

No. 743,498.

PATENTED NOV. 10, 1903.

J. M. HANSEN.  
BRAKE BEAM.

APPLICATION FILED MAY 28, 1902.

NO MODEL.

Fig. 1.

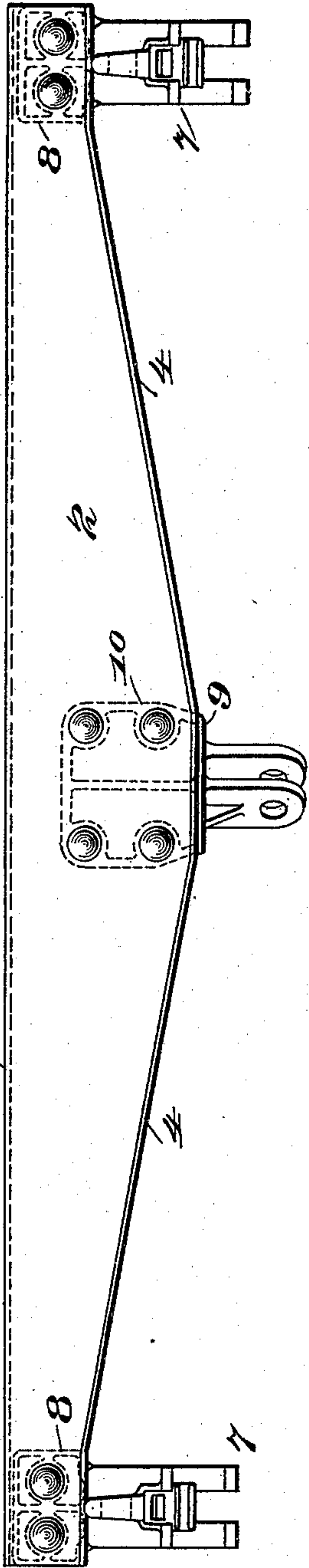


Fig. 2.

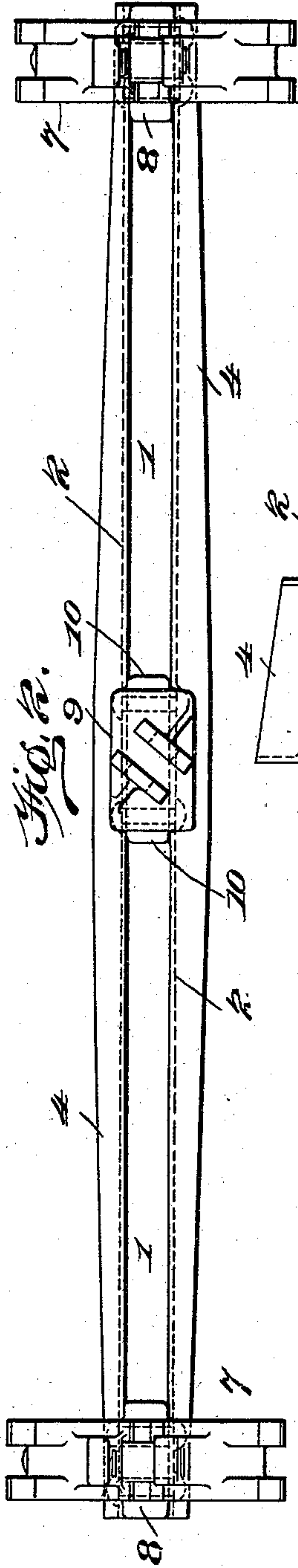


Fig. 3.

