

No. 666,276.

Patented Jan. 22, 1901.

G. I. KING.
BOLSTER FOR RAILWAY CARS.

(Application filed Sept. 4, 1900.)

(No Model.)

Fig. 1.

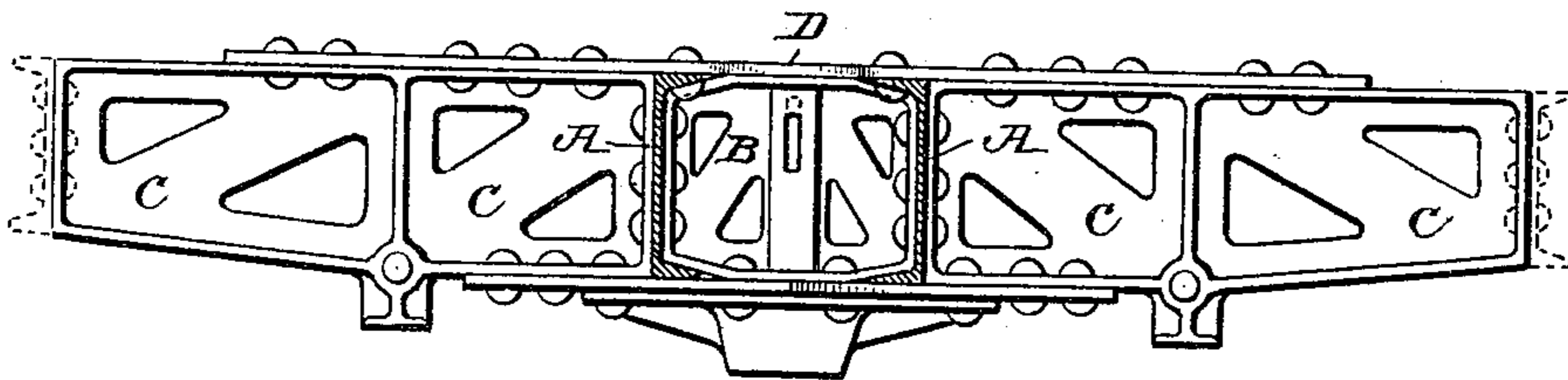


Fig. 2.

