

No. 704,190.

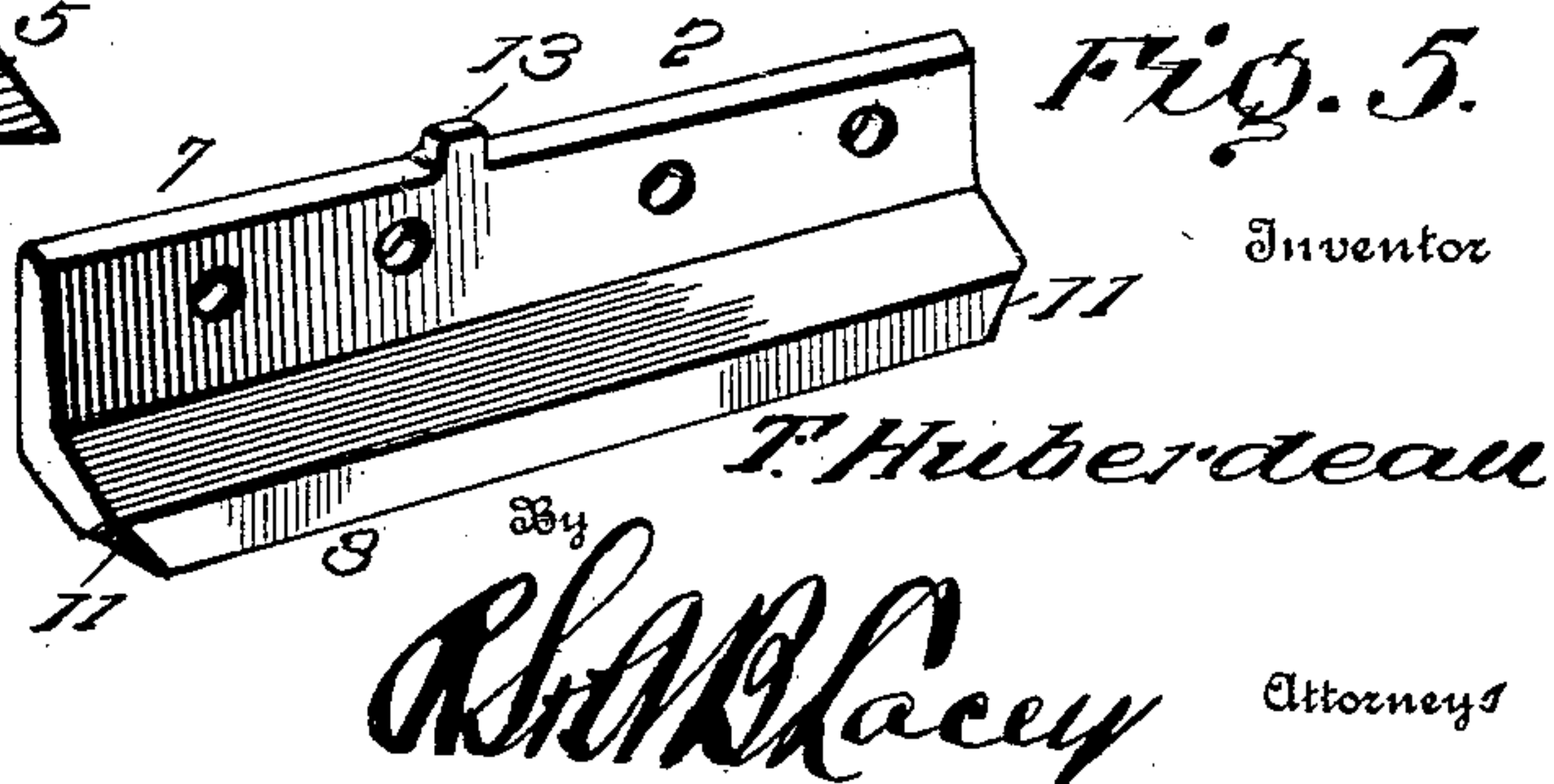
