

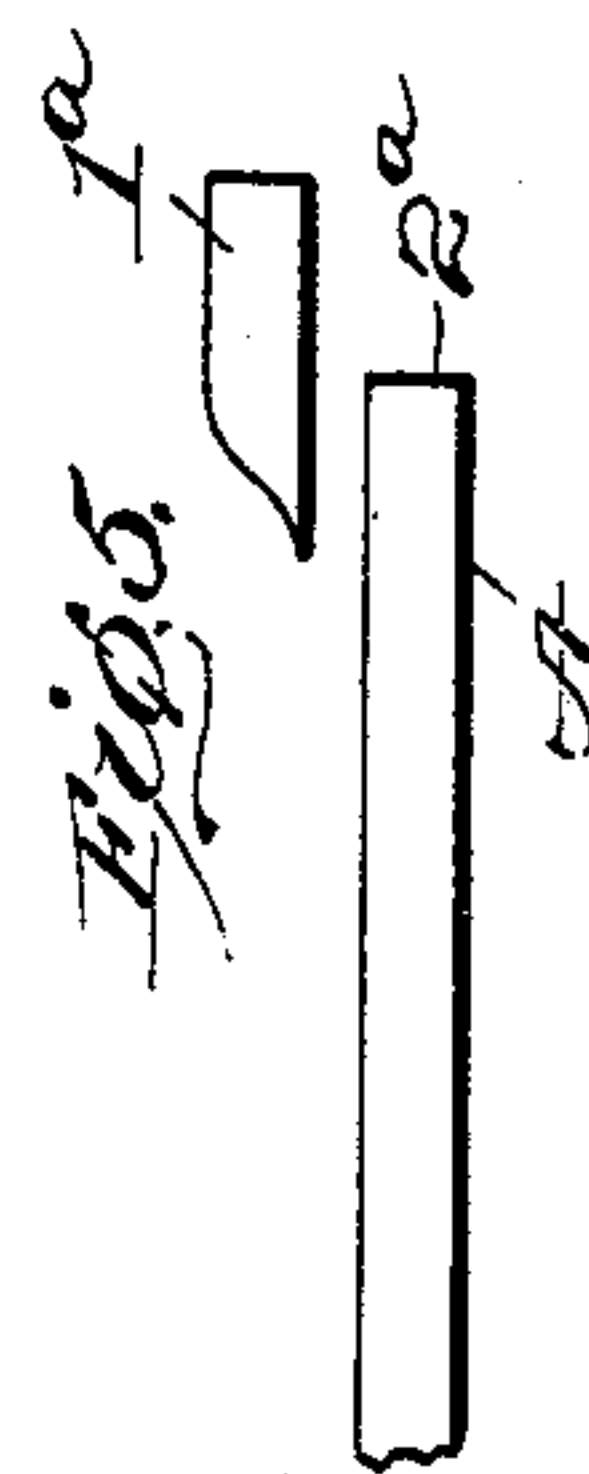
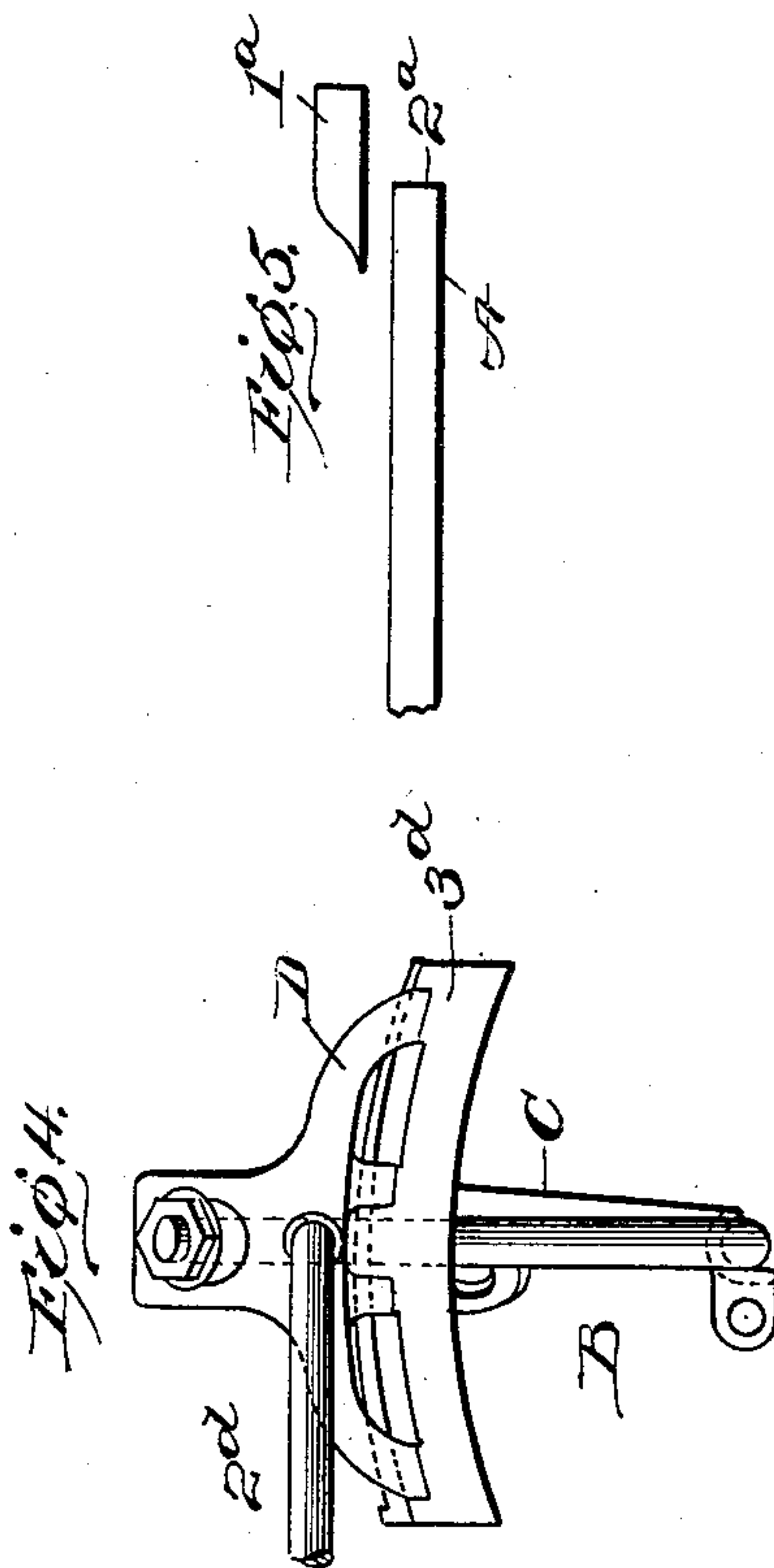
