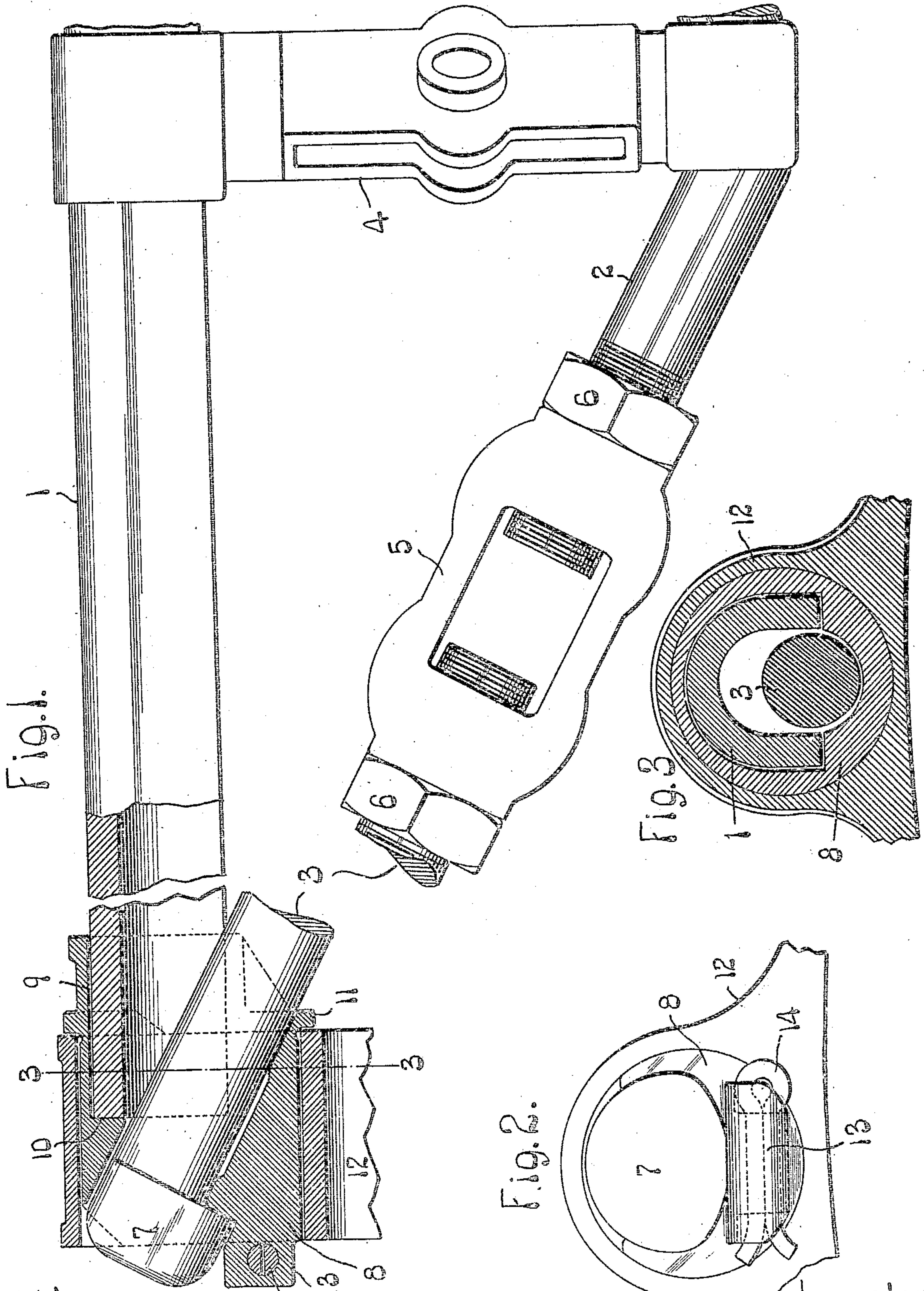


P. B. HARRISON.
BRAKE BEAM.
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953,784.

Patented Apr. 5, 1910.