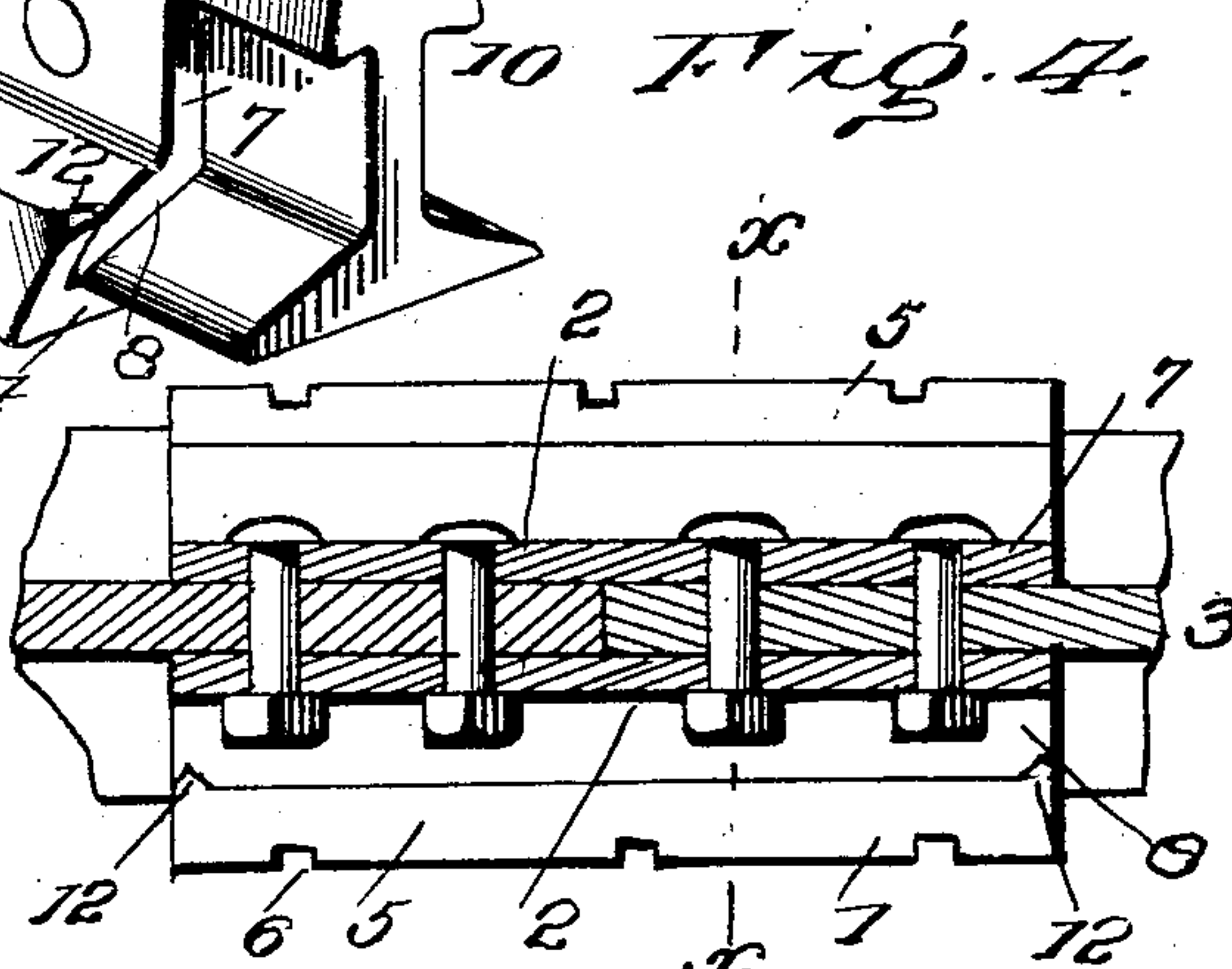
