Dec. 20, 1932. T. L. BURTON 1,891,523

BRAKE BEAM SUPPORT

Filed Jan. 13, 1928 2 Sheets-Sheet 1

Fig. 1

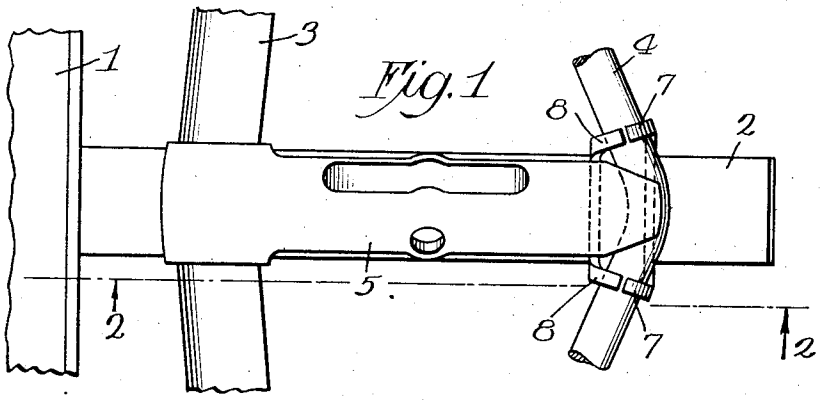


Fig. 2

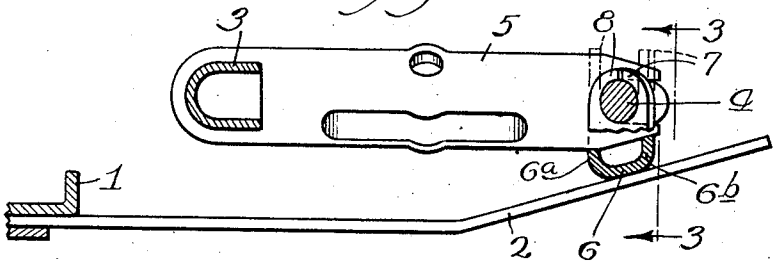


Fig 3

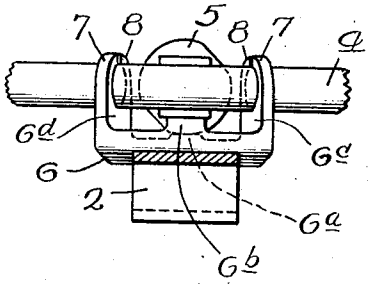


Fig. 4

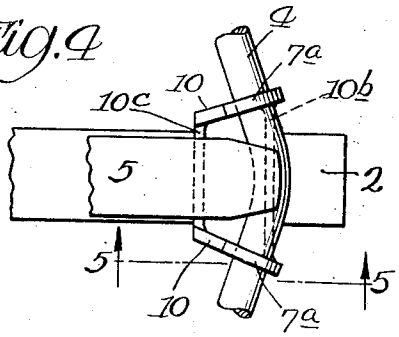
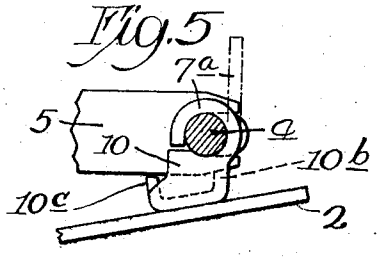


