

UNITED STATES PATENT OFFICE.

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BRAKE-BEAM STRUT AND FULCRUM.

No. 897,570.

Specification of Letters Patent.

Patented Sept. 1, 1908.

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To all whom it may concern:

Be it known that I, EDWARD H. BAUER, a citizen of the United States, residing at Hammond, in the county of Lake and State of Indiana, have invented certain new and useful Improvements in Brake-Beam Struts and Fulcrums, of which the following is a specification.

My invention concerns improvements in the struts for trussed brake beams and in the fulcrums for the operating levers. Its aim and object is to provide a simple strut and fulcrum which can be readily assembled, which will possess great strength, and which will be economical of manufacture.

In the preferred embodiment of the invention the strut is made of two bars riveted together near their inner ends, the ends proper of the bars being bent to extend in opposite directions and lying against and riveted to the web of the compression member of the beam. A suitable saddle or seat for the tension rod is secured to the pair of bars near their other ends and the lever may be fulcrumed to the bars or straps either outside of the tension rod or between the same and the compression member. In the specific form shown in the drawings the seat or saddle has laterally-extended portions located in apertures in the two bars of the strut and bearing against the metal at the edges of the apertures; the tension rod, as is obvious, passing through the apertures and bearing on the seat or saddle.

On the accompanying drawing I have shown the most desirable embodiment of my invention, and on the drawing, which forms a part of this specification,—Figure 1 is a section through a brake beam showing the strut and fulcrum in elevation, the channel compression bar being sectioned on line 2--2 while the tension bar is cut centrally of the strut; Fig. 2 is a plan view of the central portion of the brake beam embodying the invention shown in Fig. 1; and Fig. 3 is a perspective view of the tension rod seat or saddle.

As is usual, the brake beam has a compression bar 10, which may be of channel cross-section if desired, and a tension rod 11 fastened at its ends to the ends of the compression bar in any of the approved well known methods. Between the two, at the center of the brake beam, is a combined strut and fulcrum composed in the present instance of

two bars or metal straps 12 and 13, parallel for the greater portion of their length and offset toward each other at their inner ends and riveted together at this point by a rivet 14. The extreme inner ends 15 and 16 of the bars 12 and 13 are bent outwardly in opposite directions and lie against the face of the web of channel bar 10, being secured thereto by the rivets 17. Near its outer end each of the pair of bars 12 and 13 is provided with a slightly elongated aperture 18 extended therethrough, the two apertures accommodating not only the tension rod 11 but also the laterally-extended ears 19 of a tension rod seat or saddle 20, the main body 21 of which is located between the bars 12 and 13 and fastened thereto by a transverse rivet or bolt 22. The front face of this seat or saddle, and of the ears 19 which form prolongations thereof, is curved at 23 to correspond to the curvature and camber of the tension rod 11. Arising from the top face of this seat or saddle is a pair of apertured ears 24 to which a brake hanger may be attached. The operating lever 25 may be fulcrumed on a rivet or bolt 26 passing through holes 27 at the extreme outer ends of the bars 12 and 13, or, if desired, the lever may be located between the tension and compression members of the beam, in which case the rivet or bolt 26 upon which the lever turns would be passed through the apertures 28 of the bars 12 and 13.

To those skilled in the art it will be apparent that my improved strut and fulcrum possesses extreme simplicity, that it is easily and economically manufactured, and that in case of damage it can be readily repaired. Owing to the fact that the ears or projections 19 of the seat or saddle are located in the apertures 18 and bear against the rear walls 29 of the apertures, practically all of the strain imposed on the strut by the tension rod is transmitted directly to the bars 12 and 13 and is not placed upon the rivet 22 holding the seat or saddle in place.

It is to be understood that various minor mechanical changes may be made in the structure shown and described herein without departure from the substance of my invention as set forth in the appended claims.

I claim:

1. In a brake beam, the combination of a compression bar, a tension member, a strut between said compression bar and said ten-

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sion member and composed of a pair of bars secured together and having their ends bent in opposite directions, said bent ends lying against and fastened to said compression bar, and a saddle or seat on which said tension member bears associated with said bars, substantially as described.

2. In a brake beam, the combination of a compression bar, a tension member, a strut between said compression bar and said tension member and having portions spaced apart, said spaced-apart portions having apertures therethrough, and a seat or saddle on which said tension member bears having parts located in the apertures of said strut and bearing against the walls thereof, said tension member passing through said apertures, substantially as described.

3. In a brake beam, the combination of a compression bar, a tension member, a strut between said compression bar and said tension member and having apertured portions spaced apart, and a seat or saddle on which

said tension member bears located between and riveted to the spaced-apart portions of said strut and having projections located in the apertures of said strut and bearing against their walls, said tension member passing through said apertures, substantially as described.

4. In a brake beam, the combination of a compression bar, a tension member, a strut between said compression bar and said tension member and having apertured portions spaced apart, and a saddle or seat on which said tension member bears located between and riveted to said spaced-apart portions of said strut and having projections located in said apertures and bearing against their walls, said seat or saddle also having means for attachment of a brake beam hanger thereto, substantially as described.

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Witnesses:

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