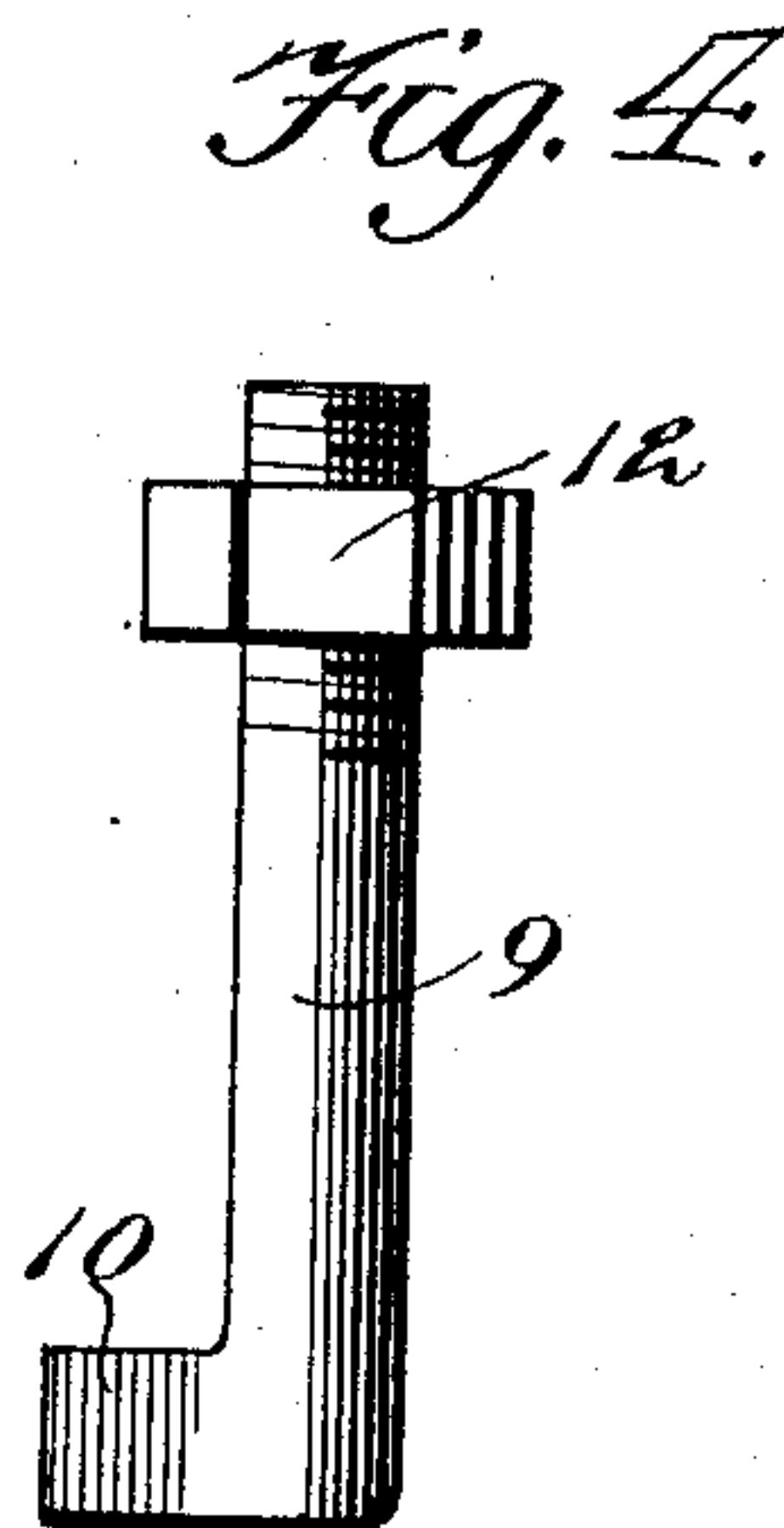
