

No. 717,386.

Patented Dec. 30, 1902.

J. H. GEER & D. WISOR.

BODY BOLSTER.

(Application filed June 30, 1902.)

(No Model.)

Fig. 1.

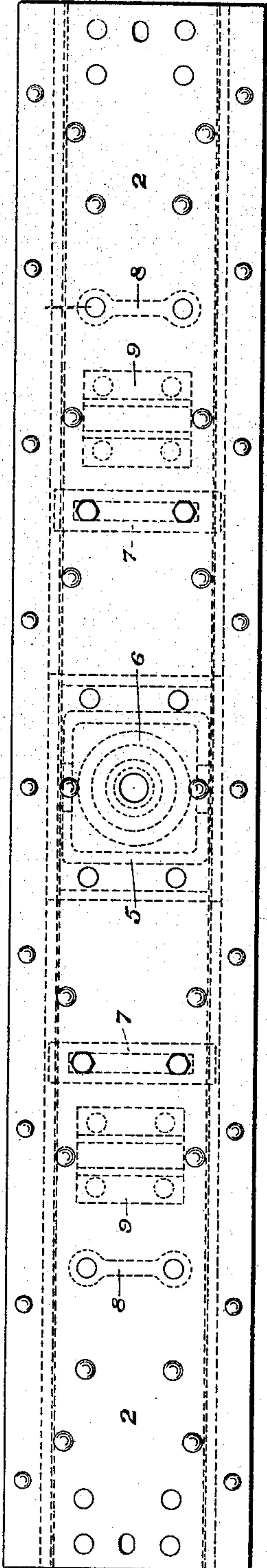


Fig. 2.

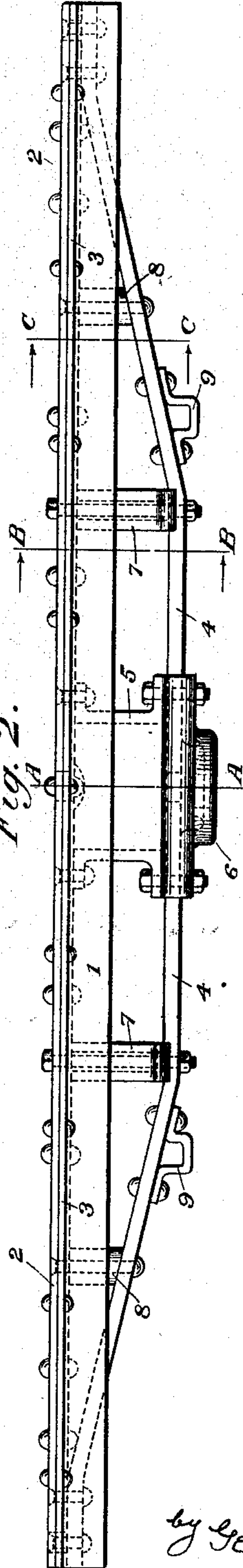


Fig. 3.

