

(No Model.)

2 Sheets—Sheet 1.

W. CASE.
CAR BOLSTER.

No. 548,294.

Patented Oct. 22, 1895.

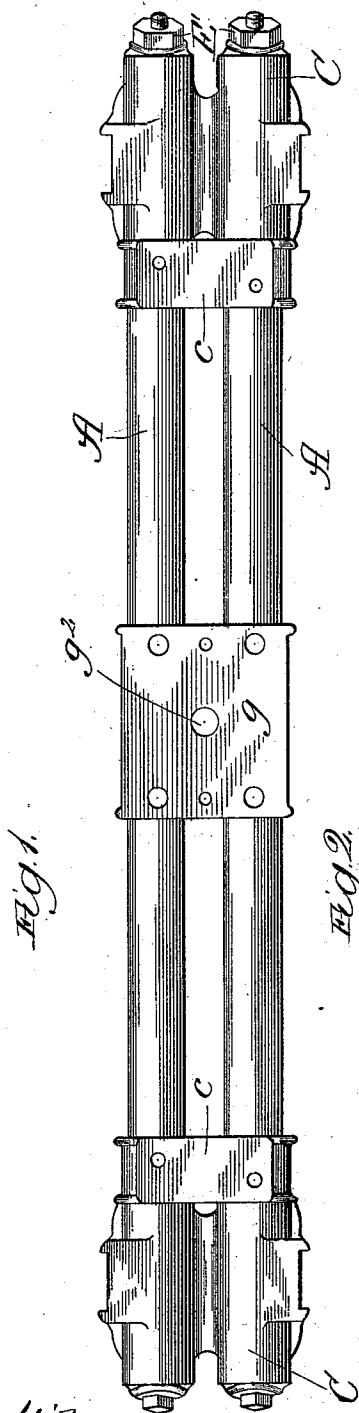


Fig. 1.

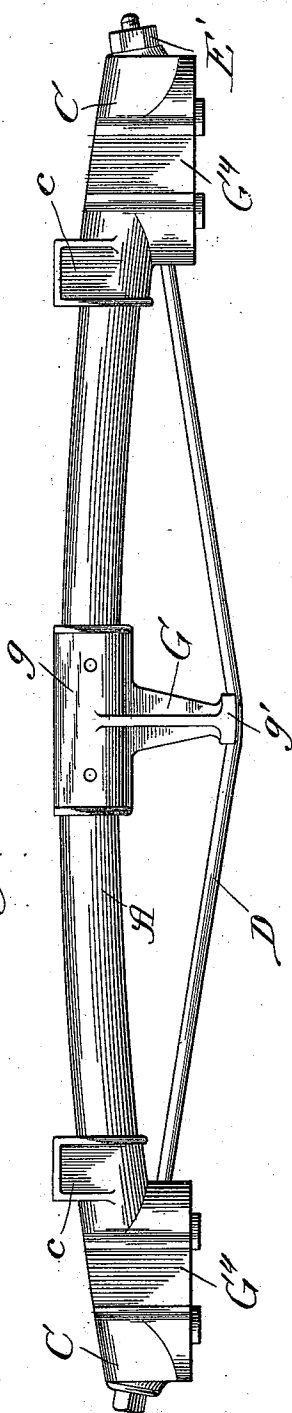


Fig. 2.

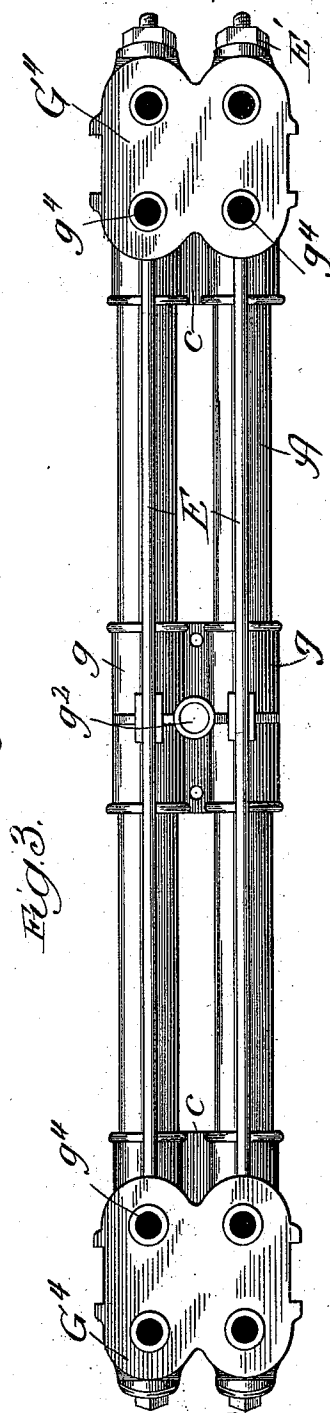


Fig. 3.

