C. A. LINDSTRÖM.

BOLSTER.

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943,980. Patented Dec. 21, 1909.

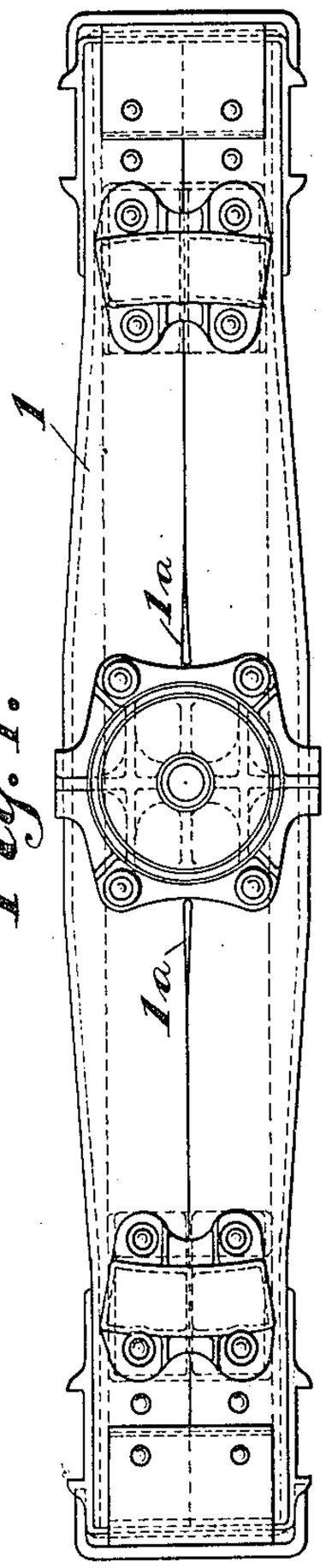

Fig. 1.

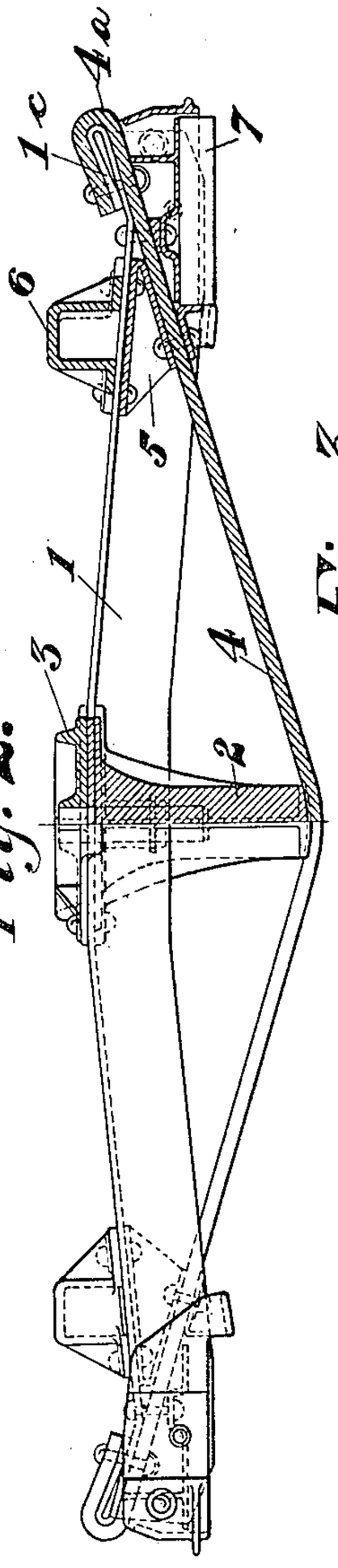

Fig. 2.