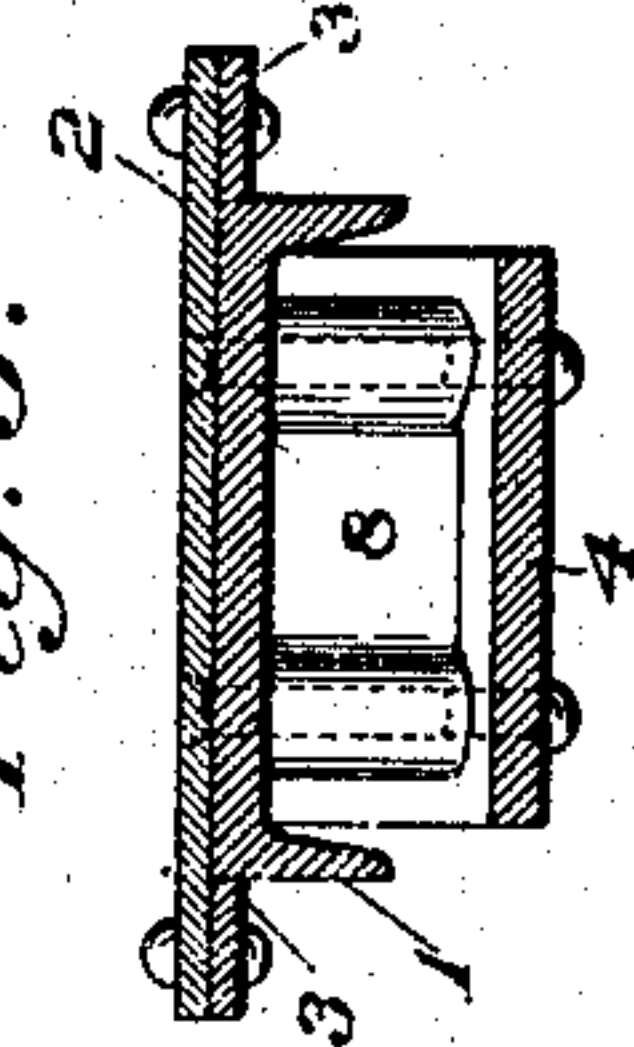


Fig. 4.

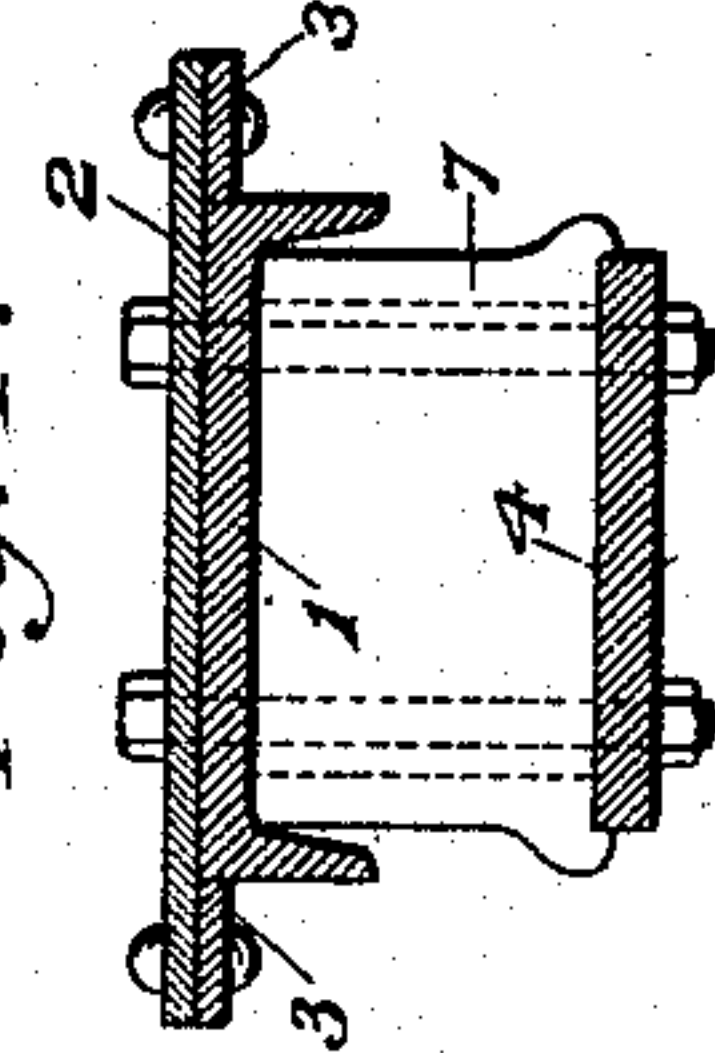
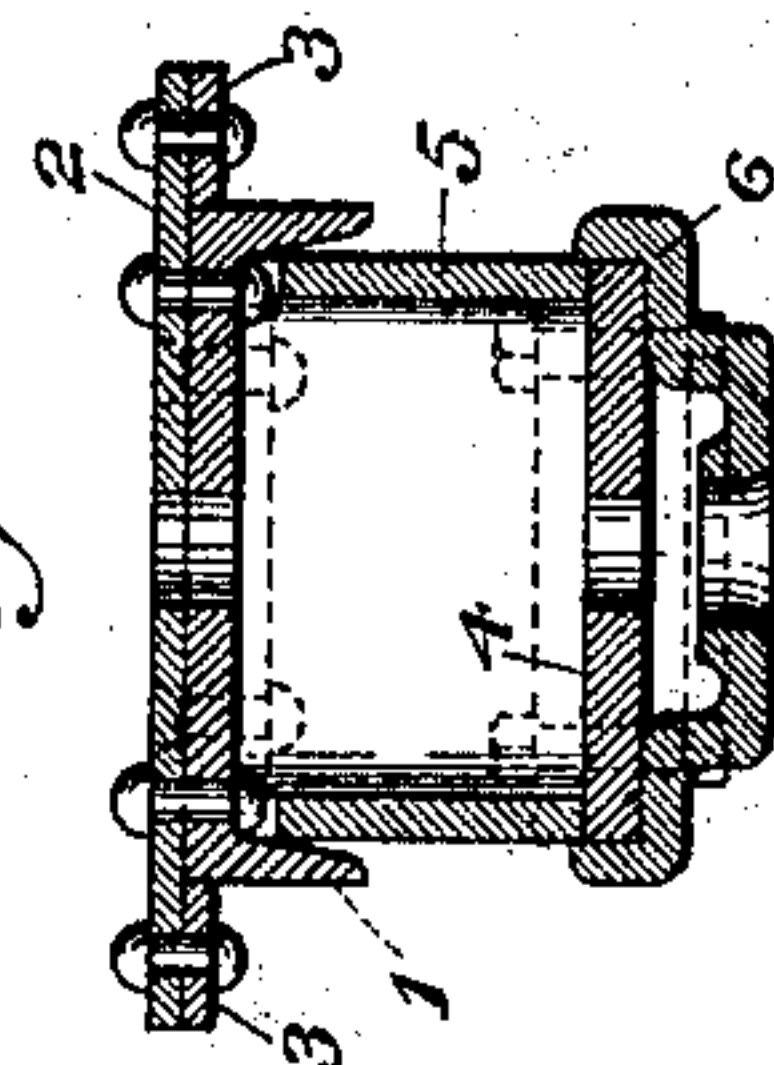


