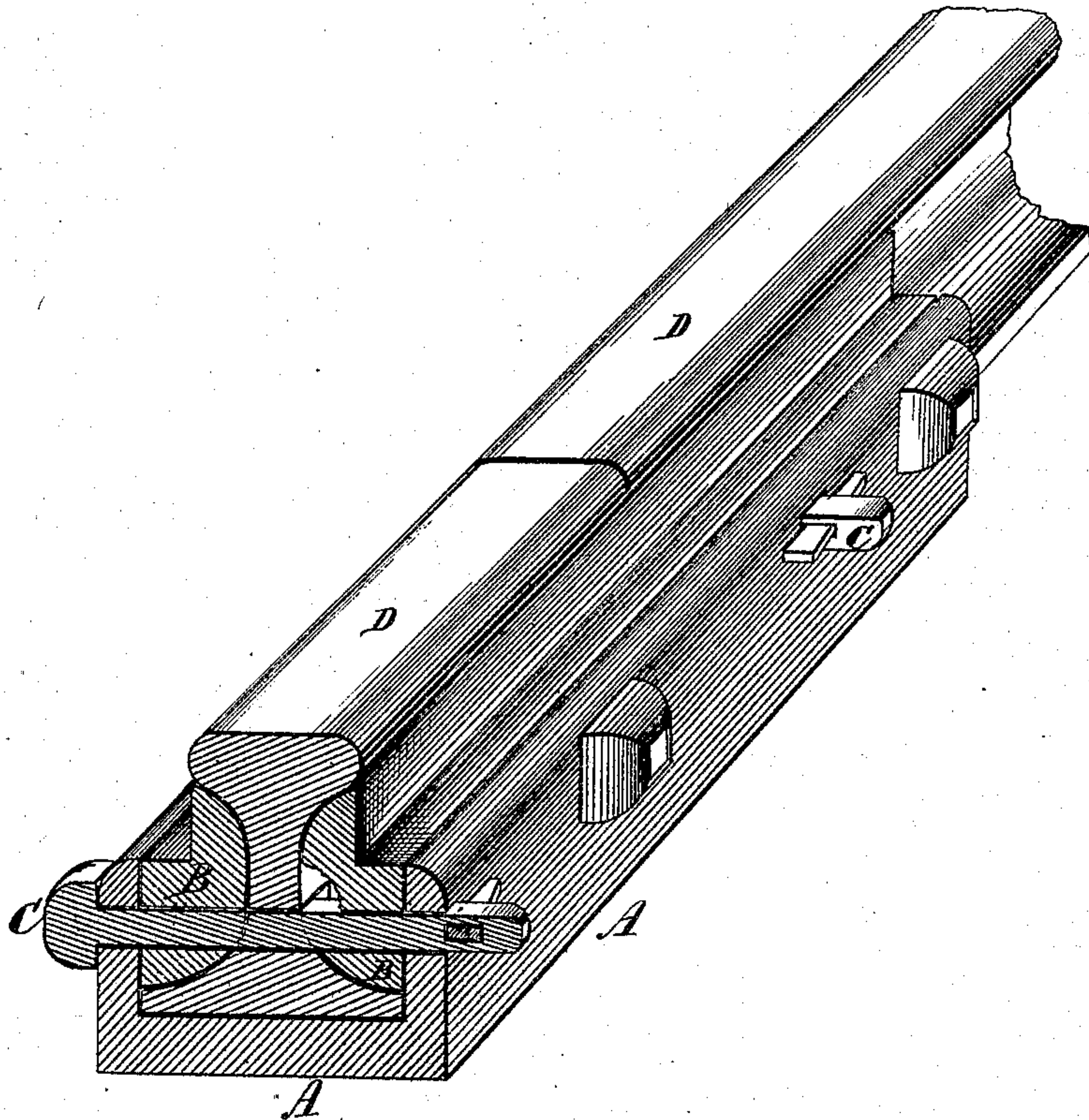


J. W. STELL.

Improvement in Joints for Railway-Rails.

No. 127,385.

Patented May 28, 1872.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

JEPHTHAH W. STELL, OF GONZALES, TEXAS.

## IMPROVEMENT IN JOINTS FOR RAILWAY RAILS.

Specification forming part of Letters Patent No. 127,385, dated May 28, 1872.

Specification describing certain Improvements in Box-Joints for Railroad Rails, invented by JEPHTHAH W. STELL, of Gonzales, in the county of Gonzales and State of Texas.

The figure shown in the drawing is a perspective view of my improved joint, showing the box in which the ends of the rails are held, a portion of two rails, the fish-joint which holds the rails in position, and the bolts which pass through the parts.

This invention relates to that class of devices which are used to hold in position the ends of railroad rails; and it consists in the construction and combination of the parts of which it is composed, as will be more fully described hereinafter.

In constructing fish-joints of this character I use a box or trough of wrought or cast iron, the former being preferred, which may be of any desired length, and of such width as to receive between its vertical portions the base of the rails to which it is to be applied. This box is shown at A in the drawing, and, when used to extend across or over more than one tie, should be about eighteen inches in length, and of such thickness as to firmly support the rails and prevent their ends from being deflected to any considerable extent by the weight of the passing train. When, however, the joint is to be used upon a single tie only, its length may be reduced to, say, eight inches, more or less.

In applying this box to the rails, the ends of said rails are to be placed in it, as shown in the drawing. When between its web or reduced portion and the sides of the box there are inserted fish-bars B B of peculiar construction, which fill the spaces between the walls of the box and the web of the rail, they are so rounded or formed upon their inner surfaces as to fit the concave surfaces of the rails, while the outer surfaces are straight, and when in position vertical up to or about to the upper surface of the vertical portion of the box A, as shown, where they are reduced in thickness for the purpose of carrying the remaining vertical portion into a line or nearly so with the outer surface of the head or tread of the rail, in order that the flanges of

the wheels in passing may not come in contact with them. From the horizontal surface of the bars above alluded to there extends a portion which fits neatly against the under surface of the head of the rail, and thus forms a support for such head throughout the entire length of the bar, and especially at the ends of the rails, which, as a consequence, are to a great extent prevented from being laminated at the ends by the action of the wheels of the rolling stock. To hold the parts in their proper position with reference to each other and the rails within, their bolts C C are passed through the box, fish-bars, and the web of the rails, which bolts are held in their positions by keys or nuts, as preferred, the rails being slotted to allow for their expansion and contraction, consequent upon the change of temperature to which they are subjected. When keys are used, the parts may at any time be tightened by driving said keys, and they may be prevented from working out by bending down their small ends.

The importance of preserving the upper surfaces of railroad rails at their ends in the same plane, so that neither shall rise above or fall below the other, and also of furnishing an adequate support for the head of such rails at their ends, is too well known to require any elucidation here.

The object of this invention is to furnish a joint or support which shall accomplish both of the results above referred to, and at the same time not be so expensive as to preclude its use.

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

The combination and the arrangement of the box or trough A, fish-bars B, bolts C C, and rails D D, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JEPHTHAH W. STELL.

Witnesses:

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