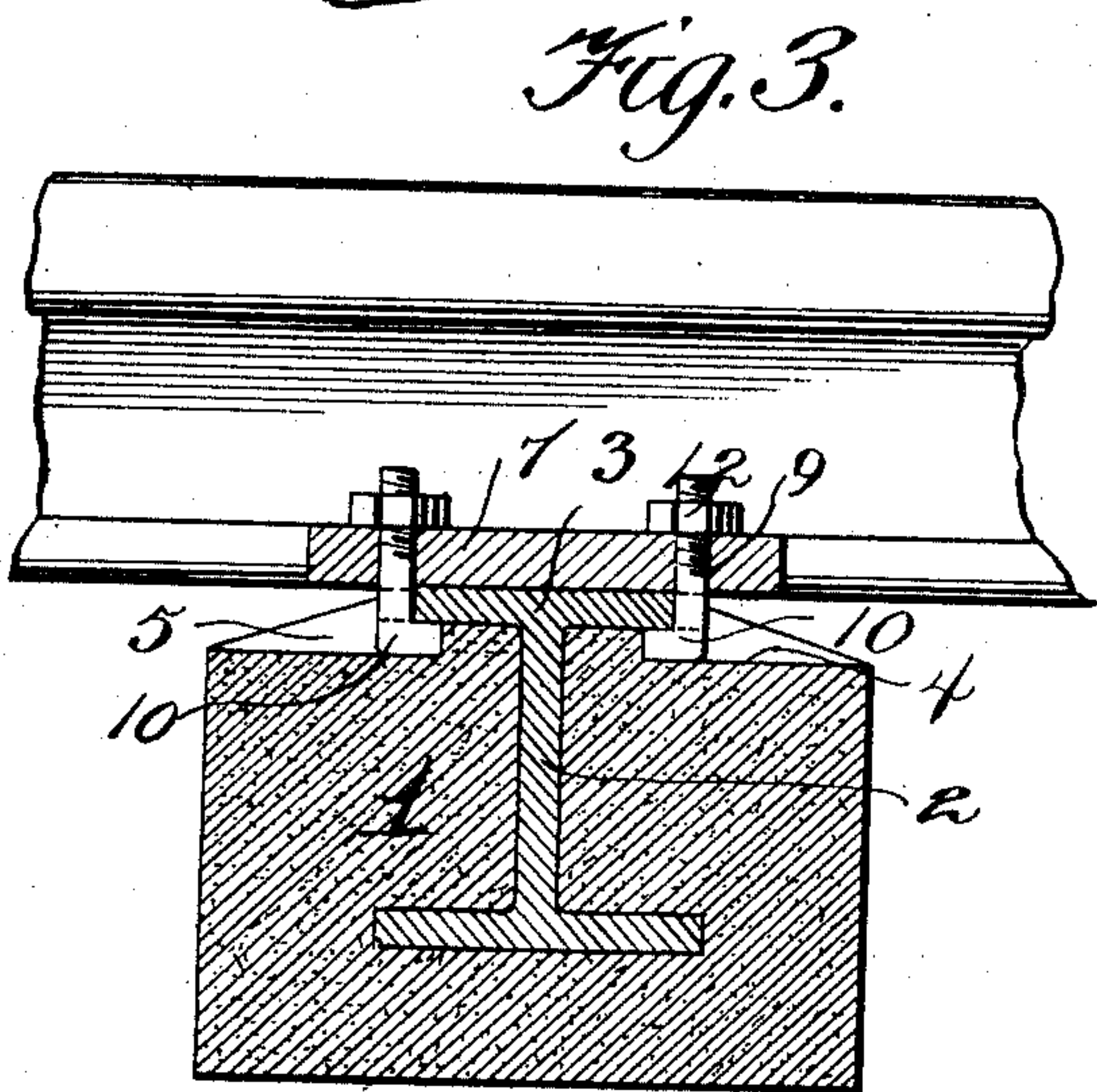
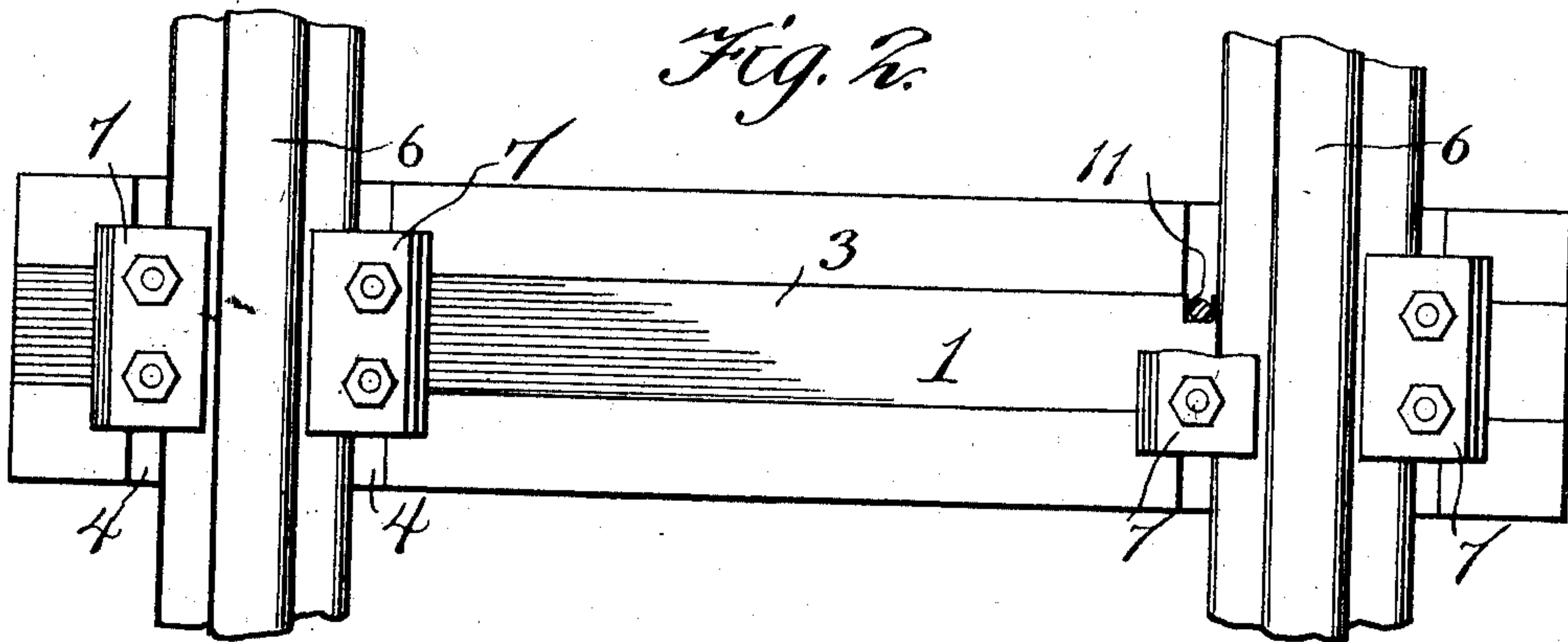