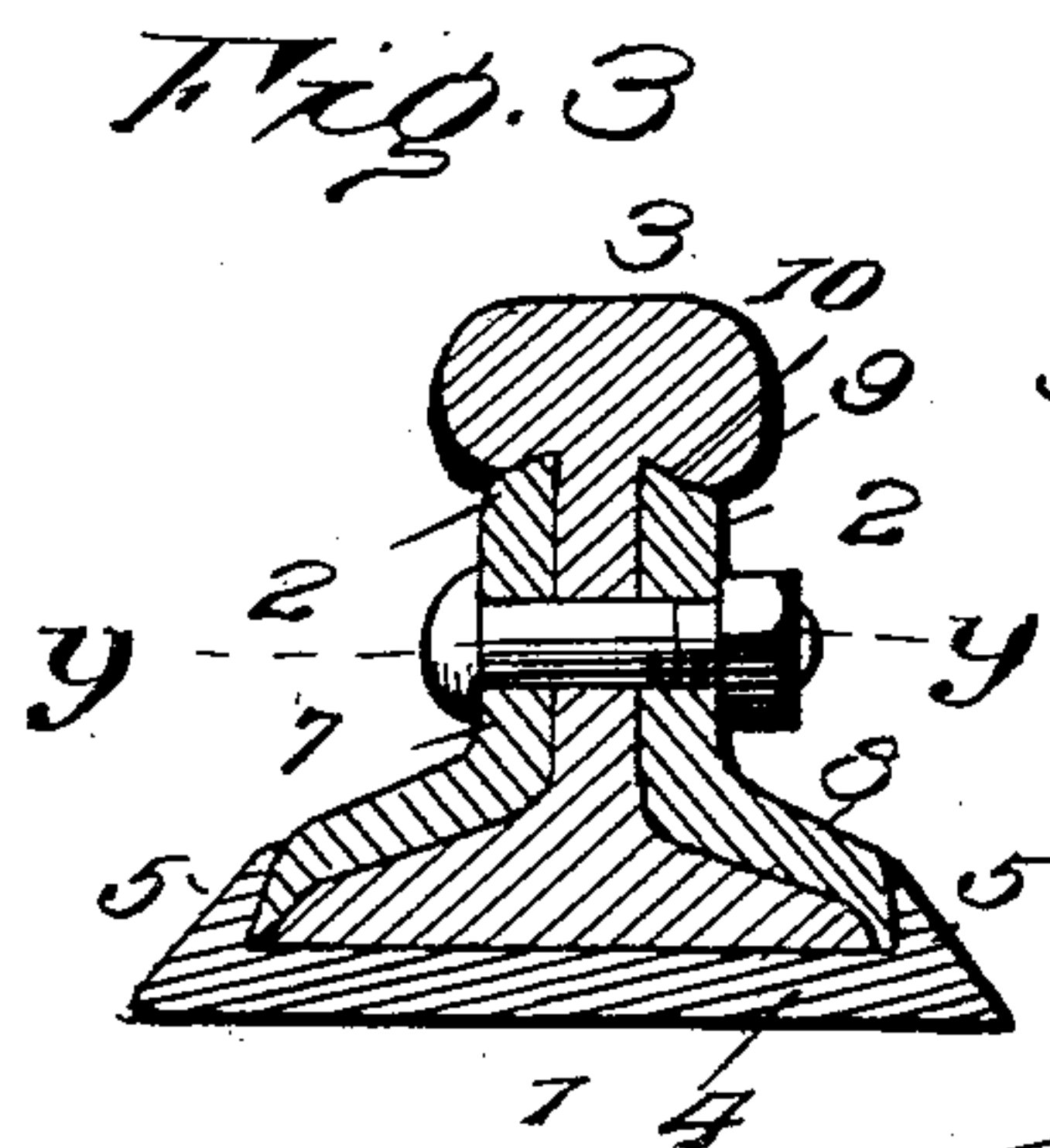
