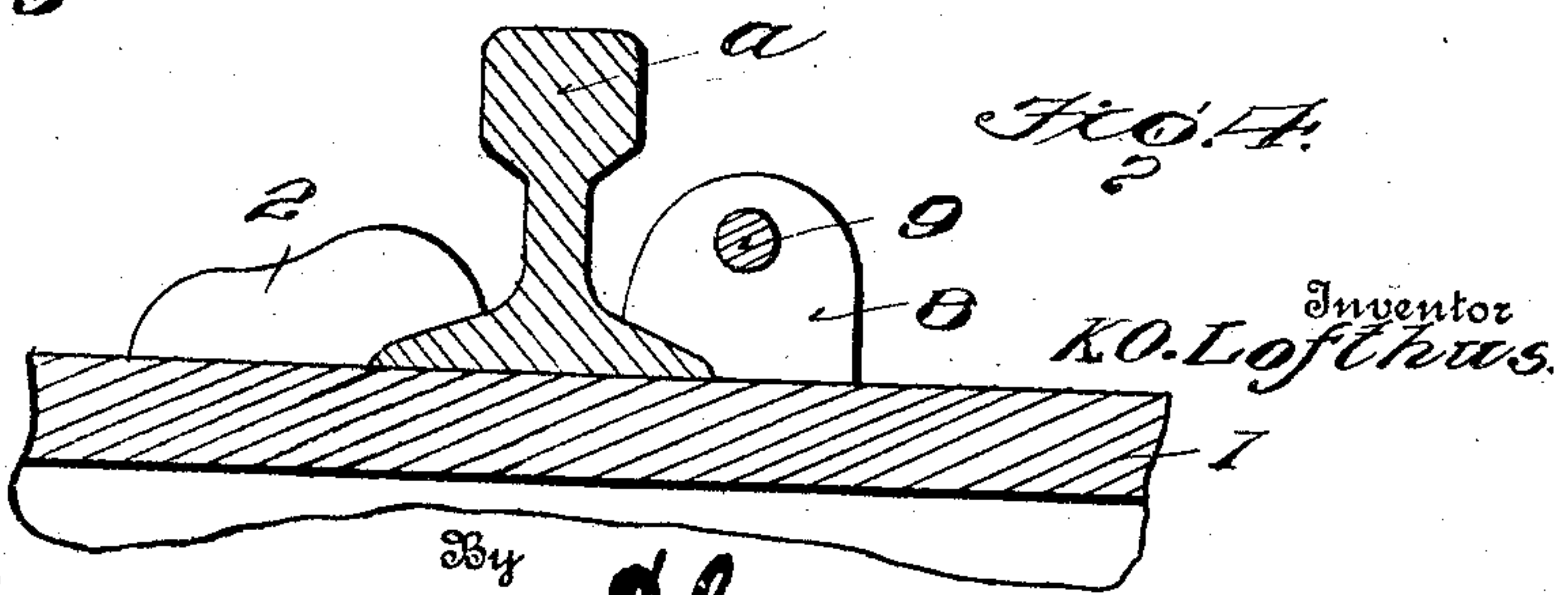
