No. 744,723. PATENTED NOV. 24, 1903.

S. A. CRONE.

BRAKE BEAM.

APPLICATION FILED SEPT. 26, 1903.

NO MODEL.

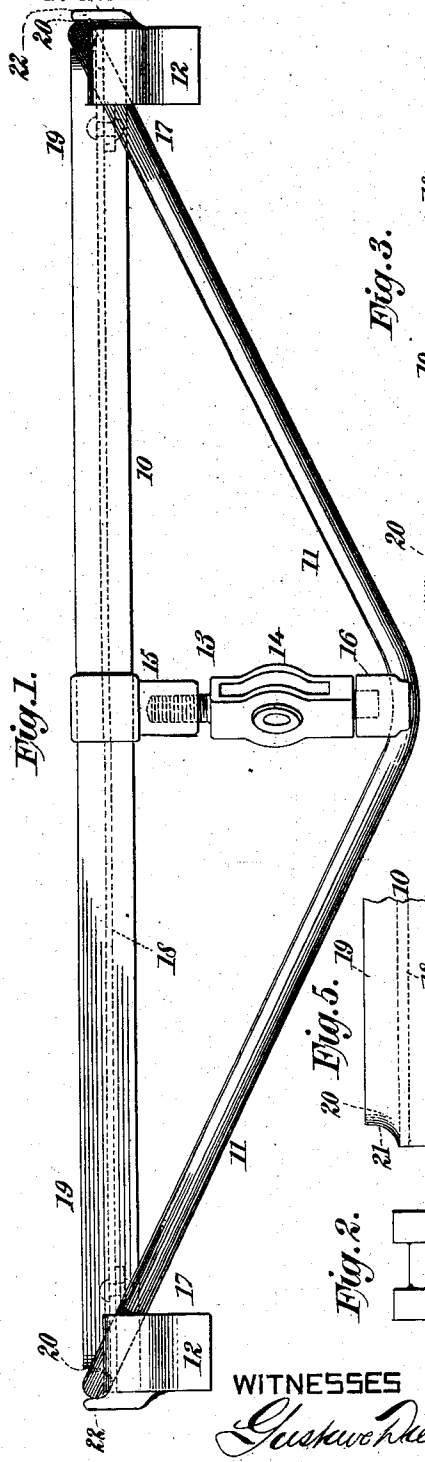


Fig. 1.

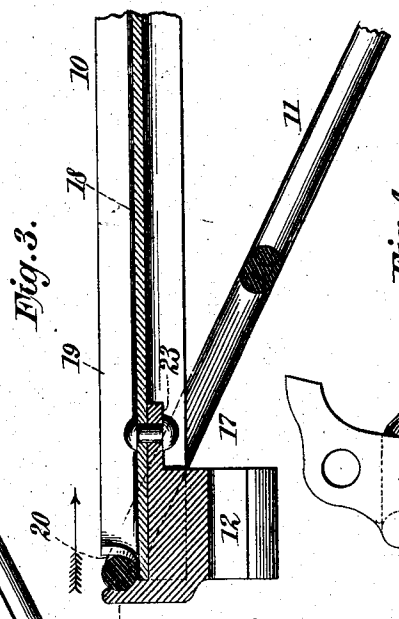


Fig. 3.

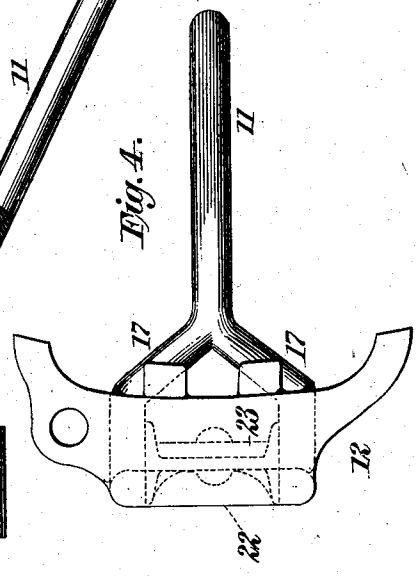


Fig. 4.

