

(No Model.)

2 Sheets—Sheet 1.

C. T. SCHOEN.
BOLSTER FOR RAILWAY CARS.

No. 568,925.

Patented Oct. 6, 1896.

Fig. 1

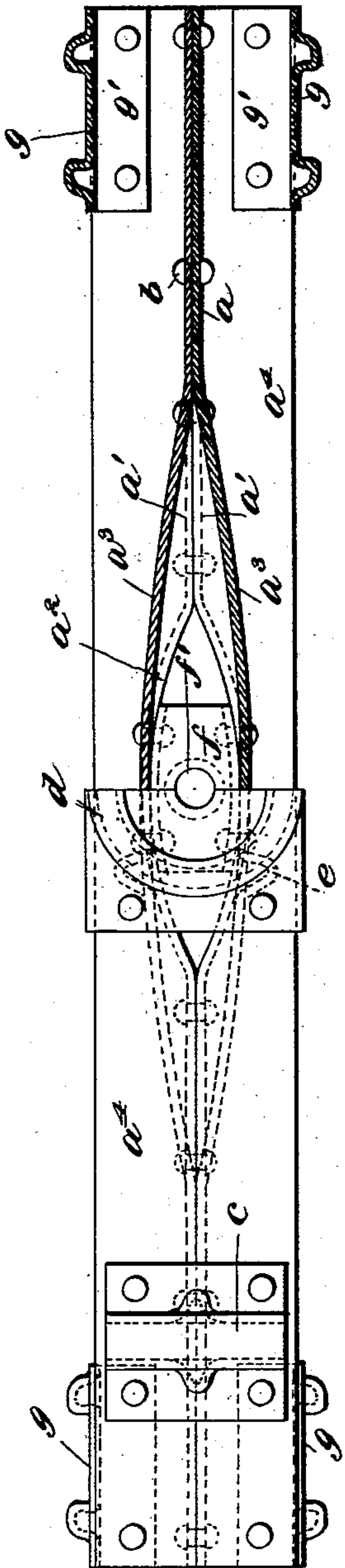


Fig. 2

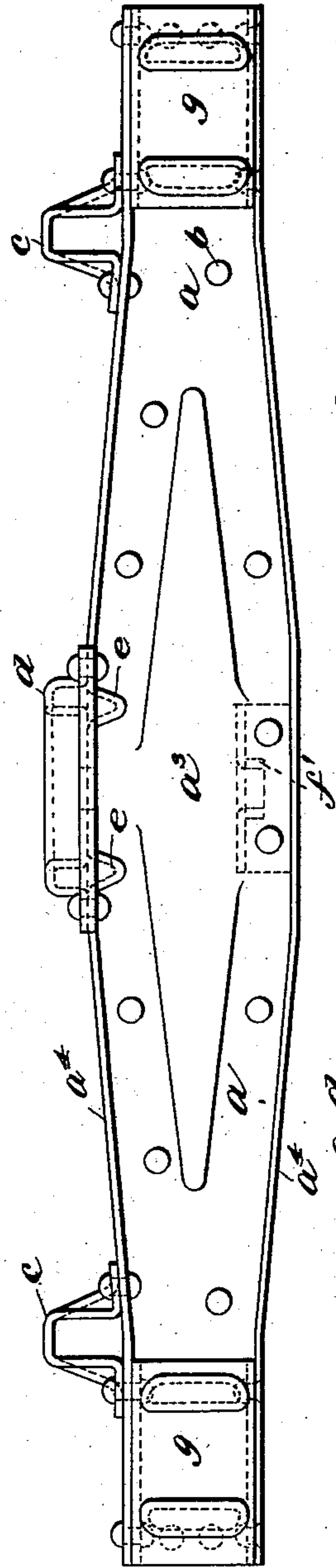


