

No. 756,226.

PATENTED APR. 5, 1904.

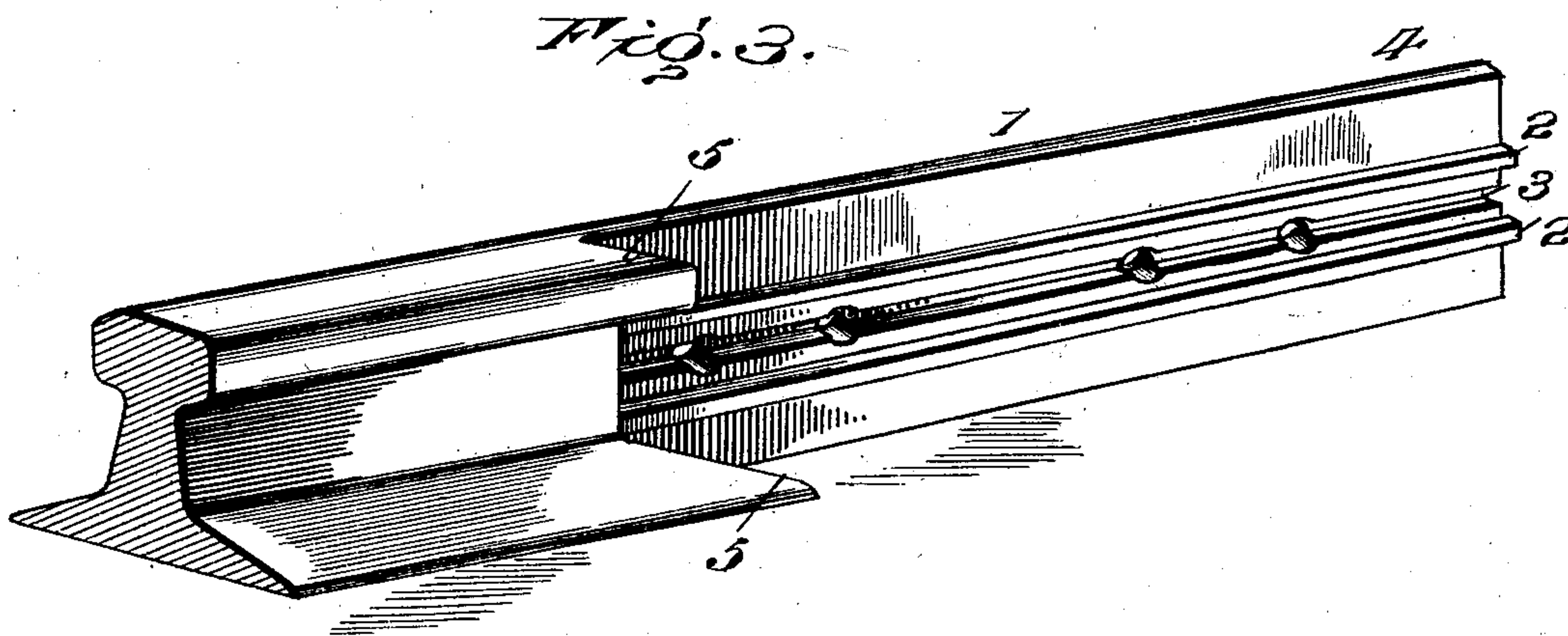