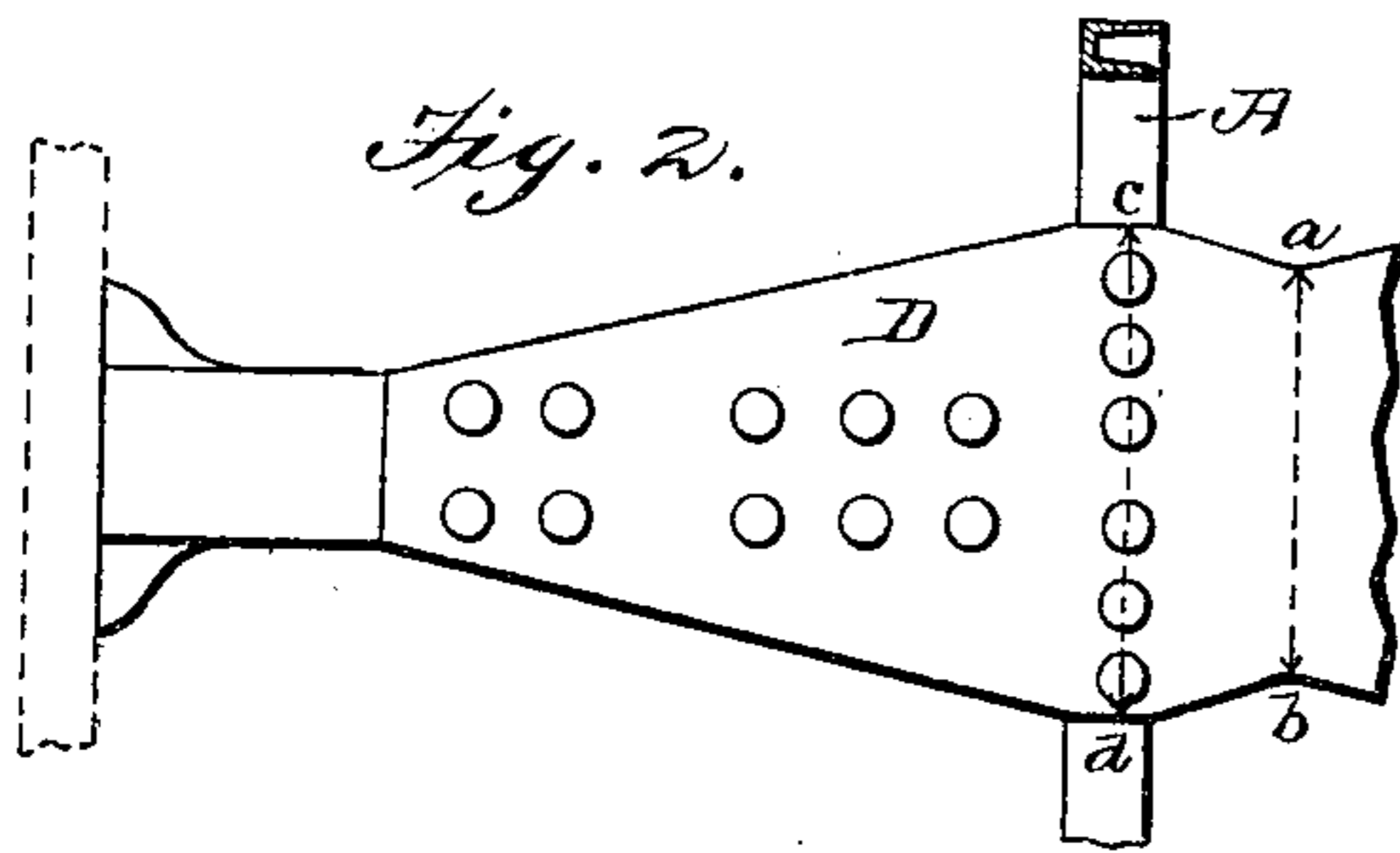


Fig. 3.

