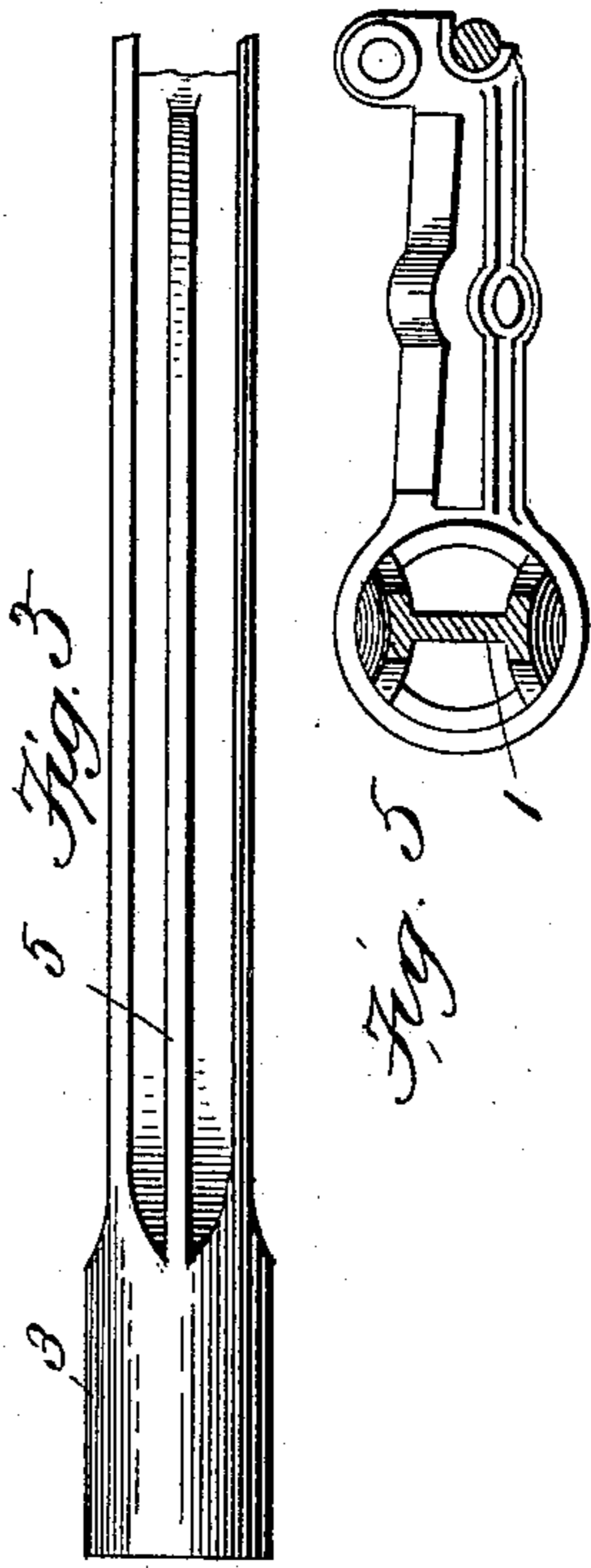
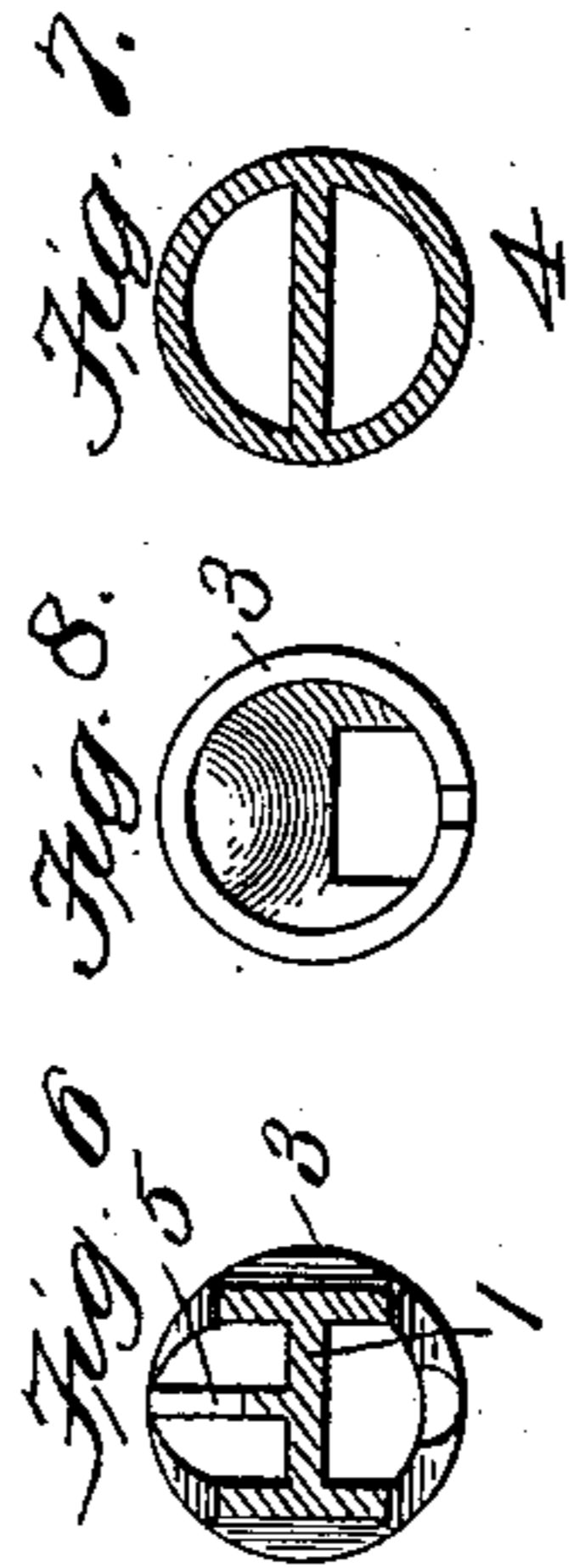
