

(No Model.)

2 Sheets—Sheet 1.

W. CASE.
METAL BOLSTER FOR CARS.

No. 570,979.

Patented Nov. 10, 1896.

Fig. 1.

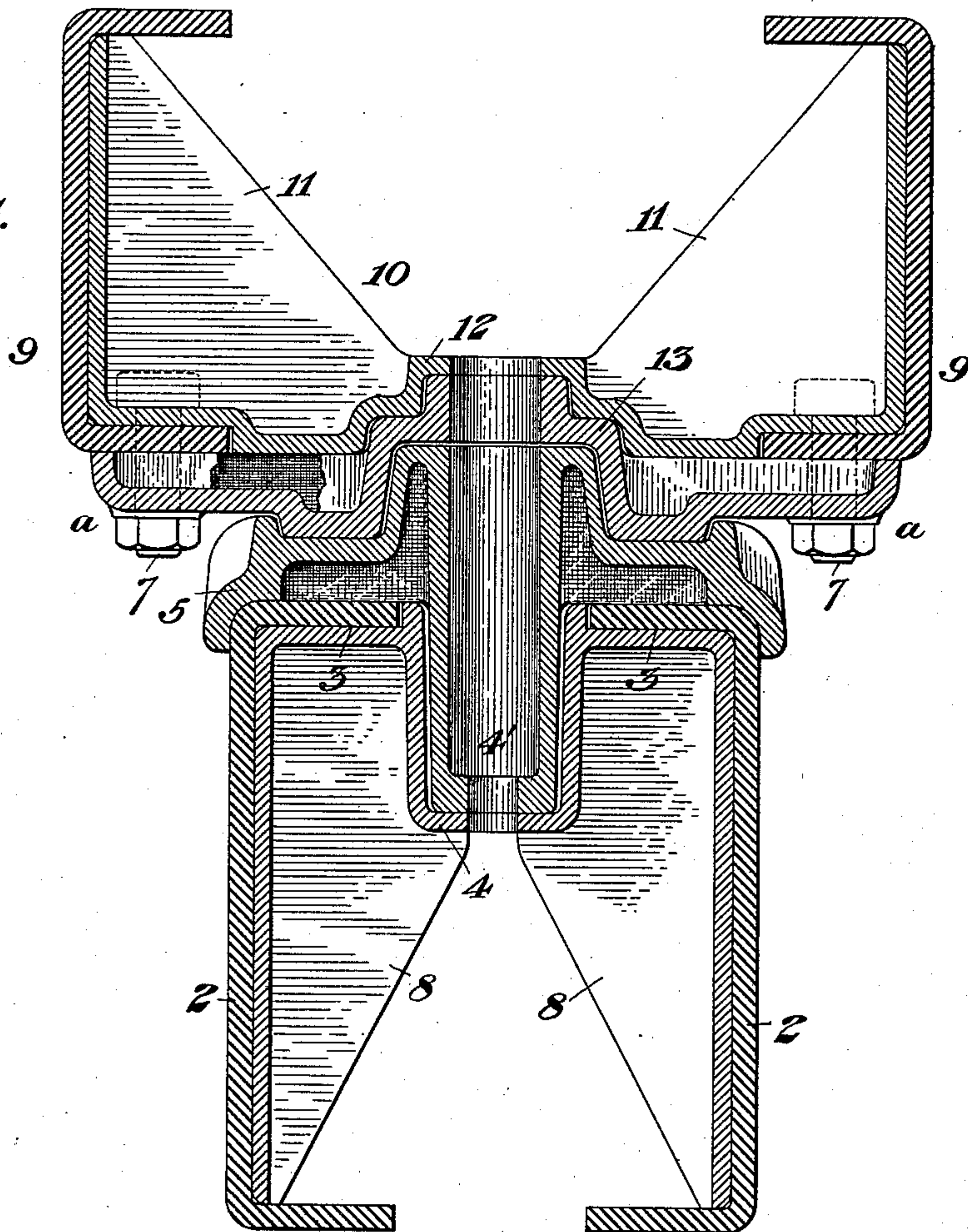
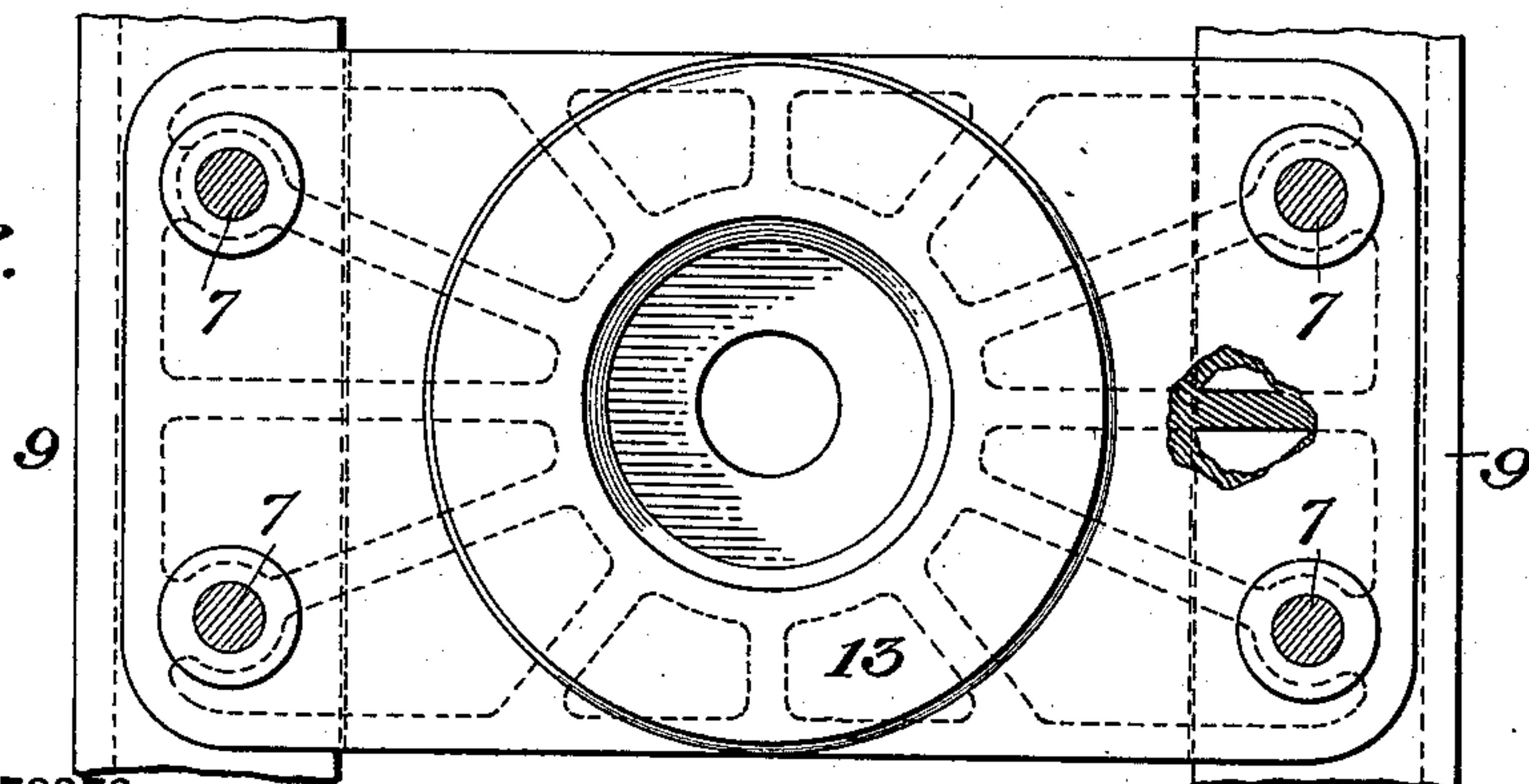


Fig. 2.



