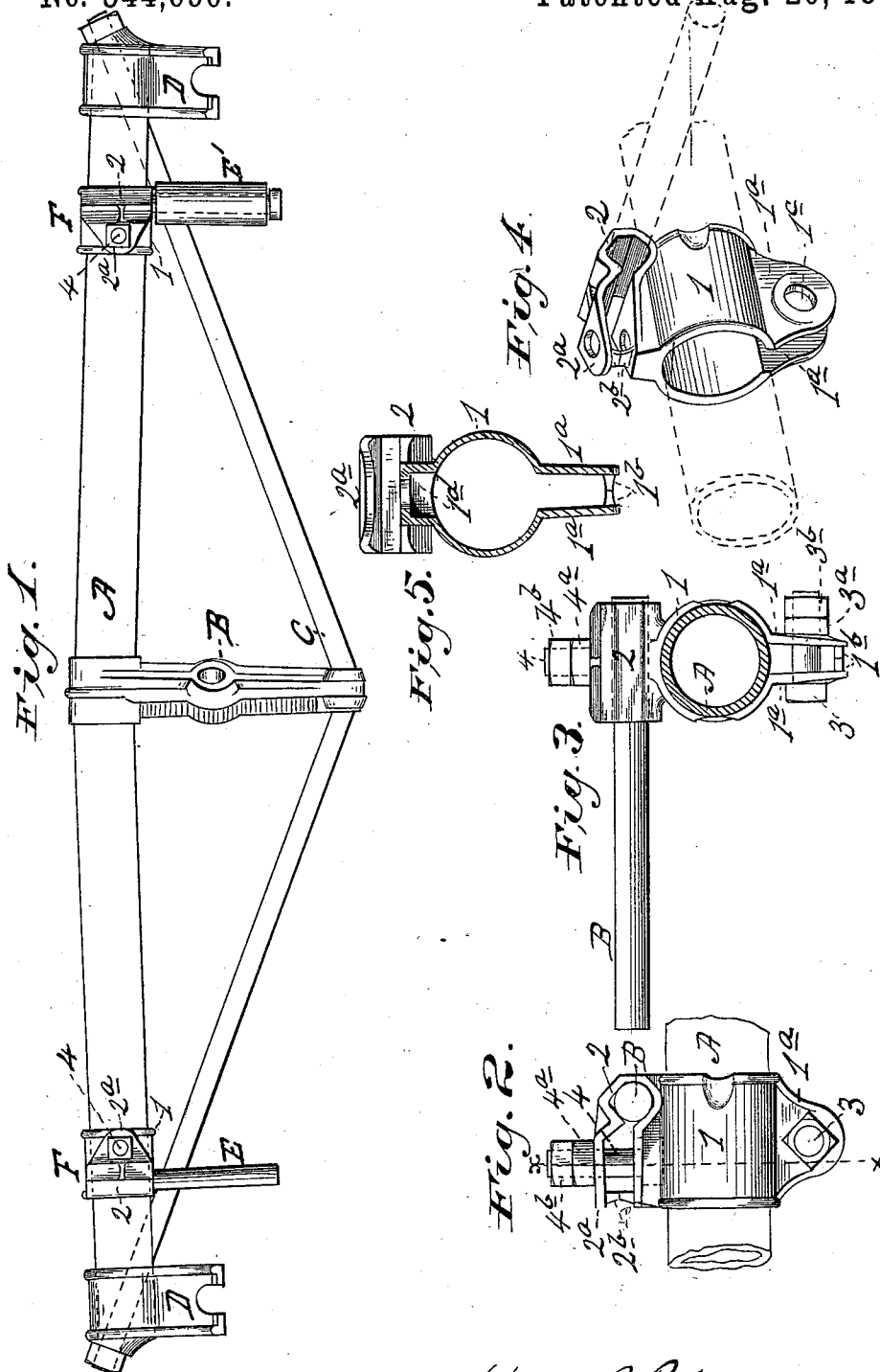


(No Model.)

H. B. ROBISCHUNG.
FINGER GUARD CLAMP FOR BRAKE BEAMS.

No. 544,690.

Patented Aug. 20, 1895.



Witnesses
Wm. E. Dyre
Ch. Darby

Henry B. Robischung Inventor
By his Attorney *F. W. Ritter*

UNITED STATES PATENT OFFICE.

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

FINGER-GUARD CLAMP FOR BRAKE-BEAMS.

SPECIFICATION forming part of Letters Patent No. 544,690, dated August 20, 1895.

Application filed March 26, 1895, Serial No. 543,241. (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 Finger-Guard Clamps for 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 trussed brake-beam provided with finger-guard clamps embodying my invention. Fig. 2 is an enlarged side elevation of a finger-guard clamp embodying my invention with portion of brake-beam and a finger-guard in position. Fig. 3 is an end view of the finger-guard clamp, taken at right angles to the view given in Fig. 2, with the finger-guard in elevation and the beam in section. Fig. 4 is a perspective view of the finger-guard clamp detached from the beam; and Fig. 5 is a vertical transverse section of that portion of the clamp which grasps the beam, taken on the line *xx*, Fig. 2.

