

(No Model.)

H. B. ROBISCHUNG.
BRAKE BEAM.

No. 537,231.

Patented Apr. 9, 1895.

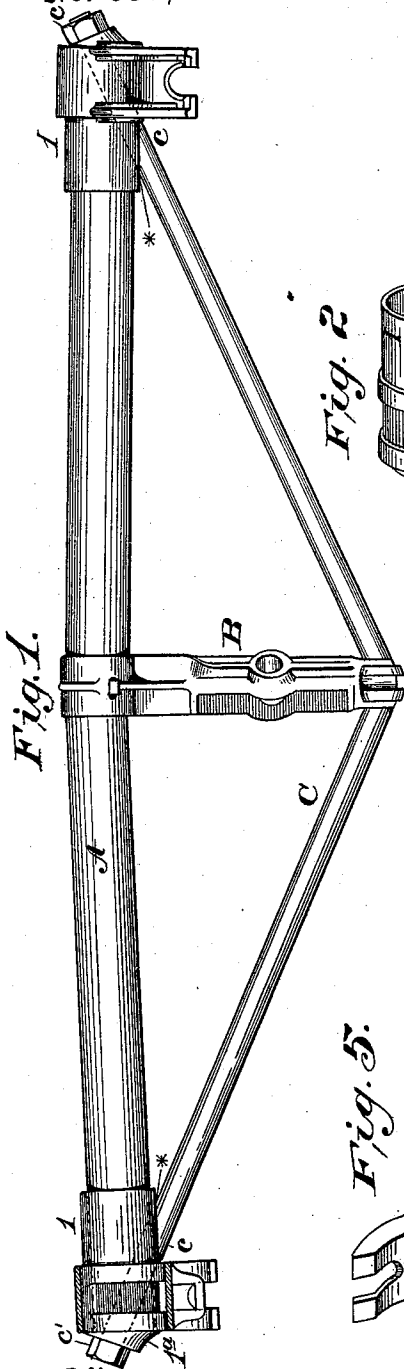


Fig. 1.

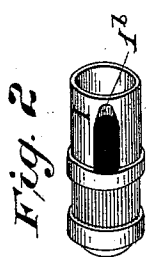


Fig. 2.

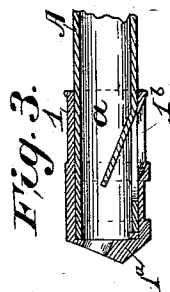


Fig. 3.

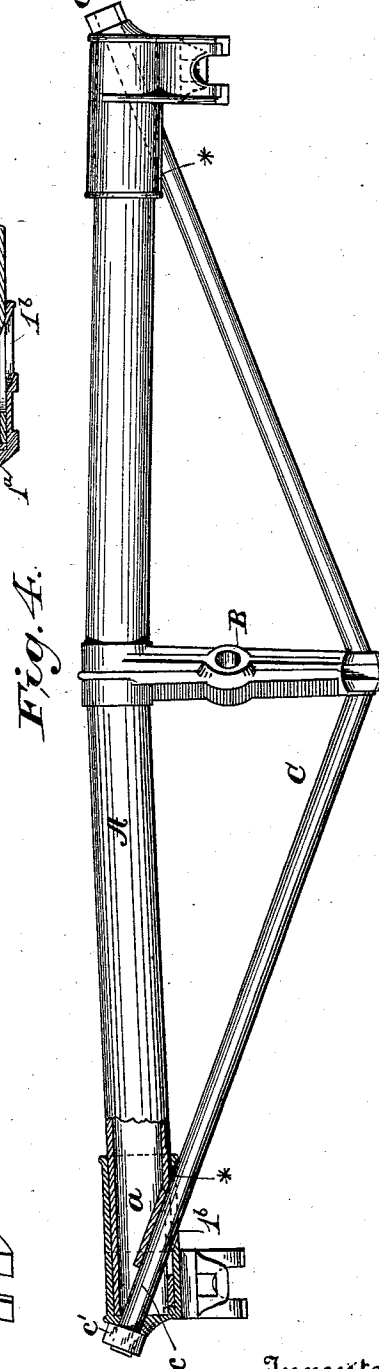


Fig. 4.

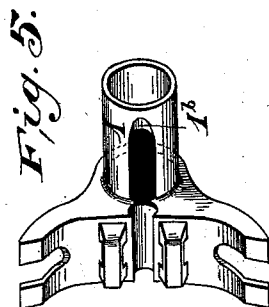


Fig. 5.

Witnesses
Edwaerd
M. Dwyer

Inventor
Henry B. Robischung
By his Attorney J. W. Ritter

UNITED STATES PATENT OFFICE.

HENRY B. ROBISCHUNG, OF KALAMAZOO, MICHIGAN, ASSIGNOR TO THE CHICAGO RAILWAY EQUIPMENT COMPANY, OF CHICAGO, ILLINOIS.

BRAKE-BEAM.

SPECIFICATION forming part of Letters Patent No. 537,231, dated April 9, 1895.

