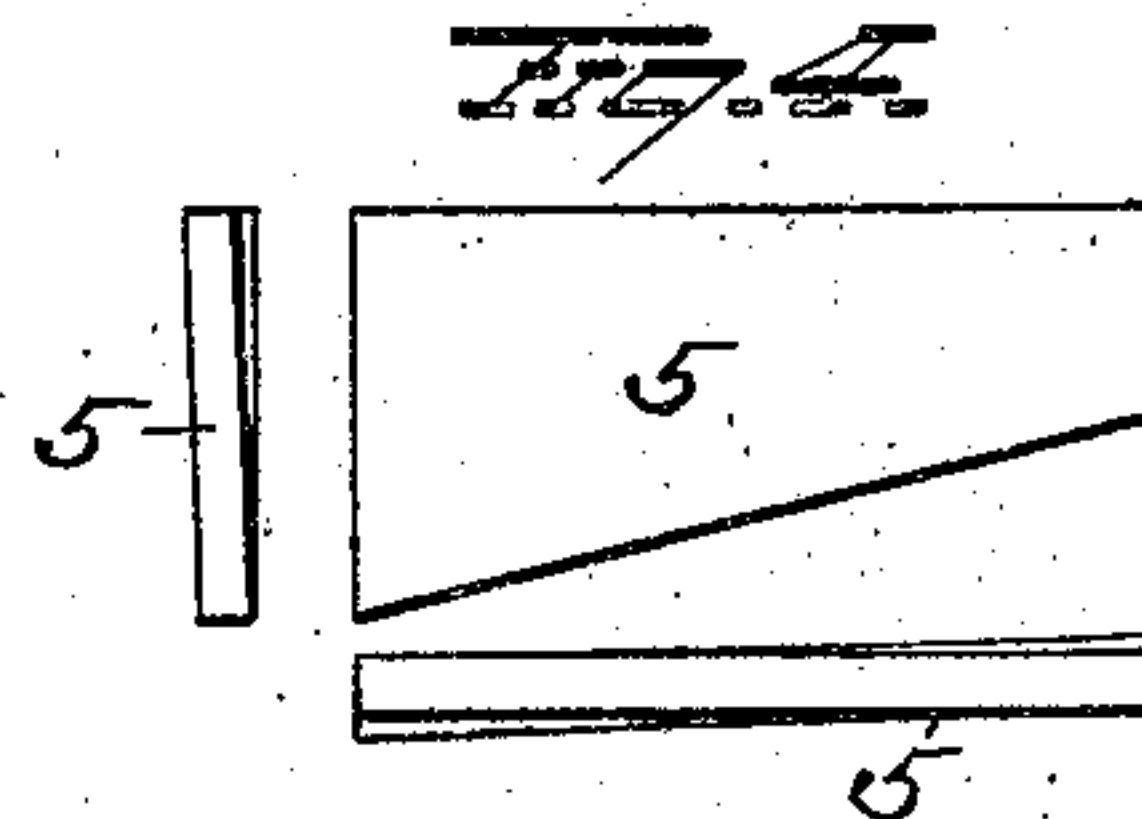
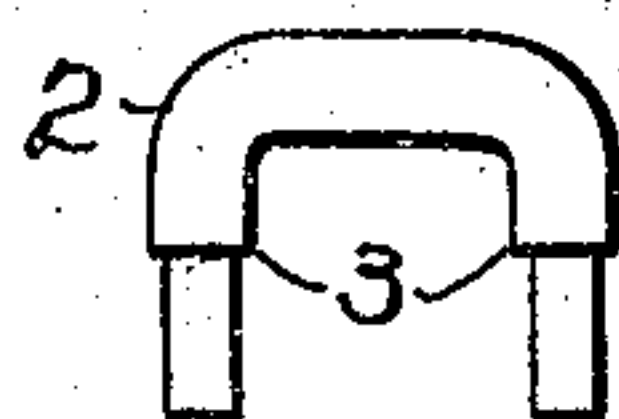