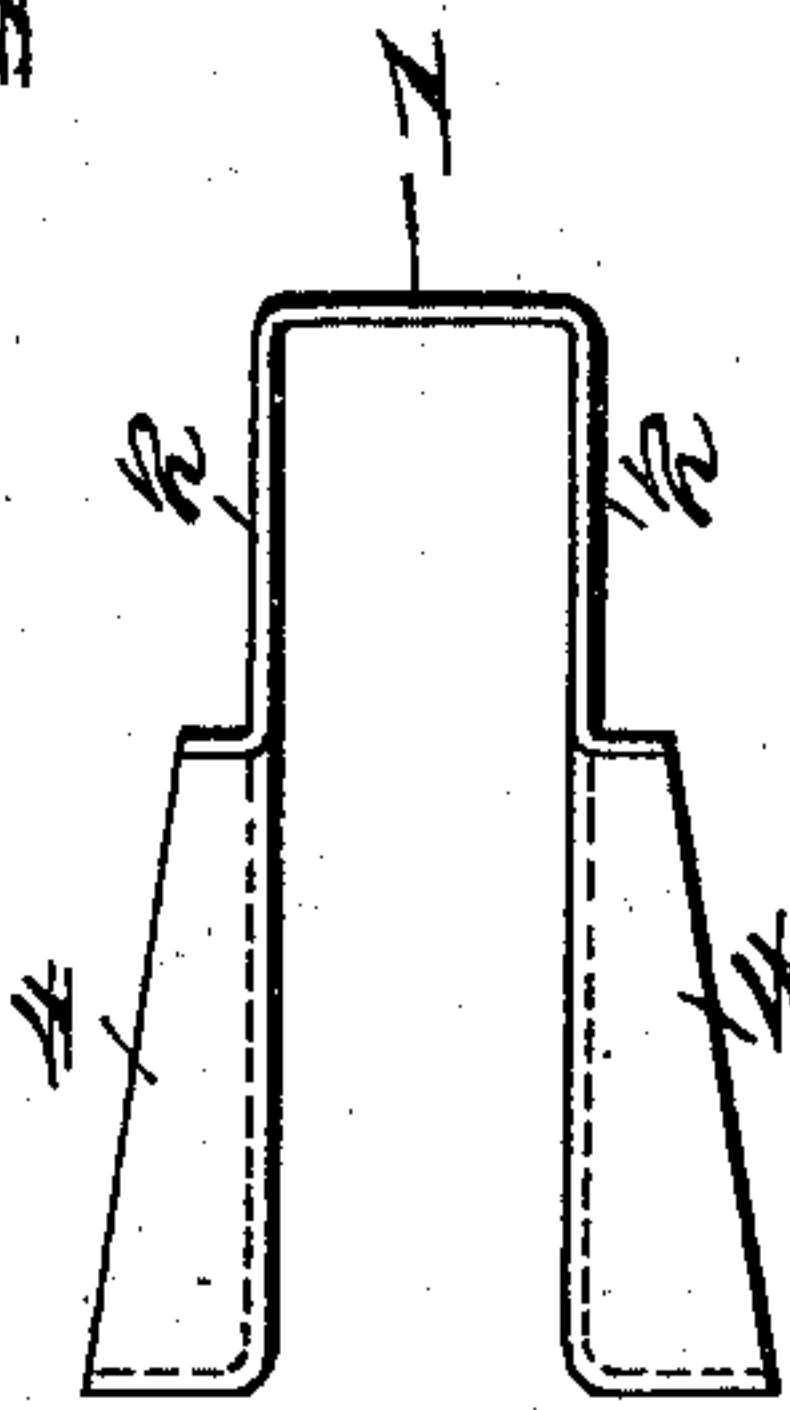
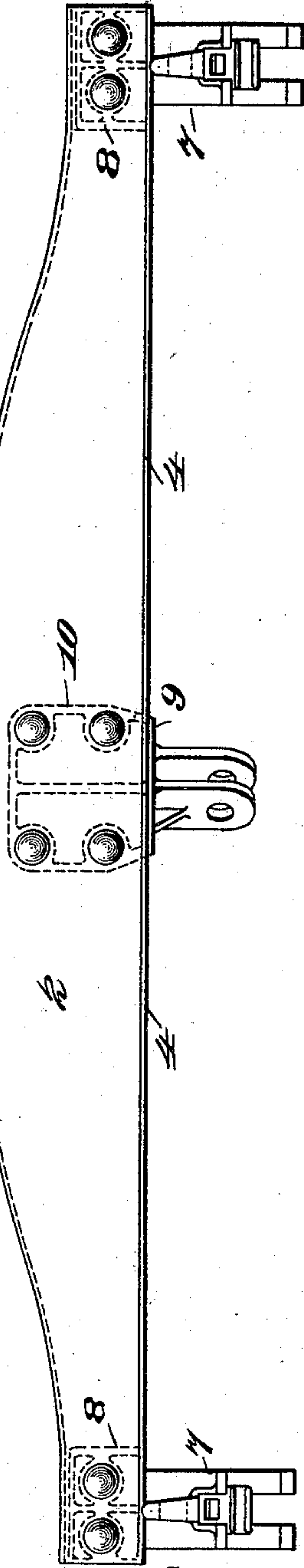


Fig. 4.



Inventor

Witnesses

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# UNITED STATES PATENT OFFICE.

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## BRAKE-BEAM.

SPECIFICATION forming part of Letters Patent No. 743,498, dated November 10, 1903.

Application filed May 28, 1902. Serial No. 109,278. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN M. HANSEN, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Brake-Beams; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to brake-beams for railway-cars; and its object is to provide a metallic brake-beam which is strong, efficient, simple in construction, and so formed as to permit the ready attachment of the brake-heads and fulcrum thereto.

In the accompanying drawings, Figure 1 is a plan view of my improved brake-beam. Fig. 2 is a side view of the same. Fig. 3 is an end view of the same, on an enlarged scale, with the fulcrum-casting and brake-shoe heads omitted; and Fig. 4 is a plan view showing a modification.