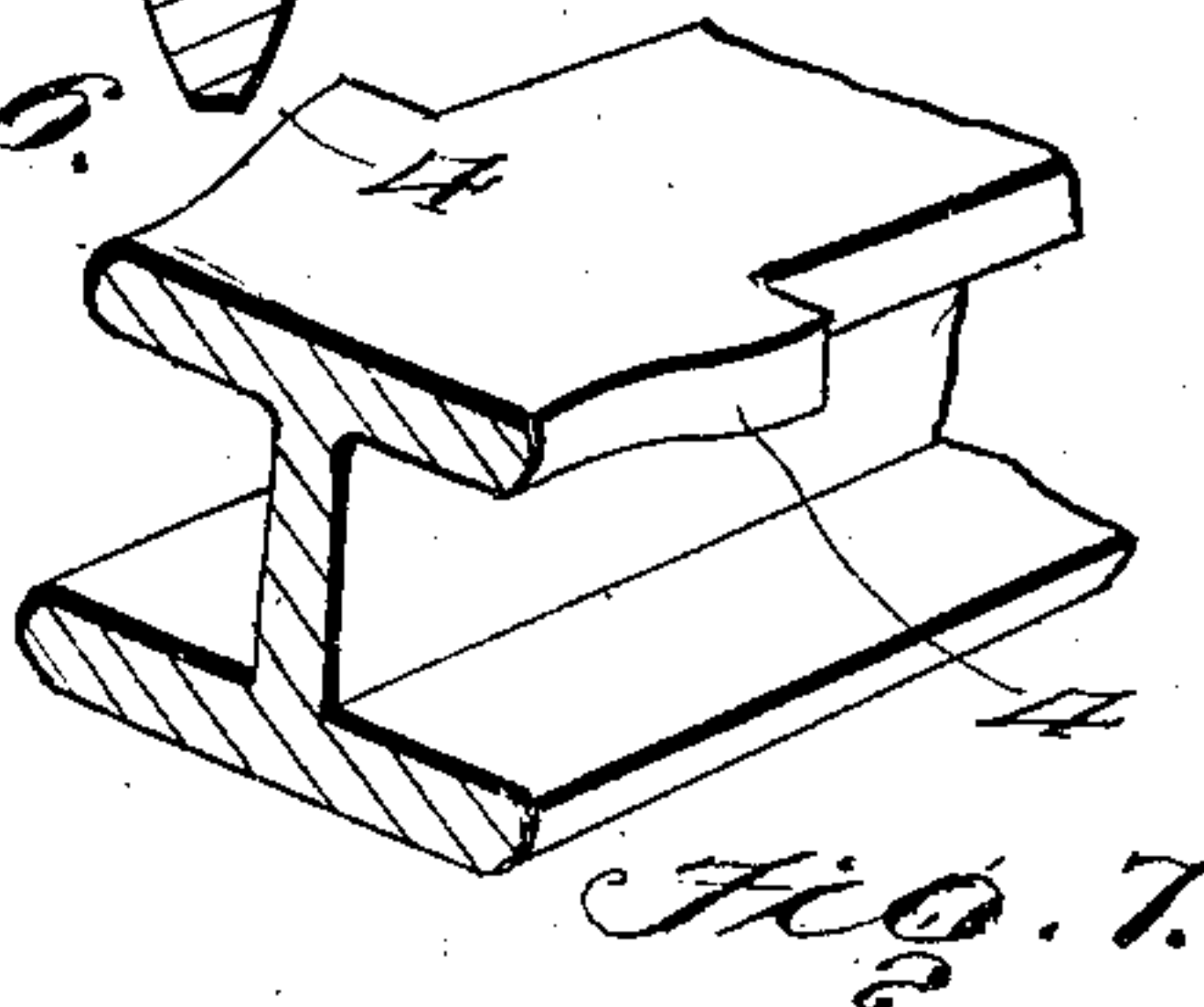
