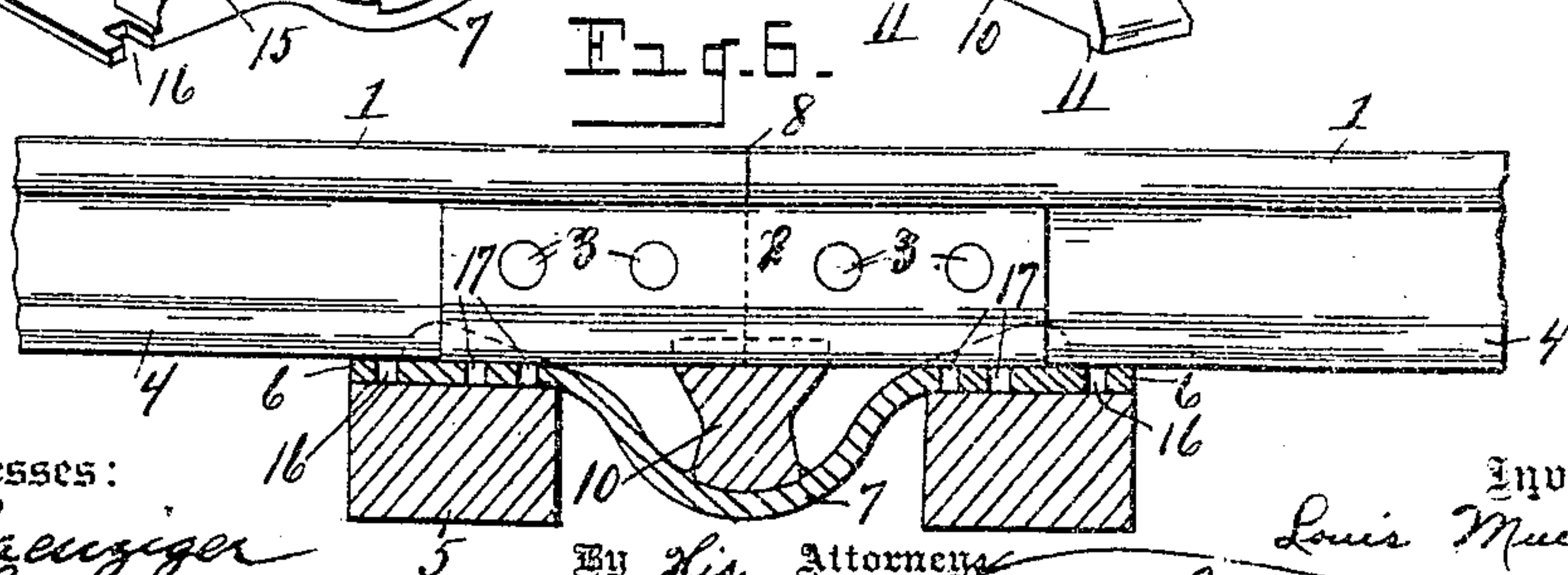