Fig. 5.



WITNESSES.

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UNITED STATES PATENT OFFICE.

JAMES H. GEER AND DAVID WISOR, OF JOHNSTOWN, PENNSYLVANIA.

BODY-BOLSTER.

SPECIFICATION forming part of Letters Patent No. 717,386, dated December 30, 1902.

Application filed June 30, 1902. Serial No. 113,693. (No model.)

To all whom it may concern:

Be it known that we, JAMES H. GEER and DAVID WISOR, citizens of the United States, residing at Johnstown, in the county of Cambria and State of Pennsylvania, have invented certain new and useful Improvements in Body-Bolsters; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention consists of various improved constructions of car-bolsters and the details thereof, with particular reference to those known as "body-bolsters."

Certain of the objects of our invention are to produce a structure well adapted to withstand the various stresses to which it is subjected in use, simple, cheap, and formed of materials easily obtained and manufactured.

We will now in order to make the matter more clear refer to the annexed sheet of drawings, which form part of this specification, and in which like figures refer to like parts.

Figure 1 is a plan of our bolster. Fig. 2 is a side elevation thereof. Fig. 3 is a central vertical sectional elevation on the line A A of Fig. 2. Fig. 4 is a vertical sectional elevation on the line B B of Fig. 2. Fig. 5 is a vertical sectional elevation on the line C C of Fig. 2.

Referring now to the various characters of reference upon the drawings, 1 is part of the top member, shown of channel-section. 2 is a flat plate riveted to the web thereof and projecting outwardly therefrom. 3 represents narrow reinforcing-plates or flat bars secured to the under side of said plate on each side of the channel-flanges, as shown.

