R. T. FREDERICK & J. L. CHAPMAN.

RAIL JOINT.

APPLICATION FILED APR. 20, 1909.

931,589. Patented Aug. 17, 1909.

Fig. 1.

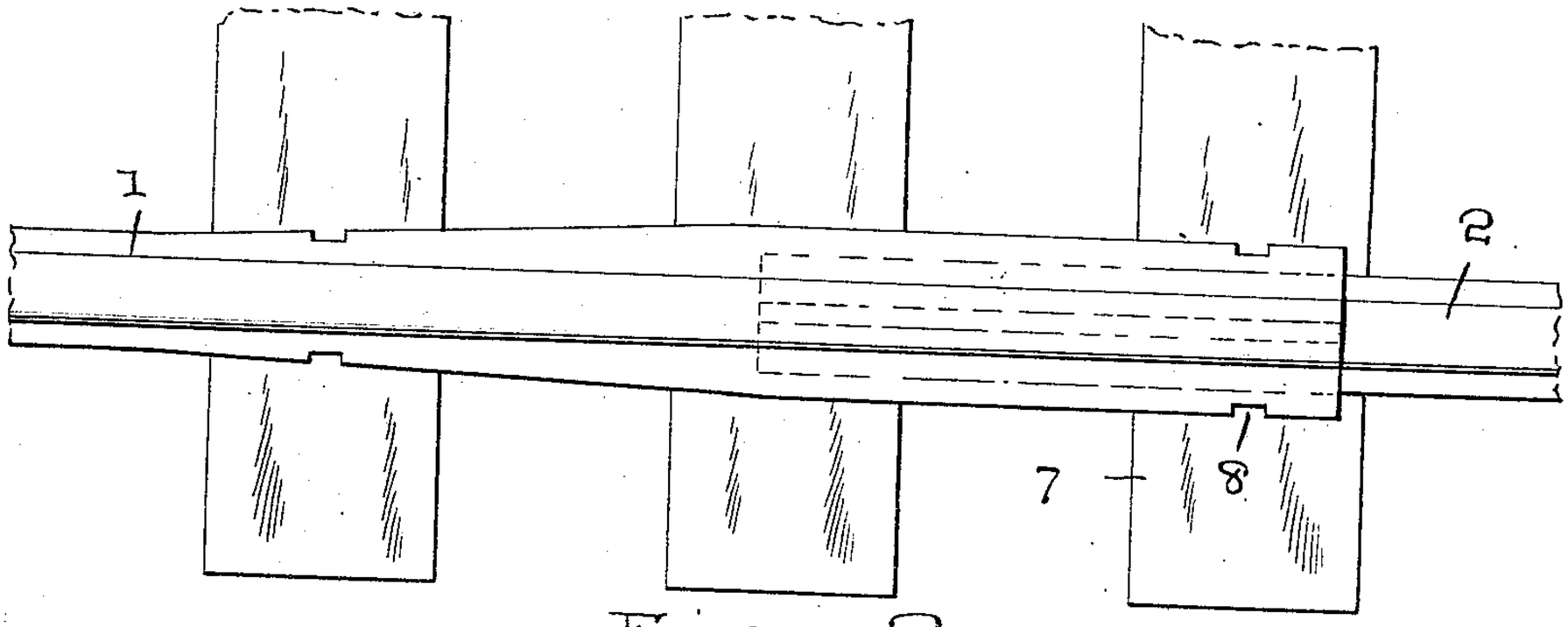


Fig. 2.