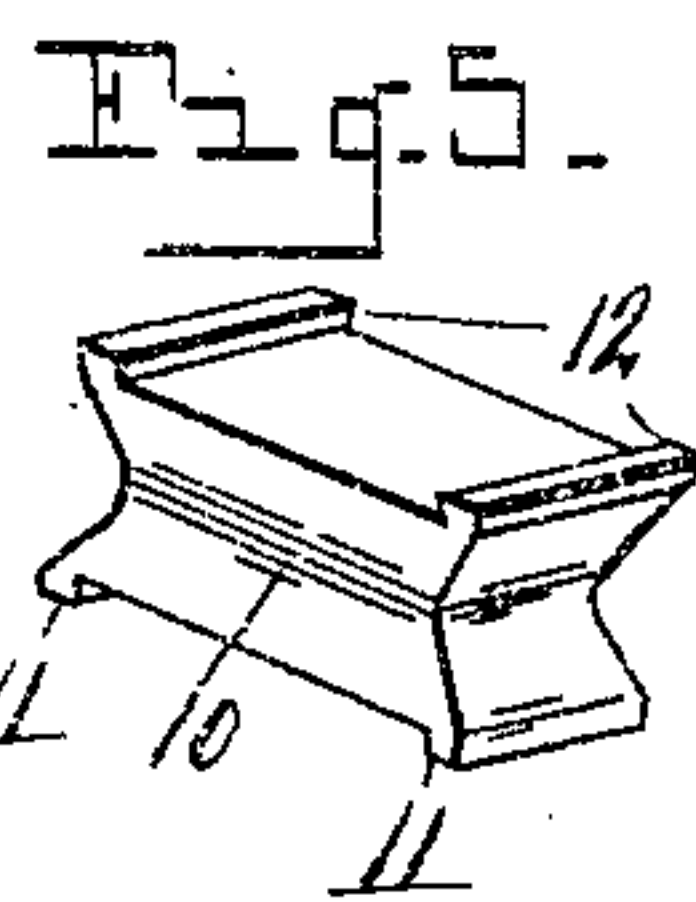