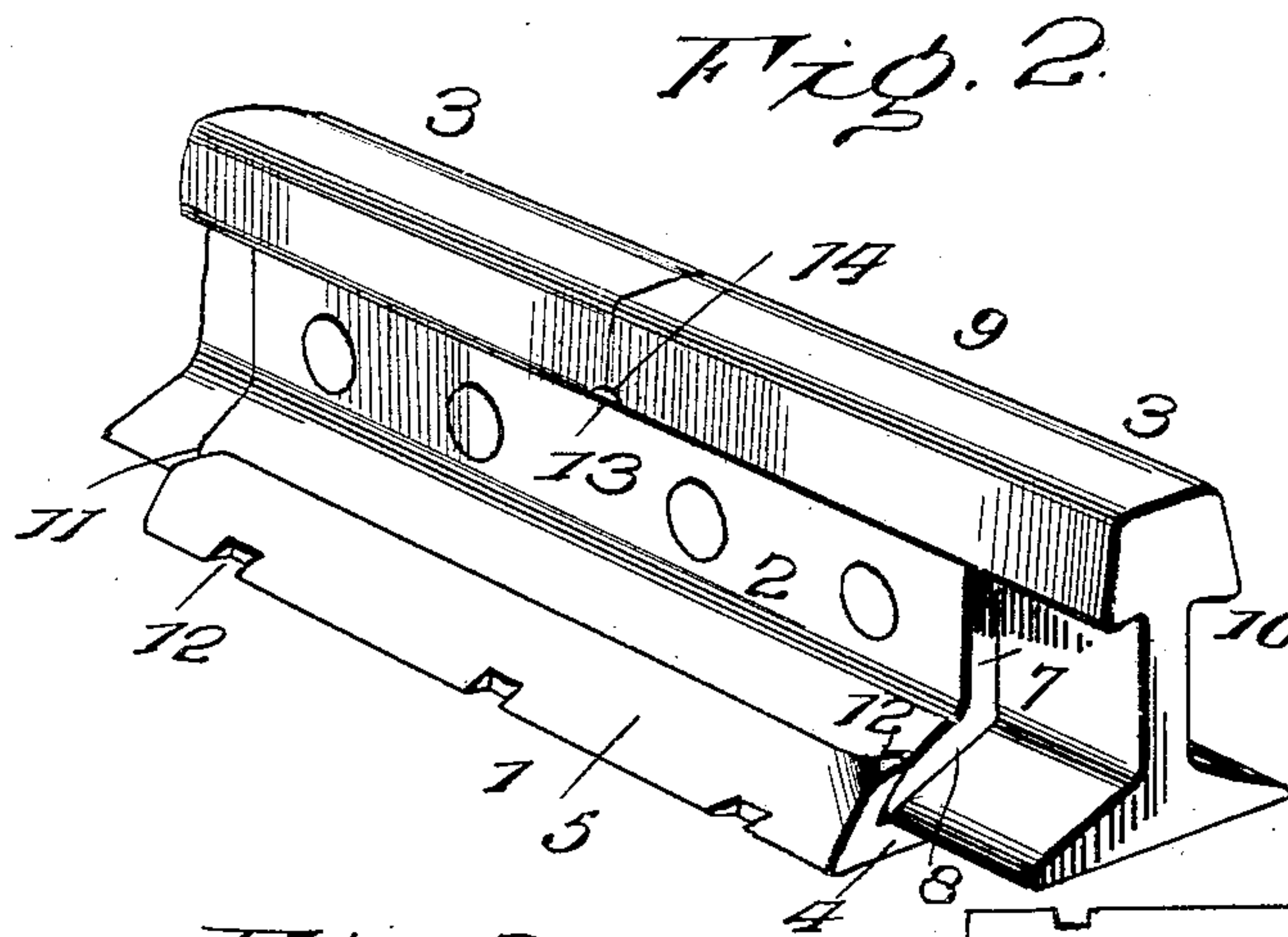