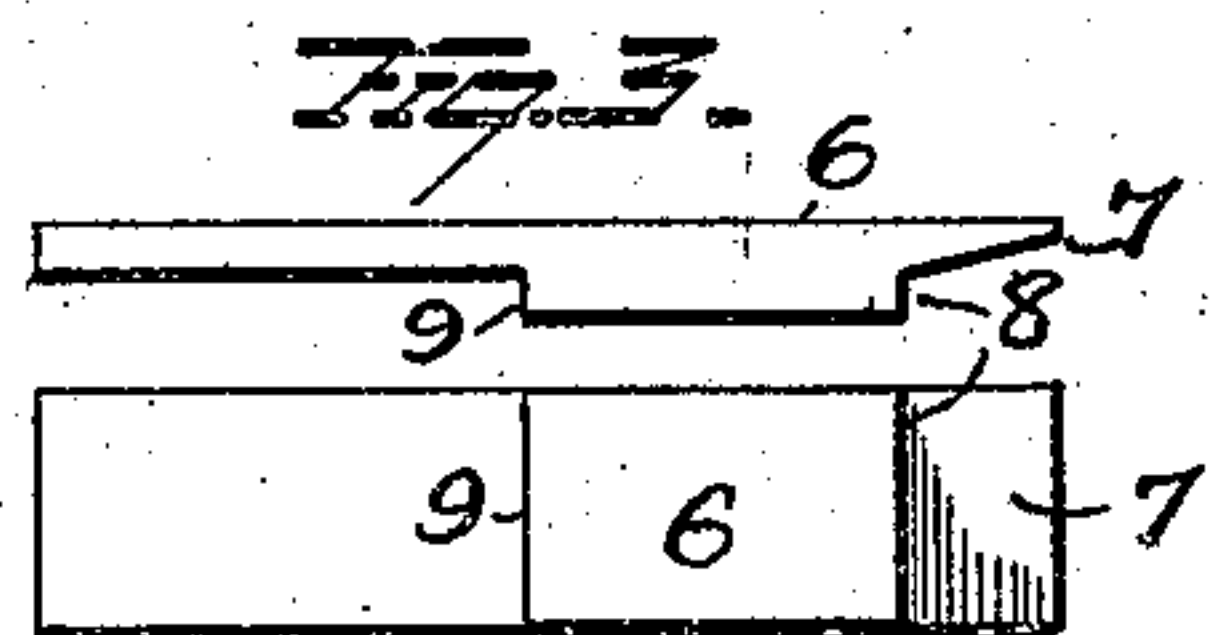