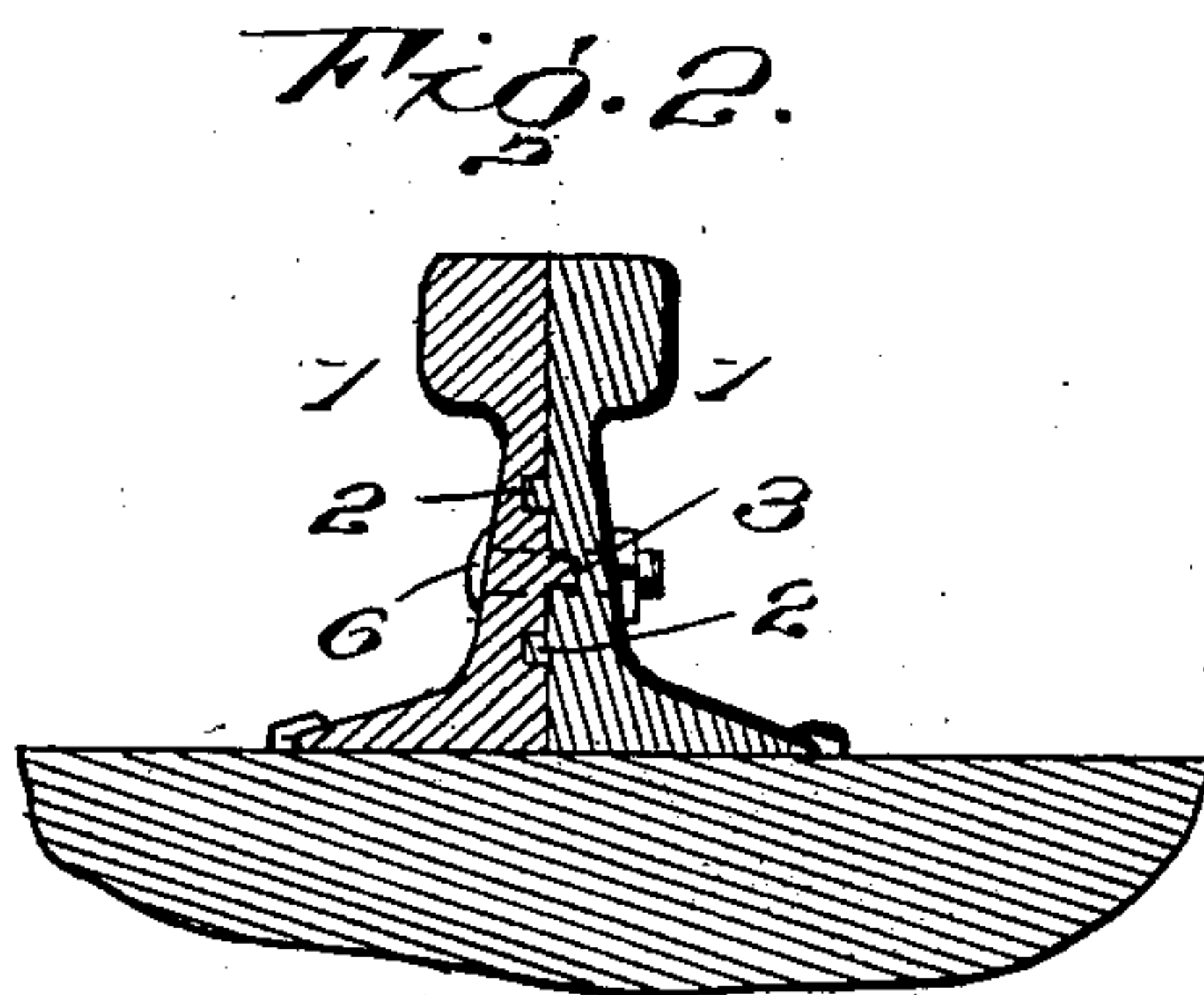
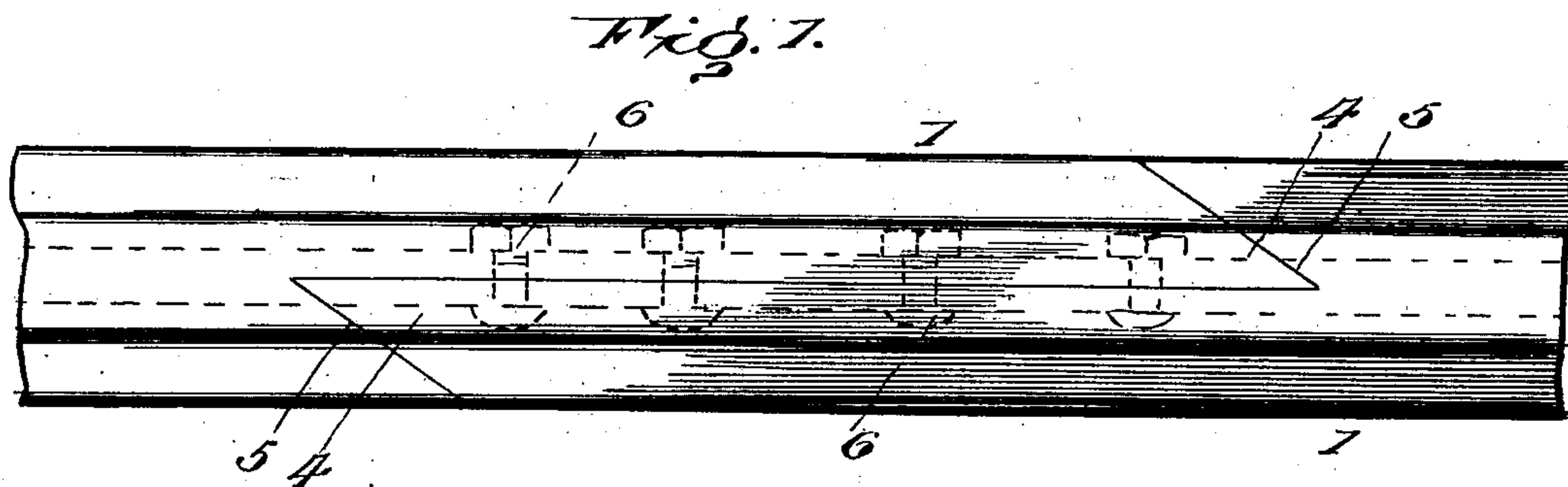
O. L. FISHER & W. W. HOLSTON.

