

No. 701,515.

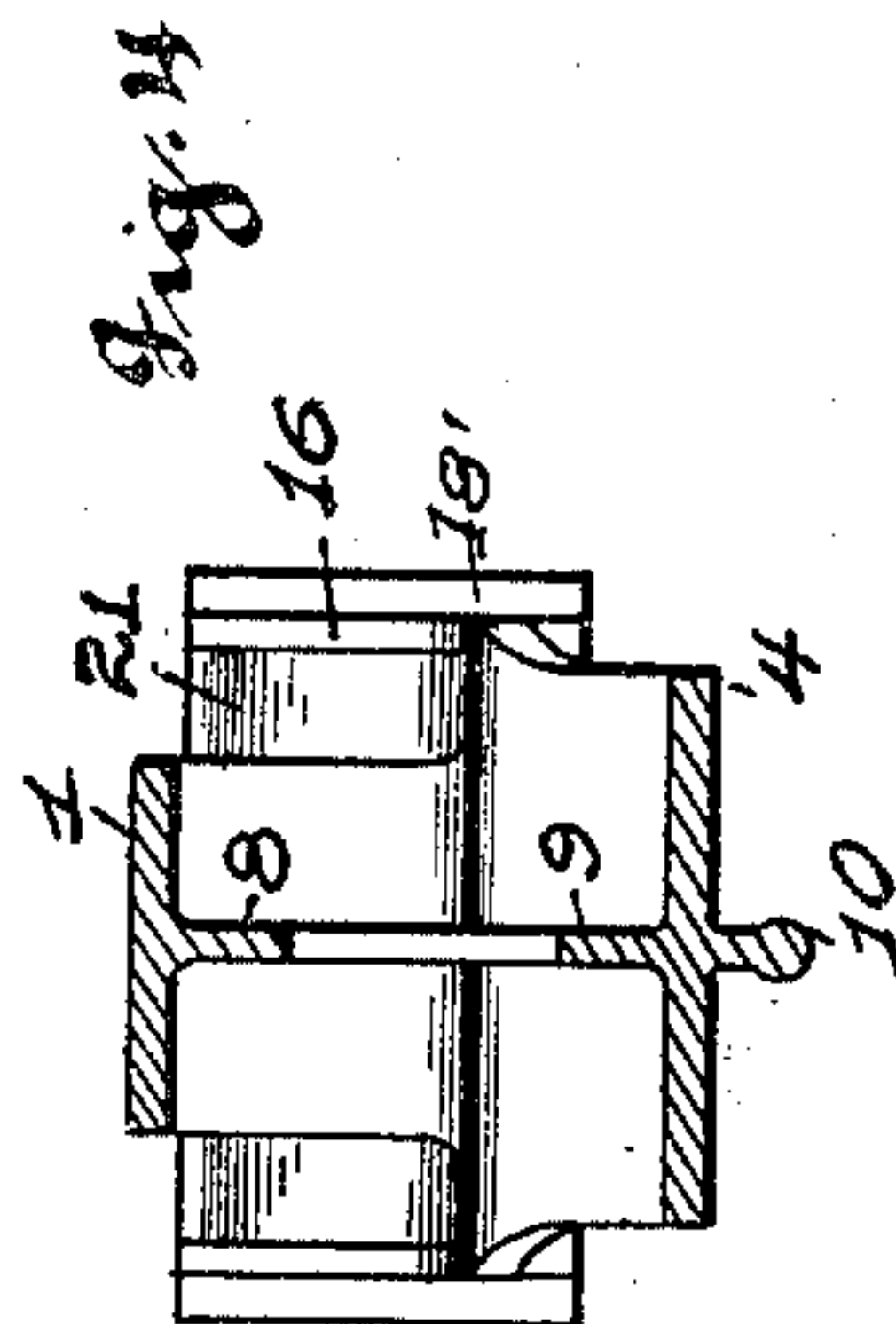
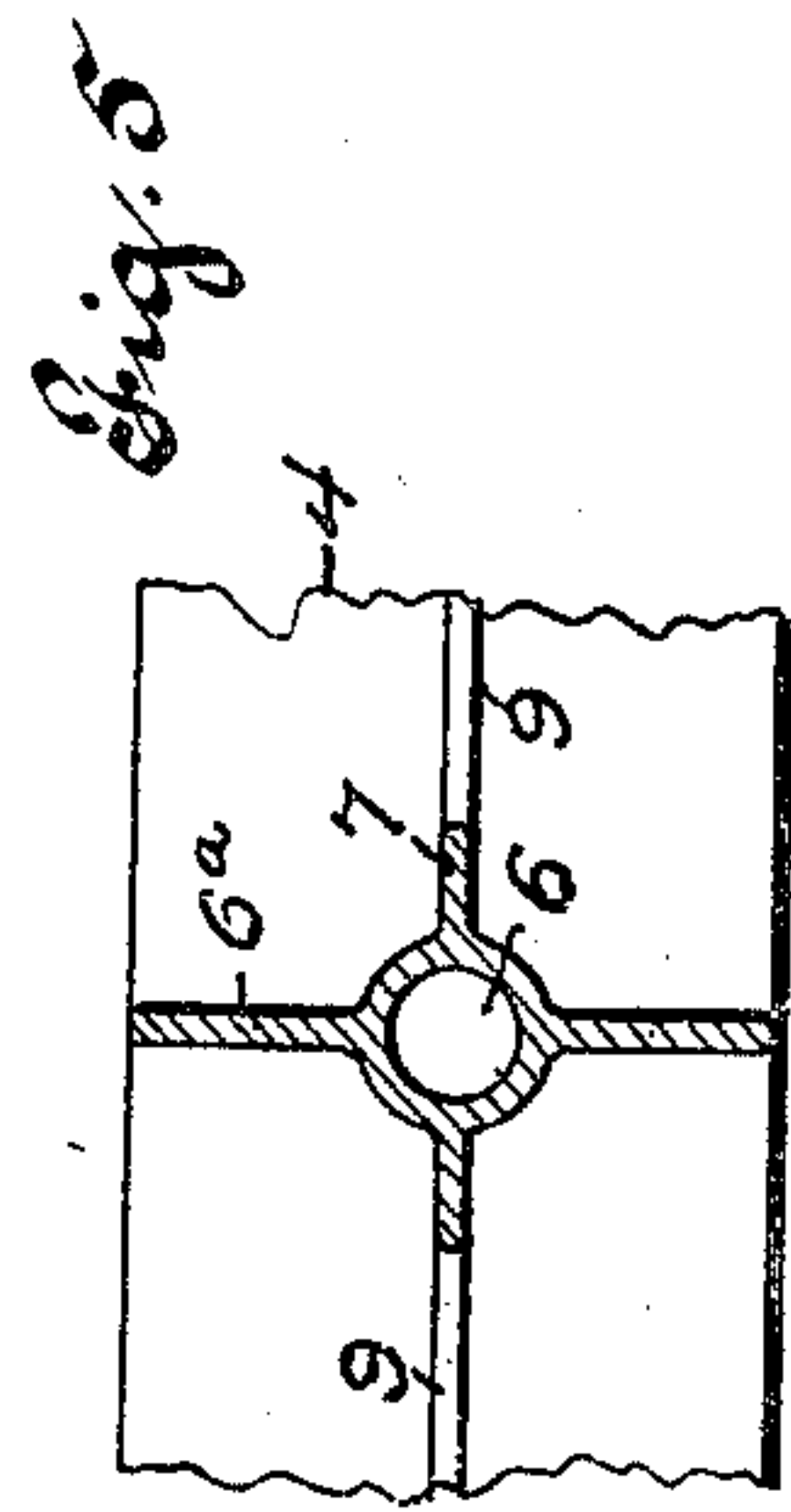
