizontal section, of my improved car-truck bolster. Fig. 2 is a side elevational view, partly in vertical section, of the same. Fig. 3 is a vertical cross-sectional view on line 3 3 of Fig. 1. Fig. 4 is a fragmentary view, in side elevation, of the compression member; and Fig. 5 is a similar view of a modified form of compression member.

This invention relates to a new and useful improvement in bolsters designed particularly for use in car-trucks, although my invention is equally applicable to bolsters for supporting the end of the car, commonly known as "body-bolsters" or "transoms," and also the principles of my invention are applicable to other types of truss-beams generally.

My invention consists in the construction, arrangement, and combination of the several parts, all as will hereinafter be described and afterward pointed out in the claims.

In the drawings, 1 indicates the compression member, which preferably consists of commercially-rolled channel appropriately cambered. This channel form of compression member is selected for reasons of economy and because the same may be readily obtained in the market. It is obvious, however, that other forms of compression members—such as I-beams, angles, Z-bars, &c.—could be used, and, further, that instead of being in the form of commercially-rolled sections said compression member could be cast or otherwise formed.

2 indicates the tension member, preferably in the form of a flat plate whose ends are grooved, perforated, or provided with transverse corrugations (the latter only being shown in the drawings) for permanent attachment

in castings 3. The ends of the compression member are also provided with openings 4 in their flanges or notches 5, as shown in Fig. 5, for permanent attachment in said castings 3. These end castings or "head-blocks," as they might be termed, are cast upon the ends of the tension and compression members. This can readily be done by introducing the ends of said members a proper distance into the mold and then pouring the molten metal, which enters the openings or grooves to firmly embed and permanently connect the tension and compression members therewith, so that said members practically become an integral part of the casting, thus dispensing with separate fastening devices. These end castings or head-blocks are arranged at each end of the bolster, and, as shown in Fig. 2, the lower faces of said castings are provided with circular bosses 6, forming spring-seats. The side faces of the castings are provided with vertical ribs 7, forming column-guides. The upper face of each casting beyond the compression member is preferably flush with the upper face of said compression member, and thus the end of the compression member is countersunk in the casting, which casting is in this way best adapted to act as a thrust-block in taking up the end thrusts of the compression member.

8 indicates the strut, which is in the form of a casting and made hollow to receive the king-pin. The flanges of the compression member opposite the strut are provided with openings 9 or recesses 10 (see Figs. 4 and 5) for the purpose of permitting the metal forming the strut to flow therethrough and provide a permanent attachment between the strut and the compression member. The lower end of the strut is preferably not permanently connected to the tension member, but is cast thereagainst, said tension member forming one of the walls of the mold. The center bearing 11 is an integral part of the strut, being connected thereto by walls arranged along the outer side faces of the compression member. This strut is reinforced by strengthening-webs, as shown. The end castings are also preferably cored to lighten the same.

I am aware that many 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 in the least departing from the nature and principle of my invention.

5 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A car-truck bolster comprising a commercially-rolled compression member, head-
10 blocks cast on the ends thereof, a tension member, and a strut; substantially as described.

2. A car-truck bolster comprising commercially-rolled compression and tension mem-
15 bers, head-blocks cast upon the ends thereof, and a strut; substantially as described.

3. A car-truck bolster comprising a commercially-rolled compression member, head-
20 blocks cast on, and interlocked with, the ends thereof, a tension member, and a strut; substantially as described.

4. A car-truck bolster comprising a flat plate tension member, head-blocks cast on,
25 and interlocked with, the ends thereof, a compression member, and a strut; substantially as described.

5. A car-truck bolster comprising a channel-shaped compression member, a flat plate
30 tension member, head-blocks cast on, and interlocked with, the ends of said compression and tension members, and a strut; substantially as described.

6. A car-truck bolster comprising a tension
35 member, a compression member, a strut, and head-blocks cast on and interlocked with the

ends of said compression and tension members, said head-blocks forming spring-seats and having projections forming column-guides; substantially as described.

7. A car-truck bolster comprising a chan- 40
nel-shaped member formed with openings or recesses near its ends, and head-blocks cast on the ends of said channel, the metal of said head-blocks entering the openings or recesses; substantially as described. 45

8. A car-truck bolster comprising a compression member, a strut, a flat plate tension member having its ends grooved or corru-
50 gated, and head-blocks cast on said grooved or corrugated ends; substantially as described. 50

9. In a car-truck bolster, the combination with a compression member formed with open-
55 ings, and a strut cast thereon, the metal of the strut filling said openings; substantially as described. 55

10. In a car-truck bolster, the combination with a compression member, a tension mem-
60 ber, a strut cast upon the compression member and engaging the tension member, said strut being interlocked with the compression member, and a center bearing integral with the strut; substantially as described. 60

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 9th day of August, 1902.

JOHN C. WANDS.

Witnesses:

GEORGE BAKEWELL,
G. A. PENNINGTON.