(No Model.)

W. STEPHAN.

CAR BOLSTER.

No. 566,546. Patented Aug. 25, 1896.

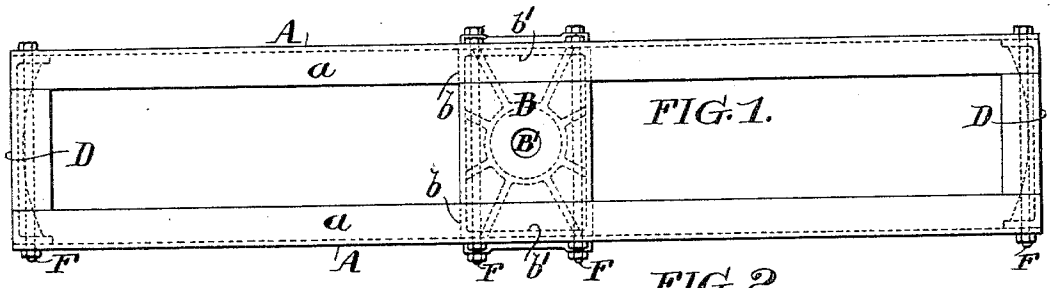

FIG. 1.

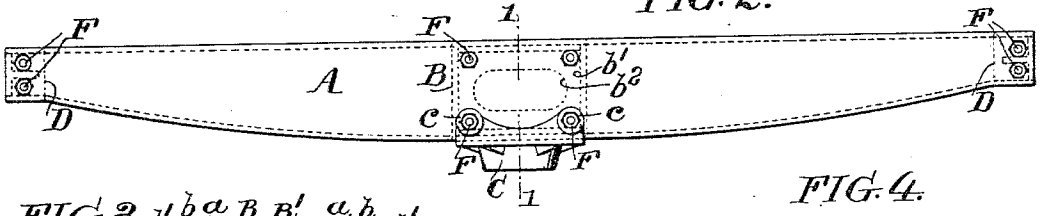

FIG. 2.

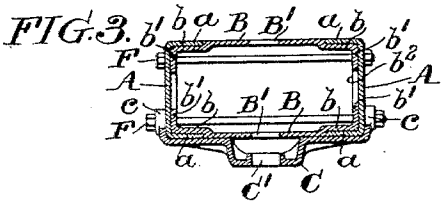

FIG. 3.

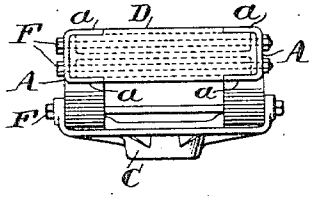

FIG. 4.

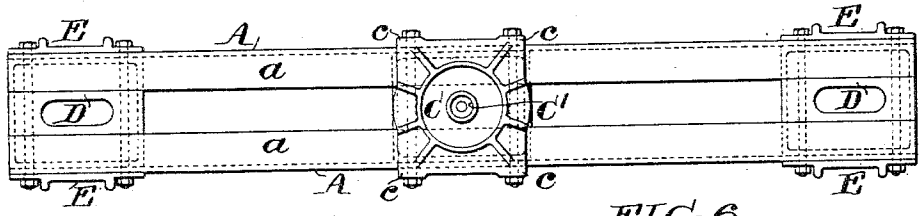

FIG. 5.

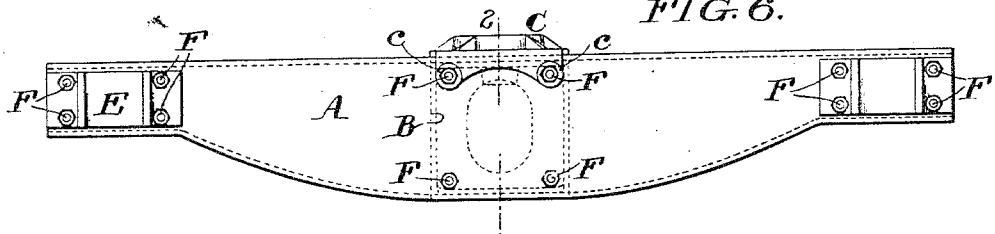

FIG. 6.

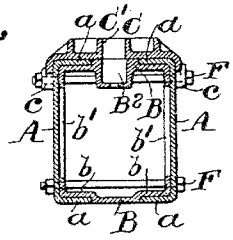

FIG. 7.

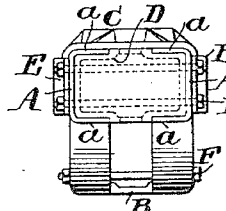

FIG. 8.

Witnesses.

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UNITED STATES PATENT OFFICE.

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CAR-BOLSTER.

SPECIFICATION forming part of Letters Patent No. 566,546, dated August 25, 1896.

Application filed January 15, 1896. Serial No. 575,598. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM STEPHAN, a citizen of the United States, residing in Fort Wayne, Allen county, in the State of Indiana, have invented a new and useful Improvement in Car-Bolsters, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to the construction of bolsters for railroad-cars, and has for its object to provide a bolster at once simple and cheap in construction and particularly strong and well adapted for its purpose.

