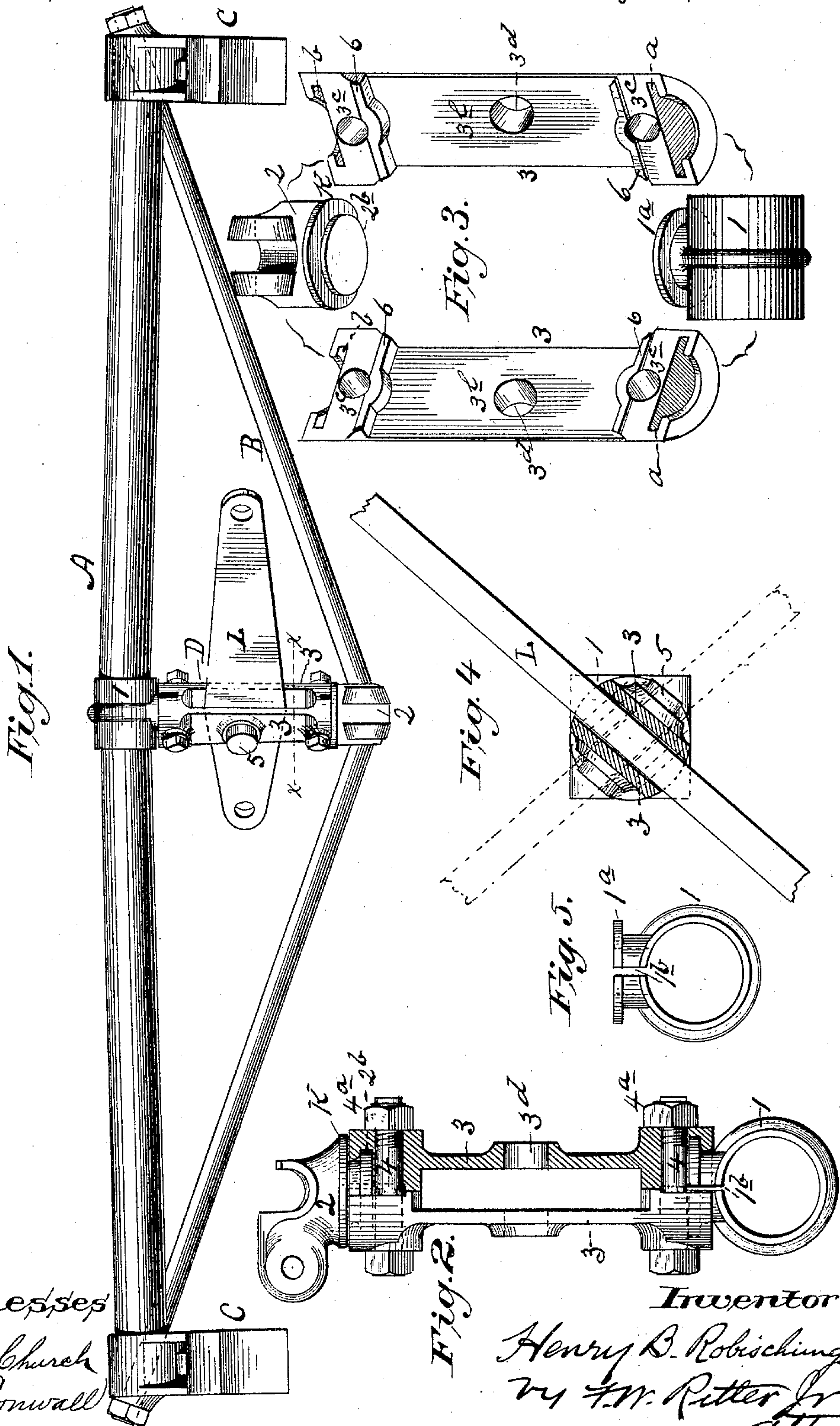


(No Model.)

H. B. ROBISCHUNG.
BRAKE BEAM.

No. 475,802.

Patented May 31, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY B. ROBISCHUNG, OF KALAMAZOO, MICHIGAN, ASSIGNOR TO THE NATIONAL HOLLOW BRAKE BEAM COMPANY, OF CHICAGO, ILLINOIS.

BRAKE-BEAM.

SPECIFICATION forming part of Letters Patent No. 475,802, dated May 31, 1892.

Application filed September 28, 1891. Serial No. 407,043. (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, in which—

Figure 1 is a plan view of a brake-beam complete, having a strut or post embodying my invention. Fig. 2 is a detached view, partly in section, of a strut or post, showing the character of the union between the lateral and end sections thereof. Fig. 3 is a detail perspective view of the parts composing the strut or post. Fig. 4 is a transverse section of the post or strut on the line $x x$, Fig. 1, indicating by dotted lines the reversible character of the structure. Fig. 5 is an elevation of the preferred form of beam-collar.

Like symbols refer to like parts wherever they occur.

My invention relates to trussed brake-beams, and is particularly directed to the production of a stiff and strong reversible post or strut therefor and to means whereby all slack between the coacting parts is taken up, so as to uniformly distribute the strains and avoid torsional strains on the compression member of the beam.

