

H. ZIEMSS, JR.
BRAKE BEAM.
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1,045,244.

Patented Nov. 26, 1912.

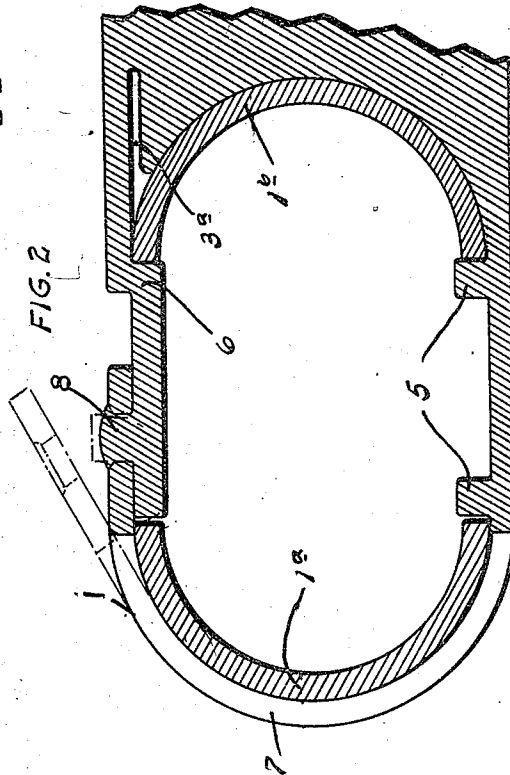
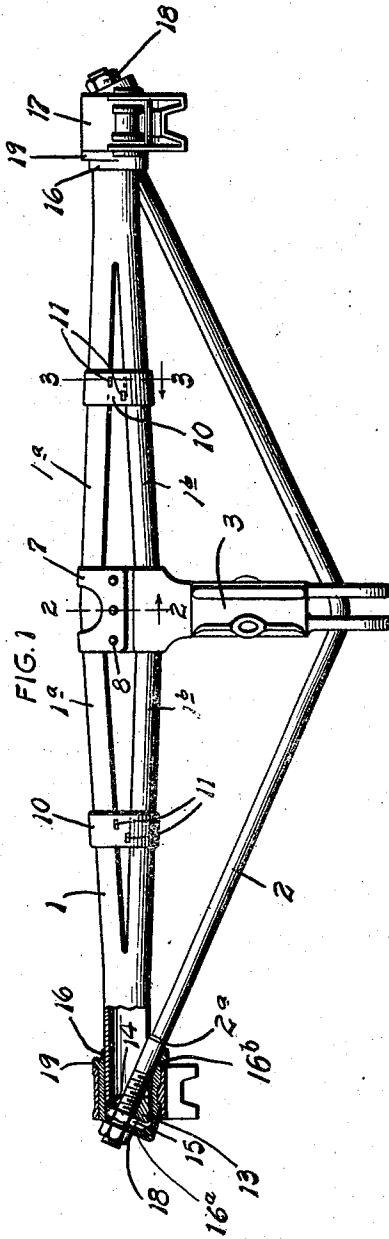
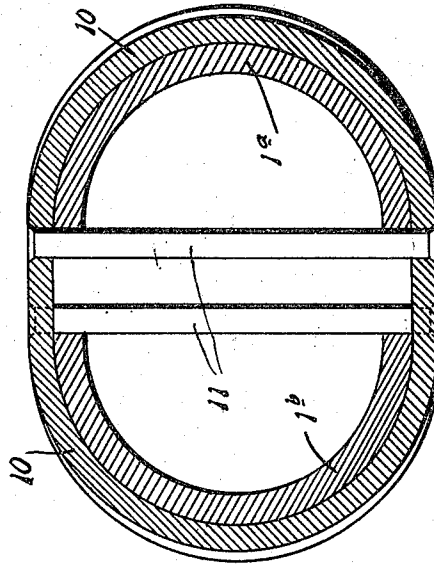


FIG. 3



WITNESSES

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INVENTOR

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UNITED STATES PATENT OFFICE.

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BRAKE-BEAM.