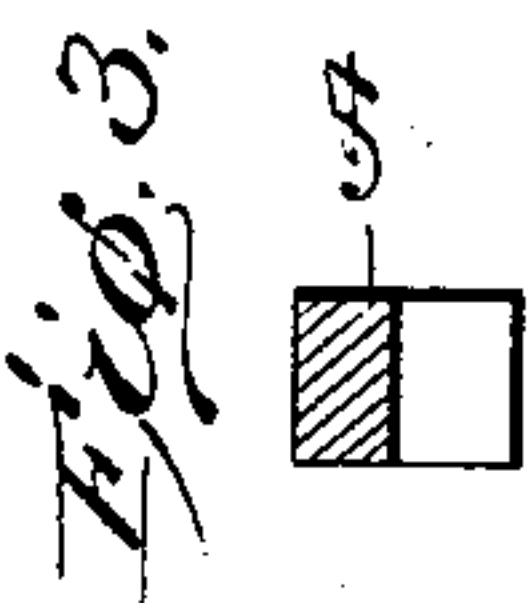
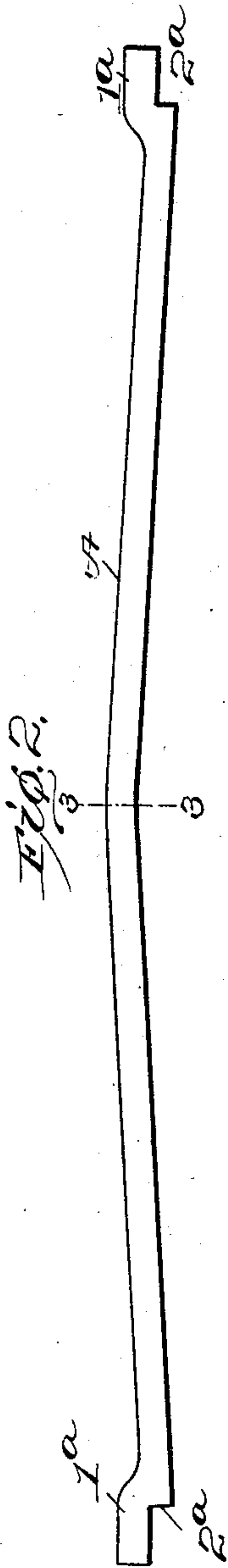
