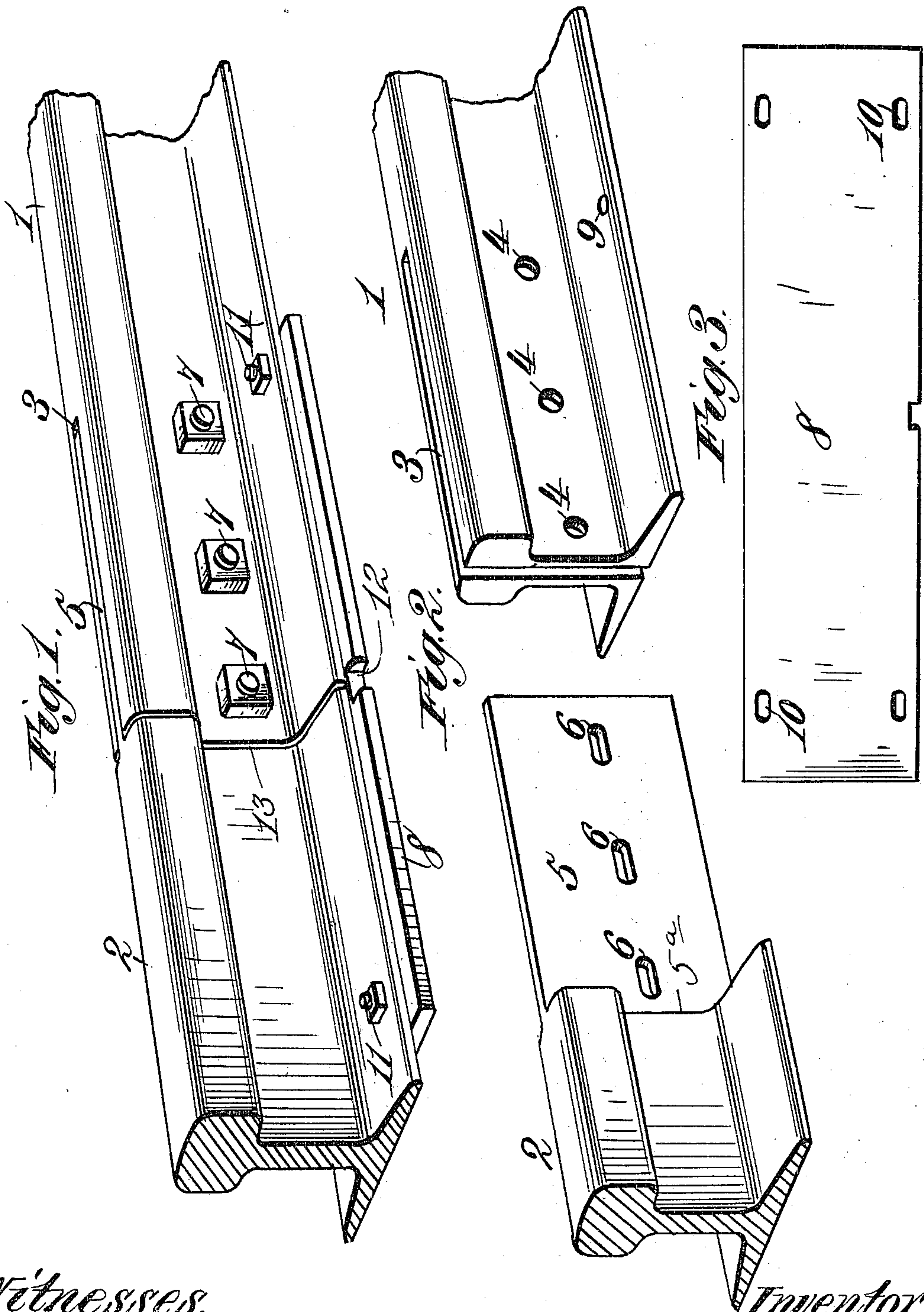


No. 831,542.

PATENTED SEPT. 25, 1906.

W. C. DEUBERRY.
RAILWAY RAIL JOINT.
APPLICATION FILED DEC. 28, 1904.



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UNITED STATES PATENT OFFICE.

WILLIAM C. DEUBERRY, OF GREENFIELD, TENNESSEE.

RAILWAY-RAIL JOINT.

No. 831,542.

Specification of Letters Patent.