To this end the main feature of my invention embraces the combination, in a strut or post, of lateral and end sections or members, together with means for causing the said sections to bind upon and support each other, whereby a rigid and strong structure is obtained.

A secondary feature and one which relates more especially to cambered brake-beams, embraces the combination, with a strut or post, of a divided compressible or clamp-beam collar adapted to hug the compression member of the structure and take up any slack between said member and the strut or post.

There are other minor features of invention relating to particular features of the combining parts, all as will hereinafter more fully appear.

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

In the drawings, which, for purposes of illustration, show a trussed cambered beam, A indicates the compression member, B the tension-rod or tension member, and C the brake-heads, all of which may be of any of the several well-known forms.

D indicates the strut or post, which is composed of a number of sections or members, preferably four in number, so formed as to interlock and support each other. When composed of four sections or members, there are preferably two end members—viz., 1, which is the collar for the compression member A or beam-collar, and 2, which is the nose-piece and forms the seat for the tension-rod B—and the lateral sections 3 3, which form the support of the brake-lever L. The beam-collar 1 and nose-piece 2 are each provided with an annular flange $1^a 2^b$, adapted to enter corresponding recesses in the twin lateral sections 3 3, and the nose-piece 2 may have either a curved seat or a slot for the passage of the tension-rod B, according as required by the general character of the structure. The beam-collar 1 in ordinary trussed beams and even in cambered beams, if desired, may be the usual closed collar; but in case of cambered beams I prefer to form the same with a slot 1^b (see Fig. 5) to obtain an open spring or clamp-collar, so that when said end member or beam section 1 is clamped by the lateral sections 3 3 all slack between the beam and strut shall be taken up.

3 3 indicate the lateral sections which constitute the intermediate portion of the post and connect the end sections 1 and 2. Each of said sections is provided with a recess at each end, as at $a b$, to receive the annular flanges $1^a 2^b$ of the end members 1 and 2, is recessed, as at $3'$, to form a lever-slot to accommodate the brake-lever L, and should have bolt-holes 3^c and 3^d to receive the clamping-bolts 4 (or equivalent clamping mechanism should be provided to secure the members together) and the pivot 5 of the bracket-lever L.

In addition to the features before specified

I prefer to form on either one or both of the lateral pieces 3 3 between the brake-lever slot and the bolt-holes 3^c 3^c, preferably adjacent to said bolt-holes 3^c 3^c, ribs or beads 6, which, coacting with the bolts 4, cause the bottoms of the recesses *a a* and *b b* to bind on the annular flanges 1^a 2^b of the end members 1 and 2, while at the same time the said ribs or beads 6 prevent the lateral members or sections 3 3 from binding on or impeding the movement of the brake-lever L.

The construction of the several members or sections of the post or strut being substantially such as hereinbefore specified, the parts are assembled, as indicated in Fig. 1 of the drawings, and combined by means of the bolts 4 or their equivalents, the brake-lever L having first been set to the right or left, as desired, after which the nuts 4^a are tightened up by suitable means. The tightening of the nuts next to the compression member A of the beam will not only close the clamp-beam collar 1, so as to take up all slack between the compression member and the post, but will also cause the lateral members of the post to bind on and embrace the annular flanges 1^a of the beam-collar, while a like tightening of the nut 4^a next the tension-rod B will cause the lateral members 3 3 to bind on and embrace the annular flange 2^b of the nose-piece 2, so that a practically rigid and integral strut is obtained wherein all slack is taken up and the whole body of metal in the structure bears an equal and uniform strain.

When it is desired to change or shift the lever, so as to change the strut from a right-hand to a left-hand strut, it is only necessary to loosen the clamping-nuts 4^a, turn the strut to any desired position, and again tighten the nuts, and to facilitate the setting of the lever at any desired angle indicator-notches may be formed on the shoulder K of the nose-piece 2.

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

1. A strut or post for trussed brake-beams, composed of lateral members or sections, interposed end members, and means for causing

the lateral members to clamp and bind on the interposed end members, substantially as and for the purposes specified.

2. A strut or post for trussed brake-beams, composed of end members having projecting flanges, lateral members having recesses to receive the projecting flanges of the end members, and means for clamping the several members together, substantially as and for the purposes specified.

3. A strut or post for trussed brake-beams, composed of lateral members, one of which is provided on its inner face with transverse ribs or equivalent projections, interposed end members, and means for causing the lateral members to bind on the interposed end members, substantially as and for the purposes specified.

4. A strut or post for trussed brake-beams, composed of end members, each provided with an annular flange, lateral members, each of which is provided with semicircular recesses adapted to receive the annular flanges of the end members, and means for clamping the parts together, substantially as and for the purposes specified.

5. A strut or post for trussed brake-beams, composed of end members, each of which is provided with an annular flange, lateral members, each of which is provided with a semicircular recess adapted to receive the annular flanges of the end pieces and one of which has transverse ribs on its inner face, and means for clamping the parts together, substantially as and for the purposes specified.

6. In a trussed brake-beam, the combination, with the tension and compression members, of an interposed strut or post, and a clamp-beam collar for connecting the strut and compression member, substantially as and for the purposes specified.

In testimony whereof I affix my signature, in presence of two witnesses, this 26th day of September, 1891.

HENRY B. ROBISCHUNG.

Witnesses:

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