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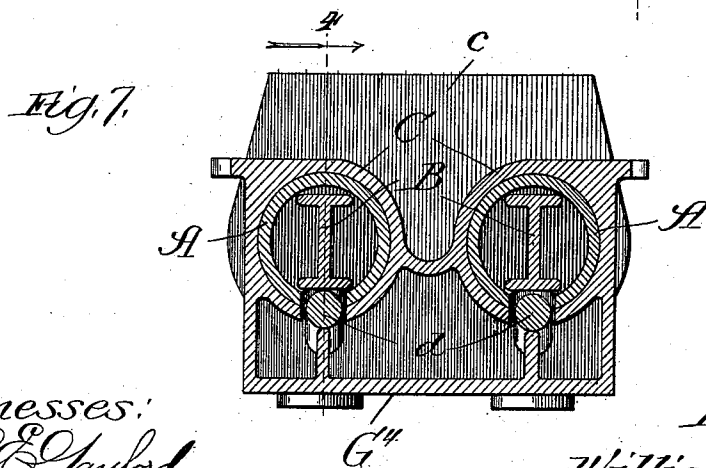
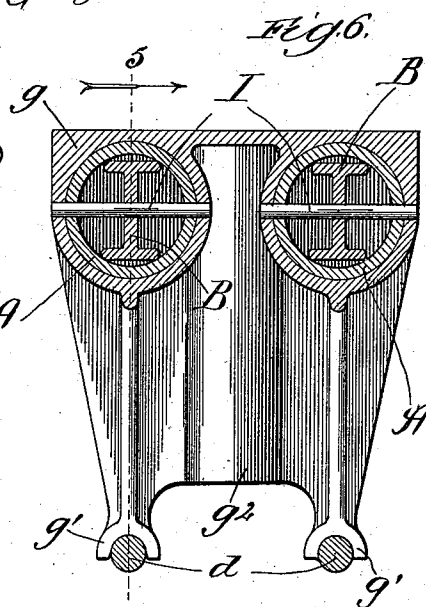
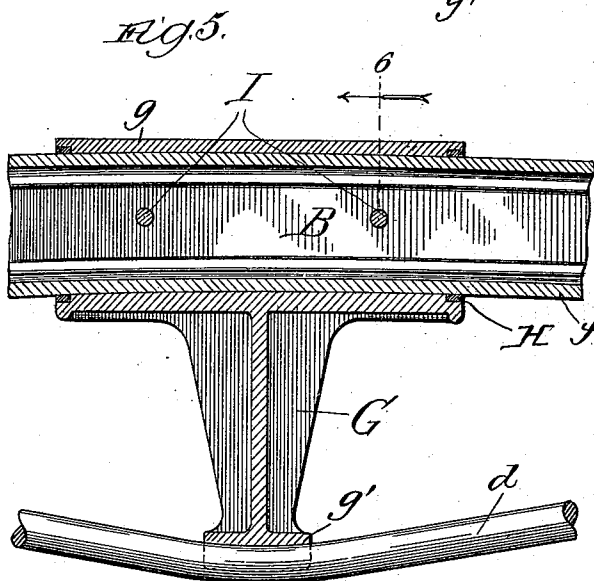
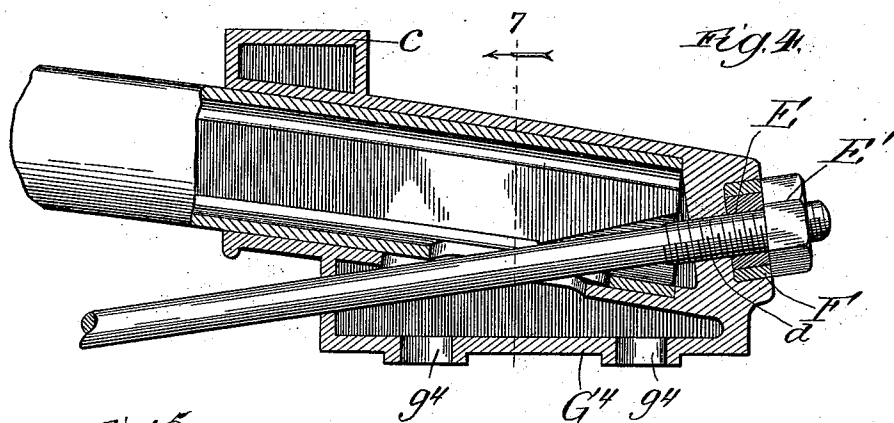
(No Model.)

2 Sheets—Sheet 2.

W. CASE.
CAR BOLSTER.

No. 548,294.

Patented Oct. 22, 1895.



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UNITED STATES PATENT OFFICE.

WILLIAM CASE, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE NATIONAL
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CAR-BOLSTER.

SPECIFICATION forming part of Letters Patent No. 548,294, dated October 22, 1895.

Application filed August 7, 1894. Serial No. 519,647. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM CASE, of Chicago, Illinois, have invented certain new and useful Improvements in Car-Bolsters, of which the following is a specification.