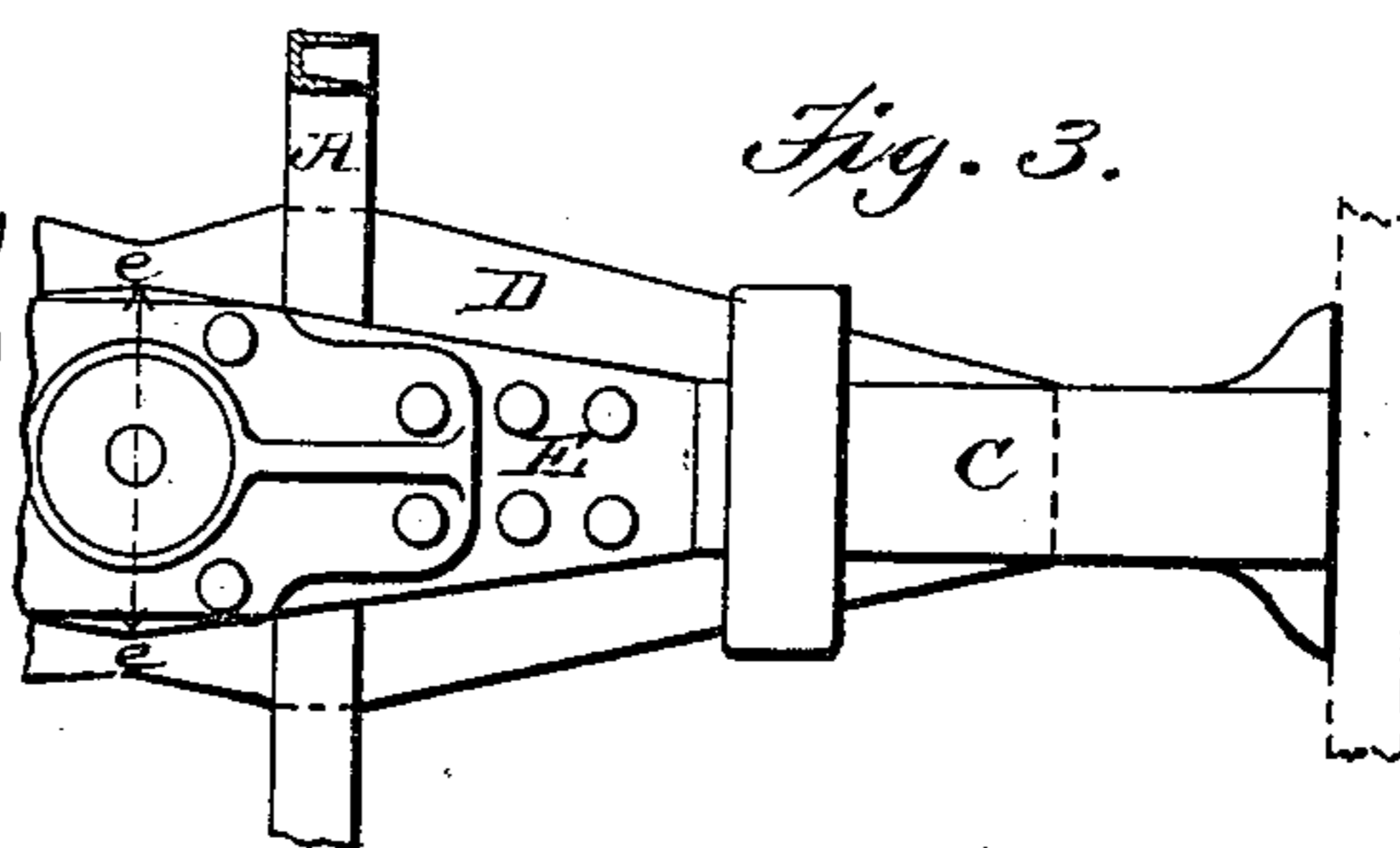


Fig. 4.