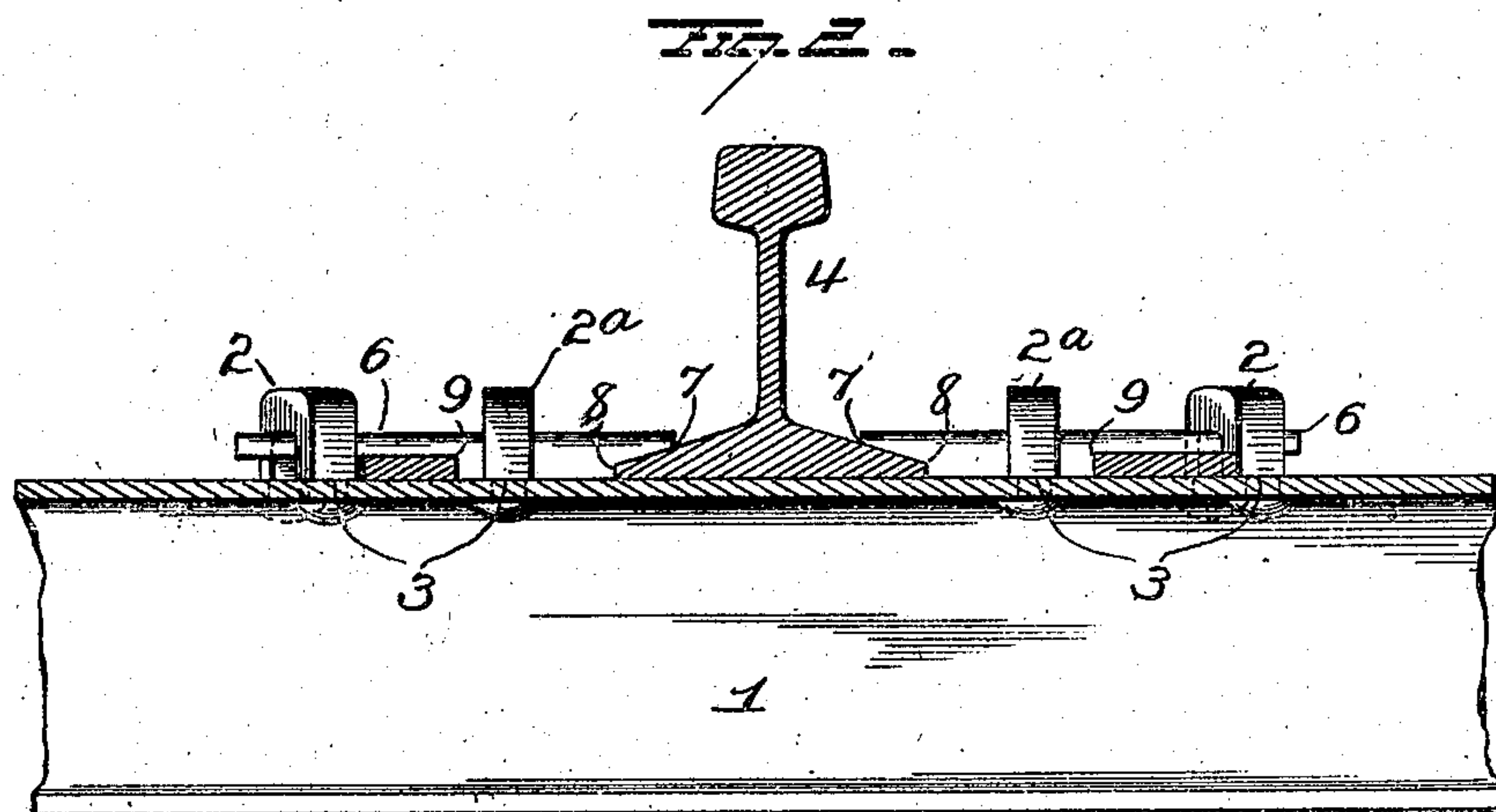
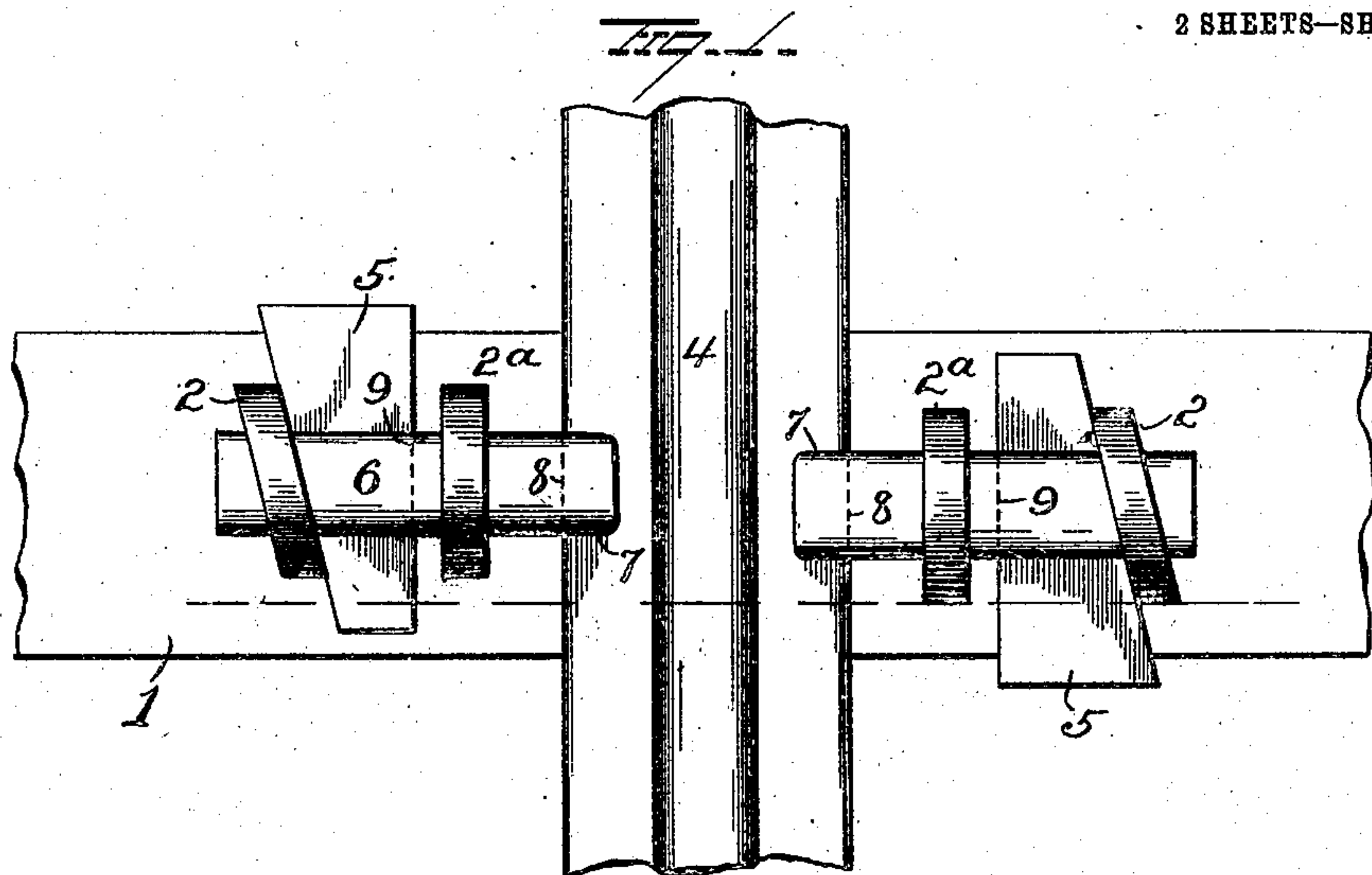


