No. 715,417. Patented Dec. 9, 1902.

A. PANCOAST.

BOLSTER.

(Application filed June 14, 1902.)

(No Model.)

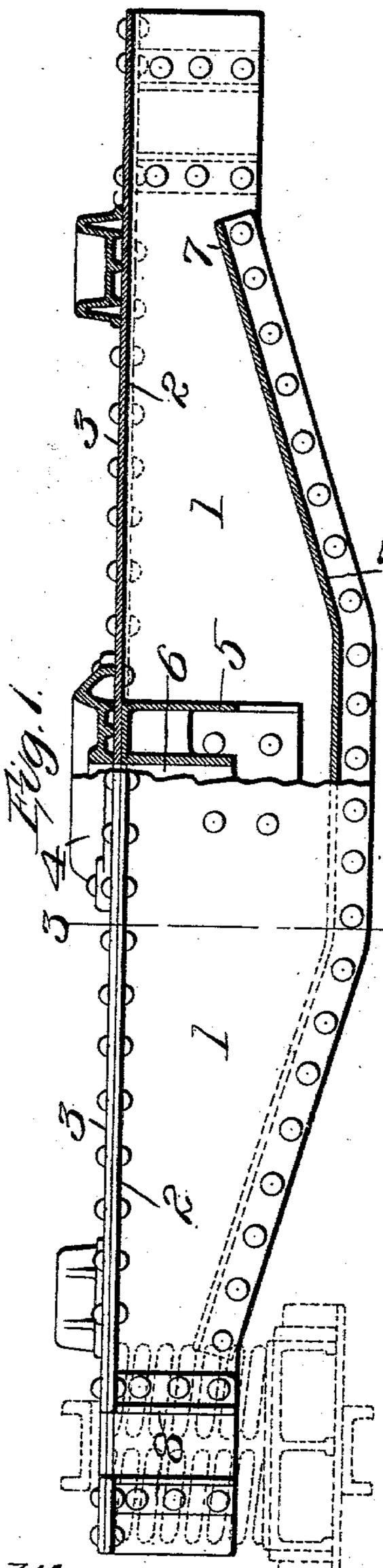

Fig. 1.

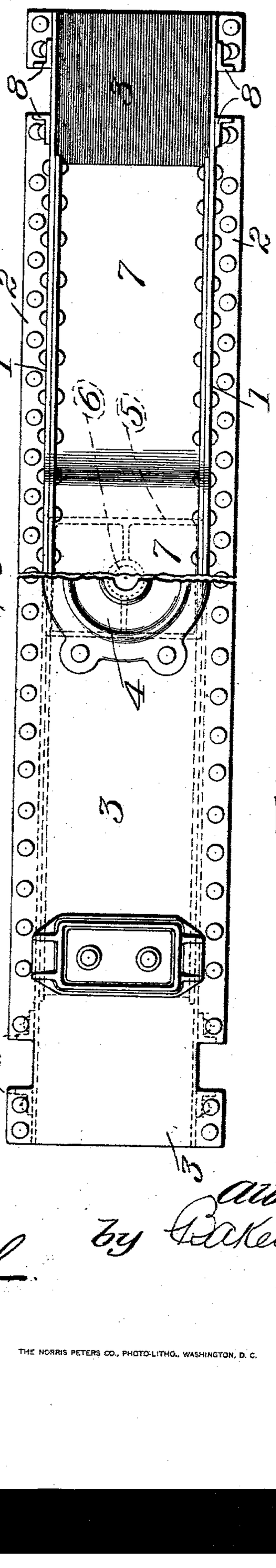

Fig. 2.

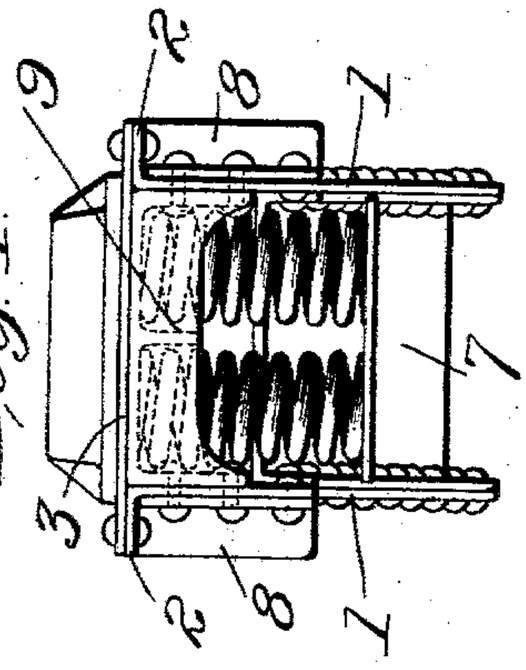

Fig. 4.

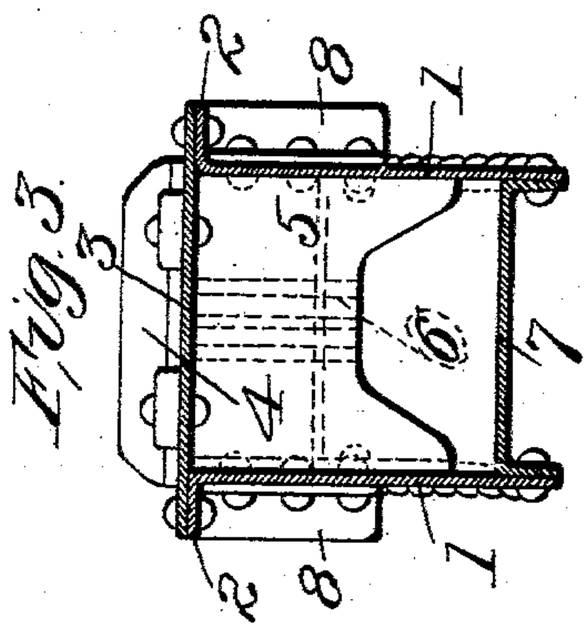

Fig. 3.