WITNESSES

INVENTOR

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Fig. 3.

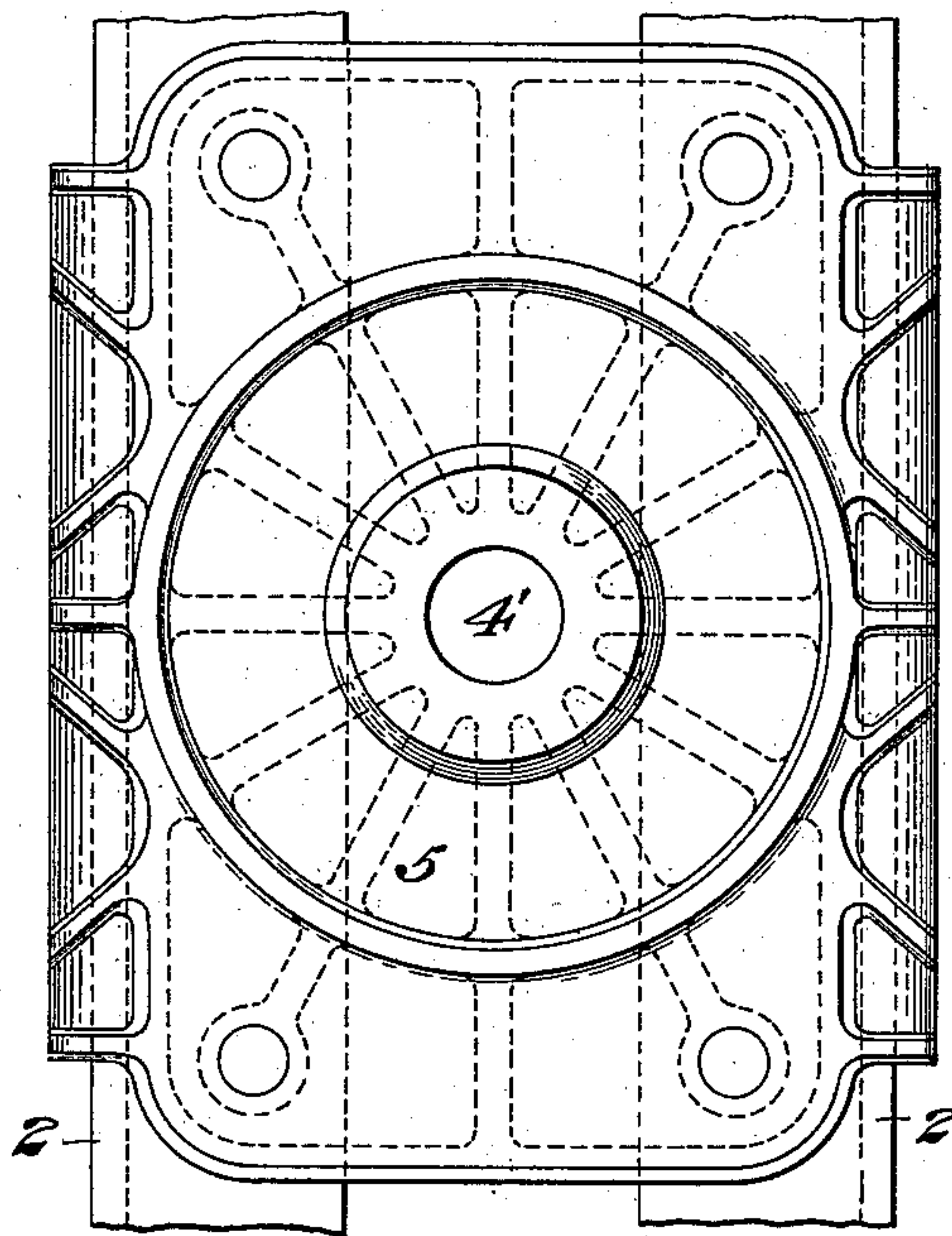


Fig. 4.

