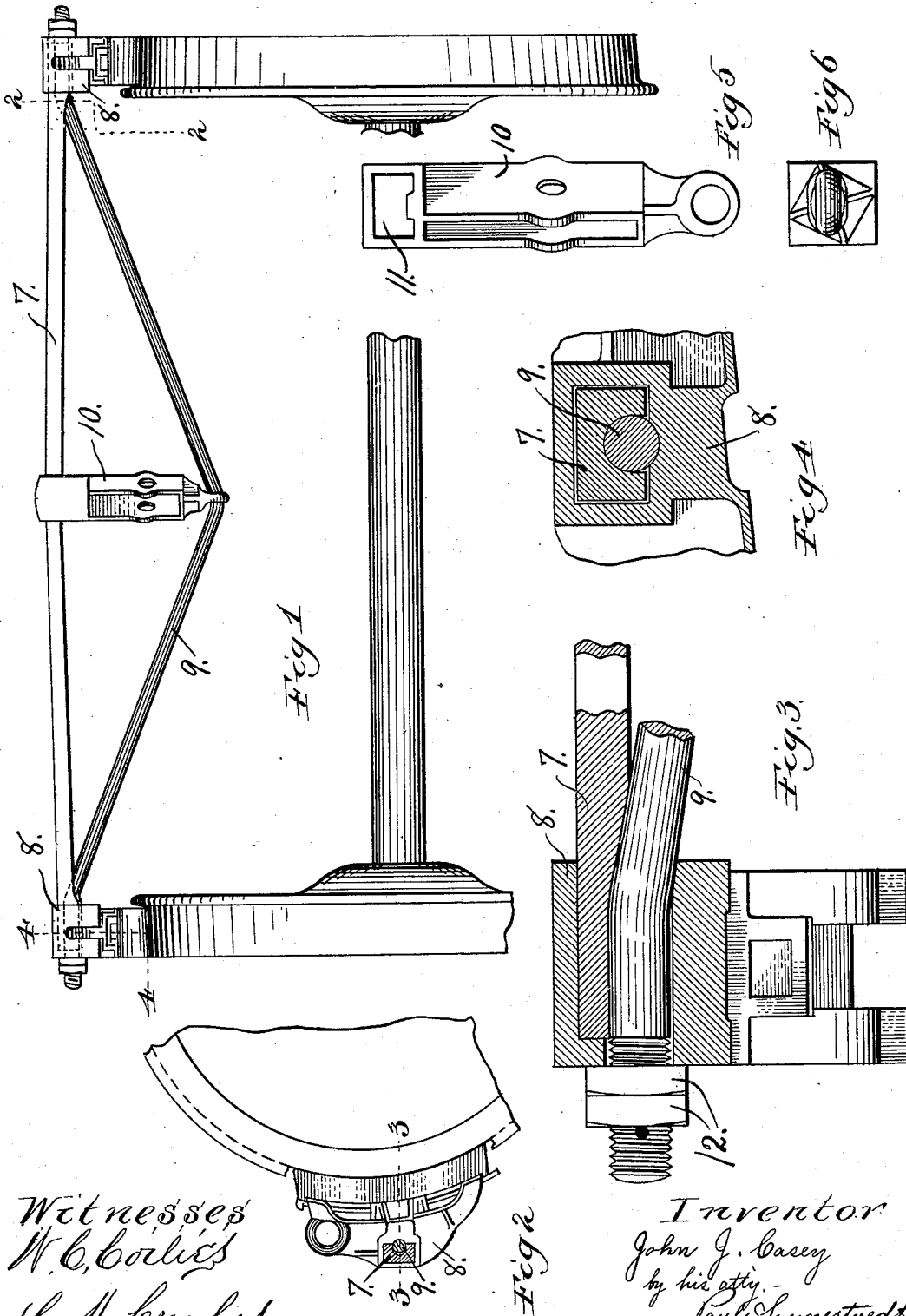


(No Model.)

J. J. CASEY.
BRAKE BEAM.

No. 565,879.