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UNITED STATES PATENT OFFICE.

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BRAKE-BEAM.

953,784.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, PHILIP B. HARRISON, a citizen of the United States, residing at Chicago, 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 an elevation of one-half of my improved brake beam, with the outer end thereof shown in section; Fig. 2 is an end elevation of the beam with the brake head broken away; Fig. 3 is a vertical section taken on the line 3—3 of Fig. 1.

My invention relates to trussed brake beams, and has for its object the construction of a simple, inexpensive beam having great strength and rigidity, the tension member of said beam being provided with means intermediate its ends whereby the necessary camber may be imparted to and maintained in the compression member of the beam.

A further object of my invention is to dispense with the nuts ordinarily located upon the outer ends of the tension member, which nuts frequently work loose, thereby destroying the camber in the compression member and rendering the beam unfit for service.

A further object of my invention is to arrange thrust blocks on the ends of the compression member and to provide simple means whereby the brake heads are effectually held on said thrust blocks.

To the above purposes, my invention consists in certain novel features of construction and arrangement of parts hereinafter more fully described and claimed.

In the drawings, 1 designates the compression member of the beam, the same being preferably a U-shaped beam, or it may be in any form such as a round or square rod or tube having its ends cut away for the reception of the ends of the tension member. The tension member of the beam is formed in three parts, namely, a center section 2 and two end sections 3. Interposed in the usual manner between the central portions of the center section 2 of the tension member and the compression member

is a strut or brake lever post 4 of ordinary construction. The adjacent ends of the sections 2 and 3 of the tension member are provided with right and left hand screw threads in order to receive turn buckles 5, and located on the threaded portions of the tension member adjacent the ends of the turn buckles are jam or lock-nuts 6. The outer ends of the sections 3 of the tension member are upset to form integral heads 7, which, when the parts of the beam are assembled, bear against the outer faces of thrust blocks 8. These thrust blocks are approximately cylindrical in form, and are provided with suitably formed recesses 9 which receive the ends of the compression member 1, there being an abrupt shoulder 10 formed in each thrust block against which each corresponding end of the compression member engages.

Formed integral with each thrust block, adjacent the inner end thereof, is a flange 11 against which engages the inner face of the corresponding brake head 12, which latter is removably and in some cases adjustably mounted on the thrust block.

Formed integral with the outer portion of the thrust block is a perforated lug 13 which projects beyond the outer face of the brake head, and seated in the perforation in said lug is a spring cotter or key 14 the ends of which project beyond the edge of the thrust block, thus serving to lock the brake head on the thrust block.

It will be readily understood that by screwing up the turn buckles 5 the tension member will be gradually shortened, thus imparting the necessary camber to the compression member, and after the proper camber has been established the lock nuts 6 are tightened against the ends of the turn buckle to lock the same against reverse movement.

The heads 7 on the outer ends of the sections 3 of the tension member bear directly against the outer portions of the thrust blocks 8, and said thrust blocks are very rigidly clamped upon the ends of the compression member 1 with the extreme outer ends of said member 1 bearing against the shoulders 10 within the thrust blocks. The brake heads 12 are fitted on to the thrust block and are locked thereon by the keys 14 seated in the perforated lugs 13.

A trussed brake beam of my improved construction is comparatively simple, of

light weight, comprises a minimum number of parts, is easily assembled or taken apart, and by means of the turn buckles in the tension member the necessary camber can be readily imparted to the compression member, which latter construction obviates the use of nuts upon the outer ends of the tension member, which nuts tend to work loose while the beam is in use, thereby destroying the camber and rigidity of the beam.

I claim:

1. A trussed brake beam having a sectional tension member and means located on each side of the strut for connecting the adjacent ends of the sections of the tension member for drawing the same together.

2. A trussed brake beam having a sectional tension member, heads on the ends of said tension member, and a turn buckle located near each end of the tension member for connecting the sections thereof.

3. A trussed brake beam having a sectional tension member, a turn buckle located near each end of the tension member for connecting the sections thereof, and means located on the sections of the tension member for locking the turn buckles against rotation.

