

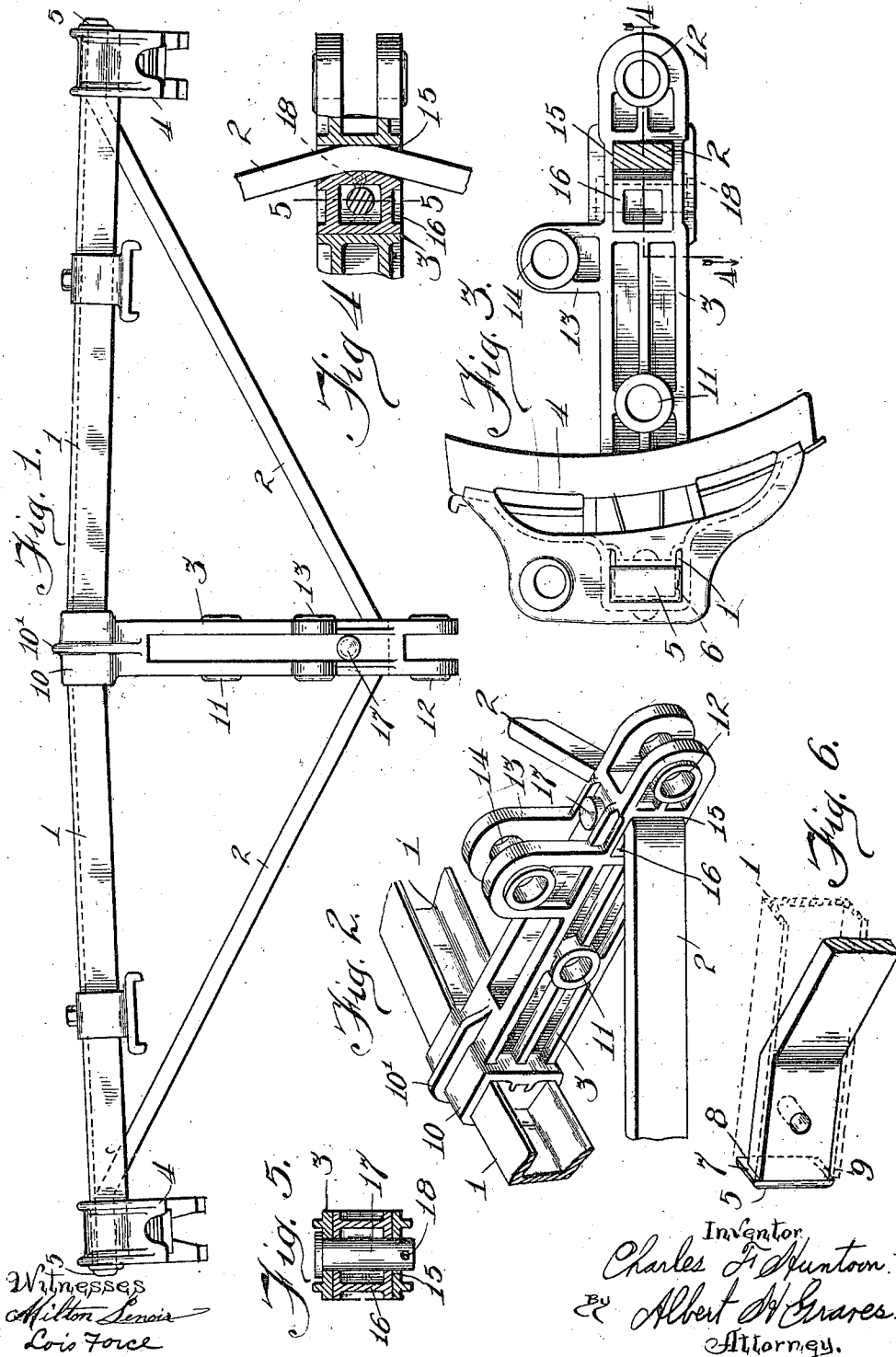
C. F. HUNTOON.

BRAKE BEAM.

APPLICATION FILED JULY 15, 1909. RENEWED JULY 22, 1910.

974,797.

Patented Nov. 8, 1910.



# UNITED STATES PATENT OFFICE.

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## BRAKE-BEAM.

974,797.

Specification of Letters Patent.

Patented Nov. 8, 1910.

Application filed July 15, 1909, Serial No. 507,703. Renewed July 22, 1910. Serial No. 573,283.

To all whom it may concern:

Be it known that I, CHARLES FRANCIS HUNTOON, a citizen of the United States, residing at city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Brake-Beams, of which the following is a specification.

This invention relates to improvements in 10 brake beams and has among its salient objects to provide a construction in which the parts subject to the greatest stresses are so formed as to secure maximum strength combined with simplicity of form; to provide a 15 construction of the above character having a single piece unitary strut member thus securing maximum strength in a part of the beam, subject to severe stresses, which at the same time permits the use of a flanged unitary tension member; to provide in a construction of the character referred to simple and effective means for locking the tension member to the strut member; to provide a construction which may be assembled with 25 the greatest facility and in which at the same time the main members thereof may be rigidly locked together; and in general to provide an improved construction of the character referred to.