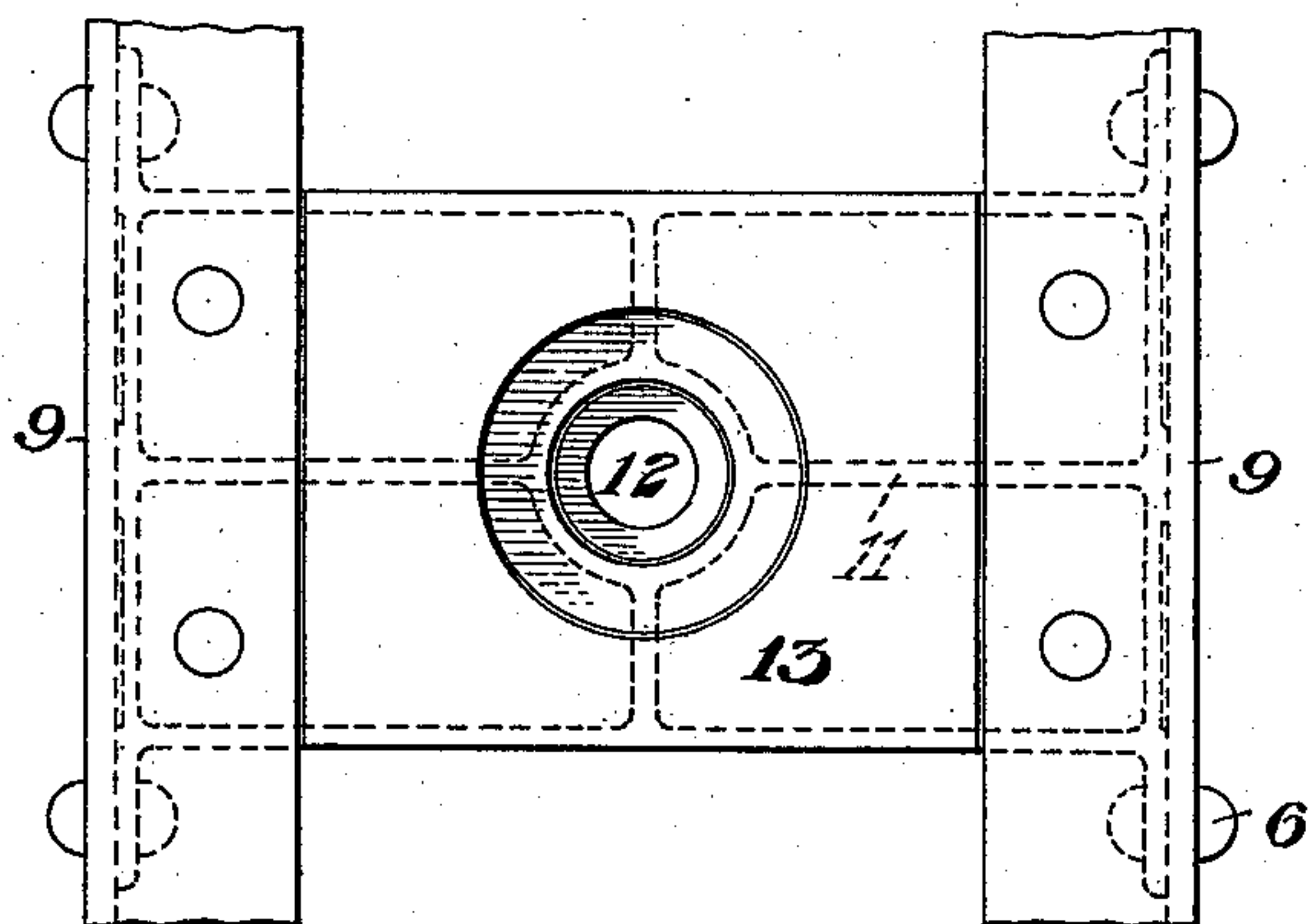