RAIL JOINT.

APPLICATION FILED AUG. 6, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



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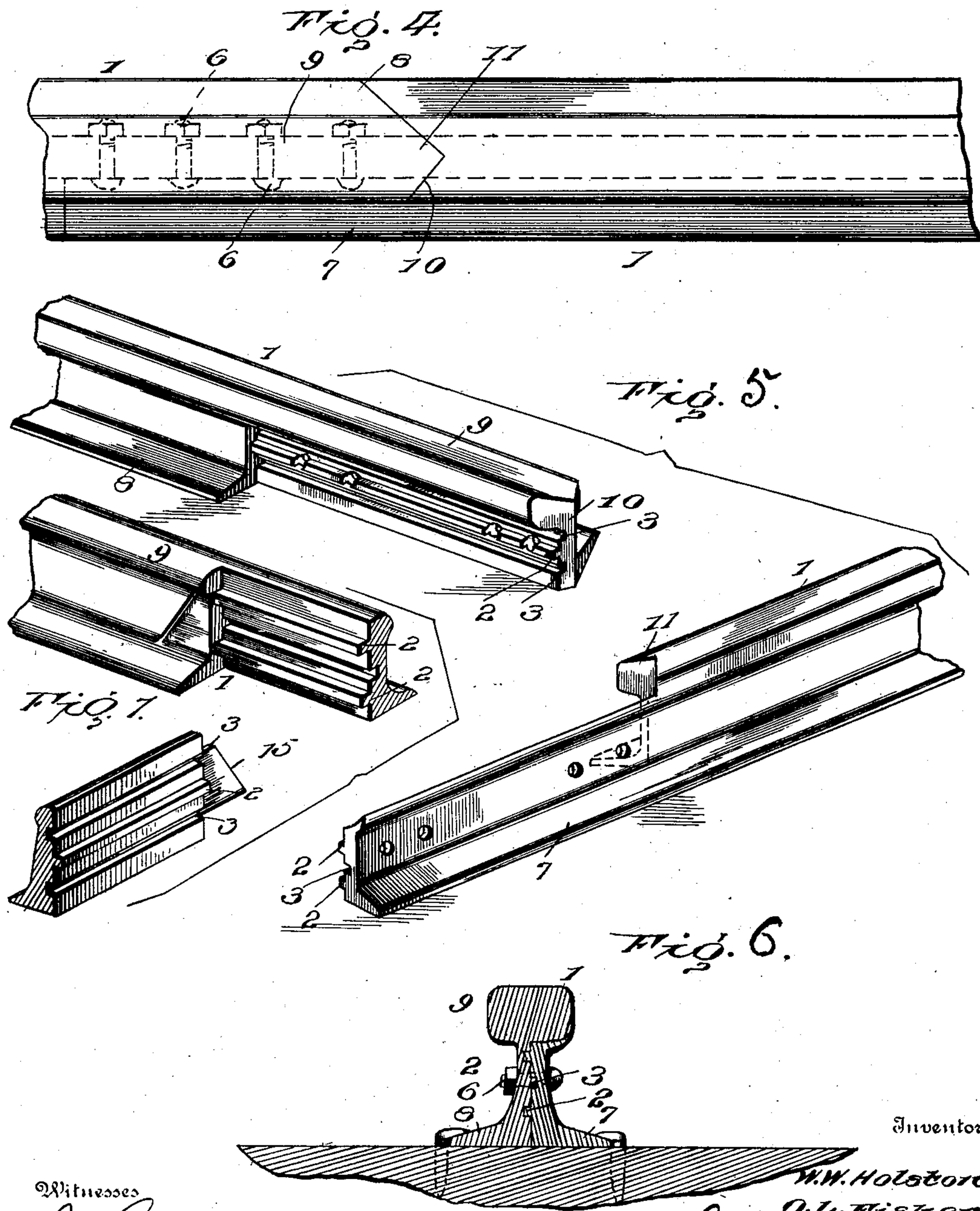
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NO MODEL.

2 SHEETS—SHEET 2.



Witnesses

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UNITED STATES PATENT OFFICE.

OZIAS L. FISHER, OF WHITEPINE, AND WILLIAM W. HOLSTON, OF MORRISTOWN, TENNESSEE.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 756,226, dated April 5, 1904.

