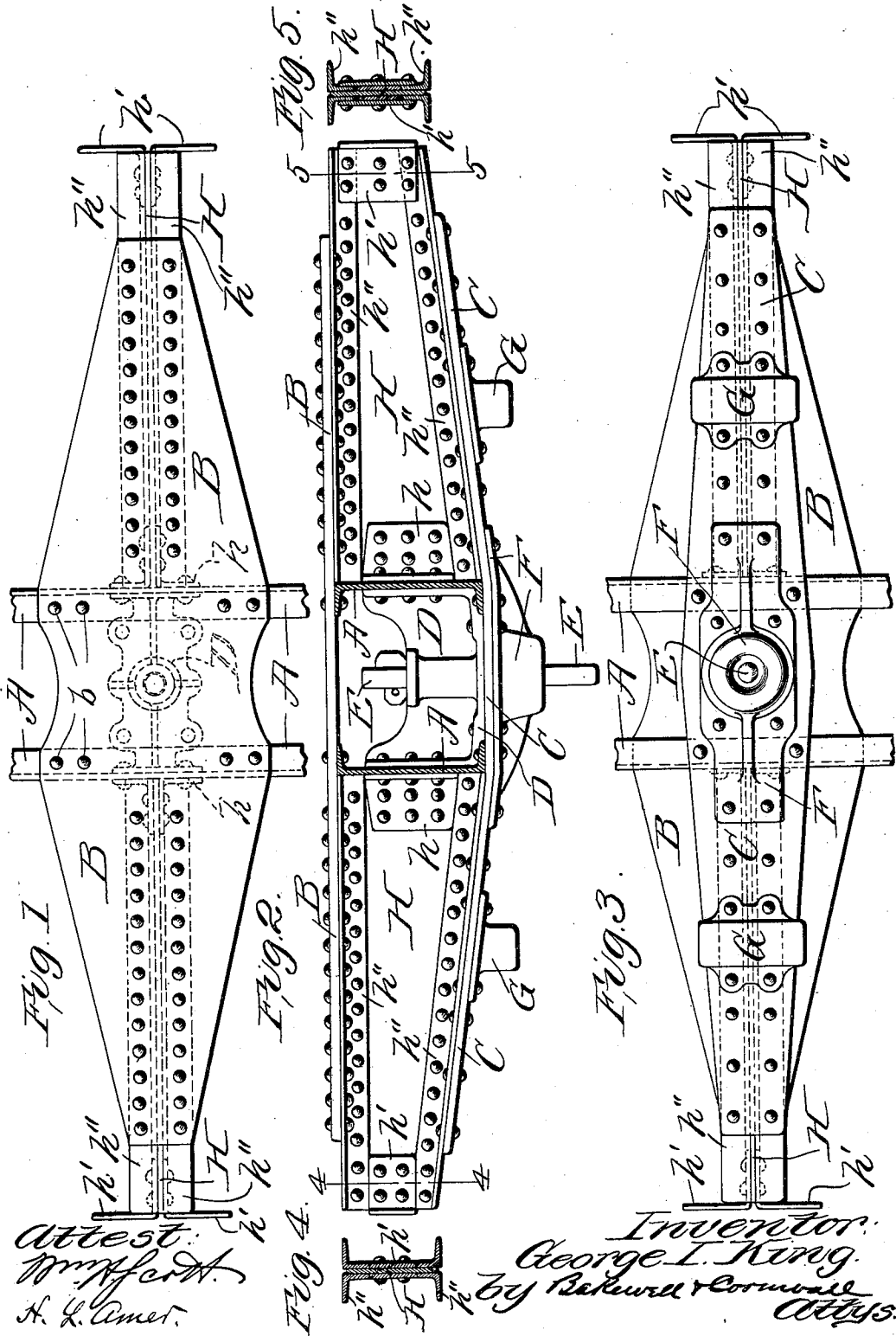


G. I. KING.  
BOLSTER FOR RAILWAY CARS.

(Application filed Nov. 23, 1900.)

(No Model.)



Attest:  
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# UNITED STATES PATENT OFFICE.

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## BOLSTER FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 678,886, dated July 23, 1901.