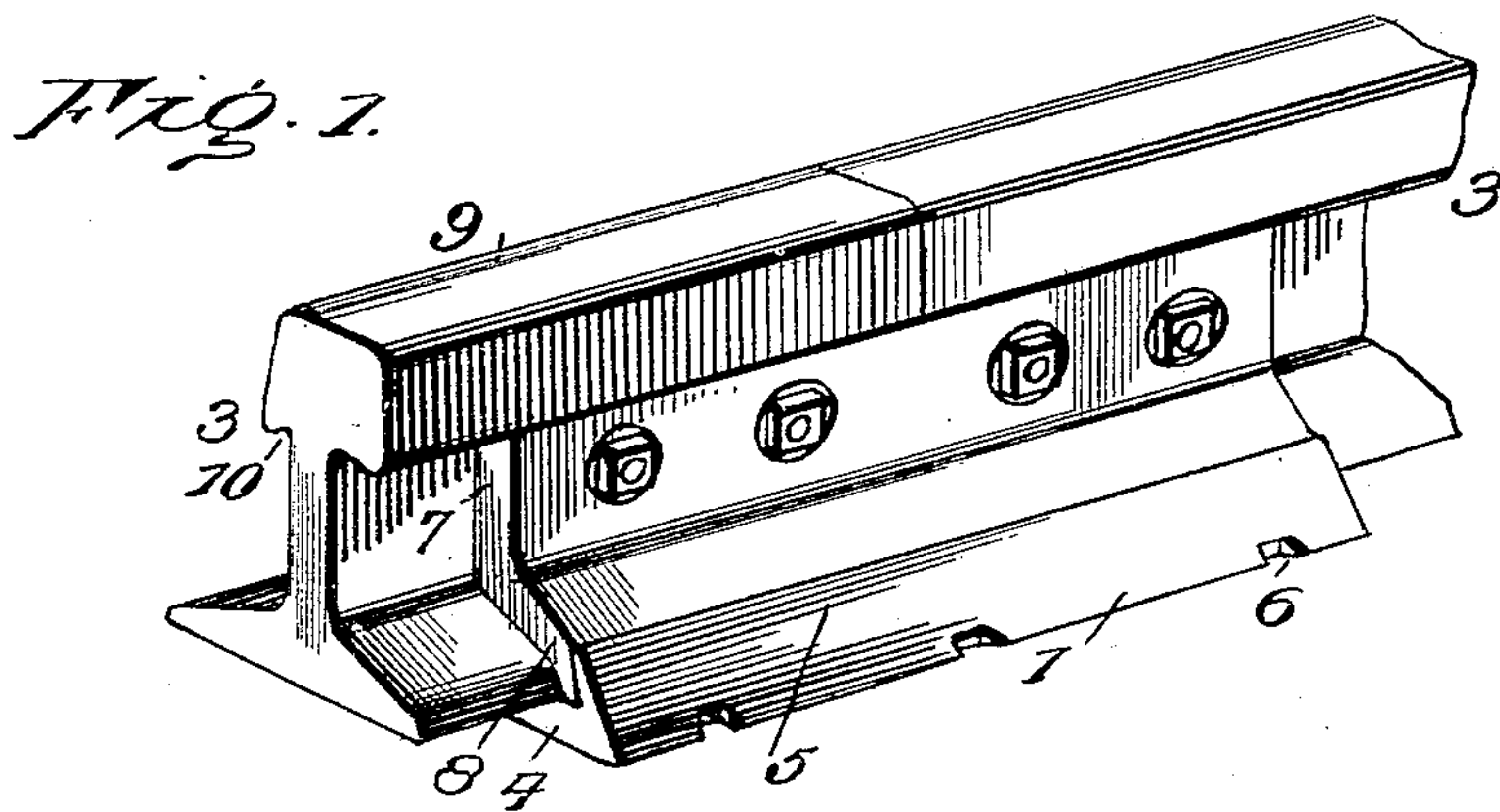
Patented July 8, 1902.