Like symbols refer to like parts wherever they occur.

My invention relates to the construction of clamps for securing finger-guards to brake-beams, and has for its object the production of a simple and efficient clamp adapted to use with either the trussed or the common form of brake-beam, and which will permit of the ready removal and renewal of the finger-guard, its adjustment with relation to the brake-head, and the application of the finger-guard to the beam at any time, in any position, without the use of special tools, and by unskilled labor.

To this end the main feature of my invention embraces the combination, with a beam-clamp, of a finger-guard clamp arranged thereon and at an angle thereto, the two clamps being in intersecting planes, whereby the beam and finger-guard are conjointly and separately secured, so that either may be released without displacing or disturbing the other.

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 a trussed brake-beam; B, the

strut or post; C, the tension member; D D, the brake-heads; E E', finger-guards, the latter of which is in the form of a headed bolt and roller or sleeve; and F F', finger-guard clamps.

Though a trussed brake-beam has been chosen for purposes of illustration, it will be evident that as the clamp is applied to the compression member A thereof the invention is not limited to trussed beams, but may be applied to any form of beam having the equivalent for member A.

The clamp F is composed of two conjoined sections 1 and 2, each section constituting a clamp complete in itself, excepting that for purposes of economy and convenience of manufacture the intermediate portion may be common to both, one clamp, considered as a whole, being superimposed on and arranged at an angle to the other, so that when in position the finger-guard E shall stand at the required angle to the beam A. The beam-section 1 will be of the general form required by the cross-section of the beam A—in the present instance a slotted annulus—terminating in parallel ears 1^a, having at their extremities limit-lugs 1^b and provided with bolt-holes 1^c for the passage of a clamping-bolt 3.

On the interior of clamp-section 1 is a recess or perforated pocket 1^d for the reception of the bolt-head of conjoint clamp 2, and on the exterior thereof, at a corresponding point, is a table or plain surface, (the equivalent of a parallel ear 1^a), which is provided with a limit-lug 2^b.

The finger-guard section 2 may be of the form of a slotted circle, but is preferably of polygonal form in cross-section (see Figs. 2 and 4) and provided with a perforated ear or bolt-lug 2^a, which has on its inner surface a limit-lug 2^b, opposite a similar lug on the exterior surface of beam-section 1. This finger-guard-clamp section 2 is arranged at an angle to beam-clamp section 1 or in a plane which intersects the plane of the beam-clamp, and the latter is perforated in line with the perforation of ear 2^b for the passage of clamping-bolt 4 of the finger-guard clamp, the head of said bolt resting in the recess or pocket 1^d of clamp-section 1.

The clamp being of the general form hereinbefore pointed out, the bolt 4 is first inserted

through clamp-section 1 and ear 2^a, the head of the bolt resting in the pocket or recess 1^d, and the finger-guard E is placed within the clamp-section 2 and secured by tightening the nut 4^a on nut 4 and setting home the clamp-nut 4^b, if a clamp-nut is used, after which the sleeve or beam-section 1 may be slipped on the compression member A, (or beam proper,) adjusted to the desired position with relation to brake-head D, and finally secured by tightening up the nuts 3^a 3^b on bolt 3. In case of a trussed beam the sleeve or beam-section 1 should be arranged on the beam before the brake-heads D D and tension-rod C are applied; but after the clamp has once been applied to the beam it can be at any time adjusted thereon without releasing the finger-guard, and after it has been adjusted and secured the finger-guard can be renewed at will without disturbing the adjusted relations of clamp and beam. It will be noted that as each clamp-section has its own means for releasing or closing the clamp—viz., the separate bolts 3 and 4—either finger-guard or beam can be adjusted without disturbing the other, which would not be the case were a clamping device common to both clamp-sections employed.

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

1. The combined finger-guard and beam clamp-sections superimposed one on the other and arranged in intersecting planes, each sec-

tion having binding means whereby either finger guard or beam may be independently secured and released; substantially as and for the purposes specified.

2. A finger-guard clamp for brake beams, composed of conjoint clamp sections having one section common to both, said clamps arranged at an angle one to the other and each provided with a separate binding device whereby either the beam or finger guard may be separately secured and released; substantially as and for the purposes specified.

3. A finger-guard clamp for brake-beams composed of the slotted annular beam clamp-section having a perforated pocket in its interior, and the superimposed finger-guard section having a perforated ear or lug arranged in line with the perforated pocket of the annular section; substantially as and for the purposes specified.

4. The combination in a finger-guard clamp of a beam section 1 having the perforate ears 1^a and perforate pocket 1^d; and a finger-guard section 2 arranged thereon and at an angle thereto, and provided with the perforate ear 2^a; substantially as and for the purposes specified.

In testimony whereof I affix my signature, in presence of two witnesses, this 22d day of March, 1895.

HENRY B. ROBISCHUNG.

Witnesses:

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