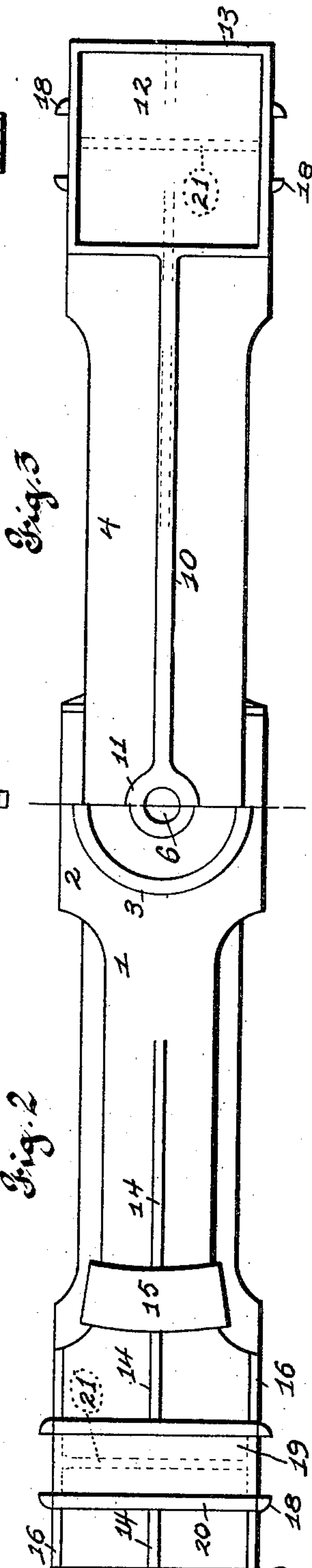
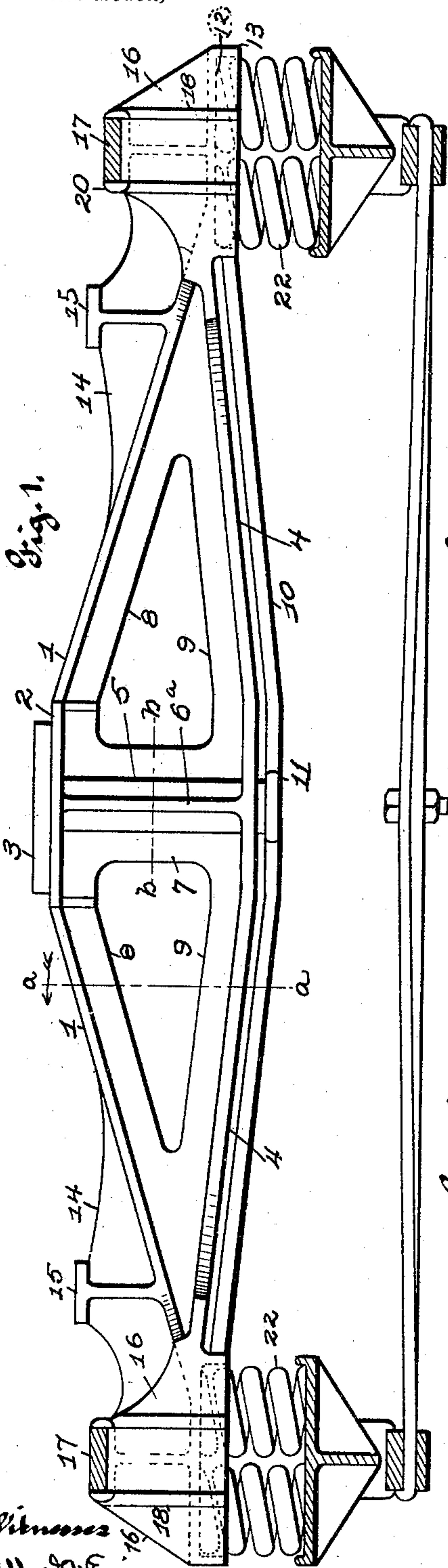
Patented June 3, 1902.