4 is the lower or compression member, shown as a heavy bar, secured to the ends of the top or tension member and separated therefrom at the center by a center strut 5, which consists of a hollow four-sided casting having parallel walls and outwardly-projecting flanges by means of which it is attached to said upper and lower members with bolts and rivets, as shown. As shown in the various views, some of the rivets used are countersunk on

the upper plate in places where the longitudinal sills of the car will rest.

6 is a center bearing, (shown in this case as a casting,) which may be of any form desired.

7 represents the posts, which in connection with the middle support 5 serve to separate the lower member or bar 4 from the upper member of the bolster as well as give strength and rigidity to that part of the structure. They are shown as consisting of hollow flat castings having parallel walls between which through-bolts pass to secure them and the upper and lower members of the bolster together. Said posts 7 have their lower parts arranged to project over the sides of the bottom member 4, and thus confine it laterally as well as vertically, besides which these posts 7 and the middle support 5 are in turn confined at their upper extremities between the depending flanges of the channel 1.

8 represents intermediate posts or sleeves of link shape secured by through-rivets between the upper member and the inclined part of the lower member of the bolster, as shown. These posts or sleeves serve to give increased strength and rigidity to the ends of our bolster and are very efficient, owing to the link shape above mentioned, which makes the rivets or bolts cooperate, giving lateral stiffness to the structure, and thus increasing the efficiency of the whole.

Although we have shown our improvements in considerable detail, we do not limit ourselves to the exact particulars of construction and arrangement as herein described and illustrated, but may use such variations and modifications or equivalents thereof as are embraced within the scope of our invention and as pointed out in the claims.

Having thus given a description of our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a car-bolster of trussed construction, a top member composed of a rolled channel with dependent flanges, a plate riveted to and throughout the length of the top of the web of said channel and projecting sidewise beyond the channel-flanges, a reinforcing-bar secured to the under side of said projec-