4. In a brake beam, the combination with a compression member, of a sectional tension member, heads on the ends of said tension member, means connecting the adjacent ends of the sections of the tension member for drawing the same together, and a strut interposed between the middle section of the tension member and the central portion of the compression member.

5. A brake beam comprising a compression member, thrust blocks seated on the ends thereof, a sectional tension member provided with heads, the ends of which are seated against the thrust blocks, adjustable means connecting the adjacent ends of the sections of the tension member, and a strut interposed between the middle section of the tension member and the central portion of the compression member.

6. A brake beam comprising a compression member, thrust blocks seated on the ends thereof, a sectional tension member, the ends of which are provided with heads and seated against the thrust blocks, adjustable means connecting the adjacent ends of the sections of the tension member, means whereby said adjustable means is locked, and a strut interposed between the middle section of the tension member and the central portion of the compression member.

7. A trussed brake beam comprising a compression member, thrust blocks located on the ends thereof, brake heads removably located on the thrust blocks, a sectional tension member, the outer ends of which are provided with heads and seated against the thrust block, adjustable means connecting the adjacent ends of the sections of the ten-

sion member, and a strut interposed between the middle section of the tension member and the central portion of the compression member.

8. A trussed brake beam comprising a compression member, thrust blocks located on the ends thereof, a sectional tension member, the outer ends of which pass through the thrust blocks, heads formed on the outer ends of the tension member, which heads bear against the thrust blocks, adjustable means connecting the adjacent ends of the sections of the tension member, and a strut interposed between the middle one of the sections of the tension member and the central portion of the compression member.

9. A trussed brake beam comprising a compression member, thrust blocks located on the ends thereof, a sectional tension member, the outer ends of which pass through the thrust blocks, heads formed on the outer ends of the tension member, which heads bear against the thrust blocks, adjustable means connecting the adjacent ends of the sections of the tension member, a strut interposed between the middle one of the sections of the tension member and the central portion of the compression member, and means whereby said brake heads are locked to the thrust blocks.

10. A trussed brake beam having a compression member, a sectional tension member, turn buckles connecting the ends of the end sections to the ends of the middle section of the tension member, and means located on each of the sections of the tension member for locking the turn buckles against rotation.

11. A trussed brake beam having a compression member, a sectional tension member, turn buckles connecting the ends of the end sections to the ends of the middle section of the tension member, means located on the several sections of the tension member for locking the turn buckles against rotation, and a strut interposed between the central section of the tension member and the compression member.

12. In a trussed brake beam, the combination with a compression member, of a sectional tension member, thrust blocks on the ends of the compression member, which are engaged by the end sections of the sectional tension member, and means forming a part of the sectional tension member and located on each side of the strut for imparting and maintaining camber in the compression member.

13. In a trussed brake beam, the combination with a compression member, of a sectional tension member, thrust blocks on the ends of the compression member which are engaged by the end sections of the sectional tension member, a strut interposed between the middle section of the tension member and the compression member, and means

forming a part of the sectional tension member and located on each side of the strut for imparting and maintaining camber in the compression member.

5 14. In a brake beam, the combination with a compression member, of thrust blocks inclosing the ends of said compression member, a sectional tension member, the ends of
10 the end sections of which are seated in the thrust blocks, means for connecting the end and middle sections in such manner as to place variable tension therein, brake heads
15 removably located on the thrust blocks, and keys seated in the thrust blocks for maintaining the brake heads thereon.

15 15. In a brake beam, the combination with a compression member, of thrust blocks in-

closing the ends of said compression member, a sectional tension member, the ends of the end sections of which are seated in the thrust blocks, means forming a part of said sectional member and located on each side of the strut for imparting and maintaining camber in the compression member, brake heads removably located on the thrust blocks, and keys seated in the thrust blocks for maintaining the brake heads thereon. 20 25

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 28th day of June 1909.

PHILIP B. HARRISON.

Witnesses:

EDWARD T. WALKER,
JOSEPH W. WEINLAND.