C. S. SHALLENBERGER.

CAR BOLSTER.

(Application filed Nov. 14, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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CAR-BOLSTER.

SPECIFICATION forming part of Letters Patent No. 701,515, dated June 3, 1902.

Application filed November 14, 1901. Serial No. 82,313. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. SHALLENBERGER, of the city of Milwaukee, Milwaukee county, State of Wisconsin, have invented certain new and useful Improvements in Car-Bolsters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

10 This invention relates to car-bolsters; and it consists of the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

15 The object of this invention is to provide a car-bolster constructed in the form of a single casting and composed of a strong lower tension member inclined toward its ends and a lighter upper member which serves as a brace or truss for the ends of the lower member, and these two members being connected
20 by a central bearing and converging together near their outer ends and the combined portions of said members formed into spring-seats to receive the ends of the springs and with
25 supports on their upper sides to receive the arches of the truck-frames, the space between the supports and the spring-seats being filled by integral walls and braces.

30 Figure 1 is a side view of my improved car-bolster, showing it mounted upon the springs. Figs. 2 and 3 are top and bottom views, respectively, of one-half of the bolster. Fig. 4 is a cross-sectional view taken on the line *a a* of Fig. 1 looking to the left. Fig. 5 is a sectional view of the center bearing, taken on
35 the line *b b* of Fig. 1.