1,045,244.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY ZIEMSS, JR., a citizen of the United States, residing at Chicago, State of Illinois, have invented a certain new and useful Improvement in Brake-Beams, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top plan view of my improved brake beam. Fig. 2 is a sectional view on the line 2—2 of Fig. 1. Fig. 3 is a sectional view on line 3—3 of Fig. 1.

This invention relates to a new and useful improvement in brake beams, the object being to provide a simple, cheap and strong beam, the essential feature of my invention consisting in splitting and separating the compression member so as to form a trussed compression member. Means are also provided for spacing and holding together the split portions of the compression member.

In the drawings 1 indicates the compression member and 2 is the tension member. The compression member is shown as being formed of a tube of proper length, said tube being split in a vertical plane at its middle portion, so as to form two portions 1^a and 1^b the ends being preferably left integral. These split portions are most widely separated at the middle of the beam.

3 indicates the strut interposed between the portion 1^b and the tension member 2, said strut being provided with the usual angulated slots for the brake lever. This strut as shown in Fig. 2 is provided with a seat in which the member 1^b is received, the upper wall of the strut being separated by a slot 3^a so that said upper wall forms a tongue which may be sprung over the member 1^b in assembling the parts. This tongue is provided with a projection 6 which fits between the members 1^a and 1^b and serves to hold said members separated.

The lower wall 4 at the rear end of the strut is provided with lugs 5 for the purpose of separating the members 1^a and 1^b, said lower wall continuing upwardly around the member 1^a to form a strap portion 7 having openings in its end for receiving the projections 8 on the tongue 6, which projections are adapted to be hammered down

to form heads so as to hold the tongue in position. Instead of integral projections 8 rivets may be employed to secure the tongue and strap portions together.

10 indicates sleeves which may be employed to strengthen the trussed compression member at points intermediate the central strut and brake heads. These sleeves are provided with pins 11 which pass between the portions 1^a and 1^b, adjacent the inner edges thereof and are riveted to the sleeves 10 as shown in Fig. 3.

The ends of the compression and tension members may be secured together in any suitable manner and are preferably provided with sleeves 16 on which the brake heads 17 are mounted. As shown at the left in Fig. 1, the ends of the tension member pass through the openings in the inner walls of the ends of the compression member and a washer 13 is placed over each end of the tension member said washer having a seat 14 for abutment of the compression member and having an inclined outer face for a nut 15 which is threaded on the end of the tension member and impinges against said washer. By this means the tension and compression members are secured together independently of the sleeve 16 and for repair purposes the sleeve may be removed and renewed without disturbing the trussed beam.

The sleeve 16 preferably fits over the ends of the compression and tension members and is provided with an inclined end wall 16^a, which houses in the nut 15 and preferably bears thereagainst, and its side wall is formed to admit the tension member and provide a seat or passage for it, as shown at 16^b. The sleeve is secured in position by a nut 18.

If desired the end of the tension member 2 may be enlarged at 2^a to increase its diameter and thus afford a larger bearing for the nuts 15 and 18.

Upon the inner end of the sleeve is formed a flange or shoulder 19 against which the brake head is received.

What I claim is:

1. A brake beam comprising a compression member and a tension member, said compression member being of trussed construction, the chords of the truss lying in the plane of the brake beam, and a strut extending between said tension member and said compression member, said strut having

a portion which serves as a strut for said compression member.

2. A brake beam comprising a tension member and a compression member, said compression member being of trussed construction, the chords of the truss lying in the plane of the brake beam, and a strut extending between said tension member and said compression member, said strut having means at one end adapted to hold the parts of said compression member separated, and to prevent further separating movement of said parts.

3. A brake beam comprising a compression member and a tension member, said compression member being split longitudinally for a portion of its length, the middle portion of the halves being separated, said halves lying in the plane of the brake beam strut, means for holding said middle portions apart, and a strut extending between said compression member and said tension member.

4. A brake beam comprising a tension member and a compression member, said compression member comprising a tube having a longitudinal slot therethrough, the two portions formed by said slot being spaced apart at their middle point, and a strut extending between said tension member and said compression member, said strut having means for holding said portions of the compression member separated, and for preventing further separating movement of said portions.