Fig. 3

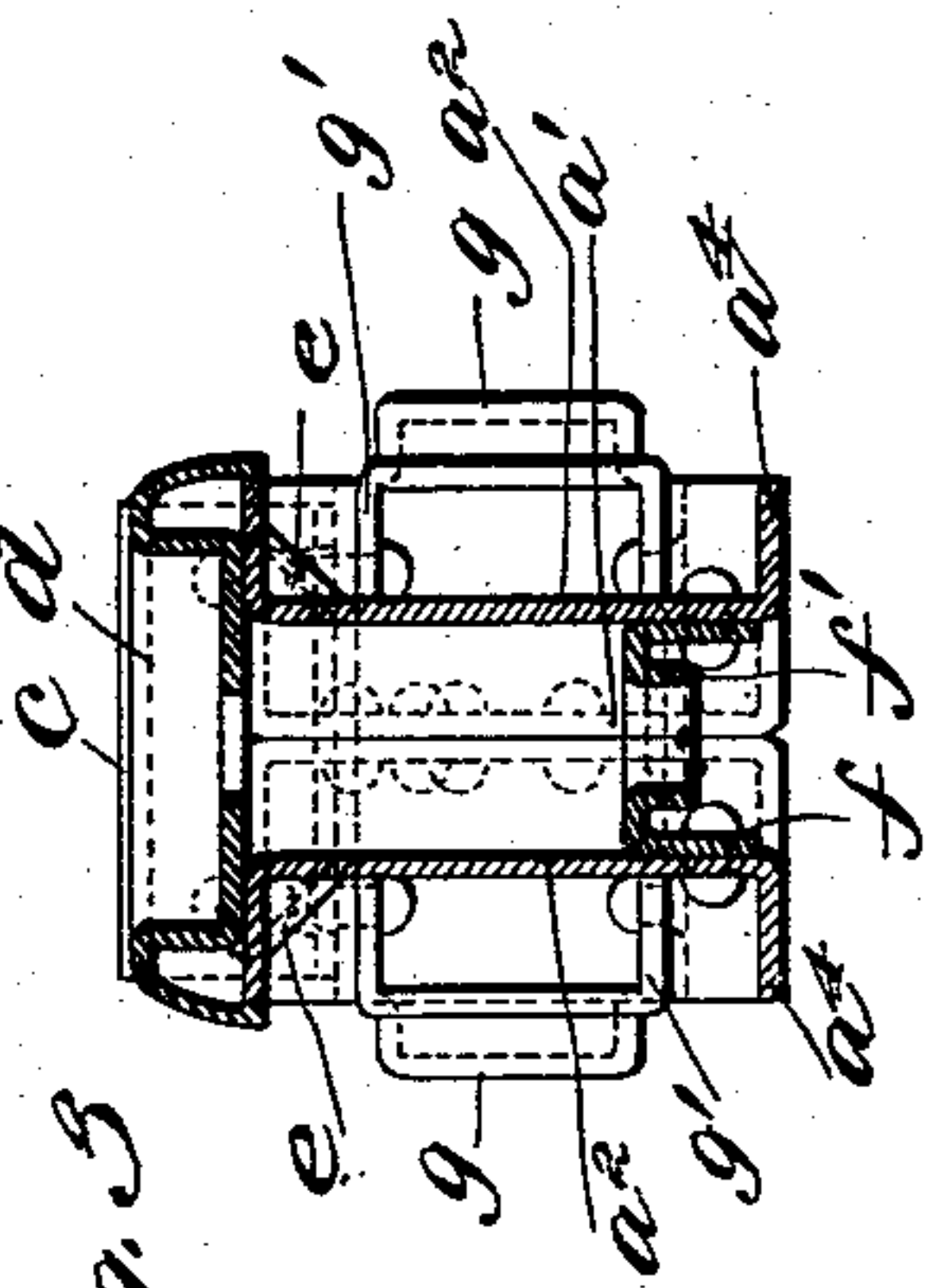
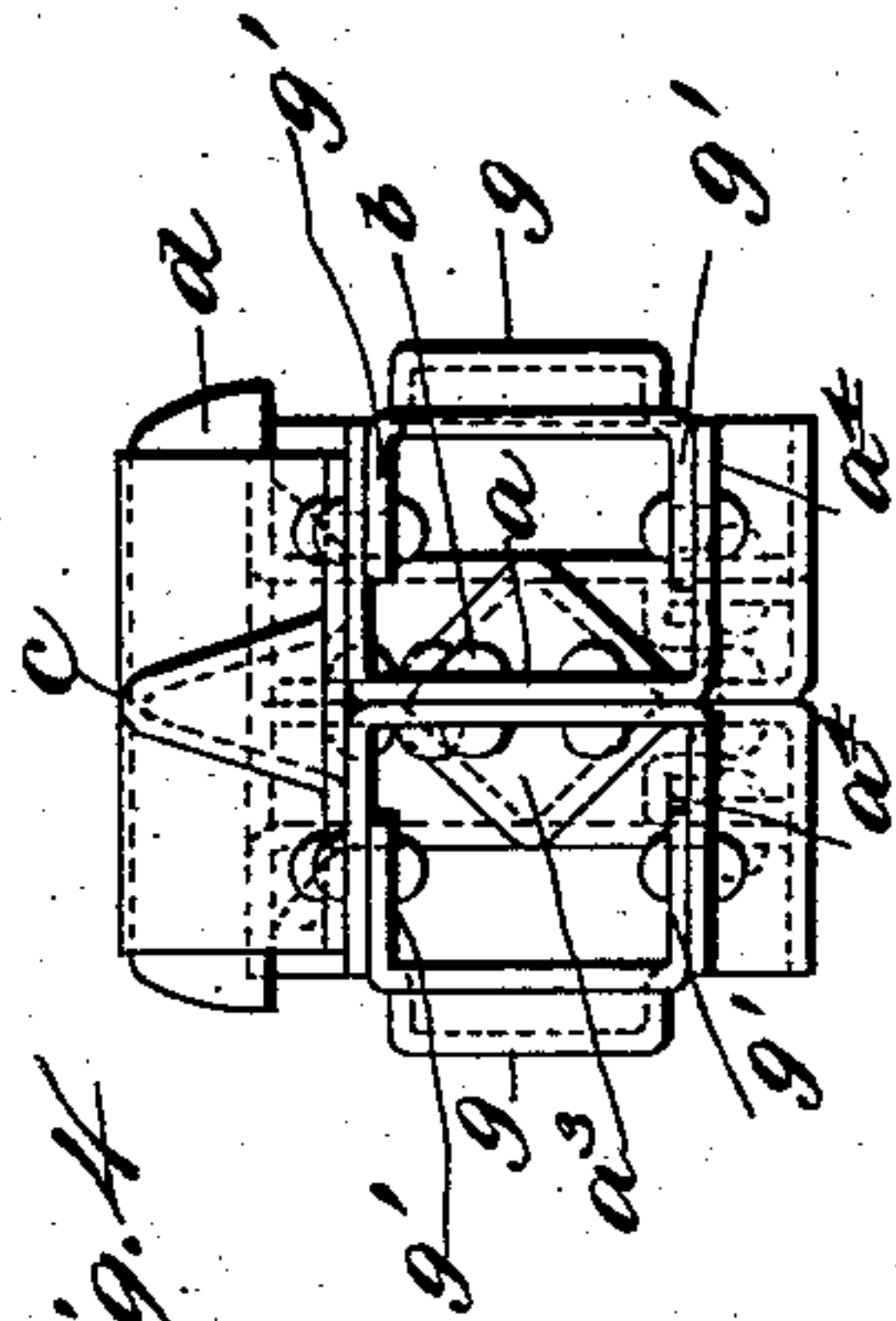