- tions on each side of said channel member, a bottom member consisting of a flat bar secured to the ends of said top member, and a center strut secured between the middle portions of said top and bottom members.
2. In a car-bolster, a top member composed of a rolled channel with depending flanges, a plate riveted to and throughout the length of the top of the web portion of said channel, a bottom or compression member consisting of a flat bar secured to the ends of said top member, and a center strut secured between the middle portions of said top and bottom members.
3. In a car-bolster, an upper member composed of a rolled channel with its flanges extending downwardly and a plate riveted to and extending throughout the length of the top of the web of said channel members.
4. In a car-bolster, an upper member composed of a rolled channel with its flanges extending downwardly, a plate riveted to and extending throughout the length of the top of the web of said channel member and extending outwardly sidewise therefrom.
5. In a car-bolster, a top member composed of a rolled channel with dependent flanges, a plate of the same length riveted to the top of the channel member and projecting outwardly sidewise therefrom, reinforcing-bars secured to the bottoms of the projections on each side of said channel member.
6. In a car-bolster of trussed construction, a top member composed of a channel with dependent flanges, a plate riveted to and throughout the length of the top of the web of said channel member, a bottom member consisting of a flat bar secured to the ends of said top member, and a center strut located between and secured to said top and bottom members at the middle portions thereof.
7. In a car-bolster, a top member comprising a rolled channel with dependent flanges, a plate riveted to and throughout the length of the top of the web portion of said channel member, a bottom member consisting of a flat bar secured thereto at its ends and separated therefrom by a center strut composed of a hollow four-sided casting having parallel walls and outwardly-extending flanges secured to and between the middle portions of the top and bottom members aforesaid.
8. In a car-bolster, a top member comprising a channel with dependent flanges, a plate riveted to the web portion of said channel member and extending outwardly therefrom, a bottom member consisting of a flat bar secured to said top member at its ends and separated therefrom at its middle portion by a center strut composed of a hollow four-sided casting having parallel walls and outwardly-extending flanges secured to and between said top and bottom members.
9. In a car-bolster, a top member comprising a channel with dependent flanges, a plate riveted to the top of the web of said channel member, and projecting outwardly sidewise therefrom, reinforcing-bars secured to the bottoms of said outward projections, a bottom member consisting of a flat bar fastened to said top member at its ends and separated from it at its middle portion by a center strut composed of a hollow four-sided casting having parallel walls and outwardly-extending flanges secured to said top and bottom members.
10. In a trussed bolster the combination with its top member, bottom member, and center strut, of posts consisting of hollow flat castings having parallel walls and ends projecting at their bases over said bottom member.
11. In a trussed bolster, the combination of a top member and a bottom member secured together at their ends, a center strut consisting of a hollow four-sided casting having parallel walls and externally-projecting flanges secured to and between said top and bottom members, posts composed of hollow flat castings having parallel walls and projecting at their bases over said bottom member.
12. In a trussed bolster, a bottom member consisting of a flat bar secured to the ends of the top channel member and separated therefrom at the center by means of a center strut consisting of a hollow four-sided casting having parallel walls and externally-projecting flanges secured to said members, and posts composed of hollow flat castings having parallel walls projecting at their bases over said bottom member.
13. In a trussed bolster, a top member of channel-section, a bottom member consisting of a flat bar secured to the ends of said top member and separated therefrom at the center by means of a center strut consisting of a hollow four-sided casting having parallel walls and externally-projecting flanges secured to and between the middle portions of said members, and posts composed of hollow flat castings having parallel walls and projecting at their bases over said bottom member.
14. In a trussed bolster, a top member of channel-section having a flat plate secured to and throughout the length of the top of the web of said channel member, a bottom member consisting of a flat bar secured to the ends of said top member and separated therefrom at the center by means of a center strut consisting of a hollow four-sided casting having parallel walls and externally-projecting flanges secured to and between said members, and posts composed of hollow flat castings having parallel walls, and projections at their bases extending over the edges of said bottom member.
15. In a trussed bolster, a top member of channel-section, a bottom member consisting of a flat bar attached to the ends of said top member and separated therefrom at its center by a center strut, intermediate posts or

sleeves of link shape secured between said top member and the inclined part of the said bottom member.

16. In a trussed bolster, a top member of
5 channel-section arranged with its flanges dependent, a flat plate secured to and throughout the top of the web of said top member and extending outwardly therefrom, a bottom
10 member consisting of a flat bar attached to the ends of said top member and separated therefrom by a center strut consisting of a hollow four-sided casting having parallel
15 walls and outwardly-extending flanges secured to and between said top and bottom members, intermediate posts or sleeves of link shape fastened between said top member and the inclined part of said bottom member by through bolts or rivets.

17. In a trussed bolster, a top member of
20 channel-section arranged with its flanges dependent, a flat plate secured to and throughout the top of the web of said top member, and extending outwardly therefrom, a bottom member consisting of a flat bar attached
25 to the ends of said top member and separated therefrom at its middle portion by a center strut, intermediate posts composed of hollow flat castings or separators, and sleeves of link

shape fastened between said top member and the inclined part of said bottom member. 30

18. In a trussed bolster, a top member comprising a channel arranged with its flanges dependent, a plate riveted to and throughout the top of the web of said member and extending outwardly therefrom, said plate having
35 secured to the outward projections thereof a reinforcing-plate on each side of said channel, a bottom member consisting of a flat bar attached to the ends of said top member and separated therefrom by a center strut consisting of a hollow four-sided casting having
40 parallel walls and outwardly-projecting flanges, posts composed of hollow flat castings the lower portions of which project over the edges of the bottom member aforesaid, and intermediate posts or sleeves of link
45 shape fastened between said top member and the inclined part of said bottom member.

In testimony whereof we hereto affix our signatures in the presence of two witnesses. 50

JAMES H. GEER.
DAVID WISOR.

Witnesses:

STONE EDELEN,
HERBERT LUEBBERT.