Fig. 5



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Fig. 6

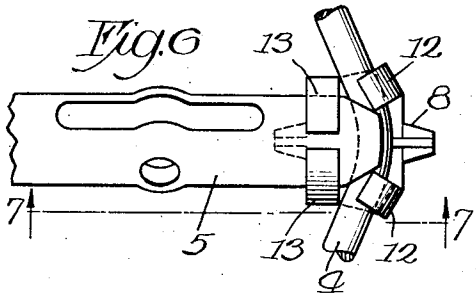


Fig. 7

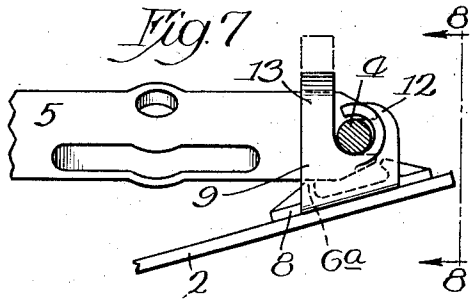


Fig. 8

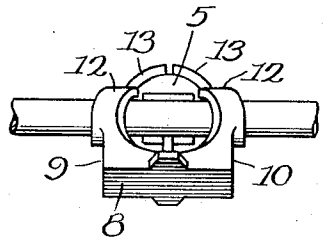


Fig. 9

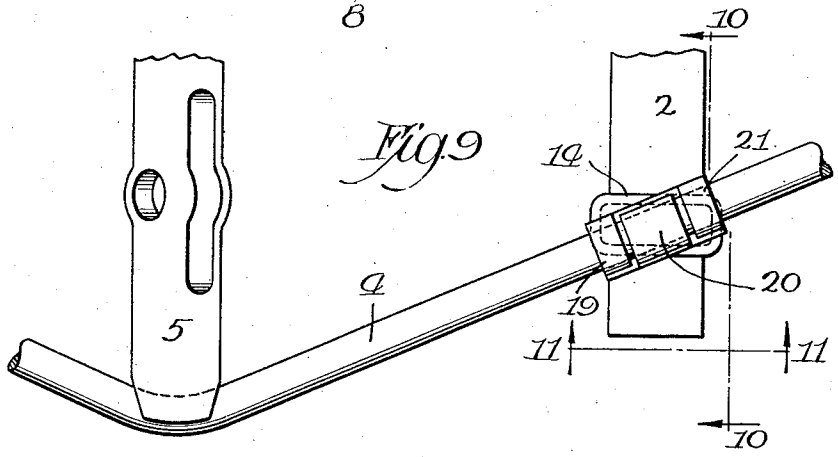


Fig. 10

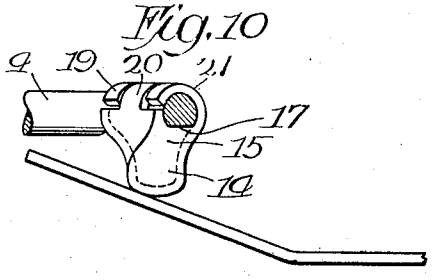


Fig. 11

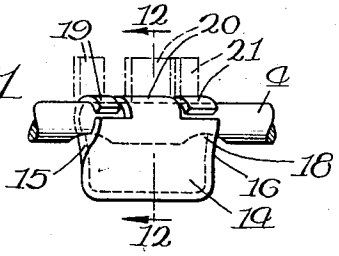
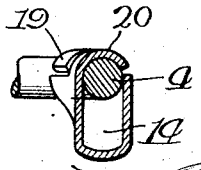


Fig. 12



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Patented Dec. 20, 1932

1,891,523

UNITED STATES PATENT OFFICE

THOMAS L. BURTON, OF NEW YORK, N. Y., ASSIGNOR TO CHICAGO RAILWAY EQUIPMENT COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS

BRAKE BEAM SUPPORT

Application filed January 13, 1928. Serial No. 246,572.

The present invention has for its object to provide improved means for supporting the brake beams of railway cars, and the invention is applicable to what are commonly known as third and fourth point supports. In supports of this character, it is necessary to sustain the tension member side of the brake beam by a spring track or tracks having an inclined portion or portions to guide the brake beam as it is moved back and forth in applying and releasing the brakes; and it is also customary to interpose a shoe or shoes between the tension member or portion of the brake beam and the supporting spring track or tracks. My invention is designed particularly to provide a simple and effective construction of shoe or carrier for sustaining the brake beam upon its supporting track or tracks. The invention consists in the features of novelty hereinafter set forth, illustrated in the accompanying drawings, and more particularly pointed out in the claims forming part of this specification.