Fig. 4



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(No Model.)

2 Sheets—Sheet 2.

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BOLSTER FOR RAILWAY CARS.

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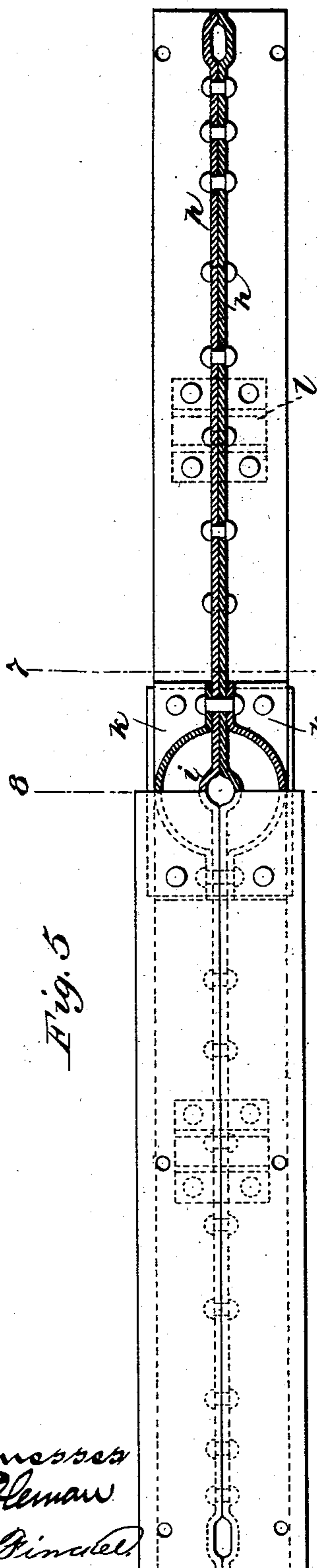