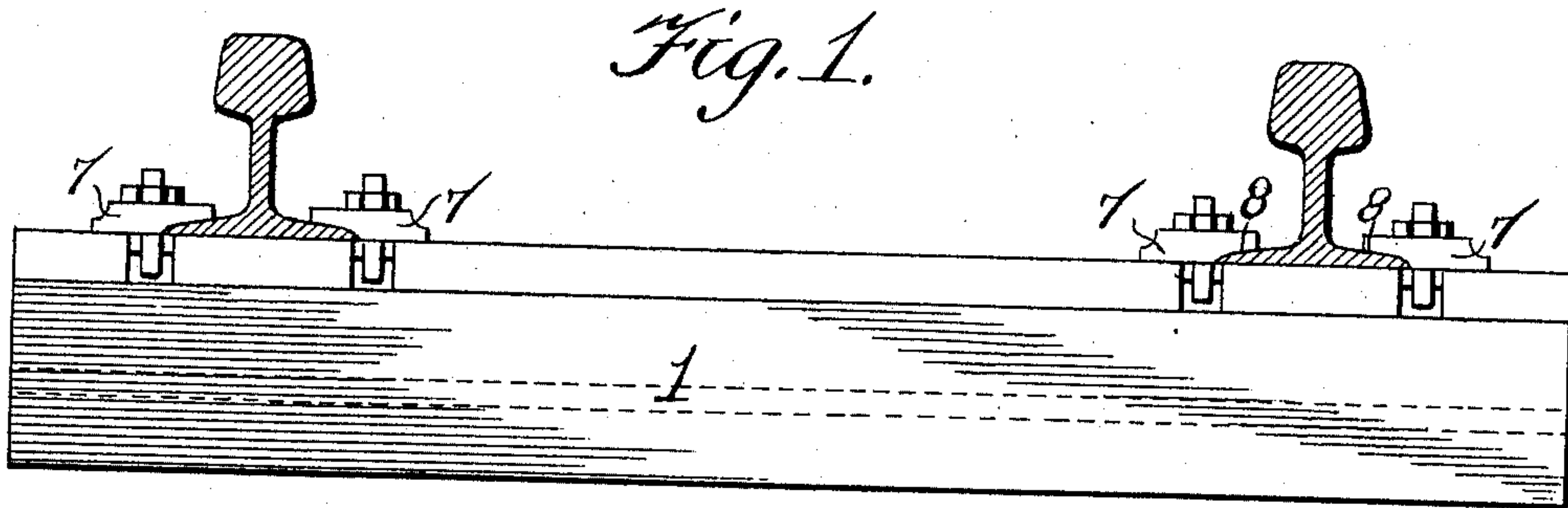