The nature of my invention will be best understood as described in connection with the drawings, in which it is illustrated, and in which—

Figure 1 is a plan view of an upper bolster; Fig. 2, a side elevation of the upper bolster; Fig. 3, a cross-section through the bolster on the line 1 1 of Fig. 2; Fig. 4, an end view of the bolster. Fig. 5 is a plan view of the lower bolster; Fig. 6 a side elevation, Fig. 7 a cross-section on the line 2 2 of Fig. 6, and Fig. 8 an end view, of the lower bolster.

I have shown both the upper and lower bolster in the drawings, but so far as my invention is concerned it is embodied in both of them, and they may simply be taken as modifications of the same device.

A A indicate the side pieces of the bolster, of which there are two, each preferably made with a flat top and downwardly-curved bottom. The form of the downward curvature is preferably parabolic. Both of the side pieces A are provided with flanges *a a* at top and bottom, the flanges being thrown out in opposite directions, so that when the parts are assembled in a bolster the flanges *a* will extend toward each other, as shown. The side pieces A, which are preferably made of steel, and in all cases of rolled metal, are secured together in proper position by means of spreaders situated in the center and at the ends of the bolster and indicated at B and D D. These spreaders are cast metal, preferably of malleable casting, and are formed so as to fit between the side plates and between the flanges of the side plates, as shown. Thus the central spreader B fits against the inside of the plate A at *b'* and against the inside of the flanges *a* at *b*, and this central spreader is provided with holes, as indicated at B', for the insertion of the pivot-pin. In the case of the upper bolster the holes extend completely through the spreader, while in the case of the lower bolster a socket, as indicated at D^2, Fig. 7, is most conveniently used to receive the lower end of the pivot-pin, and the lower end of the spreader need not be perforated. In connection with the spreader I use on the bottom of the upper bolster and on the top of the lower bolster cap-pieces, as indicated at C, these cap-pieces being perforated, as indicated at *c'*, to permit the entrance of the pivot-pin, and being provided with flanges *c*, which fit over upon the outside of the plates A A. The spreaders D D also fit against the inside of the plates A and between and against the flanges *a a* of these plates, and the plates and spreaders, as well as the cap-pieces, are secured together by means of bolts F, the ends of which should be riveted down upon the nuts after the parts are all drawn to proper position.

E E, Figs. 5, 6, and 8, indicate guide-pieces also secured by the bolts which secure the end spreaders D to the side plates.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A car-bolster having in combination two flanged steel side pieces A having their flanges *a* arranged opposite to each other, cast malleable-iron spreaders B and D arranged between the flanged plates at their center and ends and bolts E passing from one side of the bolster to the other through the sides and cast spreaders to secure the parts together.

2. A car-bolster having in combination two flanged steel side pieces A having their flanges *a* arranged opposite to each other, cast malleable-iron spreaders B and D arranged between the flanged plates at their center and ends, a cast cap-piece C arranged to pass over the sides and center spreader B and having side lugs *c* extending along the outside of the side pieces A, and bolts E passing from one side of the bolster to the other through the sides and cast spreaders and cap-piece to secure the parts together.

3. A car-bolster having in combination two flanged steel side pieces A having their flanges

a arranged opposite to each other said plates having flat tops and downwardly-curved bottoms, cast malleable-iron spreaders B and D arranged between the flanged plates at their center and ends and bolts E passing from one side of the bolster to the other through the sides and cast spreaders to secure the parts together.

4. A car-bolster having in combination two flanged steel side pieces A having their flanges *a* arranged opposite to each other, a cast malleable-iron spreader B situated between the said pieces at the center of the bolster and extending across the center line thereof, cast malleable-iron spreaders D arranged between the side plates at the ends thereof and bolts passing through the sides and cast spreaders to secure the parts together.

5. A car-bolster having in combination two flanged steel side pieces A having their flanges *a* arranged opposite to each other, a cast malleable-iron spreader B situated between the side pieces at the center of the bolster and extending across the center line thereof, and malleable-iron spreaders D arranged between the side plates at the ends thereof, a cast malleable-iron cap-piece C arranged to pass over the sides and the center spreader B and bolts passing through the sides, cap-piece and cast spreaders to secure the parts together.

6. A car-bolster having in combination two flanged steel side pieces A having their flanges *a* arranged opposite to each other, a cast malleable-iron spreader B arranged between the side plates at their center and formed to come flush with the flanges *a* between the side plates, cast malleable-iron spreaders D arranged between the side plates at their ends and formed to come flush with the flanges *a* between the side plates and bolts E arranged to secure the said plates and spreaders together as described.

7. A car-bolster having in combination two flanged steel side pieces A having their flanges *a* arranged opposite to each other, a cast malleable-iron spreader B arranged between the side plates at their center and formed to come flush with the flanges *a* between the side plates, a cast malleable-iron cap-piece C resting upon the flanges *a* and the portion of the center spreader between said flanges said cap-piece having lugs *c* extending down on the sides of the plates A and bolts E arranged as described to secure the said plates, spreader and cap-piece together.

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