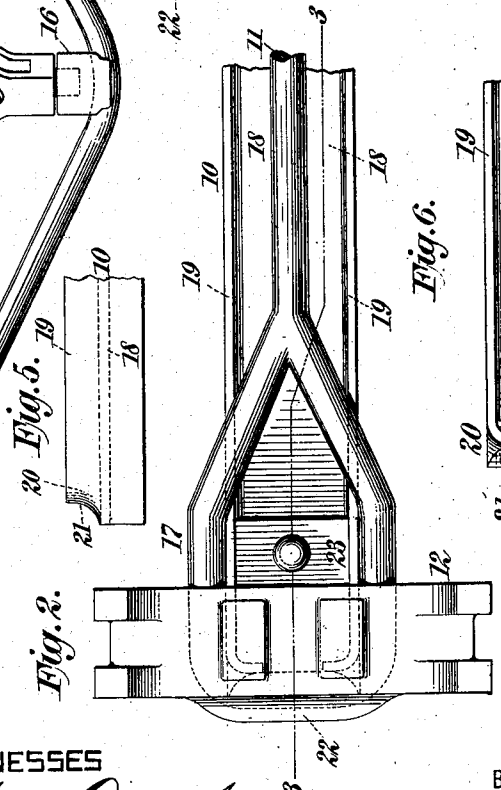


Fig. 2.

Fig. 5.

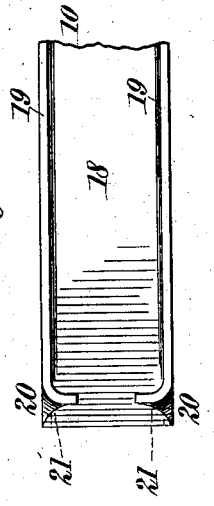


Fig. 6.

WITNESSES

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No. 744,723. Patented November 24, 1903.

UNITED STATES PATENT OFFICE.

SETH A. CRONE, OF NEW YORK, N. Y.

BRAKE-BEAM.

SPECIFICATION forming part of Letters Patent No. 744,723, dated November 24, 1903.

Application filed September 26, 1903. Serial No. 174,704. (No model.)

To all whom it may concern:

Be it known that I, SETH A. CRONE, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Brake-Beams, of which the following is a specification.

The invention relates to improvements in brake-beams; and it consists in the novel features, arrangement, and combinations of parts hereinafter described, and particularly pointed out in the claims.

In its preferred form the brake-beam of my invention comprises a rolled body or beam member, having on its ends the brake-shoe heads, a truss-rod member engaging the ends of said beam, and a central extensible strut adapted to receive the brake-lever, the truss-rod being in one continuous integral piece, extending from one end of the body-beam to the other end thereof and formed at its ends with loops adapted to engage the body-beam, and the said strut being extensible, so as to enable the proper tension to be applied to the said truss-rod, the whole being constructed and arranged as hereinafter fully described.

The object of the invention is to produce a more efficient and desirable brake-beam than those heretofore known, and one of the more especial objects of the invention is to provide a truss-rod and means for applying and securing the same without the aid of securing-nuts or like detachable features applied to or connected with said rod.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a top view of a brake-beam constructed in accordance with and embodying my invention. Fig. 2 is a side elevation of a portion of same looking in the direction of the truss-rod and brake-shoe heads. Fig. 3 is a sectional view of a portion of same on the dotted line 3 3 of Fig. 2. Fig. 4 is an end view of a portion of same. Fig. 5 is a detached top view of one end of the body-beam member, and Fig. 6 is a side elevation of same.

In the drawings, 10 designates the rolled beam member; 11, the truss-rod; 12, the brake-shoe heads, and 13 the strut, the latter comprising the swiveled section 14, the threaded socket member 15, applied upon the beam 10, and the swivel socket member 16, detachably engaging the central portion of the truss-rod 11. The strut 13 is an extensible strut and requires no special detailed description in this application, since it is fully described and shown in Letters Patent of the United States No. 715,995, granted to Seth A. Crone on December 16, 1902. I do not limit the present invention to the employment of the special construction of extensible strut 13, (shown in the drawings,) since extensible struts are well known in this art, and the special strut 13 may be dispensed with and some other known form of extensible strut substituted in its place. I, however, recommend the employment of the strut 13 on account of its efficiency and general desirability.

The beam 10 is preferably, though not necessarily, a rolled I-beam, and this beam will be either straight or bowed, as usual.