Witnesses:
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UNITED STATES PATENT OFFICE.

ALBERT PANCOAST, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO AMERICAN CAR & FOUNDRY COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF NEW JERSEY.

BOLSTER.

SPECIFICATION forming part of Letters Patent No. 715,417, dated December 9, 1902.

Application filed June 14, 1902. Serial No. 111,634. (No model.)

To all whom it may concern:

Be it known that I, ALBERT PANCOAST, a citizen of the United States, residing at Pittsburg, Pennsylvania, have invented a certain new and useful Improvement in 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 side elevational view of my improved bolster, one end thereof being shown in section. Fig. 2 is a plan view of the bolster, the left-hand end being a top plan view and the right-hand end an inverted or bottom plan view. Fig. 3 is a vertical sectional view on line 3 3, Fig. 1; and Fig. 4 is an end elevational view.

This invention relates to a new and useful improvement in bolsters designed especially for use in car construction, and while I have shown my improvement embodied in the form of a truck-bolster it is obvious with slight changes it could also be used to advantage as a body-bolster.

The objects of this present invention are to enable the use of the machine-riveter in the assemblage of the principal members and also to use commercially rolled or structural steel as said principal members, arranging them in such manner that a simple, strong, and cheap bolster is produced.

With these objects in view the 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 side web-plates, which are preferably provided with integral laterally-presented flanges 2 along their upper edges, or separate angles may be attached to said upper edges, said angles serving practically the same purpose. These flanges preferably extend to the ends of the bolster and, if necessary, are cut away or recessed to accommodate column-guides.

3 indicates the top cover-plate, preferably coextensive in length with the flanges 2, to which it is riveted. Said cover-plate, if necessary, may be cut away or recessed to accommodate the column-guides.

4 indicates the center-bearing, which is riveted in position, as usual. Side bearings (not shown) are also provided.

5 indicates a reinforcing-bracket, preferably of malleable casting, provided with an opening 6 for the king-pin. This bracket is secured to the top plate (and also the center-bearing) and to the side plates.

7 indicates a channel whose flanges are presented downwardly and riveted to the lower edges of the side plates.

8 indicates angles secured to the side plates near the ends of the bolsters, said angles forming column-guides.

It will be observed that the side plates have their lower edges at the ends of the bolster substantially parallel with their upper edges for a short distance and that the middle portion of the bolster is considerably deeper than these end portions; also, that the channel 7 is bent to the shape of the lower edges of the side plates, said channel terminating short of the ends of the bolster.

The middle portion of the bolster observes generally a box-girder form, the flanges 2 and the top cover-plate serving as the compression members, while the channel 7 serves as the tension member.

The springs which support the bolster may be seated either directly against the ends of the cover-plate 3 or a casting 9 may be interposed between the springs and cover-plate, said casting stiffening the ends of the bolster by being attached to the side webs by means of the same rivets which are employed for attaching the column-guides in place.

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

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A bolster, comprising side web-plates provided with laterally-presented flanges

along their upper edges, a cover-plate attached to said flanges, and a channel between the lower edges of the side web-plates, the ends of said channel terminating short of the cover-plate to provide space for the springs which support the bolster; substantially as described.

2. A bolster, comprising side web-plates provided with laterally-presented flanges along their upper edges, a cover-plate attached to said flanges, a channel between the lower edges of said web-plates, said channel being provided with a downwardly-extended flange from end to end and riveted to said web-plates, and a brace 9 forming a spring-seat between said web-plates, said brace being attached to the side web-plates at the ends of the bolster; substantially as described.

3. A box-girder bolster comprising web-plates with laterally-projecting flanges, a cover-plate of substantially equal length riveted to said flanges, a tension member provided with downwardly-projecting flanges, which are coextensive therewith, riveted to the web-plates and terminating short of the ends thereof, and means beyond the ends of said tension member forming spring-abutments; substantially as described.

4. A box-girder bolster consisting of web-plates, compression and tension members, the tension members terminating short of the ends of the compression member, and a stiffening-brace for the projecting portions of the web-plates forming a spring-seat between said plates; substantially as described.

5. A bolster comprising web-plates, a cover-plate, and a channel with its flanges presented downwardly, said channel terminating short of the ends of the bolster, column-guides, and a spring-seat for stiffening the side webs, said spring-seat being secured in position by the rivets which are employed for attaching the column-guides in place; substantially as described.

6. In a bolster, the combination with web-plates flanged laterally at their upper edges, said web-plates being made deepest at their middle portions, of a cover-plate attached to said laterally-presented flanges and extending throughout the length of the bolster, and a channel having its flanges presented downwardly, said channel extending only throughout the deepest portion of the bolster; substantially as described.

7. A bolster comprising flanged web-plates, a cover-plate attached thereto, and a tension-plate connected to said web-plates, in combination with reinforcing means between said web-plates at the center and at each end thereof; substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 31st day of May, 1902.

ALBERT PANCOAST.

Witnesses:
GETER C. SHIDLE,
J. J. SLOAN.