Patented Sept. 25, 1906.

Application filed December 28, 1904. Serial No. 238,593.

To all whom it may concern:

Be it known that I, WILLIAM C. DEUBERRY, a citizen of the United States, residing at Greenfield, in the county of Weakley and State of Tennessee, have invented new and useful Improvements in Railway-Rail Joints, of which the following is a specification.

This invention relates to railway-rail joints, and has for its object to provide an interlocking connection between the abutting ends of the rails whereby the rails will be securely held in position, while at the same time provision is made for permitting expansion and contraction of the rails due to heat or cold.

A further object of the invention is to combine with the rail-joint a base-bar of novel construction which will operate to hold the ends of the rails even and also to strengthen the connection of the rails.

In order that the invention may be clearly understood, I have illustrated the same in the accompanying drawings, in which—

Figure 1 is a view of a portion of two rails connected and supported according to my invention. Fig. 2 is a view showing the end portions of the rails disconnected, and Fig. 3 is a view of the base-bar.

Referring to the drawings, 1 2 indicate two rails which are designed to be connected together according to my invention. To this end the rail 1 is provided in one end with a slot 3 extending through the head, web, and base of the rails and with bolt-holes 4, three of such holes being shown; but a less or greater number may be employed. The rail 2 is provided with a tongue 5 of less thickness than the web and affording at its base on each side a shoulder 5^a, said tongue being designed to fit snugly within the groove 3 and being provided with slotted or elongated bolt-holes 6, which when the two rails are interlocked are adapted to coincide in position with the bolt-holes 4. The two ends of the rail are held in their interlocked position by means of countersunk bolts 7, passed through the bolt-holes 4 and 6 and secured by nuts in the usual manner. 8 indicates a base-bar which is inserted beneath the rails at their point of connection and extending a greater or less distance beyond the joint formed by the tongue and groove above described. Said base-bar is provided on one or both sides with a spike-notch 12, the position of which coincides with the meeting line of the two rails,

and hence the head of a single spike may be made to engage the flanges of both rails. In order to secure the base-bar to the rails, the flanges of the rails are provided with bolt-holes 9, and the base-bar is provided with elongated or slotted bolt-holes 10 and bolts 11 secure the base-bar to the rails. By providing the elongated bolt-holes 6 and 10 I permit free expansion and contraction of the rails, as will be understood.

The interlocking connection described provides a smooth and strong joint for the rails, preventing the unpleasant noise usually obtaining when the car-wheels pass over the separated ends of rails secured in the usual manner and also preventing the rails from separating at their ends and preventing surfaces which may be worn away from being broken off, and thus adding to the roughness of the road-bed. Also my improved rail-joint provides a close-fitting connection preventing the entrance of dust and dirt, tending eventually to raise one rail above another. This is due to the fact that the only shoulders in the joint are those formed at the meeting-point of the rail 1 with the body of the rail 2 at the base of its tongue—that is to say, all of the cuts of the rail to form the groove and tongue are vertical. When the rails contract, however, a continuous opening 13 is provided, and hence any dirt, dust, or grit may find its way to the bottom of the rails.

It will be manifest that the bolt-holes 4 can be made elongated instead of the bolt-holes 6 or that both of said bolt-holes could be made elongated and also that the bolt-holes 9 in the flanges could be elongated instead of the bolt-holes 10 in the base-bar or that both of said bolt-holes could be elongated.

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

A railway-rail joint comprising a rail having a slot formed in one end extending from top to bottom thereof and provided with bolt-holes in its slotted portion, a companion rail provided with a tongue of less thickness than the web of the rail, extending from top to bottom of the rail and providing a continuous shoulder at the base of said tongue on each side thereof, said tongue having elongated bolt-holes and being adapted to fit within the slot of the first-named rail, the construction affording continuous openings between said shoulders and the end of the

slotted rail when separation occurs between
the latter, bolts passed through the bolt-
holes of the two rails, a base-bar located be-
neath said rail-joint and provided with elon-
5 gated bolt-holes, and bolts passed through
said bolt-holes and through bolt-holes formed
in the flanges of the said rails for securing the
base-bar to the rails.

In testimony whereof I have hereunto set
my hand in presence of two subscribing wit- 10
nesses.

WILLIAM C. DEUBERRY.

Witnesses:

ROBERT LYNN,
THOS. ALLEN.