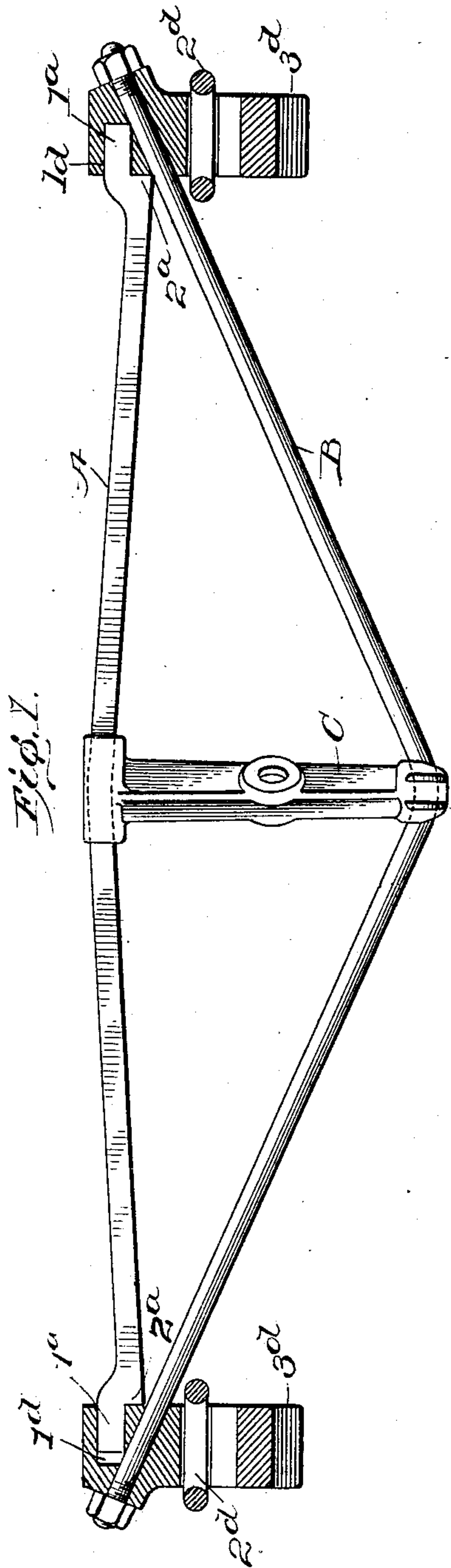
No. 742,388.