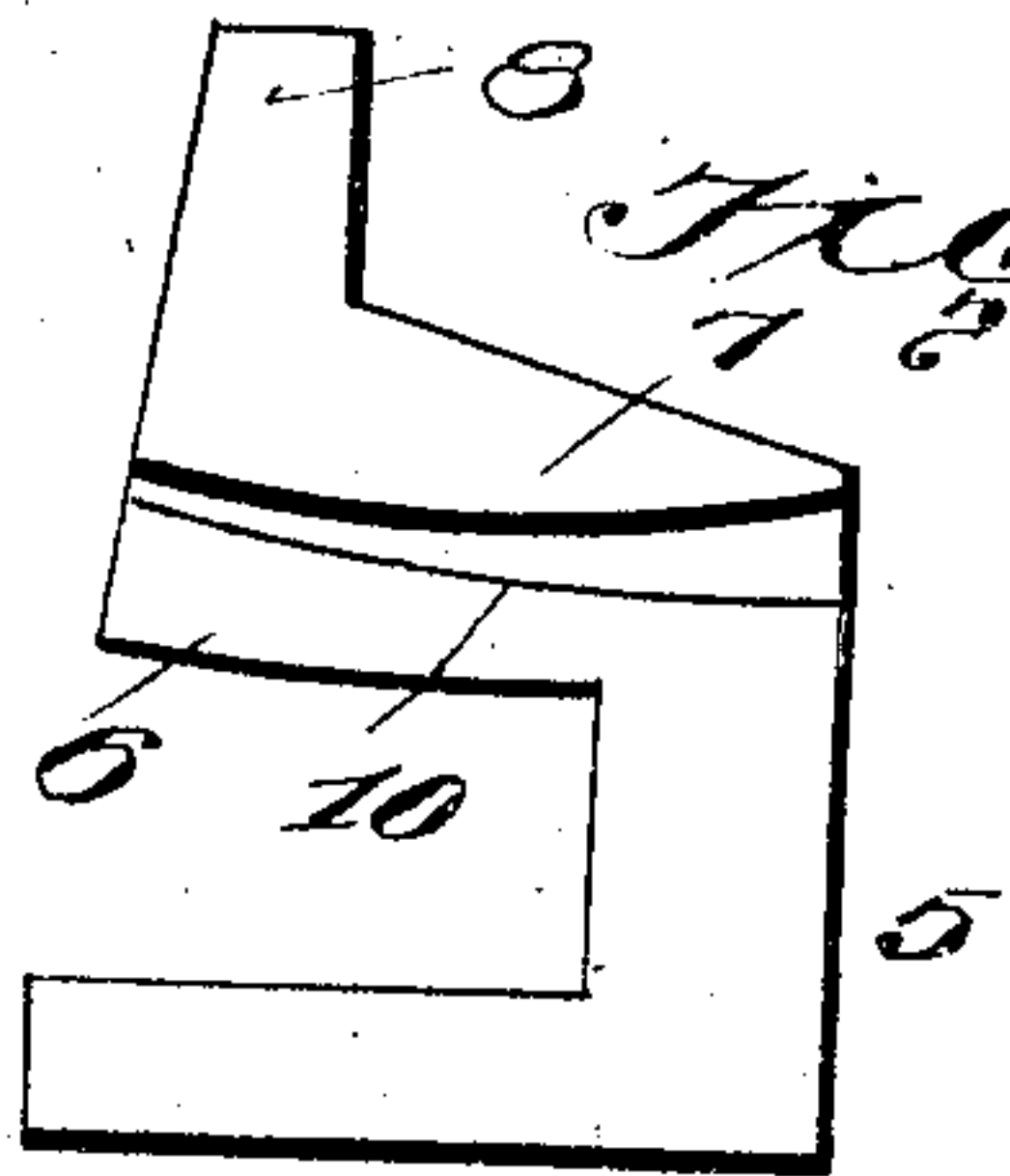