The brake-beam is composed of a steel plate which is pressed into trough shape, having a back 1 and top and bottom sides 2. The ends preferably are open, as shown. The top and bottom sides are preferably formed of varying width, being widest at their centers and narrowest at their ends, thus making a trough having a varying depth. This varying depth of trough may be secured either by having the back 1 straight and the front edges of the sides tapering, as shown in Fig. 1, or by having the front edges straight and the back curved or double-tapered, as shown in Fig. 4, or by having both the back and the front edges curved or tapered. Preferably the edges of the top and bottom sides will be bent outwardly to form flanges 4, and these flanges will preferably be of varying width, as shown, being greatest at the center of the bolster and decreasing toward the ends.

The trough-shaped beam formed of metal plate, as described, is very light and strong, and the side walls of the trough can be formed parallel or substantially parallel, so that it is an easy matter to attach the brake-shoe heads and fulcrum-casting thereto. The brake-shoe heads are shown at 7, and they may be of any desired construction. They are provided with the parallel-faced projections or lugs 8, which fit in the trough-shaped beam and serve as a means by which the head is

riveted to the beam. The fulcrum-casting 9 likewise is provided with a parallel-faced projection or lug 10, which fits in the trough-shaped beam and is riveted therein. It is therefore a very simple matter to securely fasten the brake-shoe heads and fulcrum-castings to the beam.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A brake-beam comprising a trough-shaped metal beam having integral sides and back and having its front side open, said sides and back being plain surfaces from end to end and said sides having outwardly-projecting flanges of varying width extending along their edges.

2. A brake-beam comprising a trough-shaped metal beam having integral sides and back and open front side and ends, said sides being plain surfaces of varying width, widest at their centers and tapering toward their ends.

3. A brake-beam comprising a trough-shaped metal beam having integral sides and back and having its front side open, said sides being plain surfaces of varying width, widest at their centers and tapering toward their ends and having flanges formed on the edges thereof.

4. A brake-beam comprising a trough-shaped metal beam having integral sides and back and having the front side open, the sides being plain surfaces parallel to each other, a fulcrum-casting and brake-heads provided with projections or lugs fitting into the open side of the trough, and securing means passing through the sides of the trough and said lugs.

5. In a brake-beam, the combination with a channeled member having a vertical web portion, integral flanges projecting therefrom, said flanges being formed widest at their middle portion, and a brake-lever post projecting into said channel between the said flanges at approximately their widest portion, substantially as described.

6. In a brake-beam, the combination with a pressed channeled member having a vertical web portion, integral flanges projecting therefrom, said flanges being formed widest at their middle portion, and a brake-lever post projecting into said channel between the



said flanges at approximately their widest portion, substantially as described.

7. In a brake-beam, the combination with a channeled member having a vertical web portion in substantially a straight line from end to end, integral flanges projecting therefrom, said flanges being formed widest at their middle portion, and a brake-lever post projecting into said channel between the said flanges at approximately their widest portion, substantially as described.

8. In a brake-beam, the combination with a channeled member having a vertical web portion, integral flanges projecting therefrom at one side only, said flanges being formed widest at their middle portion, and a brake-lever post projecting into said channel between the said flanges at approximately their widest portion, substantially as described.

9. In a brake-beam, the combination with a channeled member having a vertical web portion, integral flanges projecting forwardly therefrom, said flanges being formed widest at their middle portion, and a brake-lever post projecting into said channel between the said flanges at approximately their widest portion, substantially as described.

10. In a brake-beam, the combination with a pressed channeled member having a vertical web portion in substantially a straight line from end to end, integral flanges projecting therefrom, said flanges being formed widest at their middle portion, and a brake-lever post projecting into said channel between the said flanges at approximately their widest portion, substantially as described.

11. In a brake-beam, the combination with a pressed channeled member having a vertical web portion, integral flanges projecting forwardly therefrom, said flanges being formed

widest at their middle portion, and a brake-lever post projecting into said channel between the said flanges at approximately their widest portion, substantially as described.

12. In a brake-beam, the combination with a pressed channeled member having a vertical web portion in substantially a straight line from end to end, integral flanges projecting forwardly therefrom, said flanges being formed widest at their middle portion, and a brake-lever post projecting into said channel between the said flanges at approximately their widest portion, substantially as described.

13. In a brake-beam, the combination with a pressed channeled member having a vertical web portion, integral flanges projecting forwardly therefrom at one side only, said flanges being formed widest at their middle portion, and a brake-lever post projecting into said channel between the said flanges at approximately their widest portion, substantially as described.

14. In a brake-beam, the combination with a pressed channeled member having a vertical web portion in substantially a straight line from end to end, integral flanges projecting forwardly therefrom at one side only, said flanges being formed widest at their middle portion, and a brake-lever post projecting into said channel between the said flanges at approximately their widest portion, substantially as described.

In testimony whereof I, the said JOHN M. HANSEN, have hereunto set my hand.

JOHN M. HANSEN.

Witnesses:

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ROBERT C. TOTTEN.