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CAST BRAKE BEAM WITH SUPPORT SHOE

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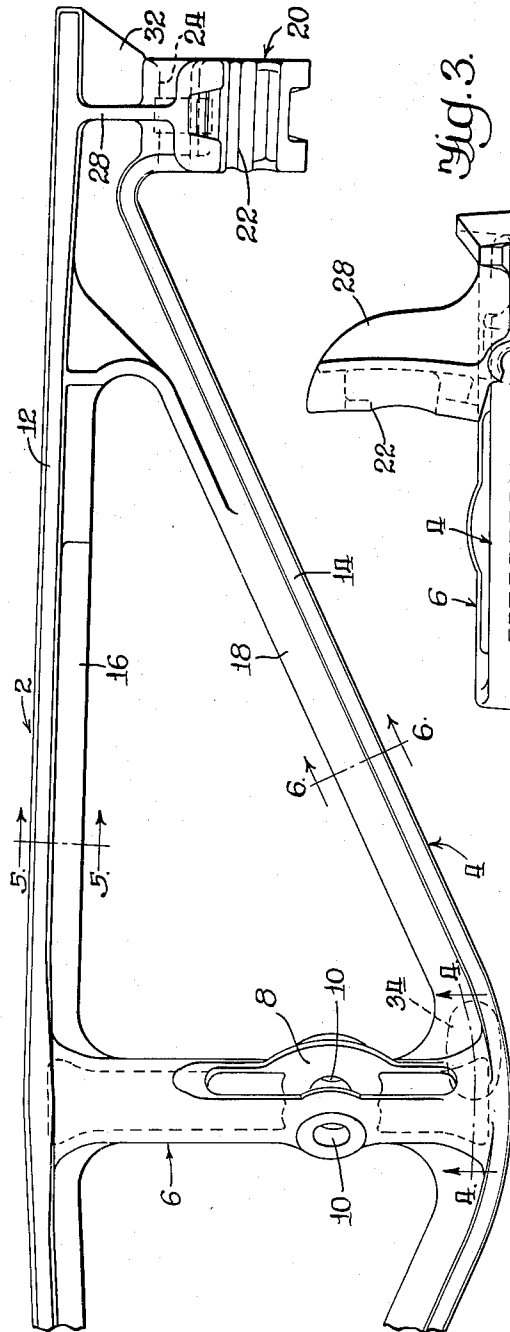


Fig. 1.

Fig. 3.

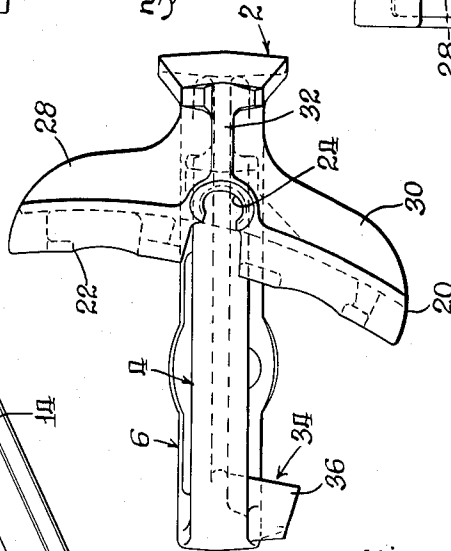
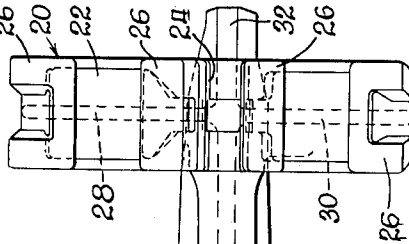


Fig. 2.

Fig. 6.



Fig. 5.

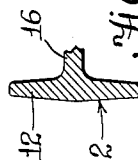
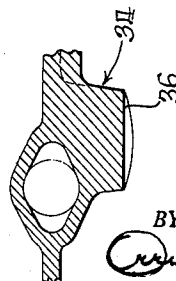


Fig. 4.



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CAST BRAKE BEAM WITH SUPPORT SHOE

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1 Claim. (Cl. 188—213)

This invention relates to railway brake equipment and more particularly to a cast steel brake beam having a third point support shoe cast integral therewith.