PATENTED OCT. 27, 1903.

H. C. BUHOUP.
BRAKE BEAM.

APPLICATION FILED JAN. 28, 1903.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

HARRY C. BUHOUP, OF CHICAGO, ILLINOIS.

BRAKE-BEAM.

SPECIFICATION forming part of Letters Patent No. 742,388, dated October 27, 1903.

Application filed January 28, 1903. Serial No. 140,824. (No model.)

To all whom it may concern:

Be it known that I, HARRY C. BUHOUP, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Brake-Beams; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of a brake-beam embodying my invention, the brake-heads and brake-hangers being shown in section and illustrating two methods of applying the brake-heads to the compression member of the beam. Fig. 2 is a plan view of the compression member of the brake-beam. Fig. 3 is a sectional view of the compression member, taken on the line 3 3, Fig. 2, looking toward the end of the member. Fig. 4 is an end view of the brake-beam shown in Fig. 1, and Fig. 5 is a view illustrating how the compression member may be formed of separate pieces welded together.

Like symbols refer to like parts wherever they occur.

My invention relates to the construction of brake-beams for the application of the braking power to the wheels of railway-cars, and has for its objects to increase the strength and rigidity of the beam by shortening the span of the compression member between the heads to permit the end bearing of the compression member to closely approach the truss-rod, thus eliminating eccentric strains on the head and a double inclined tension member due to the center lines of truss-rod, compression member, and brake-head not intersecting in a common point, while at the same time preserving the end-bearing area of the compression member and to prevent the brake-heads from drawing toward the center when the beam is in service and the brakes are applied.

To this end the main feature of my invention embraces the combination in a trussed brake-beam of a compression member having a bearing upon the brake-head and an offset extending into the head.

There are other minor features of invention, all as will hereinafter more fully appear.

I will now proceed to describe my inven-

tion more fully, so that others skilled in the art to which it appertains may apply the same.

In the drawings, A is the compression member; B, the tension member; C, the strut, and D D the brake-heads, of a trussed brake-beam embodying my invention.

The compression member A has at each of its ends an offset 1^a, extending into a socket 1^d in the brake-head D, and said offset may, if desired, have an end bearing against the head D, as shown at the right in Fig. 1, when increased end bearing to withstand the thrust of the compression member is necessary.

2^a 2^a are shoulders upon the compression member A, which bear upon the heads D D and which by their conjoint action with the offsets 1^a 1^a and tension member B prevent any movement of the brake-heads D D inwardly or toward the center when the beam is under strain in applying the brakes, and by the bearing of the shoulders 2^a 2^a upon the heads the span of the compression member is shortened, thus at once increasing both the strength and stiffness of the beam.

D D are the brake-heads, which are provided with sockets 1^d 1^d for the reception of the offsets 1^a 1^a of the compression member A, and the said brake-heads are also provided with the usual and well-known openings for the passage of the truss-rod and with the brake-hangers 2^d and brake-shoes 3^d.

The strut C may be of any approved construction, and the truss-rod or double inclined tension member B may be of any form.

Preferably the offsets 1^a 1^a are formed upon the compression member A by drop-forging the ends thereof; but said offsets may be formed in any manner—as, for example, by welding together separate pieces, as illustrated in Fig. 5.

It will be noted that as a result of the construction of the offset at the end of the compression member the latter has an increased area of cross-section near its junction with the brake-head, thus strengthening the compression member at a point where it has been found in practice that the member is weak.

The brake-beam will be assembled by first passing the compression member A through the strut C and then drop-forging or otherwise forming the offsets 1^a 1^a. The heads D D

are then applied to the ends of the compression member A, and the structure is completed by passing the truss-rod B around the strut C and through the proper openings in the heads D D, then tightening up the nuts upon the ends of said truss-rod B.

Instead of forming the offsets 1^a 1^a upon the compression member A after it has been passed through the strut C the opening in the strut may be made sufficiently large to permit of the introduction of the compression member after the offsets 1^a 1^a are formed thereon, a key being driven into the opening between strut and compression member.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A trussed brake-beam having a double-inclined tension member and offsets upon the compression member which enter the brake-heads, substantially as and for the purposes specified.

2. A trussed brake-beam having a shoulder upon the compression member which bears against the brake-head, and an offset upon

said compression member said offset entering said brake-head, substantially as and for the purposes specified.

3. A trussed brake-beam having a compression member of increased area of cross-section at its point of junction with the brake-head, said compression member having an offset entering the brake-head and a shoulder bearing against said brake-head, substantially as and for the purposes specified.

4. A trussed brake-beam comprised of a compression member, a strut, a tension member and brake-heads, the compression member having end bearings on the brake-heads in the line of the compression member and offsets back thereof which enter sockets in the brake-heads, substantially as and for the purposes specified.

In testimony whereof I affix my signature, in presence of two witnesses, this 26th day of January, 1903.

HARRY C. BUHOUP.

Witnesses:

E. C. BATES,

D. B. MASON.