(No Model.)

C. T. WESTLAKE.

CAR BOLSTER.

No. 500,983. Patented July 4, 1893.

Fig. 1

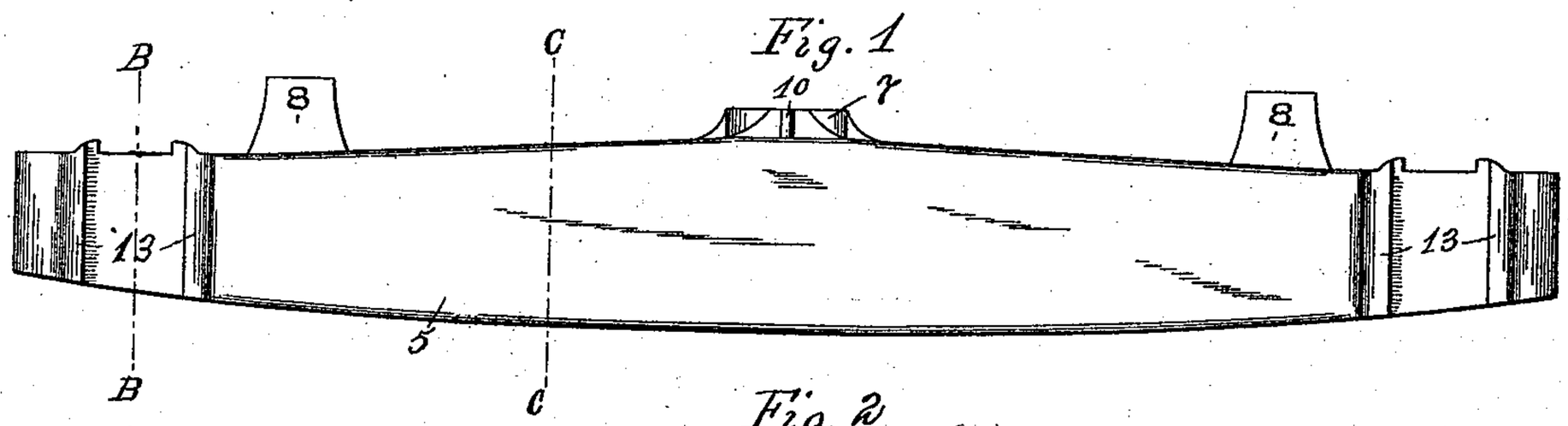


Fig. 2

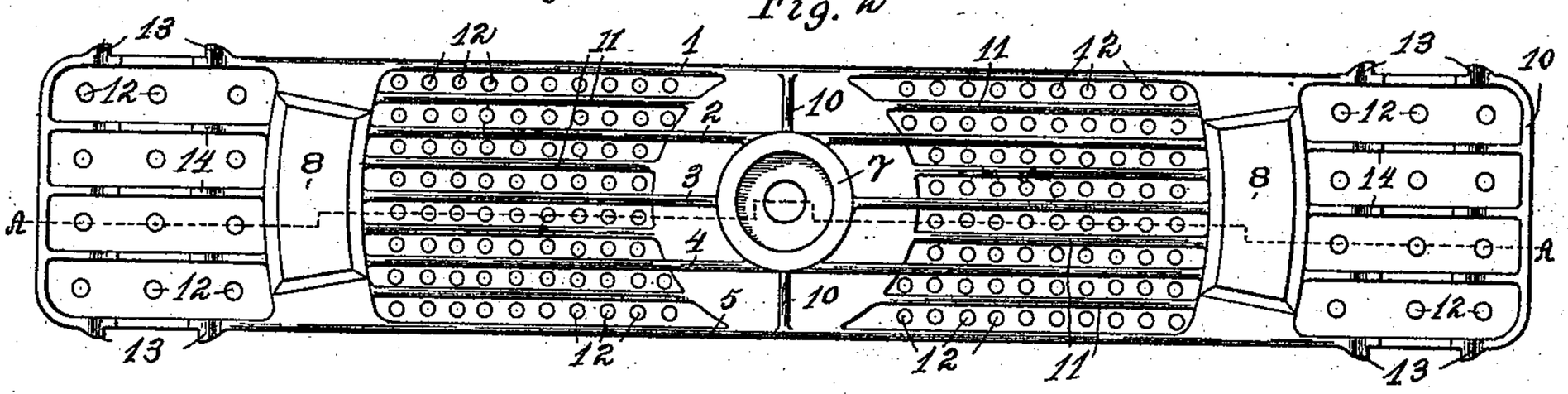


Fig. 3

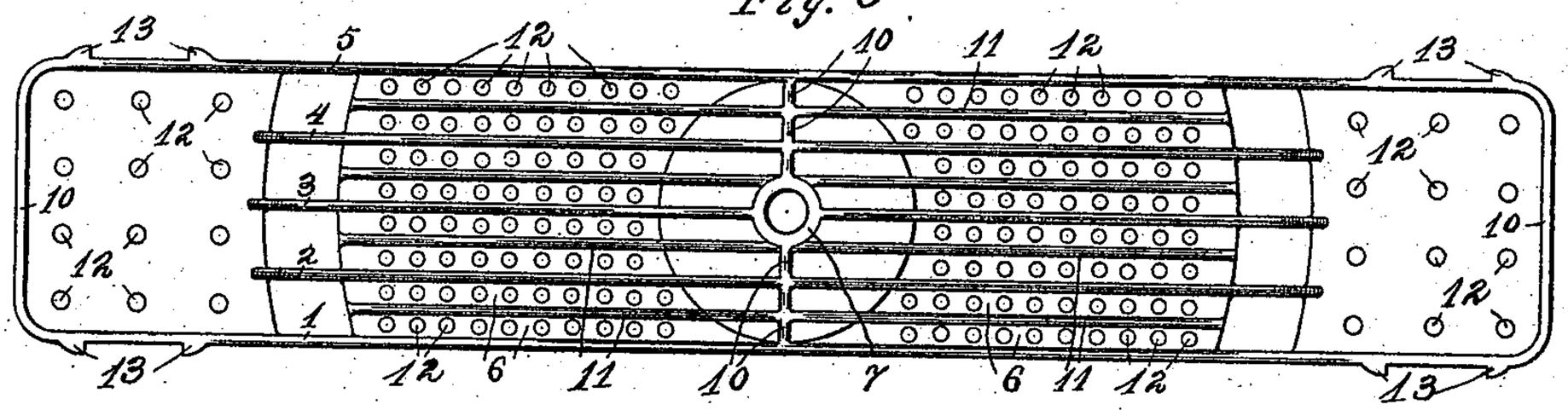