Patented Aug. 18, 1896.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN J. CASEY, OF CHICAGO, ILLINOIS.

BRAKE-BEAM.

SPECIFICATION forming part of Letters Patent No. 565,879, dated August 18, 1896.

Application filed March 6, 1896. Serial No. 582,070. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. CASEY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Brake-Beams, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates particularly to that part of the brake-beam where the brake-shoe head is attached, and is particularly applicable to the style of beam shown in an application filed of even date herewith by Henry C. Williamson, being in the nature of an improvement thereon.

In the form of arrangement shown in the application referred to some difficulty has been experienced from a tendency of the end castings to bend inward when a severe strain is put upon the tension member. This tendency seems to be due to the fact that the entire cross-sectional area of the compression member abuts against the outer wall of the end casting in which it is socketed in a line at too great a distance from the center line of the tension member.

Briefly stated my invention consists in the construction of a brake-beam having its compression member socketed in the end castings against the outer walls thereof, the tension member passing through said end castings in a line approximately parallel with and adjacent to said compression member and embedded in or partially surrounded by the same to a depth or degree sufficient to bring the center line of the tension member within the plane of the adjacent side of the compression member.

For a better understanding of the nature of my improvements reference may be had to the accompanying drawings, in which—

Figure 1 is a plan view of a brake-beam constructed in accordance with my invention. Fig. 2 is a sectional elevation taken on the line 2 2 of Fig. 1. Fig. 3 is an enlarged horizontal section through the end casting, taken on the line 3 3 of Fig. 2. Fig. 4 is a cross-section taken on the line 4 4 of Fig. 1. Fig. 5 is a side view of the strut, and Fig. 6 an end view of the same.

In Fig. 1 will be clearly seen the general arrangement and combination of parts, which,

as it is substantially the same as that shown in the application of Henry C. Williamson, to which I have already referred, requires little further description here.

The compression member 7 between its two sides is made of rectangular section, but at the point where it enters the end castings 8 it is upset in such a manner as to partially surround the tension member 9, as clearly shown in section in Fig. 4. The compression member 9 enters the end casting and passes through the same in a line approximately parallel and adjacent to the compression member 7; but by virtue of the recessed shape of the adjacent side of the compression member the tension member lies with its center line within the adjacent sides of the compression member. To permit the tension member to pass through the strut 10, the opening 11, through which it passes, is made of a shape corresponding to the shape of the end of the compression member, as clearly shown in Fig. 5. To secure the parts together, the nuts 12 are preferably used, these being arranged to bear against the outside of the end castings 8 in a manner clearly shown in Fig. 3.

Comparing now the structure which I have just described with the form of device shown in the Williamson application referred to, it will be very clearly seen that whereas in the case of the latter invention any severe strain which may be put upon the tension-rod might tend to turn the end castings inward, bending the compression member at a point where it enters said end casting, in the construction which I use any such tendency will be effectually resisted directly by the edges of the compression member which partially surround the tension member.

The brake-shoe shown is of the Christie type, and the strut of a form in common use; but either of these parts, and in fact the brake-shoe head itself as far as it relates to the attachment of the shoe to the same, may be altered at will without in any degree departing from the spirit of my invention.

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

1. In a brake-beam the combination with a compression member socketed in an end casting against the outer wall thereof; of a tension member passing through said end casting

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in a line approximately parallel with and adjacent to said compression member, and embedded in the same to a depth sufficient to bring the center line of said tension member
5 within the plane of the adjacent side of said compression member, substantially as shown and described.

2. In a brake-beam the combination with a compression member of rectangular section,
10 7, socketed in an end casting, 8, against the outer wall thereof; of a tension member, 9, of circular section passing through said end

casting in a line approximately parallel with and adjacent to said compression member, and embedded in the same to a depth sufficient to bring the center line of said tension
15 member within the plane of the adjacent side of said compression member, substantially as shown and described.

JOHN J. CASEY.

Witnesses:

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WALTER J. OGDEN.