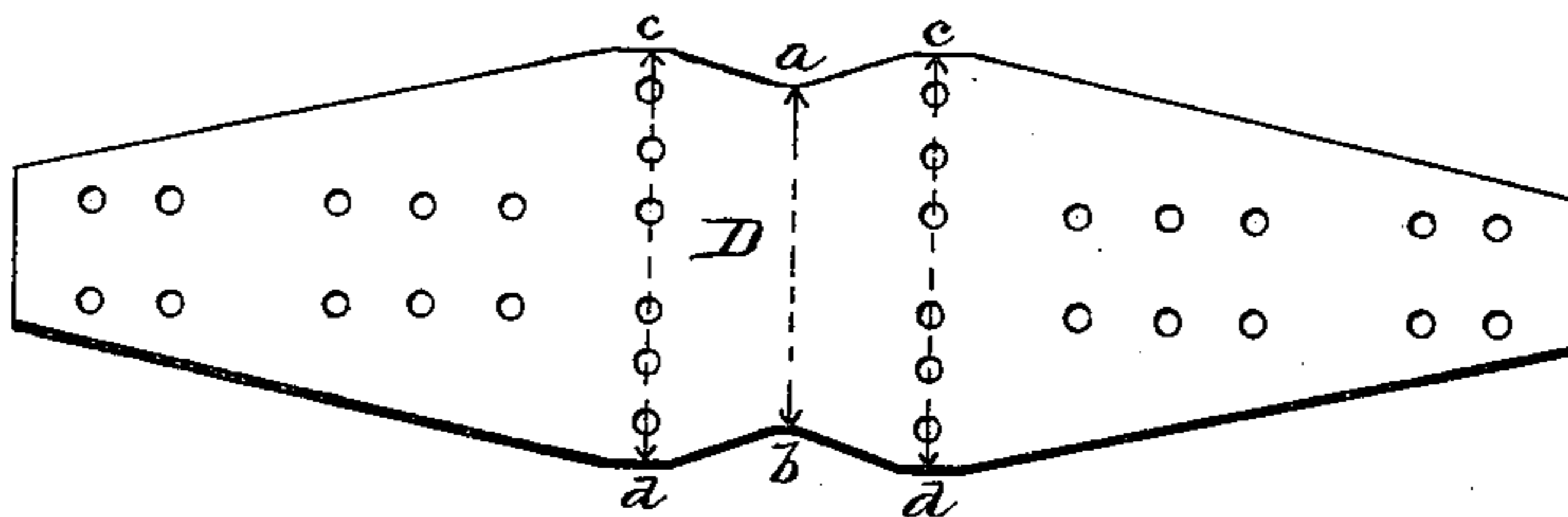
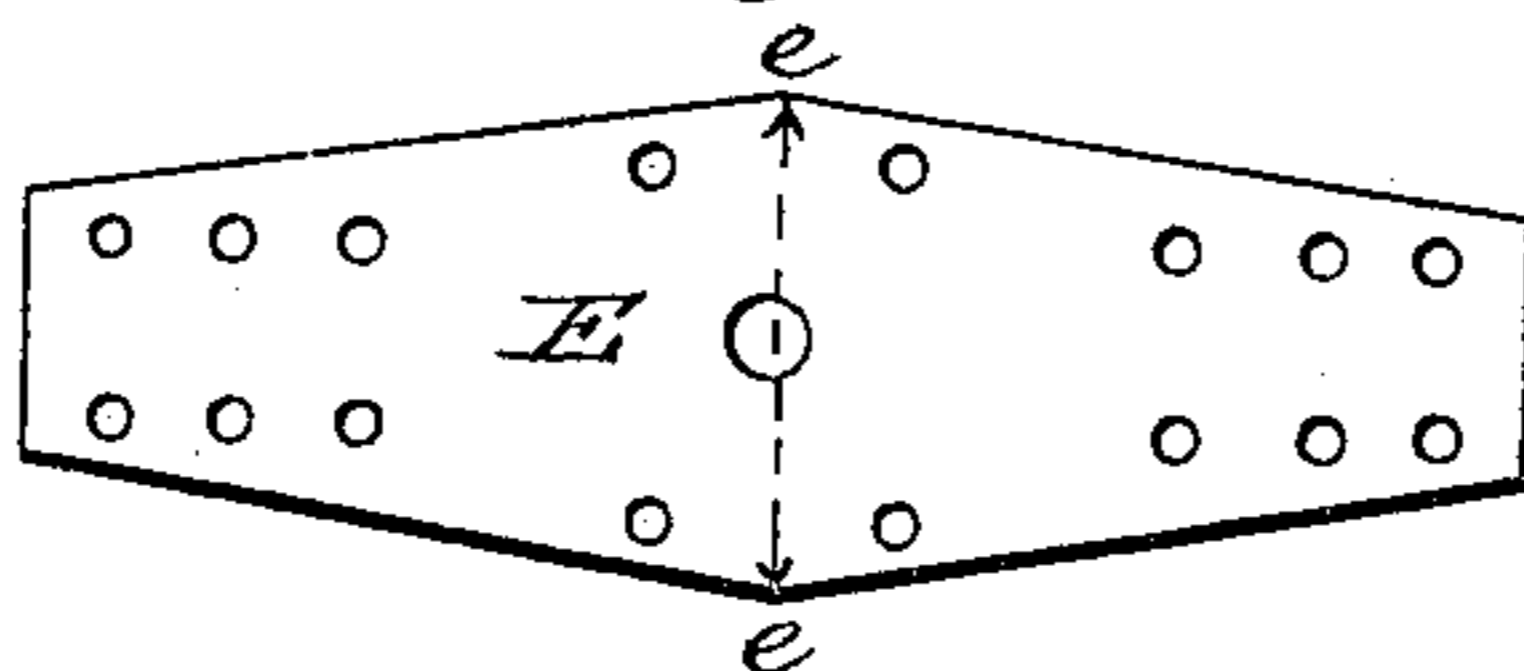


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

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

BOLSTER FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 666,276, dated January 22, 1901.