5. A brake beam comprising a tension member and a compression member, said compression member comprising a tube having a longitudinal slot therethrough, the two portions formed by said slot being spaced apart at their middle point, a strut extending between said tension member and said compression member, said strut having means for holding said portions of the compression member separate and for preventing further separating movement of said portions, and sleeves surrounding said compression member, said sleeves limiting separating movement of said portions, and means carried by said sleeves for limiting the movement of said portions toward each other.

6. A brake beam comprising a tension member and a compression member, said compression member being tubular and having a longitudinal slot therethrough, the portions formed by said slot being separated at their middle point, and a strut extending between said tension member and said compression member, said strut having portions adapted to lie in said slot for holding said portions separated, and a strap extending about said compression member and being connected to said portion of said strut.

7. In a brake beam, in combination, a

compression member of tubular form; a tension member having its ends extending into the ends of said compression member, washers surrounding the ends of said tension member and adapted to bear against the ends of said compression member, the outer faces of said washers extending at right angles to the axis of said tension member, nuts turned on the ends of said tension member adapted to bear against said faces of said washers, sleeves fitting about the ends of said tension member and said compression member, said sleeves having inclined end walls adapted to bear against said nuts, nuts turned on the ends of said tension member and adapted to bear against said end walls for holding said sleeves in place, and brake heads mounted on said sleeves.

8. A trussed brake beam comprising a tension and a compression member, means for securing said members together, a sleeve at each end of the beam, and independent means for securing said sleeves in position.

9. A brake beam comprising a compression and a tension member, means for securing said parts together at the end of the beam, a sleeve forming a housing for said securing means, and means for securing said sleeve in position.

10. A brake beam comprising a tension and a compression member, means for securing said parts together at the end of the beam, a sleeve mounted on the end of the beam, and removable means for securing said sleeve in position, said removable means permitting the sleeve to be removed without disturbing the connection between the compression and tension members.

11. In a brake beam the combination of a trussed compression member and a strut, said strut having a yielding wall provided with projections fitting between the trussed portions of the compression member, and an opposite wall also provided with spacing projections for the same purpose, said last mentioned wall having a tongue extension adapted to embrace one of the trussed portions of the compression member and be secured to the yielding wall of the strut.

12. A brake beam comprising a plurality of beam members, a nut turned upon one end of one of said beam members for securing said members together, a sleeve adapted to fit over the ends of said beam members, and a nut turned on the beam member carrying the other nut for securing said sleeve in place.

13. A brake beam comprising a compression member and a tension member, a nut turned on said tension member, a sleeve adapted to fit over said members, said sleeve having an opening in its outer end wall to receive the end of said tension member, and a nut turned on the end of said tension member and bearing against said outer wall.

14. A brake beam comprising a compression member and a tension member, a nut securing said compression member and said tension member together, a sleeve chambered to receive the ends of said compression member and said tension member and said nut and to adapt it to be slipped over said parts, and means for securing said sleeve in place.

15. A brake beam comprising a compression member, a tension member, a nut turned upon the end of said tension member, a sleeve recessed to receive said compression member and having a seat for said tension member, said sleeve also having an outer end wall with an opening therein for the adjacent end of said tension member, said outer end wall contacting said nut, and a nut turned upon the outer end of said tension member and bearing on the outer face of said end wall.

16. A brake beam comprising a compression member and a tension member; a sleeve secured in place upon the ends of said members, a brake head mounted on said sleeve, and means within the sleeve for securing the compression member and the tension mem-

ber together, said sleeve being withdrawable off said compression member without disturbing said securing means.

17. A brake beam comprising a compression member, and a tension member; a sleeve fitting over the ends of said members and having an outer end wall which is apertured for the passage of the end of the tension member, means within the sleeve for securing the compression member and the tension member together, and means outside the sleeve and bearing against said end wall for securing the sleeve in place.

18. A brake beam comprising a compression member, a tension member, means for securing the ends of said members together, a sleeve fitting over the ends of said members and inclosing said securing means and means for securing said sleeve in place.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 6th day of February, 1912.

HENRY ZIEMSS, JR.

Witnesses:

ARTHUR M. HAMMANN,
ROBERT W. HAMMANN.