In some types of brake riggings embodying a hanger type brake beam, it is desirable to provide additional support for the beam intermediate its ends. Such additional support has heretofore been provided by detachably connecting a shoe to the medial portion of the beam for sliding engagement along suitable guides provided on a railway truck structure. As individual shoes must be fitted to their respective beams and may become detached therefrom in service, the present invention contemplates the provision of a brake beam having a third point support shoe cast integral therewith, the shoe being disposed adjacent the transverse center line of the beam.

This invention further contemplates the provision of a cast steel truss type brake beam including tension and compression members and a central strut, the tension member being formed with a third point support shoe merging with the adjacent end of the strut.

This invention further contemplates the provision of a brake beam having an integral third point support shoe in the form of a boss projecting downwardly and terminating in a flat oval shaped friction face sloping rearwardly from the horizontal plane of the beam.

This invention embodies other novel features, details of construction and arrangement of parts which are hereinafter set forth in the specification and claim and illustrated in the accompanying drawing, wherein:

Figure 1 is a fragmentary top plan view illustrating a cast steel truss type brake beam embodying features of the present invention, only one end of the beam being shown as the ends are identical in construction;

Figure 2 is a front elevational view of same;

Figure 3 is an end elevational view of the beam, and

Figures 4, 5 and 6 are detail sectional views taken along the lines 4—4, 5—5 and 6—6, respectively, on Figure 1.

Referring now to the drawing for a better understanding of the present invention, the cast steel truss type brake beam is shown as comprising a cambered compression member 2, a tension member 4 and a central strut 6 interconnecting the medial portions of said members, the strut being generally tubular and slotted at 8 to receive a brake lever (not shown) supported upon a pivot pin (not shown) inserted into coaxial apertures 10—10.

The compression and tension members are of T-section having vertical webs 12 and 14, respectively, and coplanar horizontal webs 16 and 18 respectively, the members converging toward and merging at the ends of

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the beam for connection to brake heads 20—20. The brake heads extend transversely vertically of the beam and each is formed with a front face 22 slotted at 24 to receive a brake hanger (not shown) and provided with lugs 26 to engage a conventional brake shoe (not shown). Each end of the brake beam is cast with upper and lower vertical gussets 28 and 30 and a horizontal outboard gusset 32 which serve to reinforce the related brake head.

In some types of brake rigging it is desirable to support the medial portion of the brake beam and the present invention contemplates the provision of a third point support shoe 34 cast on and depending from the tension member 4 alongside the adjacent end of the central strut 6. The shoe is shown in the form of a boss of oval cross section merging at its base with the vertical and horizontal webs 14 and 18 and the side of the strut 6 and having its major axis extending longitudinally of the beam. The shoe is also preferably disposed a slight distance rearwardly from the front face of the web 14 and with its inboard side in alignment with the transverse center line of the beam. The shoe is formed with a downwardly facing friction surface 36 diverging rearwardly from the horizontal plane of the beam at an angle of approximately 15 degrees. As illustrated in Figure 2, the friction surface 36 slopes downwardly below the lower edge of the vertical web 12 of the compression member 2.

Casting the third point support shoe integral with the brake beam results in a considerable saving in cost and labor as compared with brake beam structures in which the shoe is fitted on and secured to the beam by bolts, rivets or other fastening means. It will also be appreciated that shoes cast integral with the beam eliminate the possibility of the shoes becoming detached during service.

While this invention has been shown in but one form, it is obvious to those skilled in the art that it is not so limited but is susceptible of various changes and modifications without departing from the spirit and scope of the claimed invention.

I claim:

A cast truss type brake beam comprising tension and compression members and a central strut, said strut extending transversely of the beam and integrally connected at opposite ends to the members centrally thereof, a third point support shoe cast integrally with the strut and tension member, said shoe extending downwardly from the plane of the beam and presenting on the lower end thereof a flat oval friction surface, said friction surface being arranged to diverge rearwardly from the horizontal plane of the beam at an angle of approximately 15°, said shoe being located on the tension member and strut and offset slightly to one side of the transverse center line of the beam.

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