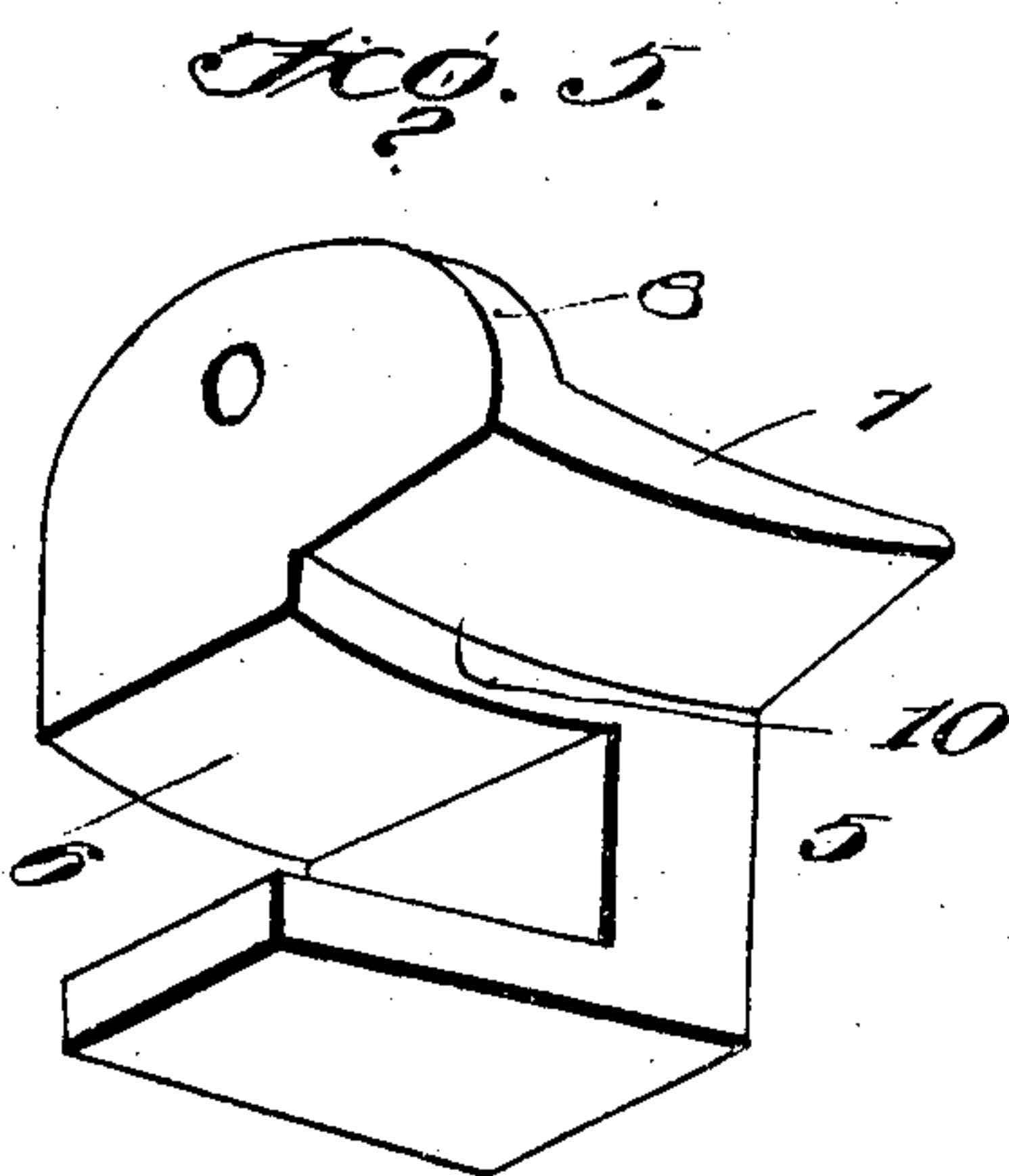