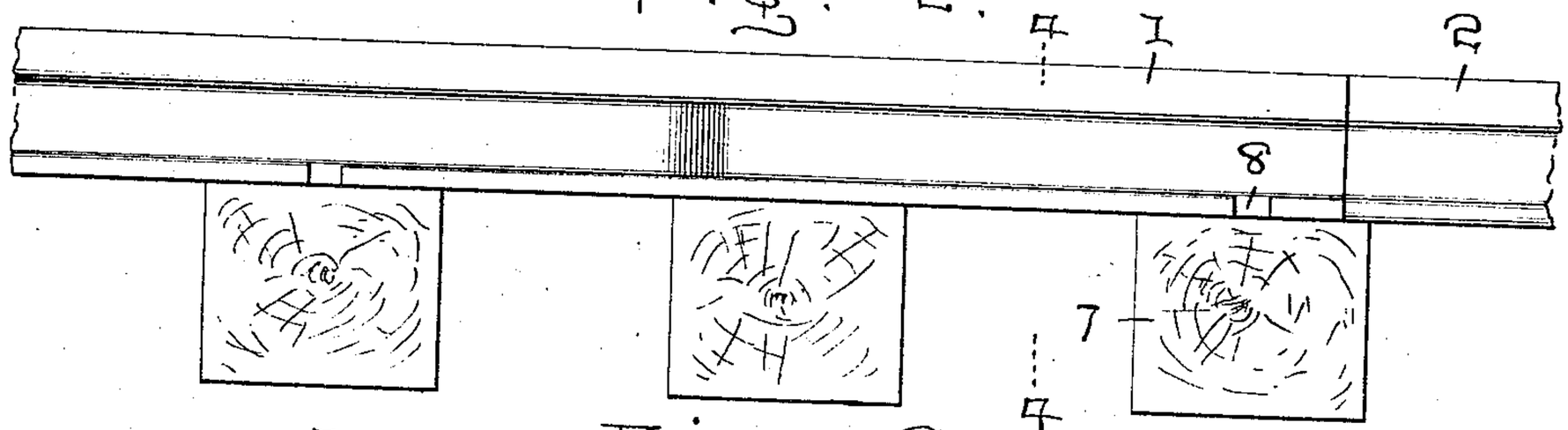


Fig. 3.

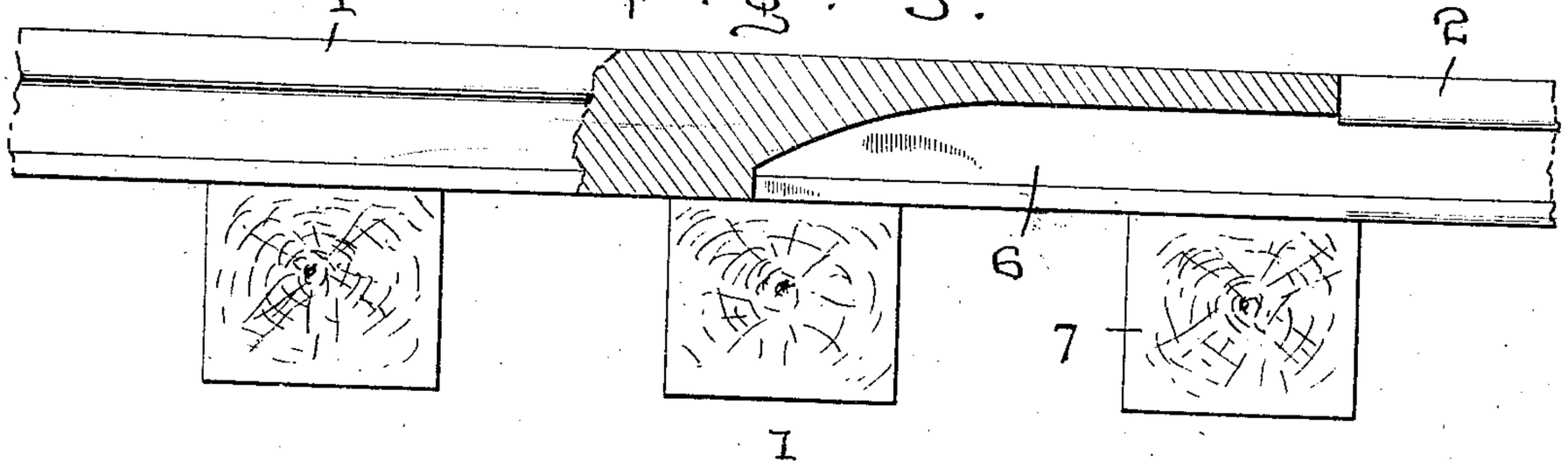
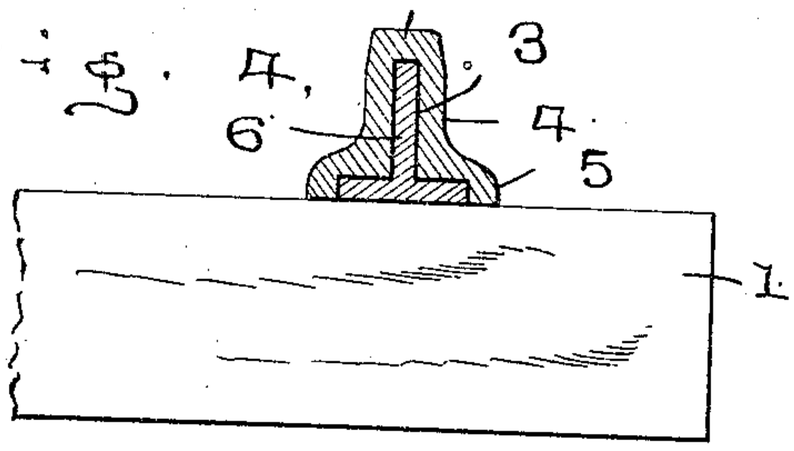


Fig. 4.