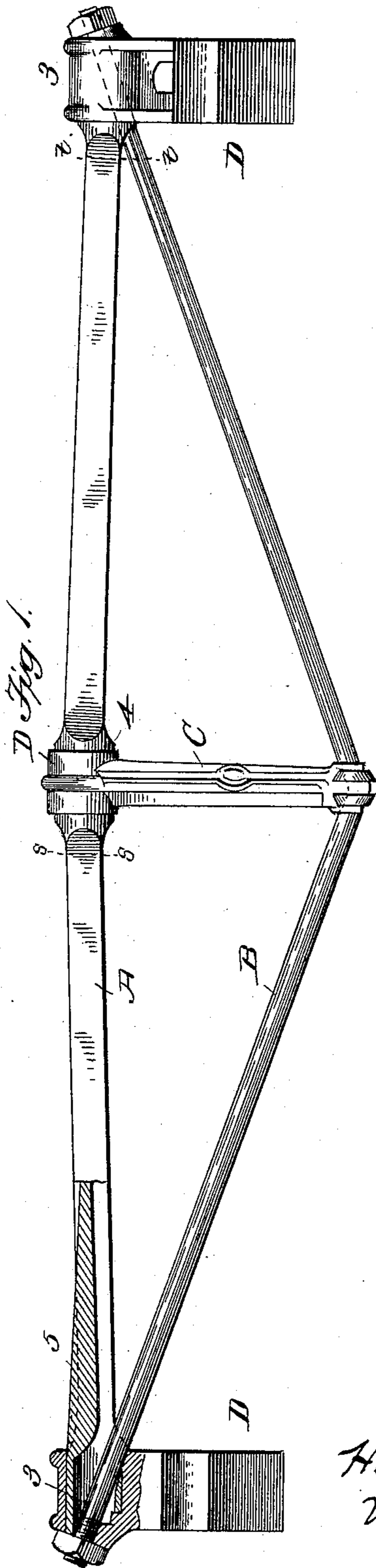
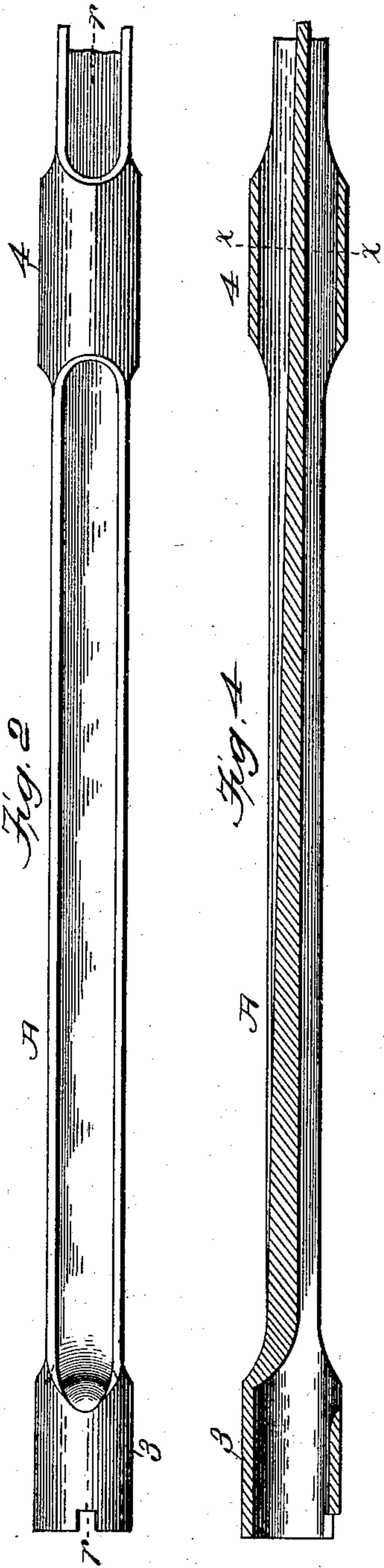