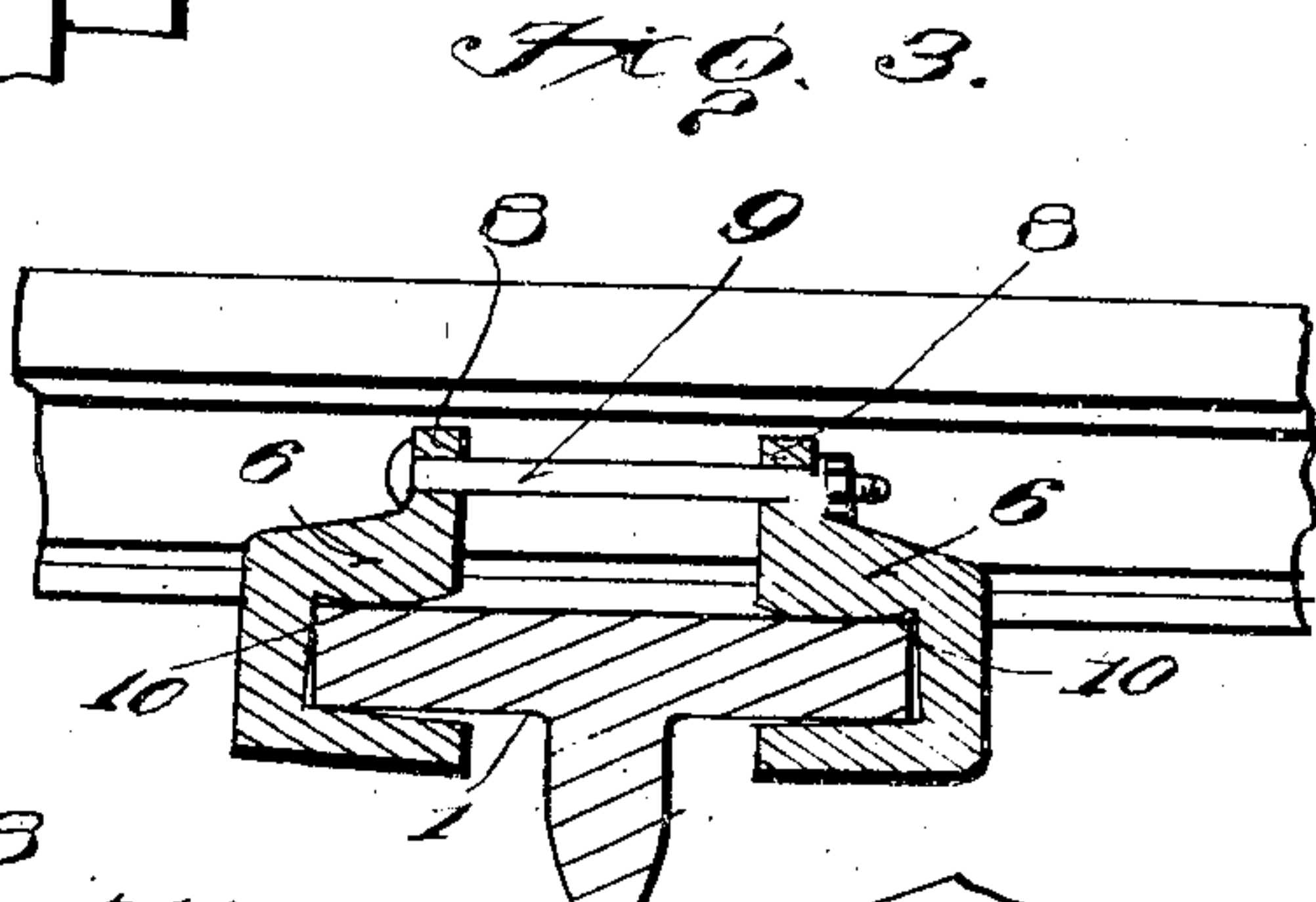