The truss-rod 11 is a plain rod in one continuous piece, having the integral loops 17 at its ends. The central portion of the truss-rod 11 is engaged by the strut 13, as usual, and the loops or stirrups 17 at the ends of the rod 11 engage the ends of the beam 10, as shown, the outer vertical ends of the loops or stirrups 17 being seated in a properly-formed recess or pocket at the ends of said beam. In the present instance the beam 10 comprises the web 18 and the outwardly-extending flanges 19, these being the usual flanges, and at the ends of the beam 10 I form the seat or socket 20 for the stirrups 17 by heating the ends of the beam 10 and drawing the extreme outer ends of the flanges 19 inwardly toward each other, as shown in Fig. 6, the metal of the flanges 19 being stretched and curved so as to form the approximately triangular curved sections 21, which form the seats for the outer ends of the stirrups 17. The stirrups 17 when in their seats 20 directly engage the body-beam 10 adjacent to the web thereof and are effectually held in position by the flanges 19 and strut 13. The loops or stirrups 17 are of such width that their side portions may receive between them the ends of the beam 10, as illustrated in Fig. 2, and this enables the outer vertical portions of said stirrups to be readily placed into the seats 20 at the outer ends of the said beam.

The sections 21 become approximately triangular from the fact that when the ends of the flanges 19 are drawn inwardly toward each other the pull is at the upper outer corners of said ends of said flanges, the lower edges of the flanges thus not being stripped from the web 18 of the beam 10.

The heads 12 will be of any suitable outline to receive the customary brake-shoes in the usual manner, and said heads will contain interior sockets adapting them to be slid upon the ends of the beam 10 after the truss-rod 11 has been secured in place. At their outer edges the heads 12 will be provided with the outwardly-extending lips 22 to pass up closely against the outer vertical edges of the stirrups 17, and the said heads 12 will preferably be secured in place by riveting, to which end I provide the heads 12 with flanges 23 to extend along the face of the web 18 of the beam 10, said flanges 23 affording convenient means for enabling the riveting of the heads 12 to the beam 10, as clearly illustrated in the drawings.

In assembling the parts of the beam the strut 13 will be applied to position, and its rotary section 14 will be screwed inwardly, so as to shorten the strut, and thereupon the truss-rod 11 will be applied upon the ends of the beam 10 and the said strut then extended, so as to create the proper tension in said truss-rod. Thereafter the heads 12 will be applied upon the ends of the beam 10 and secured in place, said heads 12 being slipped upon the ends of the beam and inclosing by their form a portion of the outer vertical and side edges of the stirrups 17.

It will be observed that the stirrups 17 are integral parts of the truss-rod and very effectually engage the beam 10 and that said rod is devoid of nuts and threaded parts for tightening the same, the rod being in one continuous piece and having a proper tension imparted to the same by the extensible strut 13. The heads 12 may be removed without disturbing the truss-rod 11.

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

1. The brake-beam, comprising the body-beam member, a strut, the truss-rod 11 having at its ends the stirrups 17 in engagement with the ends of said beam, and the brake-shoe heads applied upon the ends of said beam externally of said stirrups, the said truss-rod being an individual rod in one continuous piece having the integral stirrups at its ends; substantially as set forth.

2. The brake-beam comprising the beam member, strut, brake-shoe heads, and truss-rod, the latter being an individual rod formed at its ends with the stirrups 17, and said strut being extensible for creating the necessary tension in said truss-rod; substantially as set forth.

3. The brake-beam comprising the beam member, the extensible strut, the truss-rod 11 having at its ends the stirrups 17 in engagement with the ends of said beam, and the brake-shoe heads applied upon the ends of said beam externally to said stirrups, said truss-rod being an individual rod in one continuous piece and engaged at its center by said extensible strut; substantially as set forth.

4. The brake-beam comprising the beam 10 having the web 18 and flanges 19, the strut, the truss-rod having the stirrups at its ends to engage said beam, and the brake-shoe heads applied upon the ends of said beam, the outer portions of said flanges 19 being extended inwardly toward each other to form the seat 20 for the outer vertical edges of said stirrups; substantially as set forth.

5. The brake-beam comprising the beam member, strut, brake-shoe heads, and truss-rod, the latter being integral from end to end and formed at its ends with the stirrups 17, and said strut being extensible for creating the necessary tension in said truss-rod; substantially as set forth.

6. The brake-beam comprising the body-beam member, a strut, the truss-rod integral from end to end and formed at its ends with stirrups in engagement with the ends of said beam, and the brake-shoe heads applied upon the ends of said beam externally of said stirrups; substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 25th day of September, A. D. 1903.

SETH A. CRONE.

Witnesses:
CHAS. C. GILL,
ARTHUR MARION.