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METALLIC RAILWAY TIE.
APPLICATION FILED JULY 27, 1907.

907,789.

Patented Dec. 29, 1908.

2 SHEETS—SHEET 1.



WITNESSES

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G. J. Downing

INVENTOR

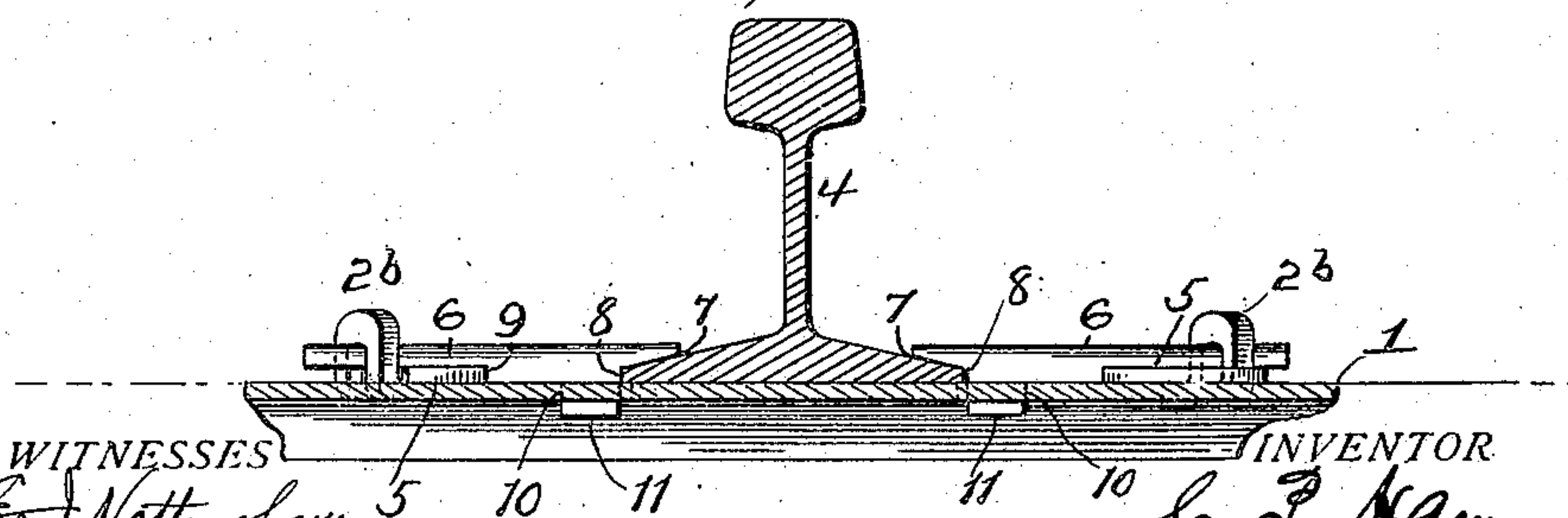
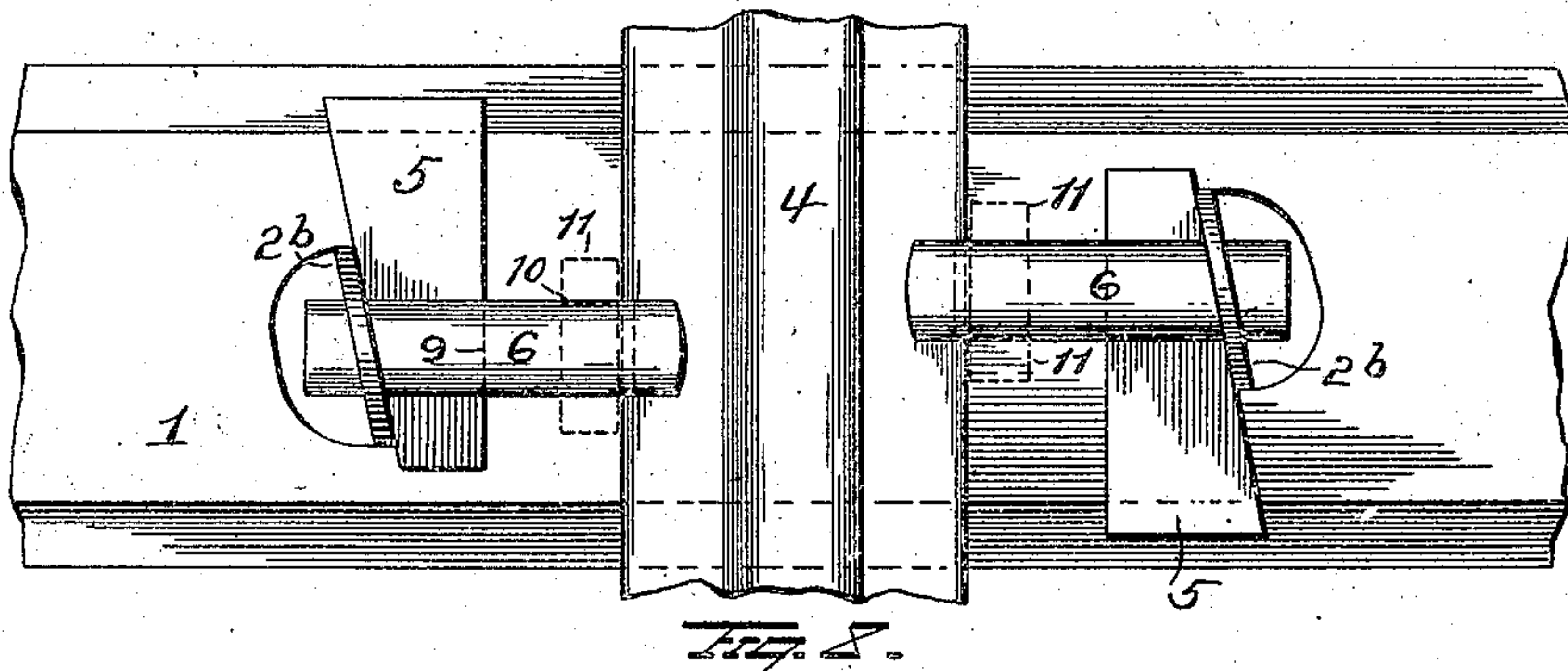