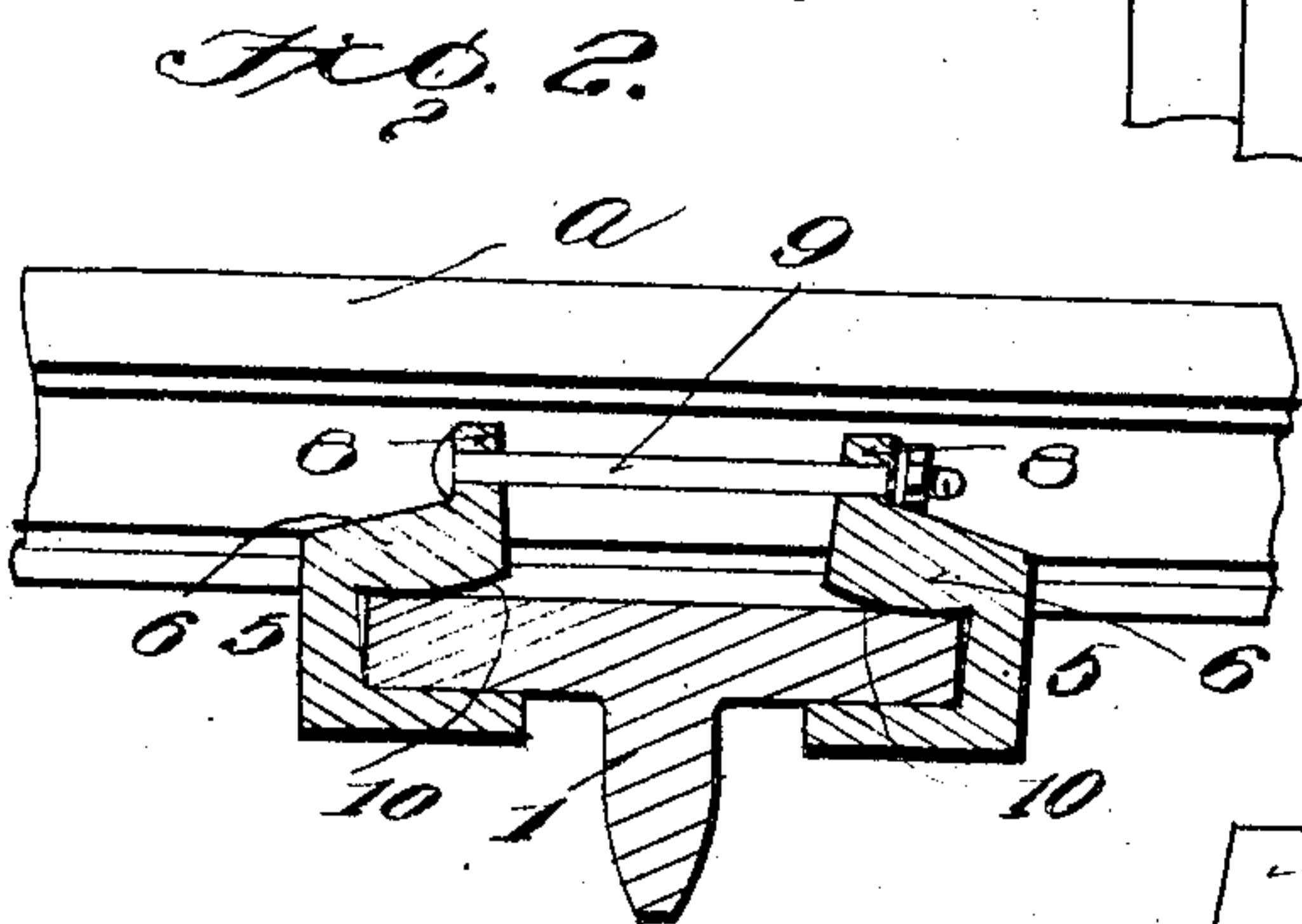