Application filed September 4, 1900. Serial No. 28,902. (No model.)

To all whom it may concern:

Be it known that I, GEORGE I. KING, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Bolsters for Railway-Cars; and I do declare the following to be a full, clear, and exact description of the invention, 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, and to the letters of reference marked thereon, which form a part of this specification.

The invention relates to a new and useful improvement in bolsters for railway-cars, the object being to construct the top and bottom cover-plates in such manner that a minimum amount of material may be used without sacrificing strength.

With this object in view the invention consists in the construction, arrangement, and combination of the several parts, as will hereinafter be described and afterward pointed out in the claims.

In the drawings, Figure 1 represents a bolster in side elevation, provided with my improved cover-plates. Fig. 2 represents a top plan view of one end of the bolster. Fig. 3 is a bottom plan view of one end of the bolster. Fig. 4 is a plan view of the top cover-plate, and Fig. 5 is a plan view of the bottom cover-plate.

A represents the center sills of a car, which sills are preferably made up of commercially-rolled members; B, the intermediate casting, which with the sills forms the strut of the bolster; C, the side castings, forming the webs, which extend outwardly beyond the cover-plates to receive the side sills. (Not shown.)

D indicates the top cover-plate, which, as shown, is formed with a narrow middle portion, widening out to the center sills and beyond. The edges of this cover-plate gradually converge or taper toward each other until they meet the flanges of the web-casting C. This cover-plate D is riveted to the center sills, the intermediate casting, and the side castings, and when the bolster is supported at the center it forms a member of a trussed struc-

ture—to wit, the tension member. This plate is cut away at its middle between the center sills, the least amount of material left—say between points *a* and *b*—being equal to or slightly greater than the material left along the lines of attaching-rivets which secure the plate to the center sills—that is, between the points *c* and *d*. In this way the plate is not weakened in the least, (when the bolster is subjected to vertical loads,) being as strong at any point between the center sills as at the points of the attachment to said sills, in addition to which quite a bit of material is saved, and therefore the cover-plate is made correspondingly lighter. The cuts in the sides of the cover-plate between the center sills are preferably rounded, as shown, so as to reduce the liability to fracture at this point. The bottom cover-plate E, on the other hand, being in compression, is preferably shorter and narrower than the plate D, the small size of this plate E being possible on account of the presence of the intermediate casting. It is desirable that the material of plate E between the center sills, which material acts as a column, be uniformly strong against buckling, and therefore I prefer to utilize all of the available section between the points *e* caused by shearing the tapered ends from a bar of the same width as the distance between said points *e*.

I am aware that minor changes in the construction, arrangement, and combination of the several parts of my improved bolster 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 of the United States, is—

1. A tension cover-plate for car-bolsters, the same having a reduced middle portion and tapered ends; substantially as described.

2. A cover-plate for car-bolsters, which is perforated for rivets, said cover-plate being reduced between two points of attachment, the cross-section left in the reduced portion equaling or exceeding the net cross-section at the points of attachment; substantially as described.

3. In a car-bolster, the combination with metallic center sills, of intermediate and side castings, and a tension cover-plate riveted to said parts, and having a reduced middle portion between the center sills; substantially as described.

4. In a car-bolster, the combination with metallic center sills, of intermediate and side castings, and a compression cover-plate riveted to said parts, and having an increased section at its middle portion between the center sills; substantially as described.

5. In a car-bolster, the combination with metallic center sills, of intermediate and side

castings, a top tension cover-plate riveted to said parts and having a reduced middle portion between the center sills, a bottom compression cover-plate having an increased section at its middle portion between the center sills, and side and center bearings; substantially as described.

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

GEORGE I. KING.

Witnesses:

F. R. CORNWALL,
CHAS. W. PARKER.