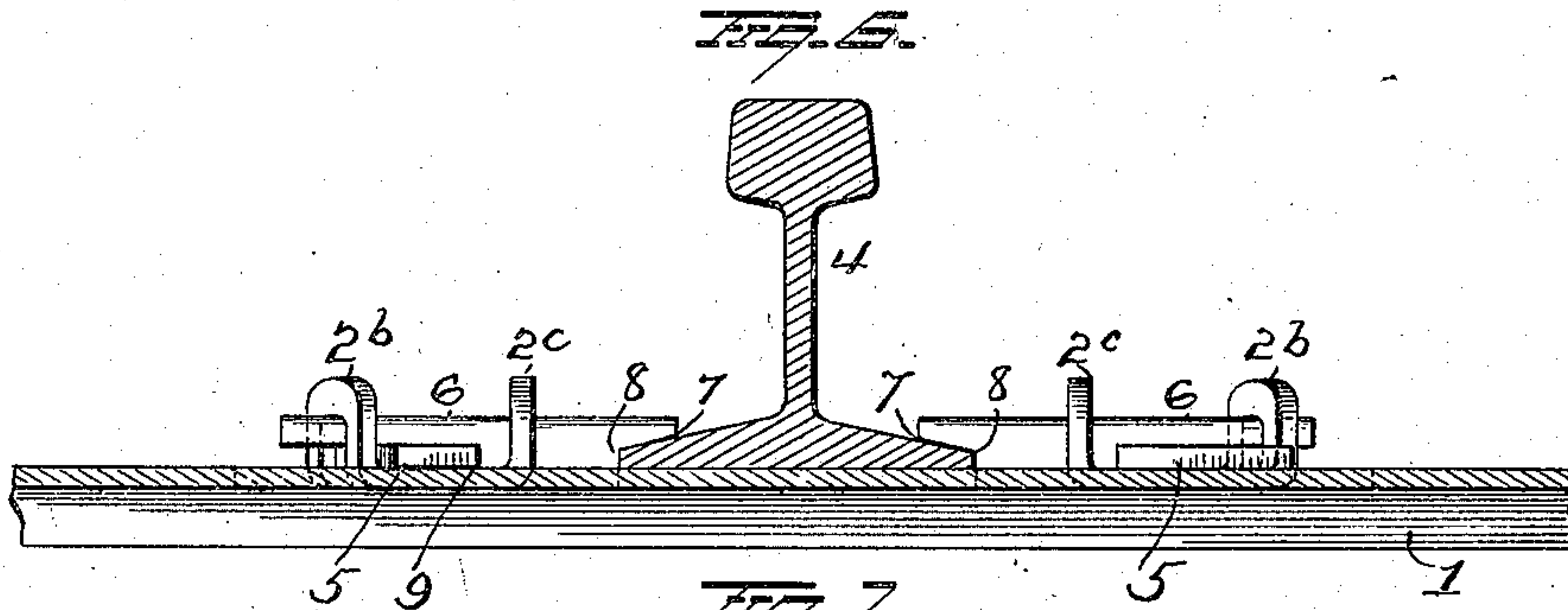
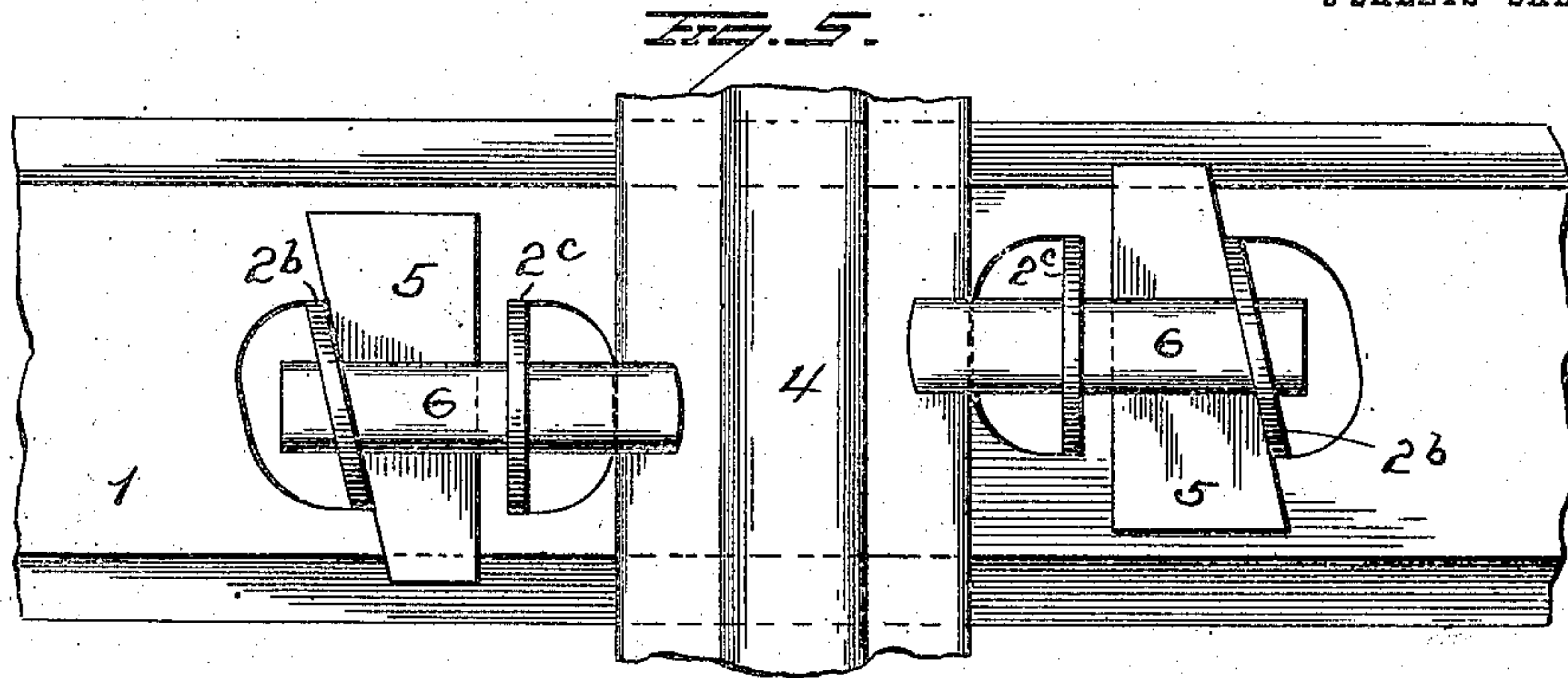
C. P. Hammond
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

