No. 744,027. PATENTED NOV. 17, 1903.

W. P. BETTENDORF.

BRAKE BEAM.

APPLICATION FILED JUNE 17, 1903.

NO MODEL.

Fig. 1.

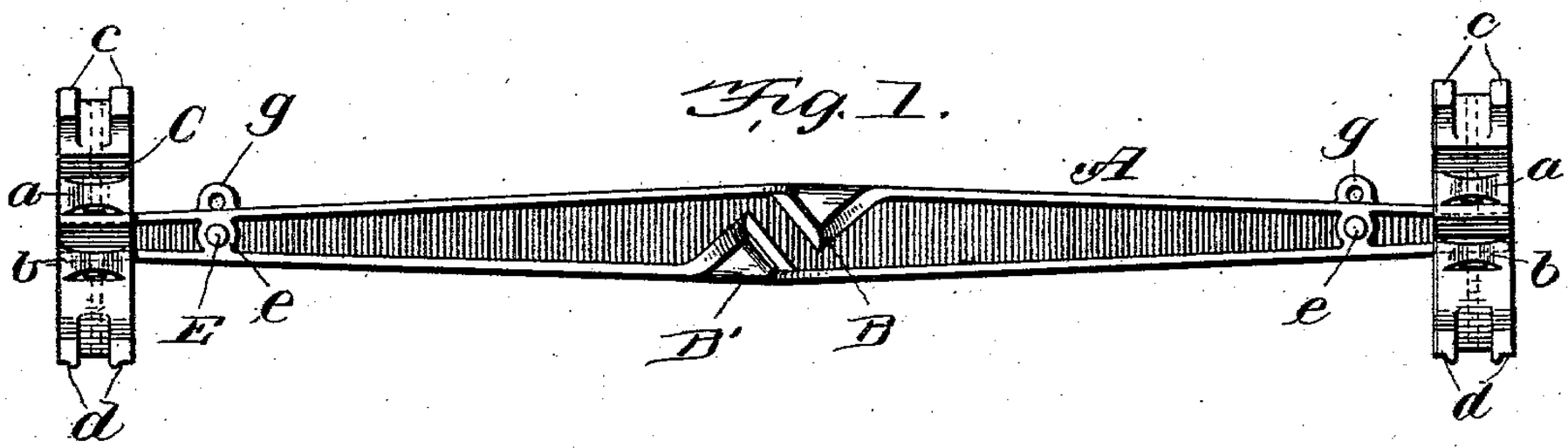


Fig. 2.