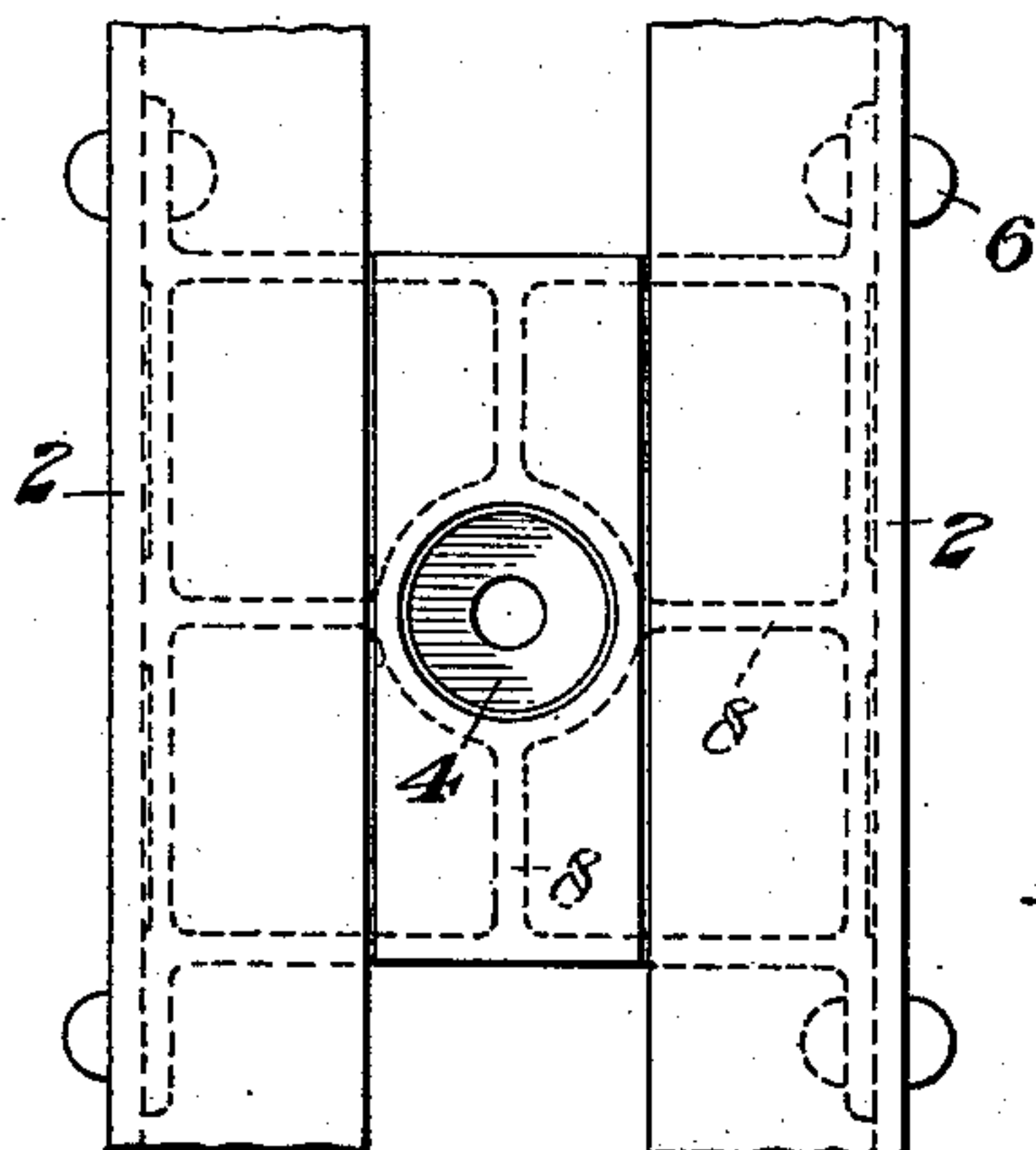