In the drawings Figure 1 is a plan view of a brake beam embodying a preferred form of my invention; Fig. 2 is a fragmentary perspective view showing more particularly the construction of the strut member. Fig. 3 is an end elevation of the beam, part of the tension member being shown in section. Fig. 4 is a horizontal detail view showing the manner of locking the tension member to the strut. Fig. 5 is an enlarged sectional detail view showing the construction of the locking block. Fig. 6 is a fragmentary perspective view of one end of the tension member.

In the drawings 1 designates as a whole 45 the flanged compression member, 2 the tension member, 3 the strut member and 4, 4 the brake shoe heads mounted upon the respective ends of the beam.

In the preferred construction shown, the 50 compression member is of channel shape in cross section having its main web vertically and slightly cambered or bent as shown in Fig. 1. The tension member 2 preferably takes the form of a flat strap like bar and 55 has end portions shown in dotted lines in

Fig. 1 and which are bent so as to lie flatwise within the ends of the channel member for a length corresponding to the width of the brake shoe head. Each end of the tension member 2 terminates in a headed portion 5 so forged upon said member as to provide out-standing shoulders 7, 8 and 9 upon three sides thereof. The lateral width of the shoulders 7, 8 and 9 correspond substantially to the thickness of the corresponding portions of the compression member 1 65 against which they abut, so that when the tension member is in place in the compression member, it has full bearing against the ends of the latter but nevertheless permits the brake shoe ears 4 to be slipped into position. The flanged ends of the tension member prevent the latter from having endwise movement relative to the compression member when the said parts are in assembled position. 75

From the foregoing it will be seen that the compression and tension members are so constructed as to provide increased cross sectional strength at the point where the shearing stresses between the end of the compression member and the head of the tension member occurs. 80

As an important feature of the present invention the tension member is united to a single piece or unitary strut member thus increasing the strength of the beam as a whole. Heretofore in uniting a tension member of this character to a strut member it has been necessary to make the latter of two-part construction thus obviously decreasing the strength of a part of the beam which is especially subject to severe stresses. 85

In the present invention the strut member 3 is of general skeleton like construction having a closed socket member 10 adapted to receive the journal compression member as shown more clearly in Fig. 2. This socket member 10 is formed or cast integrally with the main body of the strut and is preferably provided with strengthening webs 10'. The strut is as usual provided with the bearing 11 and 12 to receive the brake levers and with the supporting brackets 13 provided with the connecting eyes 14. The tension member 2 engages at its center a closed eye or seat 15 formed in the front end of the strut. This seat is of a considerably greater sectional area than the main body of the tension member in order to permit the enlarged 110

ends of the latter to pass through the eye 15 in assembling the beam. The tension member is locked in centered position within the seat 15 by means of a locking block designated as a whole 16. This block is of generally skeleton like construction as shown in Fig. 5 and is provided with a curved or fixed outer face conforming generally to the inner angle of the tension member. This block is locked in position by means of a through bolt or pin 17 extending through suitable apertures formed in the upper and lower faces of the block and strut member respectively. The bolt is preferably confined in position by means of a cotter pin 18 as shown.

In assembling the beam the compression member is first slipped through the closed socket 10 of the strut and properly centered. The tension member is then connected to the strut by turning the former flatwise in order to permit its enlarged head 6 to pass through the closed eye 16. Before the tension member 2 reaches its centered position the locking block 16 is seated in the inner angle of the former whereupon the block may be readily slipped into the seat 15. The bolt 17 is then slipped into position and locked to the block by means of the cotter pin 18. The ends of the tension member and the brake heads 4 may then be united to the compression member.

From the foregoing it will be seen that I secure the objects of the invention in a simple and efficient manner. The construction here shown may be obviously more or less modified without departing from the spirit of the invention.

I claim as my invention:

1. In a trussed brake beam, the combination with a flanged compression member, of a unitary strut member having a closed eye at its front end, a tension member having its end portions brought alongside of the web and flange portions of the compression member and means for locking the tension member to the strut member comprising a locking block seated in the closed eye of the

strut member and abutting against the inner face of the tension member, and a pin extending through the strut and block and locking the latter in position.

2. In a trussed brake beam, the combination with a compression member, of a strut member united thereto and having a closed eye at one end thereof, a tension member extending through said eye and having enlarged end portions connected to the compression member, a movable locking block seated in said eye and abutting against the inner face of the tension member and means for locking said lock in position.

3. In a trussed brake beam, the combination with a compression member, of a strut member united thereto and having a closed seat or eye portion to receive the tension member, a tension member extending through said eye portion and having enlarged ends connected to the compression member and means for rigidly locking said tension member to the strut.

4. In a trussed brake beam, the combination with a compression member of channel shape in cross section, of a tension member having end portions approximately conforming to and lying within the end portions of said compression member and provided at its ends with laterally enlarged heads to overlap the end surfaces of the compression members, a unitary strut member united at one end to the compression member and provided at its other with a closed eye adapted to receive the tension member.

5. In a trussed brake beam, the combination with a compression member, of a tension member having enlarged end portions, a unitary strut member connected to the compression member at one end and having a closed eye at its other to receive the tension member, and means for locking the tension member to said strut member.

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