T. HUBERDEAU.

RAIL JOINT.

(Application filed Apr. 15, 1902.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS HUBERDEAU, OF LARIMORE, NORTH DAKOTA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 704,190, dated July 8, 1902.

Application filed April 15, 1902. Serial No. 103,035. (No model.)

To all whom it may concern:

Be it known that I, THOMAS HUBERDEAU, a citizen of the United States, residing at Larimore, in the county of Grand Forks and State of North Dakota, have invented certain new and useful Improvements in Rail-Joints; 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.

This invention provides a rail-joint of novel formation which holds the contiguous ends of adjacent rails against both vertical and lateral stress, thereby attaining all the advantages resulting from a continuous rail and obviating the objectionable features of joints permitting the abutting ends of rail-sections to have play, which is injurious to rolling-stock and trying to the nerves of passengers.

The invention consists of the structural details, novel features, and combinations of the parts, which hereinafter will be more particularly set forth, illustrated, and finally claimed.

In the drawings hereto attached and forming a part of the specification, Figure 1 is a perspective view of a rail-joint embodying the invention. Fig. 2 is a view similar to Fig. 1 of the reverse side of the joint. Fig. 3 is a cross-section about on the line X X of Fig. 4. Fig. 4 is a longitudinal section of the joint about on the line Y Y of Fig. 3. Fig. 5 is a perspective view of a fish-plate.

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

The joint comprises the chair 1, fish-plates 2, to be placed upon opposite sides of the rails, and the rail ends 3.

The chair 1 comprises a base 4 and outwardly-extending longitudinal flanges 5, the inner walls of said flanges being upwardly converged, so as to engage over and interlock with the lower edges of the fish-plates. Notches 6 are formed in the edges of the base 4 to receive the spikes employed for securing the chair to a tie when resting thereon.

The fish-plates 2 comprise parts 7 and 8, the latter being outwardly and downwardly

inclined and adapted to engage under the longitudinal flanges 5 of the chair, so as to interlock therewith. The parts 7 come against opposite sides of the web portion of the rail ends and their upper edges are adapted to interlock with the lateral extensions of the rail-head 9, which are undercut for this purpose, as shown at 10. The fish-plates interlock at their lower edges with the chair 1 and at their upper edges with the head of the rails. Hence the use of bolts for clamping said plates against opposite sides of the rails is not necessary, but may be resorted to as a precautionary means of securement. The fish-plates are placed in position and forced home by a longitudinal sliding movement, this being necessary because of the interlocking feature between their upper and lower edges and the rail and rail-chair. When the rail-chair is placed upon a tie or sleeper and is spiked thereto, longitudinal movement is prevented, and when bolts are used to clamp the fish-plates against opposite sides of the rails said fish-plates are prevented from loosening or displacement. When bolts are dispensed with for clamping the fish-plates against the sides of the rail, longitudinal movement of the fish-plates is prevented by interlocking means between them and either the chair or rails, or both. In one construction the lower corners of a fish-plate are cut away on a bevel, as shown at 11, and the adjacent corners of the subjacent flange 5 are bent inward to fit said beveled corners, as shown at 12, thereby preventing relative longitudinal movement of the chair and fish-plate. It is also proposed to provide a fish-plate with an extension 13 at its upper edge, and after the fish-plate has been properly positioned this extension 13 is bent to enter a depression formed by cutting away the lower corners of the head of the rail ends, as shown at 14. When the joint occurs intermediate of adjacent ties, the interlocking feature between the rails and the fish-plates and between the latter and the chair prevents longitudinal movement of said parts and renders the joint secure.

Having thus described the invention, what is claimed as new is—

In a rail-joint, rails having the lower corners of the head of the adjacent ends cut away, a rail-chair, and fish-plates arranged on opposite sides of the rails and having their lower edges interlock with the said chair and their upper edges interlock with the head of the rails, one of the fish-plates having an extension to enter the space formed by the cut-away

portions at the lower corners of the rail-heads, substantially as specified.

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

THOMAS HUBERDEAU. [L. S.]

Witnesses:

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