The object of my invention is to provide a simple, economical, and efficient car-bolster, made in several parts, constructed and arranged so as to readily permit the various parts to be detached from each other, replaced by new ones when desired, and easily secured together, as well as to more efficiently withstand the stress and strains incident to ordinary use; and the invention consists in the features and combinations hereinafter described and claimed.

In the drawings, Figure 1 is a plan view of my improved car-bolster looking at it from the top; Fig. 2, a side elevation thereof; Fig. 3, a plan view of the same looking at it from the bottom; Fig. 4, an enlarged detailed longitudinal section of one end, taken on line 4 of Fig. 7, showing the manner of securing several of the parts together; Fig. 5, an enlarged sectional view taken on line 5 of Fig. 6; Fig. 6, an enlarged transverse section taken on line 6 of Fig. 5, and Fig. 7 an enlarged transverse section taken on line 7 of Fig. 4.

In constructing my improved car-bolster I prefer to take one or more metal tubes A and bend them to such a shape as to give them a camber from the center to the ends. The cambering of the tubes provides the strongest possible form for the body portion of the bolster and enables it to more readily withstand the shocks and strains incident to ordinary use. I insert within these tubular members center strengthening-beams B, preferably I-shaped in cross-section, which extend from end to end of the tubular portion. I provide end portions C, preferably formed of cast metal, having sockets for the reception of the ends of a single or several tubes, and against which the ends of the tubes abut. These end portions are provided with side-bearing seats c, to which the side-bearing plates of the bolster may be removably secured as desired. These side-bearing plates are not shown or described, as they form no essential feature of my invention.

To secure the various parts rigidly together

I provide a truss-rod or rods D, having a threaded portion *d* at each end thereof and which pass through suitable openings in the end sockets. These threaded portions are provided with nuts E E', and to hold these nuts firmly in their locked position I provide the ends of the sockets with an irregular-shaped recess adapted to receive a locking-ring F, whose periphery is of the same configuration as the recess and which has a central opening of the shape and size of the inner nut, so that when the inner nut is drawn to its tightest position the locking-rings may be slid over them and into the recess, thus preventing the turning of such nuts until the locking-ring has been removed. I then apply the outer nut E', which prevents the removal of the locking-ring and locks the different parts together.

Interposed between the truss-rod and the tubular members is a strut G, having its main portion *g* fitting around the tubular members and its opposite end *g'* contacting the truss-rod. The ends of the main portion of the strut are provided with enlarged recesses to provide for metal calking H, to assist in holding the parts in their relative position and thus prevent or minimize the rattle or disturbing of the parts. I pass dowel-pins I through the body portion of the strut, tubes, and inner strengthening ribs, which also assist in retaining the parts in their relative position. The upper portion of the strut is preferably square in shape and forms a flat surface, to which may be removably secured a center-bearing plate, and is provided with a central opening *g*², through which a king-bolt may be passed.

In ordinary car structures where bolsters are used there are interposed between the bolster and the spring-plank a nest of several springs, formed of four or more spiral springs held in place between two spring-plates, the whole being bolted together. These spring-plates are necessarily very thin, and, as a consequence, become worn, warped, and broken very easily. My improvement dispenses with these spring-plates by providing the ends G³ of the bolster with a flat spring-seat *g*³ of the size and shape necessary to receive the nest of springs. This spring-seat is provided with

a suitable number of projections adapted to hold the springs, and these projections may be provided with holes g^4 , which serve to make the casting somewhat lighter.

5 I claim—

1. A car bolster, composed of at least two metallic tubes, an integral end portion at each end of the tubes provided with sockets to receive the tubes, a truss rod for each tube bent
10 at an angle to the tubes and secured in each end portion, means for securing such truss rods in each end portion, and a strut or struts passed around the tubes and contacting the truss rods, substantially as described.

15 2. A car bolster composed of a tube or tubes cambered from the center to each end thereof, a center strengthening beam passed through such tube or tubes, a cast end portion provided with sockets and side bearing seats, a
20 truss rod or rods at an angle to such tubular members and secured to the end portion, and a strut passed around the body portion and contacting the truss rod, substantially as described.

25 3. A car bolster composed of a metal tube or tubes cambered from the center to each

end thereof, a center strengthening beam in each tube or tubes, end portions provided with sockets and side bearing seats, a truss rod or rods secured in each end portion to
30 hold the parts rigidly together, lock nuts securing the truss rod to the end pieces, and a strut passed around the body portion contacting the truss rods and having its upper surface adapted to form the center bearing seat, 35 substantially as described.

4. A car bolster composed of a steel tube or tubes cambered from the center to each end thereof, strengthening beams in each tube, end portions provided with side bearing seats, 40 a truss rod or rods securely locked in each end portion, lock nuts securing the end portions and truss rod or rods together, a strut passed around the body portion and contacting the truss rods, and metallic calking in- 45 terposed between the strut and the tubular members to prevent loose play, substantially as described.

WILLIAM CASE.

Witnesses:

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