Application filed August 6, 1903. Serial No. 168,515. (No model.)

To all whom it may concern:

Be it known that we, OZIAS L. FISHER, residing at Whitepine, in the county of Jefferson, and WILLIAM W. HOLSTON, residing at Morristown, in the county of Hamblen, State of Tennessee, citizens of the United States, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention provides a peculiar construction of the meeting end portions of rails and the like to adapt the same to be joined so as to provide a stable and rigid joint. It is ob-
jective also to secure a continuous bearing at the joint, so as to prevent the rounding of the end portions of the rails and to obviate noises consequent to the employment of the common form of joint.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and drawings hereto attached.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the preferred form of the invention. Fig. 2 is a transverse sectional view through the joint illustrated in Fig. 1. Fig. 3 is a detail perspective view of the end portion of one of the rails of the type shown in Fig. 1. Fig. 4 is a top plan view of a modified form of the rail-joint. Fig. 5 is a combined view showing the adjacent end portions of the joint shown in Fig. 4 separated. Fig. 6 is a transverse sectional view through the modified form of joint. Fig. 7 is a view showing adjacent rail ends in perspective and illustrating slightly-modified structure.

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.

In the preferred form of joint the adjacent end portions of the rails are cut away longitu-

dinally thereof, providing corresponding extensions 1. The meeting faces of the extended portions of one of the rails are provided with matching tongues and grooves 2 and 3, respectively, the grooves receiving the tongues when the rail ends are secured together, and thereby affording a rigidity of joint not otherwise obtained. In the provision of the matching tongues and grooves the corresponding rigidity afforded by the use of fish-plates or angle-bars is secured at a decreased expense, since the use of said fish-plates and angular bars is obviated. The extreme end portions of the extensions 1 are cut away on an acute angle, as shown at 4, the innermost portions of the angular ends 4 being received by angular recesses 5, provided upon the respective rail ends. The angular ends 4 are thus interlocked with the opposite end portions of the adjacent rails in such a manner that lateral play is prevented, and owing to the provision of the matching tongues and grooves 2 and 3 all likelihood of vertical displacement and play is also decreased to the minimum. To positively connect the end portions of the rails, ordinary fastenings, such as bolts 6, are passed through openings in the rails in the usual manner. To strengthen the joint, the end portions of the rails are enlarged, so that the structure will be made compact.

In the modified form of the joint as illustrated in Fig. 4 the end portions of the rails are also enlarged in the manner described relative to the first-mentioned form of the invention, and the adjacent end of one of the rails has a web extension 7, which is disposed so as to cooperate with the web extension 8 of the meeting end of the opposite rail, the web extension 8 carrying the ball or head 9 of the rail. The web extension 7 is disposed so as to support the ball or head of the rail of the web extension 8, being located directly beneath the said ball when the parts are assembled to make a firm joint. The end of the rail provided with the extension 7 is also provided with an angular recess 10, which receives the angular end portion 11 of the opposite web extension 8. The meeting faces of the extensions 7 and 8 are provided with the

matching-tongues and grooves 2 and 3 in like manner, as before described. This form of joint provides a continuous bearing and also possesses more rigidity at this portion of the rail ends, as premised in the description of the preferred form of the joint.

The joint as described hereinbefore is simple, involving the use of no auxiliary means other than the ordinary bolts or like fastenings for securing the ends of the rails together, and for this reason the track may be very expeditiously laid or the rails readily removed when it becomes necessary to do so for any purpose.

The modified form of joint shown in Fig. 7 is substantially the same as to general structure of parts, with the exception of a tongue 15, which is projected from the adjacent end of one of the rails to be received in a recess or depression disposed upon the web of the adjacent rail end. This interlocking feature substantially reinforces the connection at the joint and is of advantage for this reason.

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

1. A rail-joint comprising adjacent rail ends

cut away longitudinally to provide corresponding extensions, matching tongues and grooves extending longitudinally upon the meeting faces of the said extensions, adjacent end portions of the extensions aforesaid having angular ends adapted to be received by corresponding angular recesses disposed upon the said rail ends whereby lateral play is prevented.

2. A rail-joint substantially as described, comprising rail ends cut away longitudinally on a vertical line for a short distance to provide corresponding extensions, matching tongues and grooves disposed longitudinally of the meeting faces of the said extensions, the extreme end portions of the extensions being cut away on an acute angle and received in angular recesses provided upon the opposite end portions of the rails to maintain the rigidity of the joint.

In testimony whereof we affix our signatures in presence of two witnesses.

OZIAS L. FISHER. [L. S.]

WILLIAM W. HOLSTON. [L. S.]

Witnesses:

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