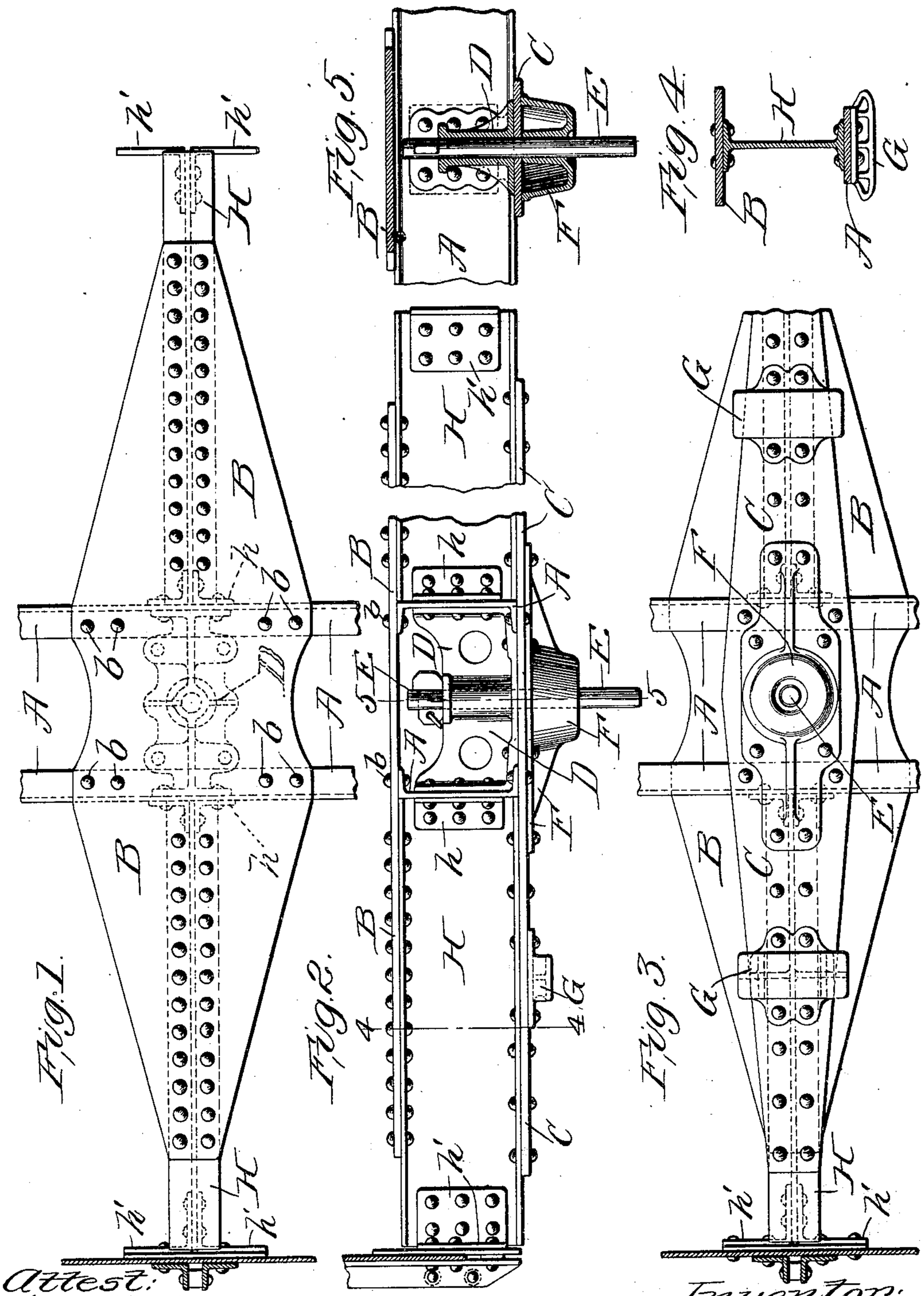
No. 678,885. Patented July 23, 1901.

G. I. KING.

BOLSTER FOR RAILWAY CARS.

(Application filed Nov. 23, 1900.)

(No Model.)



Attest:
Wm. H. Scott.
H. L. Amer.

Inventor:
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by Baldwin & Cornell Attys.

UNITED STATES PATENT OFFICE.

GEORGE I. KING, OF DETROIT, MICHIGAN, ASSIGNOR TO THE AMERICAN CAR & FOUNDRY COMPANY, OF ST. LOUIS, MISSOURI.

BOLSTER FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 678,885, dated July 23, 1901.

Application filed November 23, 1900. Serial No. 37,449. (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 I-shaped in cross-section, which I-shaped web-plates extend laterally beyond the ends of the top and bottom cover-plates, where they are secured to the side sills or the side plates of the car, as the case may be. Rivets pass through the top and bottom flanges of these web-plates for securing the top and bottom cover-plates in position while corner connection angles or plates *h* are riveted to the web-plates and to the center sills and the flanges of the casting D. Corner connection angles or plates *h'* are also riveted upon the ends of the web-plates H and serve as mediums for the connection or attachment of the side sills or side plates of the car to the bolster.

My improved bolster, with the exception of the casting D and the center and side bearings, is made up entirely of structural parts, and is therefore very simple in construction and easily assembled and repaired. The top and bottom cover-plates are preferably sheared, and in order to save weight in the top cover-plate the side edges are recessed between the center sills, leaving sufficient material to make the cover-plate as strong at this point as it is at the points of attachment to the center sills, taking into consideration the perforations in the cover-plate for the reception of the rivets. The web-plates H are short lengths of a well-known commercially-rolled structure I-shaped in section, and by the use of the corner connection angles or plates *h* and *h'* it is possible to have these webs cut off in required lengths at the mill, allowing the usual margin demanded by manufacturers in cutting shapes to lengths. 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 inequalties 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.

Having thus described my invention, what

I claim, and desire to secure by Letters Patent, is—

1. In a bolster, the combination with top and bottom plates, of center sills, I-shaped web-plates arranged on each side thereof and rigidly secured thereto, said web-plates being of uniform depth throughout and coincident with that of the center sills to constitute continuous bearing-surfaces for the respective plates, and means for securing the plates in place, substantially as described.

2. In a bolster, the combination with the center sills, of web-plates consisting of relatively short sections of commercially-rolled I-shaped beams arranged on each side thereof, the depth of the beams being uniform throughout and coincident with that of the center sills, a casting secured to the center sills intermediate of the inner ends of the web-plates, and means for securing the said plates to the center sills, substantially as described.

3. In a bolster, the combination with center sills, of I-shaped web-plates arranged on each side thereof, and secured thereto, said web-plates being of a depth coincident with the center sills to constitute continuous upper and lower surfaces, and top and bottom plates secured to the flanges of the web-plates and to the center sills respectively, said plates being widest at their points of connection with the center sills, 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. AMER.