Fig. 5

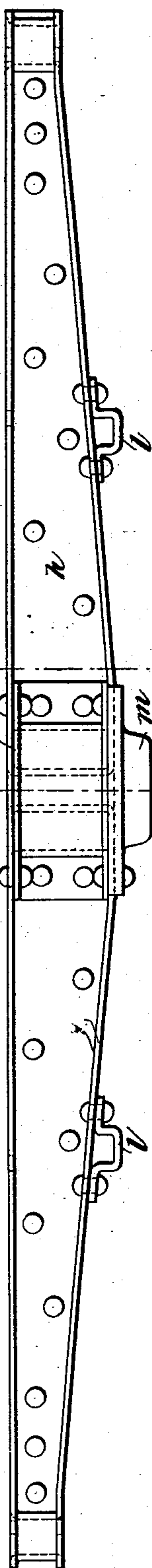


Fig. 6

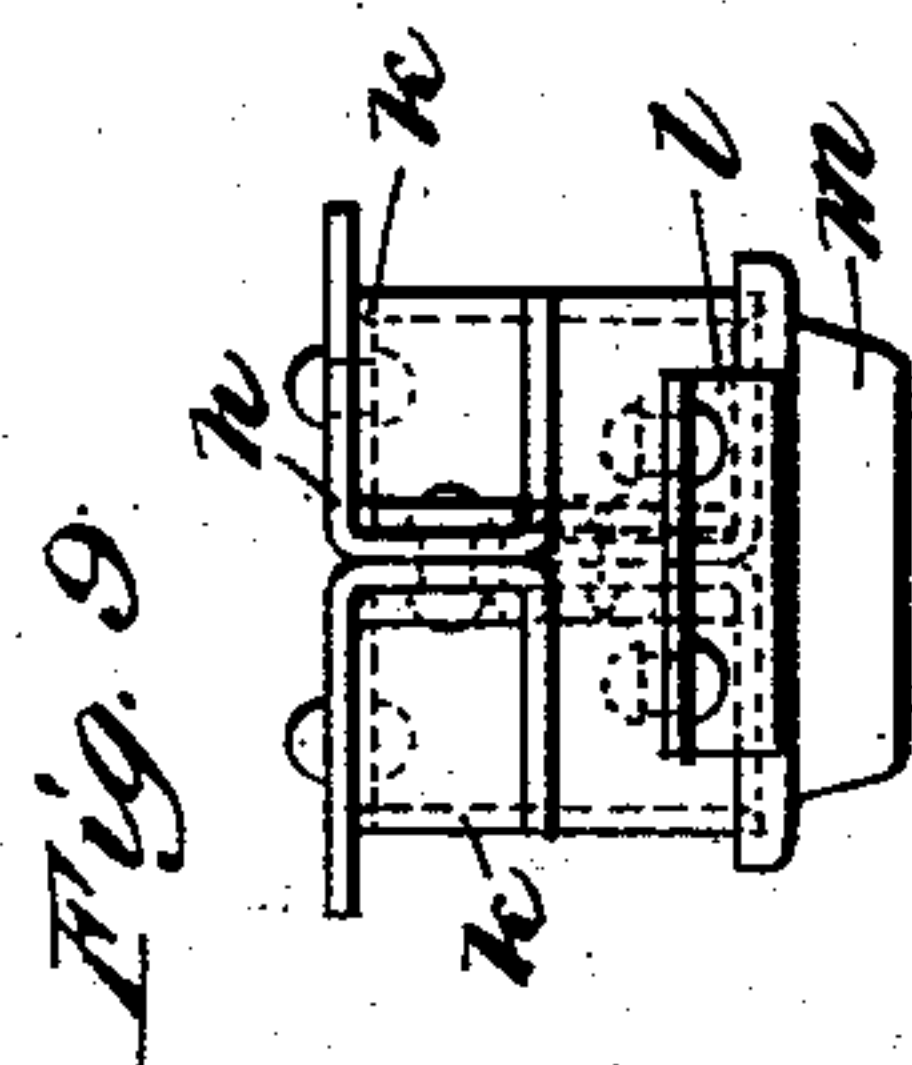


Fig. 7

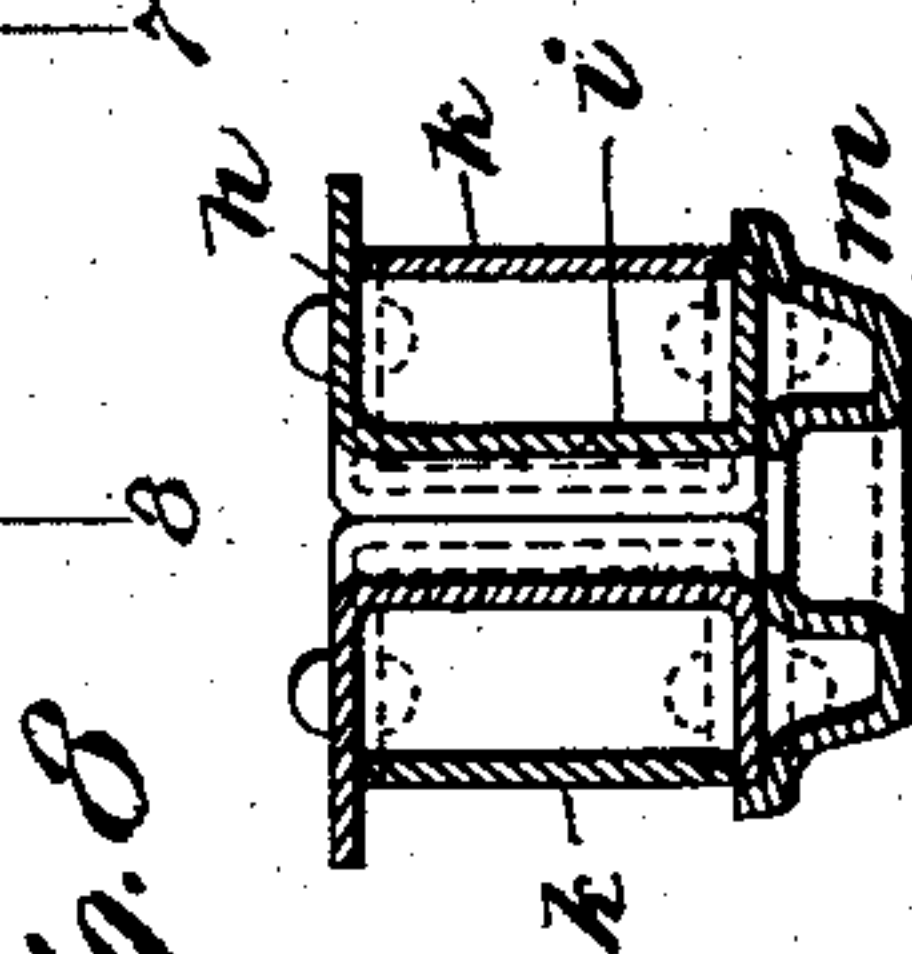


Fig. 8

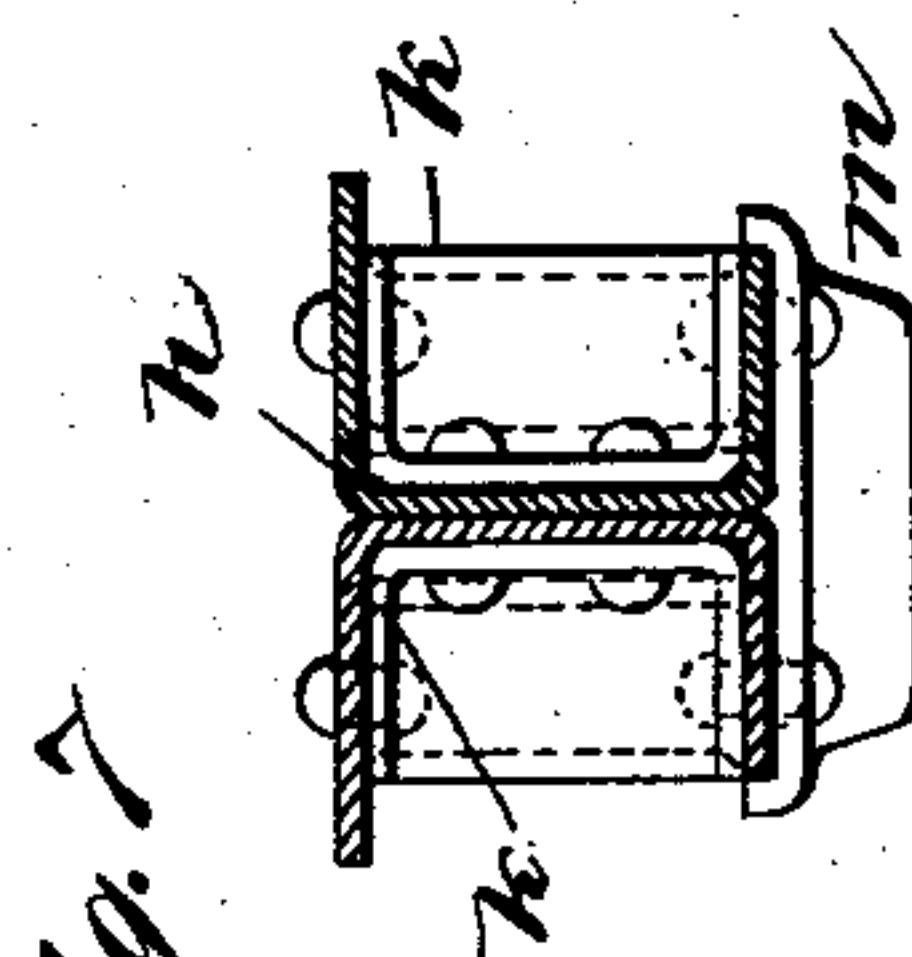


Fig. 9

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UNITED STATES PATENT OFFICE.

CHARLES T. SCHOEN, OF PHILADELPHIA, PENNSYLVANIA.

BOLSTER FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 568,925, dated October 6, 1896.

Application filed August 21, 1896. Serial No. 603,440. (No model.)

To all whom it may concern:

Be it known that I, CHARLES T. SCHOEN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in Bolsters for Railway-Cars, of which the following is a full, clear, and exact description.

This invention relates more particularly to that class of bolsters for railway-cars which are constructed of channel-beams, and especially channel-beams of pressed steel; and the object of the invention is to construct a bolster of channel-beams in which less riveting is required and fewer tie-plates are needed, and the strength of which is equal to if not greater than bolsters constructed in accordance with previous inventions.

In carrying out my invention I form channel-beams and rivet them together by their webs, thus leaving their flanges standing outwardly, all as I will proceed now more particularly to describe and finally claim.

In the accompanying drawings, illustrating my invention, in the several figures of which like parts are similarly designated, Figure 1 is a half top plan and horizontal section of a truck-bolster. Fig. 2 is a side elevation thereof. Fig. 3 is a central vertical cross-section, and Fig. 4 an end view. Fig. 5 is a half top plan view and horizontal section of the body-bolster. Fig. 6 is a side elevation. Fig. 7 is a cross-section taken in the plane of line 7 7. Fig. 8 is a central vertical cross-section taken in the plane of line 8 8, and Fig. 9 is an end view.