CHARLES P. HAMMOND, OF AMERICUS, GEORGIA.

METALLIC RAILWAY-TIE.

No. 907,789.

Specification of Letters Patent.

Patented Dec. 29, 1908.

Application filed July 27, 1907. Serial No. 385,821.

To all whom it may concern:

Be it known that I, CHARLES P. HAMMOND, of Americus, in the county of Sumter and State of Georgia, have invented certain new and useful Improvements in Metallic Railway-Ties; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in metallic railway ties and means for securing rails thereto, and is designed more particularly as an improvement on the construction disclosed in my Patent 463,045 granted to me Nov. 10th, 1891, and it consists in the parts and combination of parts and in the details of construction as will be more fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in plan of a section of a tie showing a portion of a rail and the fastening means therefor. Fig. 2 is a view in section of same. Fig. 3 shows the fastening clip in side elevation and also in plan. Fig. 4 shows the wedge in end, plan and side elevations. Fig. 5 is a plan view of a modified form. Fig. 6 is a view in side elevation of same and Figs. 7 and 8 are similar views of another modification.

1 represents a metal tie, which in the form shown in Fig. 1, is an I-beam, and 2 and 2^a are the clip holders or guides of inverted U-shape, the ends of which are passed through the upper flange of the tie and are secured thereto by upsetting the ends as shown in Fig. 2. These holders or guides 2 are provided with shoulders 3 which rest on the upper face of the tie and limit the penetration of the ends, and are arranged in pairs on opposite sides of the rail 4, the guides 2^a being parallel with the rail and the guides 2, being arranged at an acute angle to the guides 2^a, sufficient space being left between the guides of each pair for the introduction and free movement and adjustment of the wedge 5.

Each clip 6 is provided with a beveled end 7 and a shoulder 8, the former of which is adapted to overlap the lower flange of the rail, while the shoulder 8 bears against the side edge of the lower flange and limits the movement of the clip toward the rail. The body of the clip snugly fits within the loop 2^a and approximately fills the same, while the rear end of the clip is cut away on its un-

derside for the passage of the wedge 5, the front straight face of the latter bearing against the shoulder 9.