My improved bolster is formed in one piece, composed of an upper brace or truss member 1, the middle of which is broader than the
40 side portions and is formed into a center bearing 2, provided with an annular flange 3, which forms a part of the bearing. The ends of this brace or truss member extend downwardly and outwardly, as shown, and their
45 outer ends are broadened and are combined with the strong lower tension member 4, the said lower member being connected with the brace or truss member by a center bearing 5, formed integral with the two members and
50 provided with a central opening 6 to receive

the king-bolt. The said part 5 is of smaller diameter than the bearings formed on the upper and lower members and is provided with the integral side flanges or webs 6^a, by which the said bearings are strengthened. 55
The outer sides of the part 5 are also provided with integral reinforcing webs or flanges 7, connecting the upper and lower members, and extend outwardly under the upper member, as indicated by 8, while the lower tension
60 member 4 is strengthened by the flanges 9, also formed integral therewith, and being combined at their outer ends with the flanges 8. The lower member is further strengthened by a web or flange 10, integral with the under side
65 thereof and extending throughout its length or to the spring-seats, which I will presently describe. Around the opening 6 the web or flange 10 is formed into a ring 11, serving to strengthen the center bearing and also to pro-
70 vide a suitable opening for the king-bolt. At the outer ends of the bolster are formed rectangular springseats 12, around which extend the flanges or walls 13, by which the springs will be held in position and the bolster pre-
75 vented from lateral or other movement. Vertical webs 14 are formed integral with the truss member 1, and the said webs support the side bearings 15, designed to receive the side bearings of the body bolster or transom, and the
80 said webs are also extended over the spring-seats and serve as compression-webs to give additional strength to that part of the bolster. Above each of the spring-seats 12 the walls or flanges 13 are extended, forming the side
85 walls 16, which form bearings or supports for receiving the arches 17 of the car-truck. These side walls occupy and fill the entire space between the spring-seats and the arches
90 17, and thereby dispense with the use of any blocks or other devices to fill up this space and complete the connection between these parts.

The vertical guide-flanges 18 are integral with the walls 16, and the guide-standards by
95 which the bolster is held in place operate between the said flanges, thereby preventing the bolster from being thrown laterally by the oscillation or other movement of the car.

The walls 16 are connected by the trans- 100

verse members 19, which form bearings for the support of the arches 17 and strengthen the side walls, and along the edges of the said members 19 are formed integral flanges 20, by which the arches 17 will be held in place. A vertical web 21 connects each of the members 19 with the upper side of the spring-seat 12, thereby forming a solid and rigid support for the said member and giving much additional strength to this part of the bolster.

As shown in Fig. 1, the car-springs 22 have their upper ends resting within the spring-seat 12 inside the walls and their lower ends bearing upon any spring-seat which may be provided.

The special advantages of my improved car-bolster reside in the fact that the bolster is formed in one single piece comprising the lower tension member and the upper brace or truss member connected by an integral center bearing and reinforcing-webs, which strengthen the bearings formed on the upper and lower members, and from this center bearing the said members are both inclined and converge toward their ends, near which they combine and are spread out, forming the spring-seats which rest upon the car-springs and which are provided with the retaining-walls 13, whereby the bolster and the springs will be held in the proper relative position. The reinforcing webs and flanges 8, 9, and 10 strengthen the upper and lower members, and the webs 14 give additional strength to that part of the bolster in which the upper and lower members are combined and also serve to support the bearings 15, and, as clearly shown in Fig. 2, the said webs 14 are extended between the side walls 16 and are connected to the members 19, by which the arches 17 are held in position. It will thus be seen that the entire device is formed in a single casting, and thereby all danger of loss or break-

age of the parts usually employed in composite car-bolsters is avoided.

It will be observed that the lower or tension member of the truck is much wider than the upper or compression member and is strengthened by integral webs on both its upper and under side. It is obvious that this part of the bolster will receive the greater strain instead of the upper part, as in car-bolsters of usual construction, and for that reason I make this departure from old principles in car-bolster construction and give greater strength to the lower member of the bolster. It will also be observed that the lower member has less inclination at each side of the center bearing than the upper member and that the upper member acts as a kind of brace or truss to strengthen this part of the bolster.

I claim—

A car-bolster, comprising an upper member 1, the middle of which is broader than its side portions and a lower member, a center bearing 5 connecting said members, reinforcing-webs integral with said center bearing and extending between said members, and the said members converging and being combined near their outer ends, a spring-seat formed at each end of the bolster, walls around the said spring-seat, side walls 16 extending upwardly from the spring-seat and forming bearings to receive the standards whereby the bolster is held in position, and the side bearings 15 formed integral with the upper side of the bolster for receiving the side bearings of the body-bolster, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES S. SHALLENBERGER.

Witnesses:

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