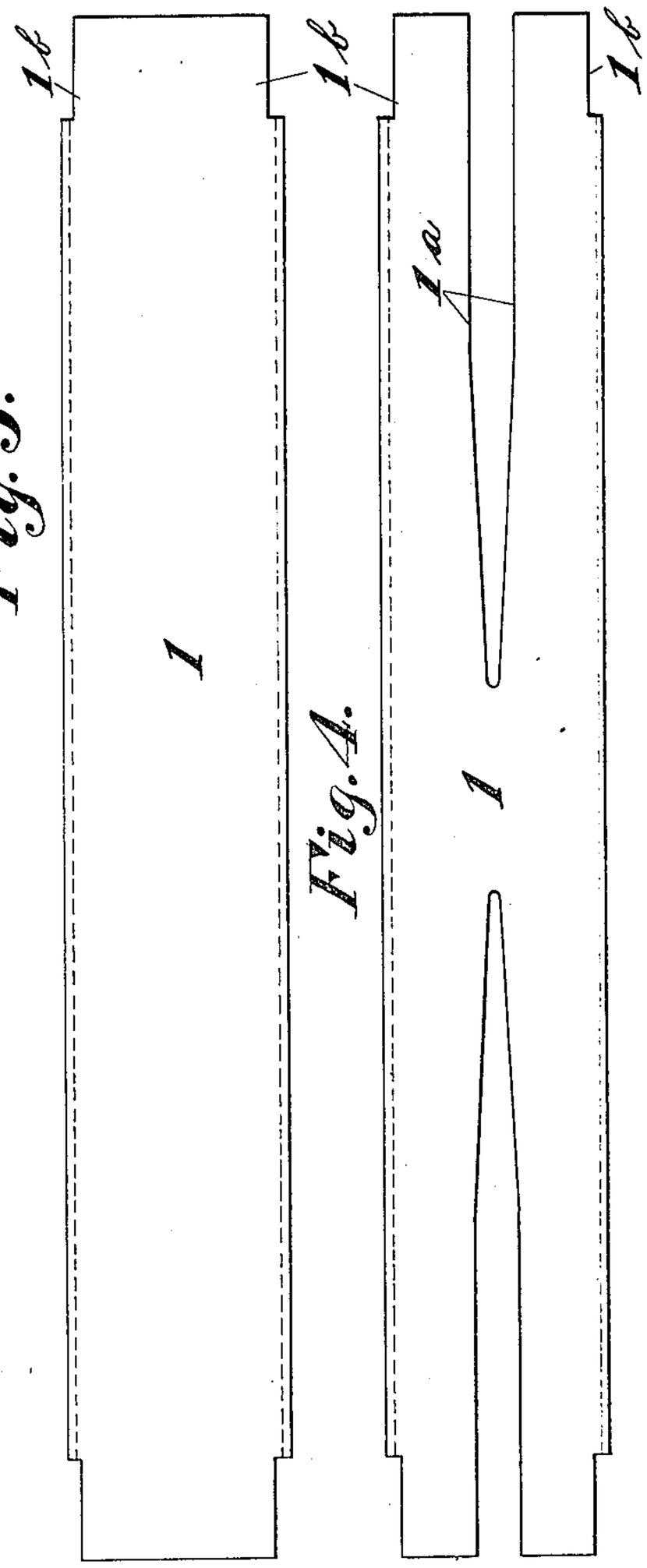

Fig. 3.

Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES A. LINDSTRÖM, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO PRESSED STEEL CAR COMPANY, OF PITTSBURG, PENNSYLVANIA, A CORPORATION OF NEW JERSEY.

BOLSTER.

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To all whom it may concern:

Be it known that I, CHARLES A. LINDSTRÖM, a citizen of the United States, residing at Pittsburg, north side, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Bolsters, of which the following is a specification.

An object of the present invention is to improve that type of bolsters for railway cars known as trussed bolsters, in which there is a tension member or members and a compression member or members, separated by a suitable strut or struts such as a king post, for instance.

A specific object of the present invention is to improve the compression member of such a bolster so that the same may be made of a commercial section, such as a rolled channel, and yet have the desired width at its center to sustain lateral and vertical strains and taper thence toward its ends so that it has the desired width at its ends. In bolsters of this type, the width of the ends of the bolster is limited so that ordinarily to make the compression member of a commercial section, of width desirable for ends of bolster, would limit the width of such member at its center, and to make such member of width suitable to withstand lateral and vertical strains of such member at its center would make the bolster too wide at its ends.