Fig. 4

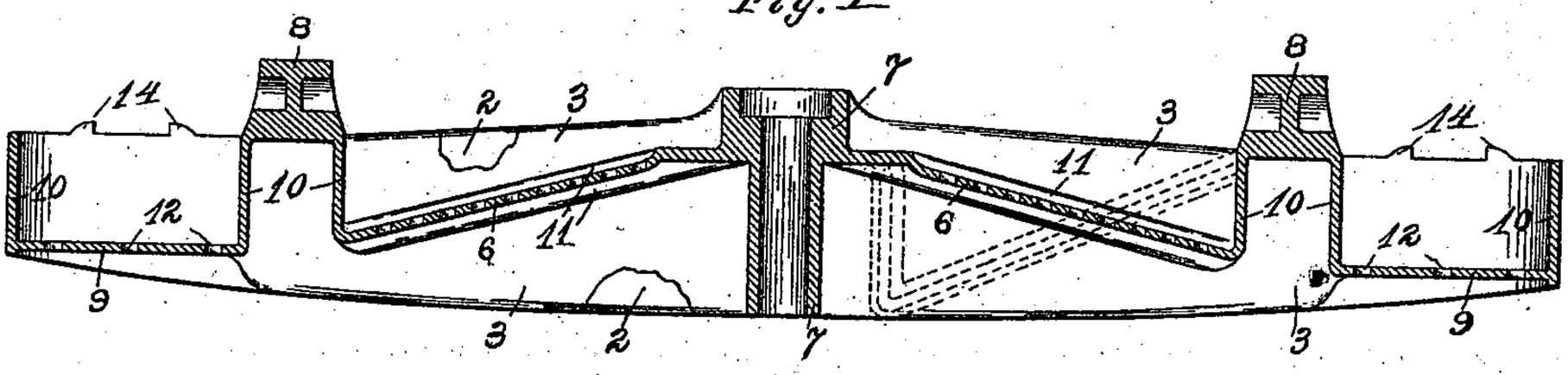


Fig. 5

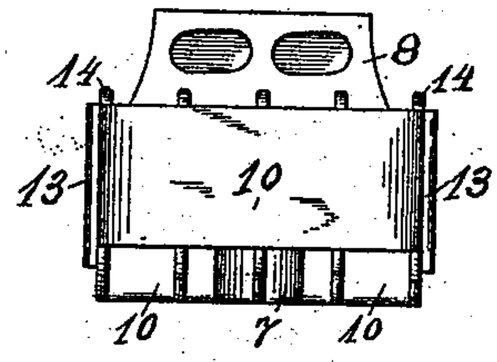


Fig. 6

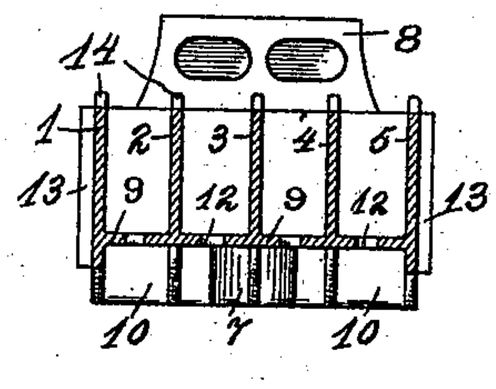
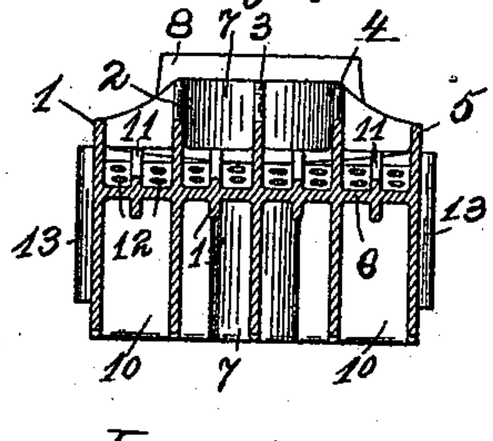


Fig. 7.