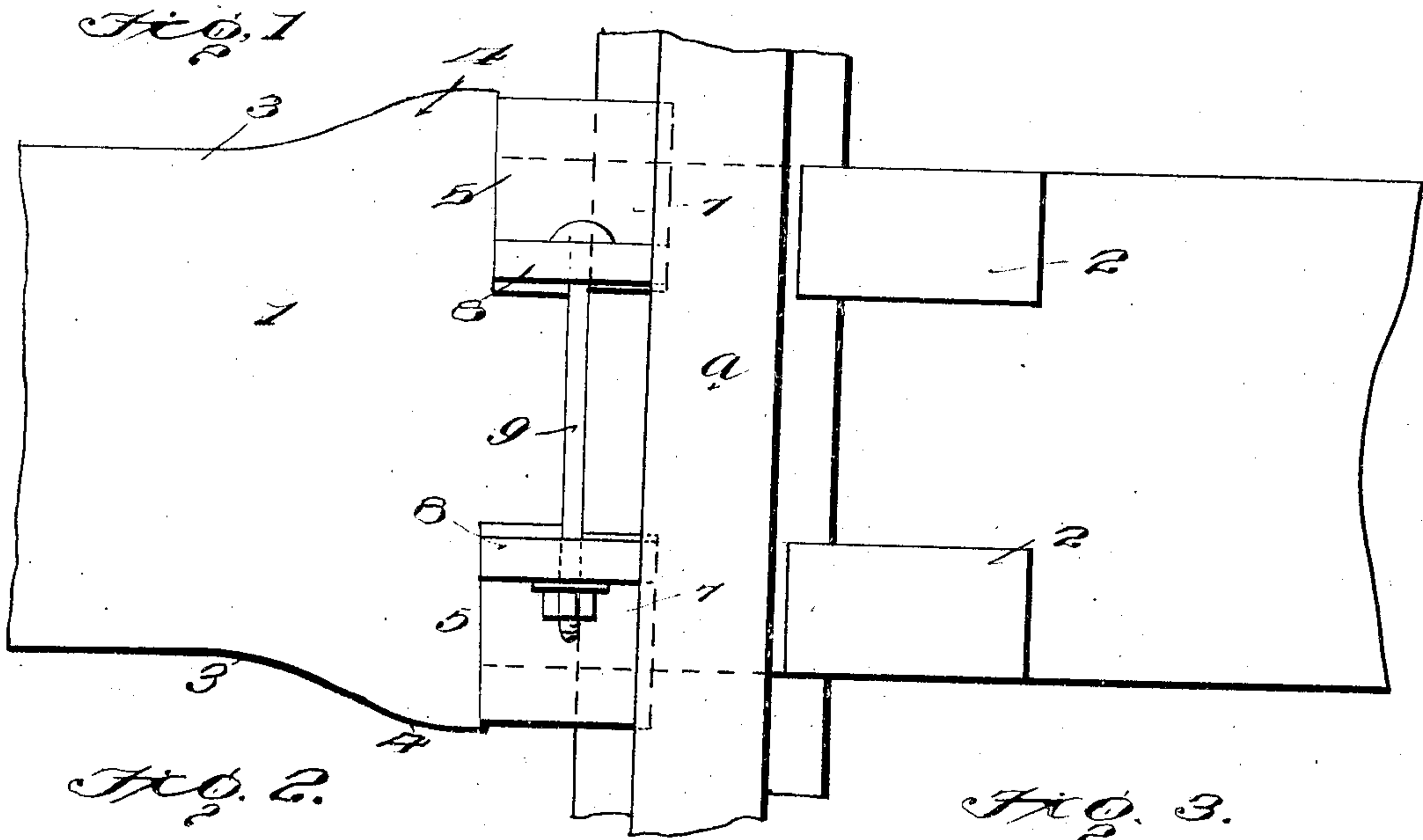