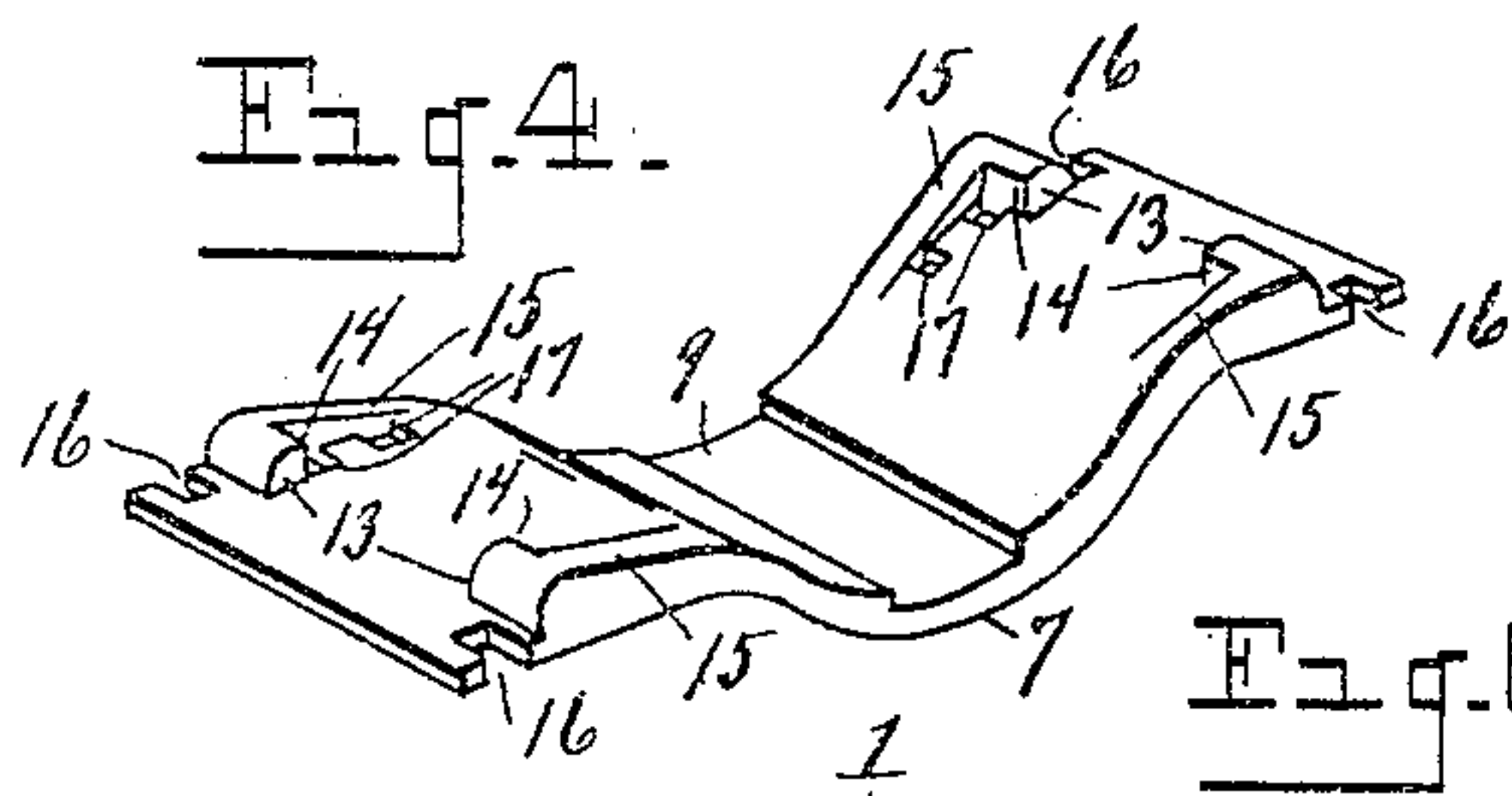
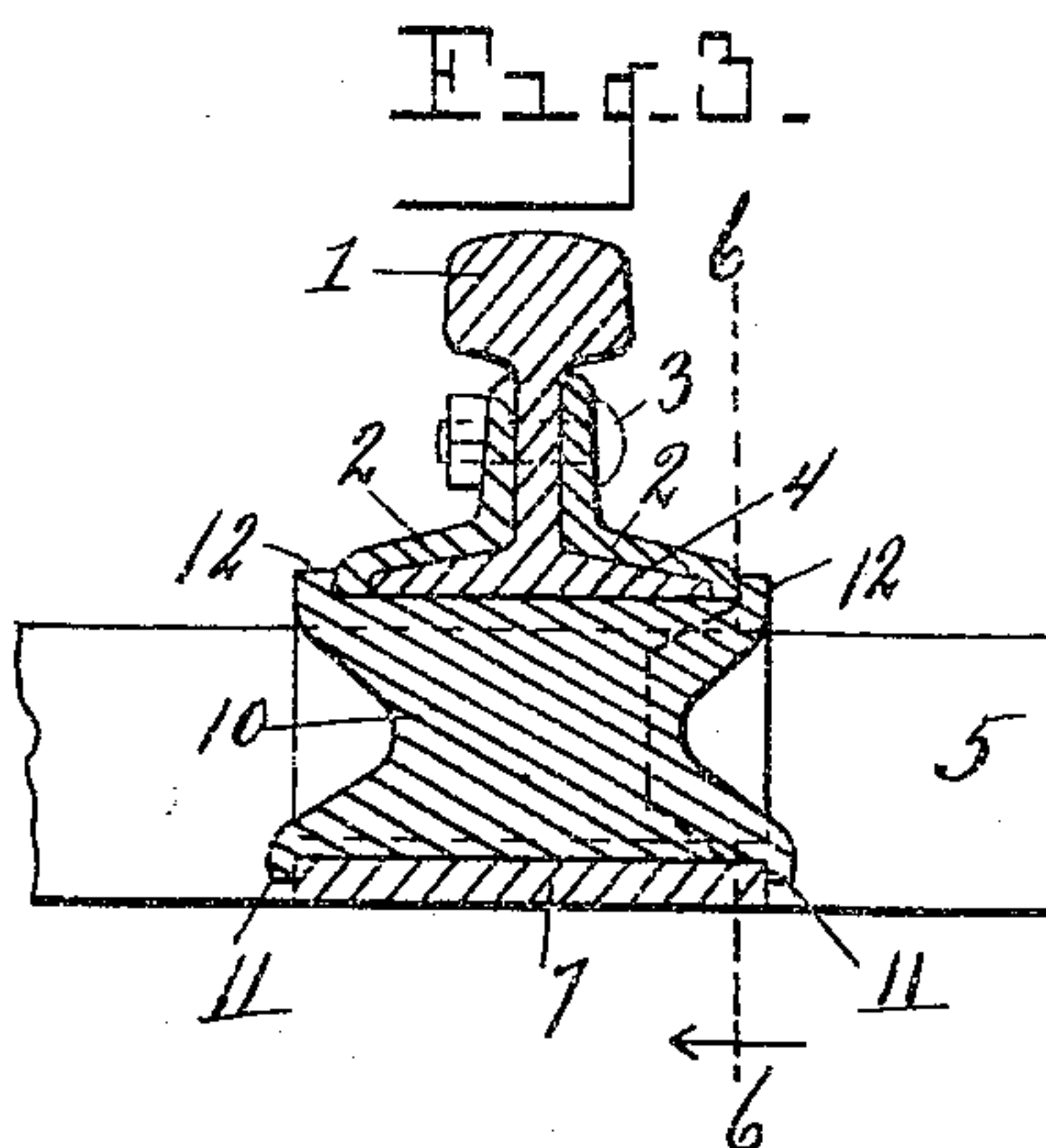