Witnesses=
W. J. Sankey.
G. E. Schefers.

=Inventor=
Charles T. Westlake=
By Higdon & Higdon & Longan Atty's.

UNITED STATES PATENT OFFICE.

CHARLES T. WESTLAKE, OF ST. LOUIS, MISSOURI.

CAR-BOLSTER.

SPECIFICATION forming part of Letters Patent No. 500,983, dated July 4, 1893.

Application filed April 24, 1893. Serial No. 471,638. (No model.)

To all whom it may concern:

Be it known that I, CHARLES T. WESTLAKE, of the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Car-Bolsters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

This invention relates to an improved bolster for car trucks, and consists in the novel combination, construction and arrangement of parts hereinafter described and designated in the claims.

The object of the invention is to provide an improved bolster of annealed or malleable cast iron, or equivalent metal, which shall have all its parts cast integral and complete.

In the drawings: Figure 1 is a side elevation of my improved bolster. Fig. 2 is a top plan view of same. Fig. 3 is a bottom plan view of same. Fig. 4 is a sectional side elevation, taken on line A—A of Fig. 2. Fig. 5 is an end elevation. Fig. 6 is a transverse section on line B—B of Fig. 1. Fig. 7 is a like view on the line C—C of Fig. 1.

The improved bolster is especially adapted to be used on trucks of that class in which the bolster is supported at its ends upon springs located in a truck-frame of the usual construction.

1, 2, 3, 4 and 5 indicate a series of vertical girder-plates located parallel and extending practically from end to end of the bolster, and all connected throughout their lengths by an integral truss-web 6.

7 indicates the center bearing, and 8 the side bearings, each cast integral. The truss-web 6 is depressed below the upper edges of the series of girder-plates 1, 2, 3, &c., and from a point adjacent said center bearing its body is slanted or inclined downward toward its ends, so that its outer ends form the spring plates 9 at the ends of the bolster. The series of girder plates 1, 2, 3, &c. are further united and bound together at various points in their length by means of short vertical webs or plates 10 extending transversely of the bolster, and formed integral therewith. The truss-web 6 is formed with stiffening ribs 11 extending longitudinally of the series of girder plates, one of said ribs being located between the adjacent girder plates, and thereby imparting additional strength to said truss web. The truss-web 6, at points intermediate of the stiffening ribs and the adjacent girder plates, is provided with a series of openings or cut away portions 12, for the purpose of reducing the weight of such parts. It will be observed that on the under side of the bolster the girder plates 2, 3 and 4 extend across and beneath the side-bearings 8, while on the upper side, said plates are continued out to the ends of the bolster. The space between the parallel girder plates, both above and below the truss-web 6, is opened from said web outward to the edge of said plates. Vertical projections 13 are formed adjacent the ends of the bolster and on opposite sides and parallel to each other, to form guides for the bolster guide-bars or columns. Arch-bar bearings are formed upon the upper side of the bolster adjacent each end, outside of the side bearings 8 by means of a series of projecting lugs 14 located upon the upper edges of the girder-plates, so as to lie in two rows extending transversely of the bolster. In some cases I may slant or incline the truss web 6 and its stiffening ribs 11 in a direction opposite to that in which they are here shown, as indicated by the dotted lines in Fig. 4, and thereby provide a tension truss instead of a compression truss, as the manufacturer may prefer.

I am aware that a car bolster has heretofore been made of pressed steel with its center-bearing, side bearings, and vertical guide bearings pressed in dies of all one piece, but this when set up of pressed steel of sufficient thickness to carry the weight of one hundred thousand pounds and upward has been of great cost and I make no claim thereto. In my improved bolster having all its parts cast integral of metal, preferably malleable iron, not only the body of the bolster, but the center bearings, side bearings and end bearings, truss and spring plates are formed in one piece, producing a bolster that is light and cheap, yet very strong.

What I claim is—

1. The improved car bolster composed of a series of parallel girder-plates, a truss-web, spring plates, side bearings and end bearings all cast integral, substantially as herein specified.

2. The improved car bolster constructed with a truss web, spring plates, side bearings and end bearings all cast integral of malleable iron, substantially as herein specified.

3. The improved car bolster constructed with a truss-web, spring plates, side bearings, end bearings, a center bearing and arch-bar bearings, all formed of an integral piece of cast metal, substantially as herein specified.

4. The improved cast metal car-bolster, constructed with a series of vertical parallel girder-plates, a truss-web extending at an angle and located below the upper edges of the series of girder plates, spring-plates, side-bearings, and a center-bearing, all cast integral, substantially as herein specified.

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

CHARLES T. WESTLAKE.

Witnesses:

ED. E. LONGAN,

JULIAN C. HANEY.