No. 898,053.

PATENTED SEPT. 8, 1908.

K. O. LOFTHUS.
RAIL FASTENER.
APPLICATION FILED JAN. 31, 1908.



Witness
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UNITED STATES PATENT OFFICE.

KNUTE O. LOFTHUS, OF BRODHEAD, WISCONSIN.

RAIL-FASTENER.

No. 898,053.

Specification of Letters Patent.

Patented Sept. 8, 1908.

Application filed January 31, 1908. Serial No. 413,583.

To all whom it may concern:

Be it known that I, KNUTE O. LOFTHUS, citizen of the United States, residing at Brodhead, in the county of Green and State of Wisconsin, have invented certain new and useful Improvements in Rail-Fasteners; of which the following is a specification.

This invention has for its object novel and useful means for effectually securing a rail to the cross-tie, and the object of the invention is an improved fastening device which is designed to be applied to a specially-formed tie and to co-act with the latter to secure the rail rigidly to the tie in a peculiar manner without the use of the customary spikes.

With this and other objects in view that will more fully appear as the description proceeds the invention consists in certain constructions and arrangements of parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention and the merits thereof, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a plan view of my improved rail fastener showing it applied; Fig. 2 is a longitudinal section of the fastening device before clamping; Fig. 3 is a similar view thereof clamping; Fig. 4 is a transverse section; Fig. 5 is a detail underside perspective view of a clamp; Fig. 6 is a side view thereof; Fig. 7 is a detail view of a modified form of tie.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

Referring to the drawing, the numeral 1 designates a preferably metallic cross-tie upon which rests an ordinary T-rail A and which is formed with two transversely alining hooked lips 2 projecting upwardly from its upper face and engaging with one edge of the base of the rail as shown. The tie 1 is formed at its side edges 3 with two transversely alining shoulders 4 spaced from and facing the lips 2 and on the opposite side of the rail from said lips.

In order to hold the rail securely to the tie 1 against any upward or lateral movement, a fastening device 5 is applied to the tie and engages the base flange of the rail opposite the said lips. This fastening device embodies two hooked clamps 6 which embrace the side edges 3 of the tie and which fit between the shoulders 4 thereof and the adjacent edge of the rail. The clamps 6 are

formed at their upper ends with fingers 7 extending over and bearing against the corresponding edge of the rail to hold it rigidly in place, and also with upwardly extending and slightly diverging ears 8 through which a tie-bolt 9 passes to secure the clamps in an operative position. The surface of the fingers bearing against the rail and the surface of the clamps resting on the upper face of the tie, are rounded as indicated at 10, and it will be noted that by this arrangement and by the divergence of the ears as shown, the tightening of the bolt 9 to draw the clamps together will rock the latter so that they will bind against and thus obtain a firmer grip on the tie and so that the fingers will more effectually bear against the rail.

From the above description in connection with the accompanying drawing it will be seen that I have provided a simple, durable and efficient construction of a device of the character described which is composed of but few parts that may be readily assembled and which may be operated with a minimum expenditure of time and labor to secure the rail firmly in position or to permit its removal therefrom.

While I have shown my improved tie as of T-shape in cross-section, it is obvious that it may be in the form of an I-beam, especially in bridge work, or may be of any shape so long as it provides projecting side edges for the engagement of the clamps 6.

Having thus described the invention, what I claim is:

1. The combination with a tie and a rail mounted thereon, of means for engaging one edge of the rail, clamps embracing the side edges of the tie and adapted to bear against the rail, those surfaces of the clamps that bear against the rail and the upper surface of the tie being rounded, and means for drawing the clamps together, whereby to rock the same.

2. The combination with a tie and a rail mounted thereon, of means for engaging one edge of the rail, and clamps embracing the side edges of the tie and adapted to bear against the other edge of the rail, said clamps being formed with diverging ears, those surfaces of said clamps that bear against the rail being rounded, and means for drawing said ears together, whereby to rock the clamps.

3. The combination with a tie and a rail mounted thereon, of means for engaging one

edge of the rail, hooked clamps embracing the side edges of the tie and adapted to bear against the other edge of the rail, said clamps being formed with upwardly diverging ears, those surfaces of said clamps that 5 bear against the rail and the upper face of the tie being rounded, and a tie-bolt passing through the ears and arranged to draw the

latter toward each other, as and for the purpose set forth.

In testimony whereof I affix my signature 10 in presence of two witnesses.

KNUTE O. LOFTHUS. [L. S.]

Witnesses:

FRANK R. DERRICK,
FRANK K. VANCE.