(No Model.)

H. B. ROBISCHUNG.
BRAKE BEAM.

No. 486,568.

Patented Nov. 22, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY B. ROBISCHUNG, OF KALAMAZOO, MICHIGAN.

BRAKE-BEAM.

SPECIFICATION forming part of Letters Patent No. 486,568, dated November 22, 1892.

Application filed April 2, 1892. Serial No. 427,522. (No model.)

To all whom it may concern:

Be it known that I, HENRY B. ROBISCHUNG, a citizen of the United States, residing at Kalamazoo, in the county of Kalamazoo and State of Michigan, 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, wherein—

Figure 1 is a plan view, partly in section, of a trussed brake-beam embodying my invention. Fig. 2 is an enlarged front elevation of a portion of the compression member. Fig. 3 is an enlarged rear elevation of a portion of the compression member. Fig. 4 is a longitudinal central section of a portion of the compression member on the line $r r'$, Fig. 2. Fig. 5 is a transverse section of the compression member on the line $s s$, Fig. 1, the strut being shown in elevation. Fig. 6 is a transverse section of the compression member on the line $t t$, Fig. 1. Fig. 7 is a transverse section of the compression member on the line $x x$, Fig. 4; and Fig. 8 is an end view of the compression member.

Like symbols refer to like parts wherever they occur.

My present invention relates to the construction of trussed brake-beams, and has for its object the production of a beam of the character specified wherein the metal of the compression member shall be so distributed as to obtain increased strength at the parts of greatest strain with the least available weight of metal and cross-section of the compression member, considered as a whole.

To this end the main features of my invention, broadly stated, may be said to consist in the arrangement of reinforces in the lines of strain, the general form given to the compression member at different points in its length, and the utilization of malleable or cast-steel metal in order to conserve the strength of the compression member at points where the tension and compression members of the structure are united.

I will now proceed to describe my invention more fully, so that others skilled in the art to which it appertains may apply the same.

In the drawings, A indicates the compres-

sion member, B the tension member, and C the strut or post, of a trussed brake-beam supplied with the usual or any approved form of head D.

The character of the tension member and strut are not material and may be of any approved or desired pattern.

The compression member is preferably of I or H form in general cross-section, as at 1 1, swelling at the ends and center into hollow or tubular form, as 3 4 3, for the reception of the strut and brake-heads, as well as to accommodate or permit the passage of the ends of the tension member B. As shown in the drawings, said sections 3 4 3 of the compression member are cylindrical in cross-section; but it will be evident to a person skilled in the art that said parts or swells may be of any other desired cross-section which will adapt them to the purposes specified.

Extending inwardly from the head-swells 3 3 or on the rear face of the section 1 1 of the compression member and so positioned as to resist the strain of the tension-rod B and reinforce the compression member at said points of strain are longitudinal ribs 5, which preferably taper off and terminate about midway between the center and ends of the compression member, though said ribs 5 may be carried up to within a short distance of the strut-swell 4, if desired.

Owing to the general form given the compression member, as hereinbefore set forth, the same can be most readily produced by casting, and is therefore generally so produced, the subsequent malleableizing of the compression member giving to the beam the resiliency and tensile strength so very desirable in the trussed beams and especially cambered trussed beams, while the thin ribs and reinforces enable the thorough malleableization or consequent reinforcement of the compression member at the points of greatest strain where, owing to the union of the tension and compression members, such beams are usually, as now constructed, necessarily reduced in strength in proportion to their cross-sectional area.

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

1. In a trussed beam, the combination, with

a tension member and strut, of a malleable-iron compression member having a longitudinal tapering rib or ribs extending inwardly from the ends thereof and arranged
5 in the line of strain of the tension member and which terminates short of the middle of said compression member, substantially as and for the purposes specified.

2. In a trussed brake-beam, the combination, with a tension member and strut, of a
10 malleable-iron compression member having hollow or tubular swells at its ends and longitudinal tapering ribs extending inwardly therefrom, substantially as and for the purposes
15 specified.

3. In a trussed brake-beam, the combination, with a tension member and strut, of a compression member having a central and
20 end swells, said end swells being hollow or tubular, and longitudinal reinforce-ribs on its rear face, which extend inwardly from the end swells of said compression member, substantially as and for the purposes specified.

4. A compression member for trussed brake-beams, said member having a central and
25 end sections of hollow or tubular form, adapted to receive a strut and brake-heads, and intermediate sections of **I** or **H** shape in cross-section, substantially as and for the purposes
30 specified.

5. A compression member for trussed brake-beams, said member having a central and
end sections of hollow or tubular form and intermediate portions of substantially **I** or **H**
35 cross-section, the rear face of the said intermediate sections having ribs or reinforces which extend inwardly from the hollow end sections, substantially as and for the purposes
specified.

In testimony whereof I affix my signature, in
40 presence of two witnesses, this 16th day of March, 1892.

HENRY B. ROBISCHUNG.

Witnesses:

E. T. WALKER,
E. B. LEIGH.