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM CASE, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE NATIONAL MALLEABLE CASTINGS COMPANY, OF CLEVELAND, OHIO.

METAL BOLSTER FOR CARS.

SPECIFICATION forming part of Letters Patent No. 570,979, dated November 10, 1896.

Application filed April 4, 1896. Serial No. 586,191. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM CASE, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Metal Bolsters for Cars, of which the following is a full, clear, and exact description.

The object of my invention is to provide means for strengthening the construction of metal bolsters for the trucks and bodies of railway-cars and for supporting the center plates.

Metal bolsters as constructed heretofore have been defective in this respect and have afforded such insufficient support that the center plates are frequently crushed.

My invention consists in providing the bolster with a central metal filler set directly opposite to the position of the center plate, so that it shall support the same and shall receive and distribute its load to all parts of the bolster. The shape of the filler and the manner of its application to the bolster may, by suitable changes in form, be adapted to suit hollow metal bolsters of many different types, and while I have shown in the drawings the application of the invention to bolsters formed of flanged channel-beams, whether rolled or pressed, and intend to claim the same specifically, it shall be understood that the broader claims are not limited to the precise construction illustrated.

In the drawings, Figure 1 is a vertical cross-section taken through the truck and body bolsters of a car at their middle portion, which is the position of the center plates, and showing my improved construction. Fig. 2 is a bottom plan view taken at the plane *a a*, showing the top center plate and the body-bolster. Fig. 3 is a top plan view on the same plane, showing the lower center plate and the truck-bolster. Fig. 4 is a bottom plan view of the middle part of the body-bolster without the center plate. Fig. 5 is a top plan view of the truck-bolster without its center plate. Figs. 4 and 5 are made on a scale smaller than that of the other figures.

The truck-bolster has side plates 2 2 parallel with each other and formed of flanged metal beams or channels, which may be rolled, pressed, or cast, as desired.

At the middle of the bolster, between the side plates 2, I set a hollow filler or box 3, which is preferably an integral casting, but it may be pressed from sheet metal or may be made of several parts riveted together. This filler has a bearing against the sides 2 and also bears against the top flange thereof, extending under the same, so as to form a substantial support for the center plate. It is such supporting which is the important function of the device, and the invention, broadly considered, is not limited to the precise form which I show, since instead of the peculiar downwardly-extending seat 4, in which the king-bolt socket 4' of the lower center plate 5 has a bearing, the filler may have a flat top when the shape of the center plate will permit, and when the bolster is made of beams with outwardly-turned flanges the filler will have portions extending over the flanges instead of extending under the same; nor is it necessary that the filler should fit neatly in the angles of the bolster, as illustrated in the drawings. The filler is secured to the sides of the bolster by rivets 6, and rivets or bolts 7 may also be applied to connect the top of the filler with the center plate through the top flange of the bolster.

8 8 are strengthening-ribs which extend across the filler for the purpose of giving it the necessary rigidity.

The body-bolster may be made in like manner. Between its two side plates or beams 9 9, at the middle of its length, is a filler-block 10, extending across the bolster and fitting against the under sides and bottom. It has also cross webs or ribs 11, connecting and bracing its sides, and a seat portion 12 for receiving the upper center plate 13. The base of the body-bolster filler is at the bottom of its bolster and the base of the truck-bolster filler is at the top of its bolster.

Reference to the drawings, as explained above, will show that in use the load is transmitted to the center plate through the fillers, which, being directly opposite to the center plates and being fixed to the bolsters, brace the parts of the bolsters and support the center plates, enabling them to resist effectually the tendency to crushing, which has been so objectionable in the use of metal bolsters.

heretofore. The strength and rigidity thus imparted to the bolsters add greatly to their efficiency and life.

I claim—

- 5 A hollow metal car-bolster having at the middle directly opposite to the position of the center plate, a supporting-filler fixed to

the bolster and made of a hollow piece with its base next to the center plate.

WILLIAM CASE.

Witnesses:

THOMAS W. BAKEWELL,
CLAYTON MARK.