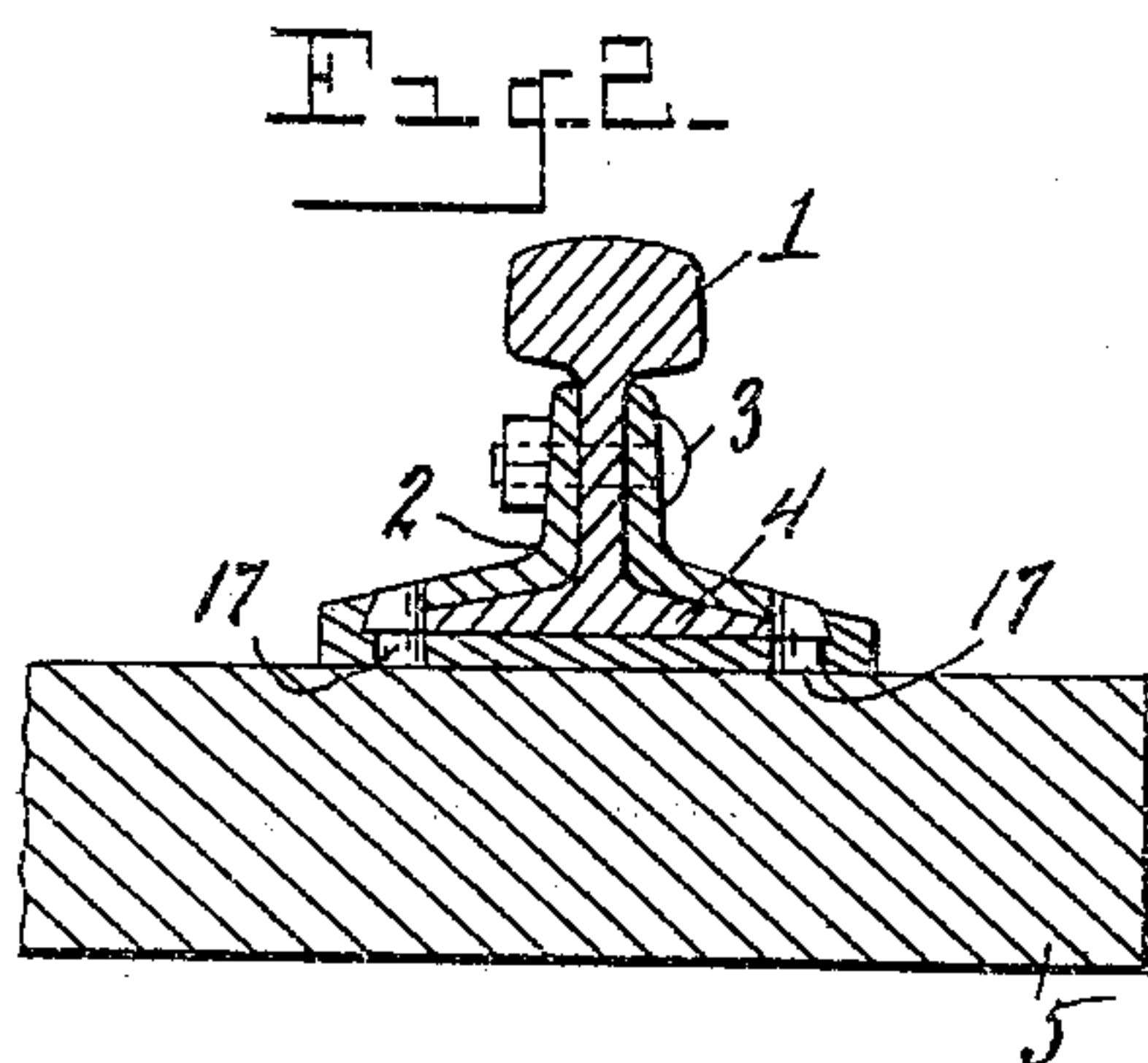