E. C. CULVER.  
RAIL TIE.  
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908,965.

Patented Jan. 5, 1909.



Witnesses

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# UNITED STATES PATENT OFFICE.

ELIJAH C. CULVER, OF BOONE, IOWA.

## RAIL-TIE.

No. 908,965.

Specification of Letters Patent.

Patented Jan. 5, 1909.

Application filed April 10, 1908. Serial No. 426,321.

*To all whom it may concern:*

Be it known that I, ELIJAH C. CULVER, a citizen of the United States of America, residing at Boone, in the county of Boone and State of Iowa, have invented new and useful Improvements in Rail-Ties, of which the following is a specification.

This invention relates to rail ties, and to means for securing the rails to said ties.

One of the principal objects of the invention is to provide a concrete tie in which is embedded an I-beam, one of the flanges of the I-beam being disposed above the upper surface of the tie and to provide improved means for securing the rails to this projecting flange of the I-beam.

Another object of the invention is to provide a strong, durable and efficient rail tie in which the rails may be secured to the tie by simple and efficient means.

These and other objects may be attained by means of the construction illustrated in the accompanying drawing, in which:

Figure 1 is a side view of a rail tie made in accordance with my invention and showing a pair of rails in section secured to the tie. Fig. 2 is a plan view of the same. Fig. 3 is a sectional view of the tie and the clamping plate for holding the rail in place. Fig. 4 is a side elevation of the L-shaped bolt.

Referring to the drawing for a more particular description of my invention, the numeral 1 designates a rail tie which is made of concrete or other suitable moldable material, and embedded in this tie is an I-beam 2, the upper flange 3 of which is flush with the face 4 of the tie. Recesses 5 are formed in the tie 1 at points upon opposite sides of the rail 6 for the clamps and securing devices. Clamp plates 7 are disposed upon opposite sides of the rail 6, said clamps being recessed on their lower sides as at 8, to fit the

base flange of the rail, and the bolts 9 which pass through the clamps 7 upon opposite sides of the rails are provided with angular ends 10, said angular ends fitting in notches 11 in the flange 3 and said bolts being disposed in the recesses 5 at the upper side of the tie 1. The bolts 9 are provided with nuts 12 fitted to the threaded upper ends of said bolts.

From the foregoing it will be obvious that a rail tie made in accordance with my invention is of comparatively simple construction, that the rails can be quickly connected to the tie, and that the clamp plates and L-shaped bolts will prevent the spreading of the rails, and that the rails can be connected to the tie quickly.

Having thus described the invention, what I claim is:

A rail tie formed of a moldable material, said tie having an oppositely inclined and an intermediate flat upper surface, an I-beam embedded in said tie, the upper surface of one of the flanges of said I-beam lying flush with the flat upper surface of the tie, said upper flanges having oppositely disposed notches formed therein, and said tie having recesses in line with the notches, in combination with clamp plates lying upon the top of the upper flanges of the beam, said clamp plates engaging the base flanges of the rail, L-shaped bolts passing through said clamp plates and through the notches in the flanges of the I-beam, and nuts applied to said bolts upon the upper surface of said clamp plates.

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

ELIJAH C. CULVER.

Witnesses:

GRACE WOOSTER,  
E. D. BREAM.