In constructing the truck-bolster I employ two similar channel-beams *a*, widest at their centers and tapering thence in converging lines toward their opposite ends, which ends are flat. The webs *a'* *a'* of these beams are placed back to back and united by rivets *b*. The webs *a'* *a'* are spread out centrally, as at *a*², in order to afford a space for the passage of the king-bolt or center pin; and in order to reinforce the webs centrally I provide the bosses or bulges *a*³, extending longitudinally thereof. The flanges *a*⁴ extend outwardly and away from one another and form continuous bearings at top and bottom for the reception of such parts as are used in con-

nection therewith, as, for example, the side bearings *c c* and the center plate *d*. In order to reinforce the bolster at the point of greatest strain, the upper flanges may be provided with the bosses *e*. Within the cavity formed by the curved portions *a*² is arranged a center brace *f*, riveted to the webs and having the central flanged orifice *f'* for the reception of the king-bolt or center pin.

Chafing-plates or guides *g* for the bolster-columns are constructed with top and bottom flanges *g'*, which are riveted to and between the top and bottom flanges of the beams at their ends, and these pieces *g* serve, in addition to their described function, also as reinforces for said ends.

The body-bolster is similarly constructed of channel-beams *h*, which are riveted together by their webs with their flanges standing outwardly away from one another and having their lower sides diverging from their ends toward the center with their top ends or flanges on a level. The webs at their centers are bulged outwardly to form the socket *i* for the passage of the king-bolt or center pin, and adjacent to this socket are arranged the braces *k*, which are riveted to the webs and also to the flanges of the beams.

l are the side bearings, and *n* is the center plate.

The spreading apart of the beams of the truck-bolster at their centers, with the longitudinal ribs pressed into the webs, effects additional strength for resisting transverse strains, such as are occasioned in bumping.

The flanged pieces *g*, arranged on each side of the bolster on their opposite ends and set vertically therein and riveted to the top and bottom flanges, serve also to distribute the pressure from the bolster-springs, which set under each end of the bolster.

The flanged vertical central supports *k* of the body-bolster, which, as before described, are riveted to the top and bottom flanges as well as to the webs of the beams, serve also to prevent the bending of the flanges of the beams at this point, due to torsional strains.

Bolsters constructed in accordance with the foregoing are equal in strength to those where- in the flanges are arranged adjacent to each other, and, moreover, the cost of building is

considerably less, inasmuch as the riveting is all done from the outside and is thereby more easily got at. As already indicated, fewer rivets are required and fewer tie-plates.

5 The channel-beams, both of the body and of the truck-bolsters, may be made of steel plate pressed to shape, as also may be the side bearings, center plates, center brace, chafing-plate or guides, and the remaining
10 members, excepting, of course, the rivets, and as to these any usual construction may be employed.

What I claim is—

1. A bolster composed of channel-beams
15 deeper at the center than at the ends and riveted together by their webs, substantially as described.

2. A bolster composed of channel-beams deeper at their centers than at their ends and
20 riveted together by their webs and having their centers spread apart, substantially as described.

3. A bolster composed of channel-beams riveted together by their webs and having
25 central longitudinal ribs, substantially as and for the purpose described.

4. A bolster composed of channel-beams united by their webs and having their ends provided with flanged pieces riveted thereto
30 and constituting column-guides, substantially as described.

5. A truck-bolster composed essentially of channel-beams riveted together by their webs, spread apart at their centers, and sup-

plied with a center brace having a king-pin 35 opening, substantially as described.

6. A bolster composed of channel-beams united back to back by their webs, and having their flanges constructed with bosses about midway of the length of the bolster, 40 substantially as described.

7. A truck-bolster composed of channel-beams having their greatest vertical height at their center, and tapering thence conver- 45 gently to opposite ends, spread apart at their center, and provided with longitudinal reinforces in their webs, a king-bolt socket, and tie-plates at their ends, substantially as described.

8. A body-bolster composed of channel- 50 beams having their greatest height at their center and tapering thence toward their ends, united back to back by their webs, and having central vertical tie-plates, substantially as described. 55

9. A body-bolster composed of two channel-beams united back to back by their webs and having their webs spread apart to form a king-bolt socket, and central vertical tie- 60 plates or reinforces, substantially as described.

In testimony whereof I have hereunto set my hand this 18th day of August, A. D. 1896.

CHARLES T. SCHOEN.

Witnesses:

ALICE G. FRAMBES,
WILLIAM V. MASSEY.