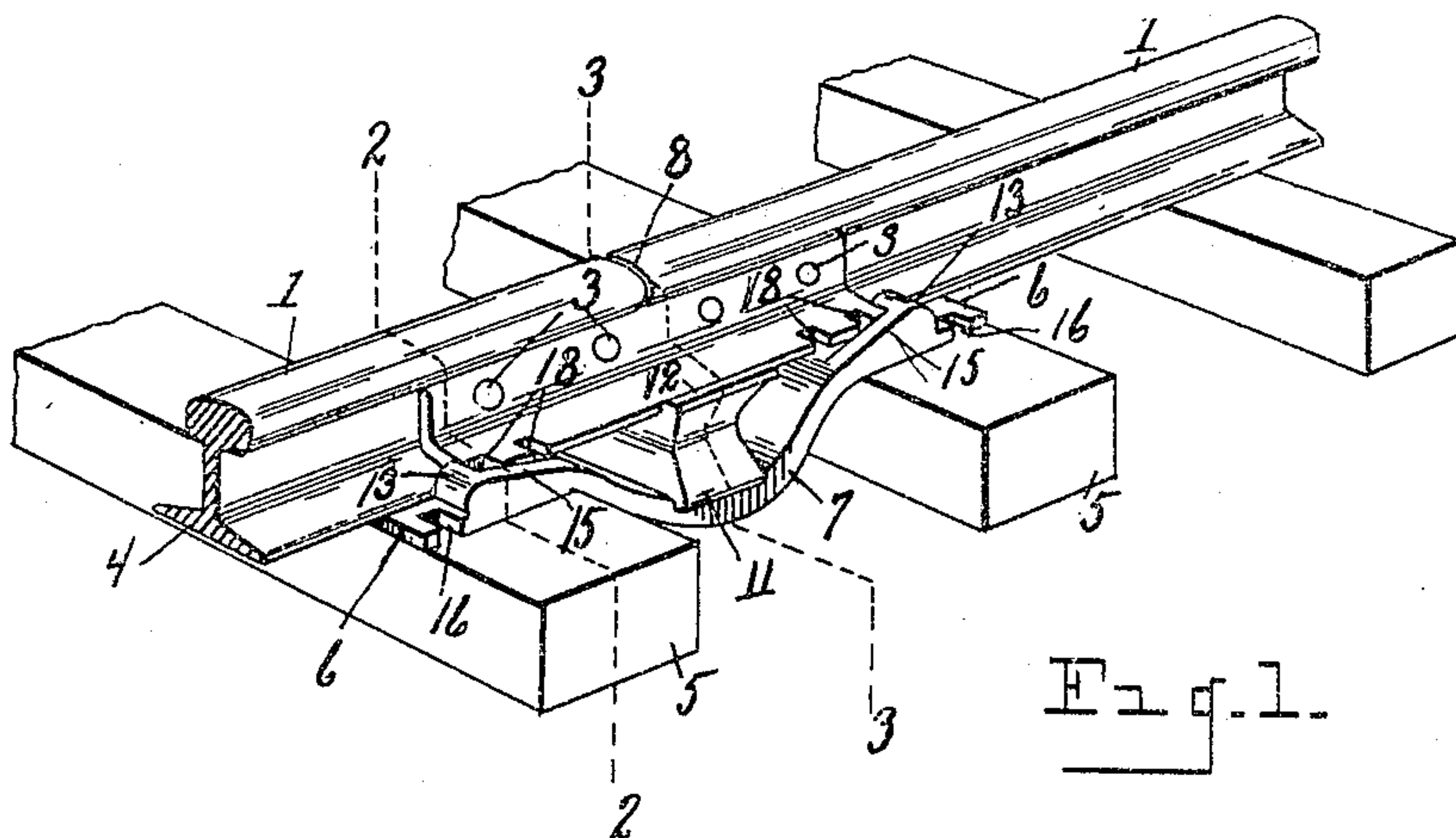