WITNESSES:

Thos. W. Riley

M. A. Newcomb.

INVENTORS

R. T. Frederick

and J. L. Chapman

BY

W. J. FitzGerald & Co

Attorneys

UNITED STATES PATENT OFFICE.

REUBEN T. FREDERICK AND JOSEPH L. CHAPMAN, OF RANDOLPH, NEBRASKA.

RAIL-JOINT.

No. 931,589. Specification of Letters Patent. Patented Aug. 17, 1909.

Application filed April 20, 1909. Serial No. 491,049.

To all whom it may concern:

Be it known that we, REUBEN T. FREDERICK and JOSEPH L. CHAPMAN, citizens of the United States, residing at Randolph, in the county of Cedar and State of Nebraska, have invented certain new and useful Improvements in Rail-Joints; and we 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.

Our invention relates to new and useful improvements in rail joints and our object is to provide means for locking the ends of the rails together without employing the usual form of fish plate and bolts and a further object is to so arrange the interlocking parts that the rails can be readily separated or attached together when it is necessary to supply a new rail.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

In the accompanying drawings forming parts of this application, Figure 1 is a plan view of the meeting ends of two rails showing the same positioned on the ties. Fig. 2 is a side elevation thereof. Fig. 3 is a side elevation showing the parts of the receiving end of the rail broken away, and, Fig. 4 is a sectional view as seen on line 4—4, Fig. 2.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 and 2 indicate the rails employed in producing our invention, the end of the rail 1, as shown being provided in its base and web with an inverted socket which is T-shaped in cross section, the web 4 and base 5 of the rail 1 being increased in width to compensate for the socket 3. The end of the rail 2, as shown, is provided with a tongue 6, which is adapted to fit the socket, which tongue is formed by removing a portion of the head of the rail and leaving the base and web their full strength, said tongue being also T-shaped in cross section. The socket 3 is open at the bottom and at one end so that when it is desired to introduce or remove a rail, the socket end of the rail 1 may be raised out of engagement with the tongue 6 and the end of the rail 2 therein removed from below the socket and by properly positioning the end of the new rail and again lowering the socket end of the rail 1, said rails will again be securely interlocked.

After the ends of the rails have been secured together, the usual or any preferred form of spike (not shown) is driven into the ties 7 in the usual manner, thereby securely locking the rails against movement, the base of the rail 1 at its enlarged portion and also the corresponding portion of the rail 2 at the end distant from the rail section 1 being preferably provided with notches 8 into which the spikes are introduced. In this manner of interlocking the rails, the meeting ends thereof are strengthened instead of weakened, the increased web and base of the end of the rail 1 compensating for the removal of the head of the rail 2 to form the tongue, thereby leaving the base and web portion forming the tongue of the same strength as the remainder of the rail, to which it is attached and by providing the notches as shown, the ends of the rails will be held against longitudinal movement, which would affect the joint between the two rails by contraction or expansion. It will further be seen that when it is desired to remove one of the rails, it is only necessary to remove the spikes in order to accomplish this result, thereby greatly lessening the work of the section men in keeping the track-way in repair. It will likewise be understood that each rail is provided at one end with the socket member and at its opposite end with the tongue and by properly forming the length of the tongue, it will extend into engagement with two of the ties, thus increasing the strength of the joint. It will likewise be seen that by curving the free end of the tongue as shown, said tongue can be more readily introduced below the socket, as it will not be necessary to raise the end of the rail so high.

What we claim is:

1. The combination with a rail-section having a T-shaped socket, with its head portion opening downwardly, a second rail-section having a tongue at one end of corresponding outline in cross section, the upper edge of said socket being beveled downwardly toward its free end, and means for the retention of said rail sections against casual movement.

2. A device of the character described, comprising a rail-section having a T-shaped socket with its head portion opening down-

wardly, a second rail-section having a tongue at one end of corresponding outline in cross section, the upper edge of said socket being beveled downwardly and longitudinally toward the free end of said tongue, said tongue being received by said socket, said rail-sections each being flared laterally at one end, and means for the retention of said rail-sections against casual movement.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

REUBEN T. FREDERICK.
JOSEPH L. CHAPMAN.

Witnesses:
E. R. WILLIAMS,
D. P. MONFORT.