Application filed November 23, 1900. Serial No. 37,450. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE I. KING, a citizen of the United States, residing at the city of Detroit, in the county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Bolsters for Railway-Cars, 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 of my improved bolster. Fig. 2 is an elevational view. Fig. 3 is a bottom plan view. Fig. 4 is a sectional view on line 4 4, Fig. 2; and Fig. 5 is a sectional view on line 5 5, Fig. 2.

This invention relates to a new and useful improvement in bolsters for railway-cars, being designed particularly for use in connection with cars made up of pressed or structural steel form, although it is obvious that said bolster can be used in wooden cars.

In the drawings, A indicates the center sills, which center sills are preferably channels, said center sills forming the strut members of my improved bolster.

B indicates the top cover-plate, which is riveted to the center sills as at *b*, said cover-plate being the tension member of my improved bolster.

C indicates the bottom cover-plate, which is riveted to the bottom flanges of the center sills, said bottom cover-plate, as well as the top cover-plate, extending laterally almost to the extremities of the bolster.

D indicates a casting arranged between the center sills, said casting being provided with a hollow boss for the reception of the king-bolt E of the truck.

F indicates the center bearing, riveted to the bottom plate and to the casting D, and G indicates the side bearings, which are riveted to the bottom cover-plate.

H indicates web-plates, which are preferably sheared to the proper shape, so as to have the bolster deepest at its middle portion. These web-plates are connected to the center sills by angle or corner connection-plates *h* and to the side sills of the car or the side plates of the car by angle or corner connec-

tion-plates *h'*. These connection-plates *h'*, as shown in Fig. 4, may be of such width as to fit between the flanges of the angles *h''*, or, as shown in Fig. 5, they may be wide enough to span the vertical flanges of said angles *h''*, in which event a filler will be employed. It is obvious, however, that these connection-plates *h'* can be bent to accommodate the vertical flanges of the angles *h''*, whereby the use of filler-plates above referred to may be dispensed with. In order to afford a secure fastening between the web-plates and the top and bottom cover-plates, I arrange angles *h''* along the upper and lower edges of the web-plate H, whose vertical legs are riveted to the top and bottom cover-plates. Where the side sill of the car is in the form of a metallic member having inwardly-presented flanges, both the top and bottom angles *h''* can be extended out to the ends of the web-plate, so that rivets may be passed through their horizontal legs and the side sill. It will of course be understood that the ends of the bolster may be shaped to suit different conditions and to accommodate the bolster to various methods of fastening which may be employed therebetween and the side sills or the side plates of the car. Instead of having angles *h''* on each side of the web-plate, as shown in the drawings, it is obvious that this web-plate can be flanged over for the passage of the vertical rivets on one side, while the other side of the web-plate will be secured by a single angle *h''*.

It is not absolutely necessary that the web-plates abut snug against the center sills nor that they should be of the exact length to abut against the side sill or the side plate of the car, as the connection angles or plates take care of inequalities of this character.

It will be observed that as an entirety the bolster follows practically the lines of a plate-girder structure, the center sills serving to strengthen the same considerably, while the top plate forms the tension-flange of the girder and the bottom plate the compression-flange when the load is applied at the ends of the web-plates H.

I am aware that minor changes in the arrangement, construction, 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 I claim, and desire to secure by Letters Patent, is—

10 In a bolster, the combination with channel centersills having flanges projecting inwardly therefrom, and plain outer surfaces, top and bottom plates, web - plates extending outwardly from the plain sides of the center sills, said plates at their inner ends being of a depth coincident with that of the center sills, L-angles riveted along the top edge of the web-plates, said angles being regular throughout and occupying a horizontal plane in alignment with the upper surfaces of the center sills, means for securing the top plate to the

flanges of the angles, corresponding L-angles riveted along the bottom edges of the plates 20 and extending outwardly and upwardly, their inner ends being in alinement with the lower surfaces of the center sills, means for securing the bottom plates to the flanges of the lower angles, corner connection-plates intermediate of the ends of the respective angles 25 for securing the web-plates in position, and center and side bearings on the bottom plate, substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 21st day of November, 1900.

GEORGE I. KING.

Witnesses:

WM. H. SCOTT,  
H. L. AMED.