Application filed January 15, 1895. Serial No. 535,030. (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 embodying my invention, the beam shown being provided with an automatically adjustable brake-head, shown partly in section. Fig. 2, is a detached view of one of the end sleeves of said beam; and Fig. 3, is a longitudinal central section of one end of the beam and its sleeve. Fig. 4, is a plan view embodying my invention as applied to a beam having a fixed or non-adjustable brake-head, the end of the beam and the sleeve being in section. Fig. 5, is a detached view of the brake-head and end sleeve shown in section on Fig. 4.

Like symbols refer to like parts wherever they occur.

This invention relates more especially to the construction of that class of trussed metallic brake-beams wherein the compression member is of tubular form, and has for its object the reinforcing of the beam at those points where the beam is, from its usual construction, necessarily the weakest, and where the strain and jar are the greatest. In the construction of this class of beams—composed of a compression member, a strut, and a tension member—in order to locate the brake-head on the line of intersection of the compression and tension member—and thus preserve the advantages incident to the truss construction—it becomes necessary to pass the tension member through the compression member, for which purpose the compression member is usually slotted; and in case said member is tubular it is to that extent weakened and rendered liable to give down, break out, or split longitudinally at the very point or points which should be strong and swift. To overcome these objections—resulting from the said construction—I reinforce the ends of the compression member of the beam, through which the ends of the tension member pass,

by encompassing sleeves or rings which by preference extend from the ends of the beam to, and slightly beyond, the point or points where the tension member enters the compression member; and said rings or sleeves are also preferably cup shaped or closed at the outer ends so as to support the ends of the beam against crushing force, as well as to prevent the tendency of the compression member to crack, slit, or burst outwardly at points within and adjacent to the points of entrance of the tension member: and such a construction or its equivalent falls within the scope of this invention—as hereinafter claimed.

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 compression member, of tubular form, B the post or strut, and C the tension member of which the ends *c c*, pass through the slotted ends *a a* of the compression member and are secured by the nuts *c' c'* in the usual or any approved manner.

1, indicates a sleeve or ring so applied to the compression member A of the beam as to closely and firmly encompass the same at a point (indicated by the*) just within the junction of the compression and tension members and preferably of a length to extend thence to the end of the beam where it may terminate in the closed end or cup cavity ^{1^a}, said ring or sleeve being, when thus extended, slotted as at ^{1^b} for the passage of the end *c* of the tension member. In the construction of a trussed beam two of said rings or sleeves will be employed one applied to each end of the compression member A, its slot ^{1^b} registering with the slot of the beam, after which the ends *c c* of the tension member are passed through the ring and compression member, and—if a cupped sleeve is used—the tension nuts *c' c'* are applied and the beam cambered in the usual manner.

If short, slotted, open-ended, reinforce rings are employed—or if narrow detached sleeve sections are used on each side of the slot in the compression member A—(neither of which forms of the invention is herein recommended—preference being given to the closed cup or extended slotted ring form)—a separate and suitable end cap will be provided to close the

end of the tubular compression member and form a seat for the tension nut *c'*.

In case of the use of a fixed or non-adjustable brake-head, the sleeve or ring may be plain throughout its exterior surface, as shown in Fig. 4, but in case an automatic adjustable head is desired the sleeve may have adjacent to its outer end a series of corrugations—as shown in Figs. 1 and 2 of the drawings, and be otherwise constructed as specified in my former patent, No. 485,823, dated November 8, 1892.

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

1. The combination with a trussed brake beam having a strut, a compression member, and a tension member which enters the compression member, of a reinforce ring which encompasses the compression member within the point where the said tension member enters; substantially as and for the purposes specified.

2. The combination with a trussed brake beam having a slotted compression member a

strut and a tension member which enters the compression member, of a slotted reinforce ring which encompasses the compression member and whose slot is arranged to coincide or register with the slot at the front of the compression member where the tension member enters the compression member, substantially as and for the purposes specified.

3. The combination with a trussed brake-beam having a compression member, a strut, and a tension member which passes through the compression member of a slotted cup-sleeve which encompasses the end of the compression member and extends inward beyond the point at which the tension member enters the compression member; substantially as and for the purposes specified.

In testimony whereof I affix my signature, in presence of two witnesses, this 7th day of January, 1895.

HENRY B. ROBISCHUNG.

Witnesses:

E. T. WALKER,
P. J. CUNNEEN.

It is hereby certified that in Letters Patent No. 537,231, granted April 9, 1895, upon the application of Henry B. Robischung, of Kalamazoo, Michigan, for an improvement in "Brake-Beams," errors appear in the printed specification requiring correction, as follows: In line 47, page 1, the word "swift" should read *stiff*, and in line 87, same page, the word "emploved" should read *employed*; and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 16th day of April, A. D. 1895.

[SEAL.]

JNO. M. REYNOLDS,
Assistant Secretary of the Interior.

Countersigned:

JOHN S. SEYMOUR,
Commissioner of Patents.