In the drawings:

Figure 1 is a plan view showing the central portion of a brake beam embodying my invention, and showing also a part of the adjacent spring plank and spring track.

Figure 2 is a view in vertical section on line 2—2 of Figure 1.

Figure 3 is a view in vertical section on line 3—3 of Figure 2.

Figure 4 is a plan view showing a modified form of the invention.

Figure 5 is a view in vertical section on the line 5—5 of Figure 4.

Figure 6 is a plan view showing a further modification of the invention.

Figure 7 is a view in vertical section on the line 7—7 of Figure 6.

Figure 8 is a view in elevation looking in the direction of the arrows 8—8 of Figure 7.

Figure 9 is a plan view showing my invention as applied to a fourth point support.

Figure 10 is a view in vertical section on the line 10—10 of Figure 9.

Figure 11 is an elevation looking in the direction of the arrows 11—11 of Figure 9.

Figure 12 is a view in vertical section on the line 12—12 of Figure 11.

Referring to the embodiment of the invention shown in Figures 1, 2 and 3 of the drawings, 1 designates the spring plank of a car truck from which projects a supporting spring track 2 that is suitably attached thereto and has the usual inclined end portion for sustaining and guiding the brake beam. The brake beam is shown comprising the usual compression member 3 and tension member 4, between which extends the strut or lever support 5.

Between the spring track 2 and brake beam is interposed my improved shoe or carrier that may be made as a drop forging or a malleable casting. As shown, this shoe or carrier has a rounded lower portion 6 adapted to ride upon the spring track 2, and the upper portion of the shoe or carrier is formed with upstanding lugs 7 and 8 at the ends thereof. The shoe or carrier is of such length as to afford a space or seat between the lugs at the ends thereof to receive the end of the strut 5 that is notched or channeled to admit the tension member 4 of the brake beam; and the lugs 7 and 8 at each end of the shoe or carrier are spaced apart a sufficient distance to permit the tension member 4 to pass therebetween when the shoe is to be applied to the strut and tension member.

By reference to Figure 2, it will be seen that when the shoe is placed upon the end of the strut, the strut will rest upon the upstanding ledges or portions 6^a and 6^b of the bottom portion of the shoe or carrier, while the tension member 4 will rest within the seats formed between the lugs 7 and 8. When the parts have been thus assembled, the upper ends of the lugs 7 and 8 will be bent (from the position shown by dotted lines, Figure 2,) inwardly and over the tension member 4, and will be forced firmly thereagainst, thereby rigidly holding the shoe or carrier in position with respect to the strut and tension member. The upstanding end portions 6^c and 6^d, of the shoe or carrier adjacent the bottoms of the upstanding lugs 7 and 8 are preferably somewhat higher than the upstanding ledges or portions 6^a and 6^b, and the tension member 4 will rest upon these up-

standing end portions when the parts are assembled as shown.

From the foregoing description, it will be seen that when the parts are assembled as shown, the shoe or carrier which is unattached to the track is free to move not only lengthwise of the track, but may move also transversely thereof, to a limited extent incident to the endwise movement of the brake beam in practice. The upstanding ledges 6^a and 6^b afford a firm support for the outer end of the strut 5 when the guard lugs 7 and 8 are in closed position, and all danger of the turning or rocking of the shoe or carrier with respect to the strut 5 and tension member is avoided.

In the form of the invention illustrated in Figures 4 and 5 of the drawings, the shoe or carrier is similar in construction to that heretofore described; but instead of being provided with two lugs at each end, the shoe or carrier, in this modified form of the invention, is provided at each end with a single long bendable lug 7^a. The end walls 10 of the shoe or carrier shown in Figures 4 and 5 are spaced a sufficient distance apart to admit the strut 5 that will rest upon the transverse walls 10^b and 10^c and the upper edges of the end walls are formed with shallow seats to receive the tension member 4. When the shoe or carrier has been placed upon the strut and tension member, the lugs 7^a will be bent from the upstanding position (shown by dotted lines, Figure 5,) down and around portions of the tension member at the sides of the strut and will rigidly clamp the shoe or carrier in position thereon.