No. 791,985.

PATENTED JUNE 6, 1905.

L. MUELLER.  
TRUSS SUPPORT FOR RAIL JOINTS.  
APPLICATION FILED MAR. 6, 1905.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

LOUIS MUELLER, OF OWOSSO, MICHIGAN, ASSIGNOR OF ONE-FOURTH TO JOHN LEHNER, ONE-FOURTH TO GUSTAV LUECKEMANN, AND ONE-FOURTH TO HENRY SCHMIDT, OF OWOSSO, MICHIGAN.

## TRUSS-SUPPORT FOR RAIL-JOINTS.

SPECIFICATION forming part of Letters Patent No. 791,985, dated June 6, 1905.

Application filed March 6, 1905. Serial No. 248,579.

*To all whom it may concern:*

Be it known that I, LOUIS MUELLER, a citizen of the United States, residing at Owosso, in the county of Shiawassee, State of Michigan, have invented certain new and useful Improvements in Truss-Supports for Rail-Joints; and I do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to truss-supports for rail-joints; and it consists in the construction and arrangement of parts hereinafter fully set forth and pointed out particularly in the claims.

The object of the invention is to provide a truss-support for the rail-joint of such construction and involving such an arrangement of parts as to firmly unite the meeting ends of the rails and support them in such a manner as to prevent vertical separation thereof when a train is passing over the joint.

The above object is attained by the structure illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view showing a rail-joint supported in accordance with my invention. Fig. 2 is a transverse section as on line 2 2 of Fig. 1. Fig. 3 is a transverse section as on line 3 3 of Fig. 1. Fig. 4 is a perspective view of the truss-plate. Fig. 5 is a perspective view of the supporting-block which is interposed between the depending portion of the truss-plate and the meeting ends of the rails at the joint. Fig. 6 is a sectional view as on line 6 6 of Fig. 3.

Referring to the characters of reference, 1 designates the rail-sections, which are united at their ends by the fish-plates 2 commonly employed, secured to the web of the rail-sections by the ordinary transverse bolts 3, the lateral flanges of the fish-plates lying upon the base 4 of the rails.

Resting at its ends upon the ties 5 and sup-

porting the base of the rails is the truss-plate 6, having the downwardly-curved central portion 7, which depends between the ties in vertical alinement with the joint 8 between the rail-sections. Resting in the channel 9 in the depending central portion of the truss-plate is a supporting-block 10, having bottom flanges 11, that embrace the edges of said truss-plate, and top flanges 12, that embrace the edges of the bases of the rails and the flanges of the fish-plates, as clearly shown in Fig. 3. The channel 9 and the engaging flanges 11 prevent displacement of the block with respect to the truss-plate, and the flanges 12 prevent lateral movement between the block and the rails.

Formed upon the opposite ends of the truss-plate are the raised shoulders 13, between which the base portions of the rail-sections lie and against the vertical faces 14 of which the ends of the fish-plates abut. Extending from said shoulders are the inclined flanges 15, which engage the edges of the flanges of the fish-plates, whereby both lateral and longitudinal movement between the fish-plates and the truss-plate is prevented. Formed in the end portions of the truss-plate are the notches 16, adapted to receive spikes which may be driven into the ties. Also formed through the end portions of the truss-plate within the flanges 15 are the apertures 17, adapted to receive spikes which may be driven through the notches 18 in the margins of the fish-plates and through said apertures 17 into the ties, whereby the truss-plate and fish-plates may be securely spiked to the ties of the track.

It will now be evident that the presence of a weight at the joint between the rail-sections will cause an end thrust on the fish-plates which is resisted by the shoulders 13, imparting a longitudinal strain to the opposite ends of the truss-plate, creating in the bowed portion of said plate a tendency to straighten and to exert an upward pressure upon the block immediately below the joint, thereby effectively creating a truss-support for the joint at the time of the application of a weight thereto, preventing a depression of the joint and ob-



viating the vertical displacement of the meeting ends of the rail-sections.

Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a truss-support for rail-joints, the combination with the meeting ends of the rails, of the fish-plates embracing said ends, the truss-plate mounted upon the ties and supporting the rails and fish-plates, said truss-plate having a depressed central portion, a block interposed between the depressed portion of said plate and the joint of the rails, supporting the ends of the latter, the ends of the truss-plate having shoulders against which the ends of the fish-plates abut.

2. In a truss-support for rail-joints, the combination with the ends of the rails, fish-plates crossing the joint between the rail ends, a truss-plate supporting the ends of the rails and fish-plates, said truss-plate having shoulders which engage the ends of the fish-plates, and flanges which embrace the edges of the fish-plates, the central portion of the truss-

plate being depressed, and a block interposed between the depressed portion and the ends of the rails, said block supporting the rail ends and fish-plates.

3. In a truss-support for rail-joints, the combination with the ends of the rails, fish-plates crossing the joint between the rail ends and bolted thereto, a truss-plate supporting the rail ends and the fish-plates, the central portion of the truss-plate being depressed, a block interposed between the depressed portion of the plate and the joint of the rails, the ends of the truss-plate having shoulders against which the ends of the fish-plates abut, the truss-plate having apertures through the ends thereof, and the fish-plates having registering notches in their edges adapted to receive the rail-spikes.

In testimony whereof I sign this specification in the presence of two witnesses.

LOUIS MUELLER.

Witnesses:

JOHN LEHNER,  
E. S. WHEELER.