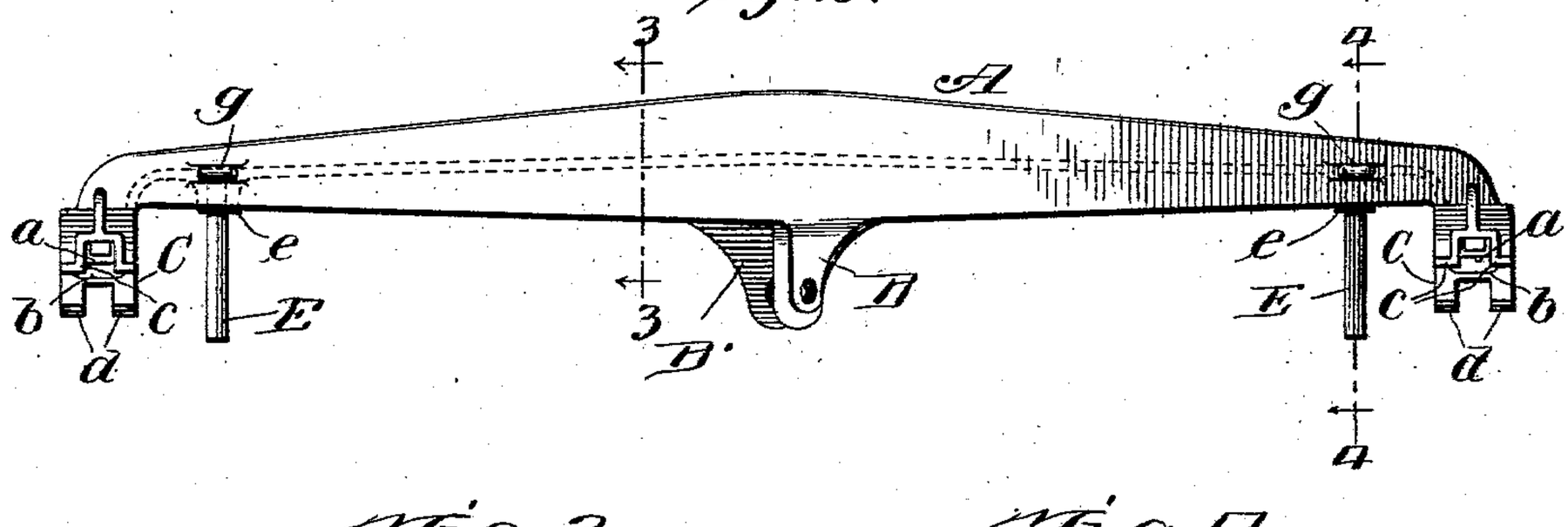


Fig. 3.

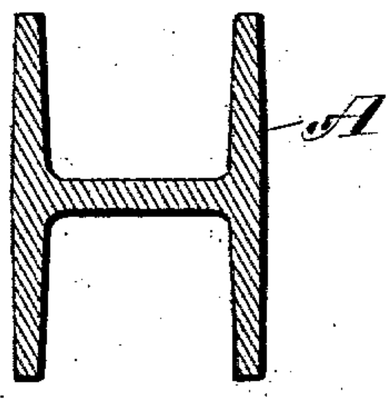


Fig. 4.

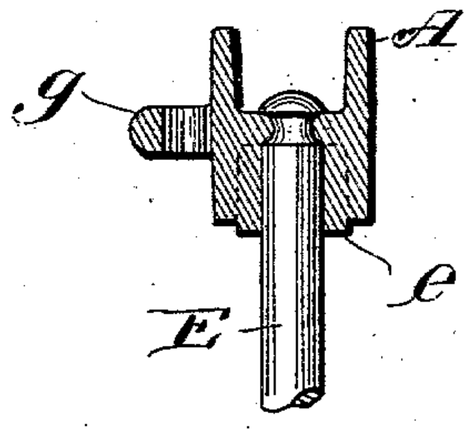
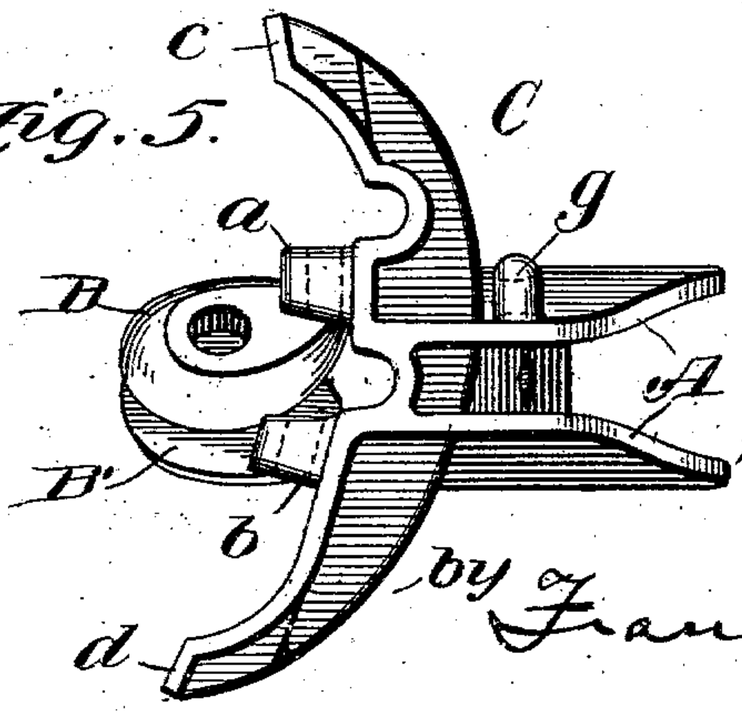


Fig. 5.



Witnesses:
H. S. Gaither
E. K. Lundy

Inventor:
William P. Bettendorf,
by Frank D. Thomason
Attorney.

No. 744,027. Patented November 17, 1903.

UNITED STATES PATENT OFFICE.

WILLIAM P. BETTENDORF, OF DAVENPORT, IOWA.

BRAKE-BEAM.

SPECIFICATION forming part of Letters Patent No. 744,027, dated November 17, 1903.

Application filed June 17, 1903. Serial No. 161,814. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. BETTENDORF, a citizen of the United States, and a resident of Davenport, in the county of Scott and State of Iowa, have invented certain new and useful Improvements in Brake-Beams, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

My invention has for its object the constructing of a brake-beam for cars, together with those essential parts of the same which heretofore have been made separate from the beam and then permanently or removably attached thereto, all of one piece of metal, and thus greatly reduce the cost of construction by dispensing with the labor which has been considered necessary to separately form and assemble the parts together and at the same time increase the efficiency of the brake-beam. This I accomplish by the means hereinafter fully described, and as particularly pointed out in the claims.