In the form of the invention shown in Figures 6, 7 and 8, the shoe or carrier is shown as provided with an inclined flat lower portion 8 adapted to rest upon the spring track and with upstanding end walls 9 and 10 spaced apart to receive the end of the strut 5 and having seats to receive the portions of the tension member at each side of the strut. Upstanding lugs 12 and 13 are provided in this modified form of shoe or carrier, and when the shoe or carrier is in position upon the strut and tension member, the lugs 12 will be bent downwardly upon the tension member, while the lugs 13 will be bent downwardly over and upon the end of the strut, as clearly shown in the drawings.

In Figures 9, 10, 11 and 12, in which my invention is shown as applied to a shoe or carrier for a fourth point support, the lower portion 14 of the shoe or carrier which is adapted to ride upon the spring track is formed at an angle to the upper portion that receives the brake beam tension member 4. In this construction, the tension rod rests in seats in the end walls 15 and 16, these seats preferably having flattened portions 17 which enter notches in the tension rod so that the shoe cannot turn on the rod. The shoe is clamped on the rod by bending over the integral lugs 19, 20 and 21 as shown, these lugs being disposed angularly with respect to the lower portion 14 of the shoe or carrier.

The details of construction above set forth may be varied without departure from the invention, and features of the invention may be employed without its adoption as an entirety.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A brake beam support comprising the combination with a brake beam and a supporting track, of a shoe interposed between the beam and track, said shoe having a lower portion resting upon the track in a manner free to move lengthwise and transversely thereof, and having an upper portion adapted to receive the tension rod of the brake beam, and provided with a guard at each end of the shoe adapted to extend over the tension rod of the brake beam and retain the shoe securely in place.

2. A brake beam support comprising the combination with a brake beam and a supporting track, of a shoe interposed between the beam and track, said shoe having a lower portion resting upon the track in a manner free to move lengthwise and transversely thereof, and having an upper portion adapted to receive the tension rod of the brake beam, and provided with a guard lug at each end of the shoe adapted to be bent down and over the tension rod of the brake beam to retain the shoe securely in place.

3. A brake beam support comprising the combination with a brake beam and a supporting spring track, of a shoe interposed between the beam and track, said shoe having a lower portion resting upon, but unattached to, the track, in a manner free to move lengthwise and transversely thereof, said shoe having a part affording a seat for the under side of the brake beam strut, and having an upper portion adapted to receive the tension rod of the brake beam, and provided with a guard at each end of the shoe adapted to extend over the tension rod and retain the shoe securely in place.

4. A brake beam support, comprising the combination with a brake beam and a supporting track, of a shoe interposed between the beam and track, said shoe having a lower portion resting upon but unattached to the track in a manner free to move lengthwise and transversely thereof, and having an upper portion adapted to receive the tension member of the brake beam and provided with integral bendable means adapted, when extended, to receive said tension portion of the brake beam and when bent to hold the shoe upon said tension portion of the beam rigidly against forward, backward and endwise movement with respect thereto.

5. A brake beam support comprising a rigid, track-engaging rubbing shoe adapted to engage the tension member of the brake beam and having means, including bendable lugs, for rigidly securing the shoe against relative movement upon the brake beam, substantially as described.

6. In a brake beam support, the combination with a brake beam having a strut and supporting track, of an interposed track rubbing shoe carried by the beam to move freely therewith both transversely and longitudinally therewith, said shoe having integral parts extending over the tension mer ber of the brake beam and having other parts engaging the brake beam strut and holding the shoe against rotary movement relative to the tension member.

THOMAS L. BURTON.