The wedge 5 is warped or twisted both longitudinally and laterally as shown in Fig. 4 and is provided with a straight edge, which as before explained bears against the shoulder 9 of the clip 6, and with a beveled edge conforming to the angle of holder or guide 2 so as to bear solidly against shoulder 9 and lug 2 throughout the lengths of the latter. This wedge is passed under the clip, between shoulder 9 and guide or holder 2, and is of a thickness to approximately fill the space between the clip and the tie 1, and by warping or twisting the wedge as above explained, the spring in the metal holds the wedge solidly in place and against the possibility of accidental displacement.

To secure the rail in place the clips are passed through the guides or holders and into contact with the flange of the rail. The wedges are then entered under the clips and driven home, and are retained against displacement by frictional contact assisted by the spring in the metal caused by the warps or twists in the flat plate metal wedges.

The construction shown in Figs. 5 and 6 is identical with that shown in Figs. 1 and 2 except that the guides or holders 2^b and 2^c are struck up from the tie, each struck up portion having an opening for the passage of the clip. With this construction the tie is preferably flat with or without downwardly and outwardly projecting inclined side flanges.

In Figs. 7 and 8 I have dispensed with the inner guides or holders 2^a of Fig. 1, and 2^c of Fig. 5, and provide the clip with a depending portion 10 which latter moves within a slot in the face of the tie, and with lugs 11 projecting laterally from lower end of the depending portion 10 of the clip and bearing against the under face of the tie, the rear end of the slot in which the part 11 moves being widened for the entrance of the laterally projecting lugs on the clip. In this construction I have shown the guide or holder 2^b struck up from the tie, but it is evident that it may be made separate and secured thereto as in Fig. 1.

It is also evident that numerous slight changes might be made in the relative arrangement of parts shown and described without departing from the spirit and scope of my invention hence I would have it under-

stood that I do not wish to confine myself to the exact construction shown and described, but,

Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is:—

1. The combination with a metal tie and guiding and holding means disposed upon the same obliquely to the side of the rail, of a clip disposed upon the tie and passing through the guiding and holding means, said clip having two shoulders on its under side, one of said shoulders adapted to engage the flange of a rail, and a wedge passing under said clip and bearing against the other shoulder of the latter and the oblique guiding and holding means through which the clip passes.

2. The combination with a metal tie and a guiding and holding means disposed upon the same obliquely to the side of the rail, of a clip disposed upon the tie and passing through the guiding and holding means, said clip having two shoulders on its under side, one of said shoulders adapted to engage the flange of a rail, a wedge passing under said clip and bearing against the other shoulder of the latter and the oblique guiding means through which the clip passes, and guiding and holding means for the clip located between the wedge and the end of the clip which engages the flange of the rail.

3. The combination with a metal tie and guiding and holding means disposed upon the same obliquely to the side of the rail, of a clip disposed upon the tie and passing through said guiding and holding means, said clip having two shoulders on its under side, one of said shoulders adapted to engage the flange of a rail, a wedge passing under the clip and bearing against the other shoulder

of the latter and the oblique guiding and holding means through which the clip passes, and guiding and holding means for the clip, projecting from the tie, between the wedges and the end of the clip which engages the flange of the rail.

4. The combination with a metal tie and two guiding and holding means located at one side of the rail, the guiding and holding means adjacent to the rail being parallel with the latter and the other oblique to the rail, of a clip having a shoulder and passing through both of said guiding and holding means and overlapping the flange of the rail and a wedge disposed between the two guiding and holding means, passing under the clip and bearing against a shoulder on the clip and against the oblique guiding and holding means.

5. The combination with a metal tie and two guiding and holding means located at one side of the rail, the one adjacent to the rail being parallel thereto and the other oblique, of a clip passing through both guiding and holding means and overlapping the flange of the rail and having a shoulder adapted to bear against the edge of the rail, and a twisted or warped wedge shaped plate passing under the clip between the two guiding and holding means and bearing against a shoulder on the clip and the oblique guiding and holding means.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

CHARLES P. HAMMOND.

Witnesses:

W. H. SAWYER,
GEO. E. MORGAN.