My invention makes possible the use of a commercial section for the forming of a bolster member of suitable width at both the center and the ends of the bolster, and in accomplishing this I take a commercial section of width suitable to give the desired strength of the bolster, vertically and laterally, at its central portion and reduce the width of the same in both longitudinal directions to give the proper width of the bolster at its ends.

In the drawings I have illustrated my invention as applied to a truck bolster wherein it is desirable to form the compression member of greatest width at its center to resist the vertical and lateral strains, and wherein it is desirable to make such member narrower at its ends in order that the bolster will fit properly in the side frames of the truck. It is to be understood, however, that the invention is equally applicable to body bolsters.

In the drawings, Figure 1 represents a plan view of a complete bolster constructed in accordance with my invention; Fig. 2 is a sectional side view of the same; Fig. 3 represents a blank, uncut, from which one of the members of the bolster is formed; and Fig. 4 is a view of the same showing the same cut for forming said member.

Referring now in detail to the drawings, 1 represents the compression member of my improved bolster formed from a blank, as shown in Fig. 3, by cutting or otherwise displacing said blank at 1^a so that an elongated V-shaped section thereof is removed from the plane of the web and by then pressing or forcing the ends or tines thus formed transversely toward each other until their adjacent edges are brought together so that the compression member 1 takes the shape shown in Fig. 1. The compression member 1 is preferably of rolled channel shape, although any suitable shape may be employed, the principal object of the present invention being to produce, economically, a taper shape of the compression member from its center toward its ends. After the taper shape of the compression member 1 has been produced and, preferably, sections of its flange removed at 1^b, at the four corners of said member, the king post 2 and the center bearing 3 are securely riveted to the compression member. The tension member 4 is then applied to the king post 2 and the compression member 1, the adjacent ends of the two members being preferably secured together through bending back upon themselves the flangeless portion of the web of the compression member 1 and then bending over upon such turned-back portion, the end of the tension member 4, after which rivets are passed through the turned-back portion of the tension member and the turned-back portion of the web of the compression member 1, the main portion of the web of the compression member and the main portion of the web of the tension member 4, so that a secure connection between the compression and the tension members, adapted to receive the thrust and strains to which these parts are subjected, is produced, the turned-back portion of the web of the compression member 1 constituting a filler giving a greater radius to the turn in the end of the tension member and neutralizing the shearing strain on the connecting rivets. It will

be noted from the drawings that the rivets which pass through the folded back portion of the tension member, the folded back portion of the compression member, the main portion of the compression member and the main portion of the tension member are arranged on either side of the cut 1^a in the compression member of the bolster. Thus the tension member forms a securing tie embracing the split ends of the compression member which makes it impossible for the split ends of the compression member to spread laterally. The tension member in this way further prevents any vertical relative movement between the adjacent split ends of the compression member. This construction makes the compression member as strong at its ends and elsewhere as if it were a continuous integral piece. The side bearing braces or supports 5 are next inserted between the converging ends of the compression and tension members and side bearings 6 are applied to the compression member above said supports or braces 5. Particular attention is also called to the construction of these side bearings 6, which are so constructed as to hold together the ends or tines at the ends of the compression member 1, the securing rivets for these side bearings 6 being disposed on either side of the dividing line or cut in the end of the compression member 1. 7 are the usual end castings riveted through the compression and tension members and through the tension member and side bearing brace or support 5. The rivets are so disposed through the end castings 7 that end castings 7 also tend to hold together the ends or tines at the ends of the compression member 1.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. A bolster having a member divided longitudinally and the portions thus produced brought together and a side bearing securing said portions together.

2. A bolster having a member divided longitudinally and the portions thus produced brought together and a side bearing and end casting securing said portions together.

3. A bolster having a member divided longitudinally and the portions thus produced brought together in combination with a second member wrapped about the divided portions of the first-mentioned member and riveted thereto to secure said divided portions to each other.

4. A bolster having a member divided longitudinally and the portions thus produced brought together, a side bearing and end casting securing said portions together, and a second member wrapped about the divided portions of said first-mentioned member and riveted thereto to further secure said divided portions against separation.

In testimony whereof I affix my signature, in presence of two witnesses.

CHARLES A. LINDSTRÖM.

Witnesses:
FRANK E. MILLER,
THOMAS B. DENHAM.