In the drawings, Figure 1 is a front view of my invention. Fig. 2 is a plan view of the same. Fig. 3 is a transverse section thereof, taken on dotted line 3 3, Fig. 2, looking in the direction indicated by the arrows and drawn to a larger scale. Fig. 4 is a transverse section taken on dotted line 4 4, Fig. 2, looking in the direction indicated by the arrows and likewise drawn to a larger scale. Fig. 5 is an end view of the brake-beam, drawn to the same enlarged scale.

Referring to the drawings, A represents the body of the brake-beam, which is of the usual length and between its ends is of a double-T shape in cross-section. At its center of length the height and the width of the body of the brake-beam is greater than at its ends, and it is so shaped that the rear edges of the flanges converge toward the center of length thereof at a greater angle than the forward edges of the same, so as to impart to said beam a truss shape, substantially as shown. Projecting forward from the edges of the forward upper and lower flanges of the beam A, respectively, and one in a plane on one side of the center and the other on the other side thereof are lugs B B′. The forward portions of these lugs are made to approach each other and are bent parallel to each other at an angle of about ninety degrees (90°) and provided with corresponding alining openings to form bearings for the usual lever employed in the operation of the beam.

The ends of the brake-beam are bent forward, and the vertical web, the plane of which between the ends of the beam is preferably midway between the vertical planes bounding the forward and rear edges of the flanges of the beam, is bent forward in a plane in alinement with the inner vertical side of the brake-shoe holders C C, which latter are cast in one piece with and made integral with said ends. The brake-shoe holder C, thus made integral with the body of the beam, may be of any desirable shape, although I prefer the design illustrated and shown in the drawings, which, briefly, consists of a crescent-shaped member, the forward vertical surface of which is so recessed or depressed as to leave corresponding parallel lugs *c c* and *d d* at the upper and lower horns of the holder and two intermediate lugs *a* and *b* at points between the same, by means of which the brake-shoe is secured to the holder by the usual pin or bolt.

Near each end of the body of the brake-beam it is between its forward flanges provided with a hollow boss *e e*, into which the end of the guard-pin E is secured by riveting or in any suitable manner, and preferably in the same vertical plane as said guard-pin the beam is provided with integral eyes or loops *g g* for the hangers of the beam.

The brake-beam hereinbefore described may be made of cast-steel or other metal, drop-forgings or suitably-manipulated rolled metal, and it is immaterial whether the brake-beam is designed in the manner herein illustrated and described or otherwise, as my invention broadly contemplates the manufacture of the brake-beam, together with the essential parts and attachments of the same, in one integral body whatever the design thereof may be.

What I claim as new is—

1. A brake-beam made of one piece of metal having its ends bent forward and the brake-shoe holders projecting from the extremity of said ends and made integral therewith, and having lugs projecting forward from and

made integral therewith at about its center of length and bent at a suitable angle and having suitable bearings therein.

2. A metal brake-beam having a double-T-shaped body throughout its length and having its ends bent forward and having brake-shoe holders projecting from the extremity of and made integral with said ends.

3. A metal brake-beam having a double-T-shaped body throughout its length and having lugs projecting forward from its upper and lower flanges at about its center of length that are bent at a suitable angle toward each other and provided with alining bearings.

4. A metal brake-beam having a double-T-shaped body throughout its length having its ends bent forward and provided with integral brake-shoe holders, and having lugs projecting forward from its upper and lower flanges at about its center of length that are bent at a suitable angle toward each other and provided with alining bearings.

5. A metal brake-beam having a double-T-shaped body throughout its length the proportions of which are greatest at its center of length and decrease toward each end, which latter are bent forward and are provided with integral brake-shoe holders.

6. A metal brake-beam having a double-T-shaped body throughout its length the proportions of which are greatest at its center of length and decrease toward each end, which latter are bent forward and are provided with integral brake-shoe holders, and which, at about the center of length of the body thereof, has opposing lugs projecting from its upper and lower flanges that are bent at a suitable angle toward each other and provided with alining bearings.

In testimony whereof I hereunto set my hand this 9th day of June, 1903.

WILLIAM P. BETTENDORF.

Witnesses:
H. BELLINGHAUSEN,
W. H. FORREST.