

A. T. WILSON.
Rail-Joint.

No. 220,455.

Patented Oct. 7, 1879.

Fig: 1.

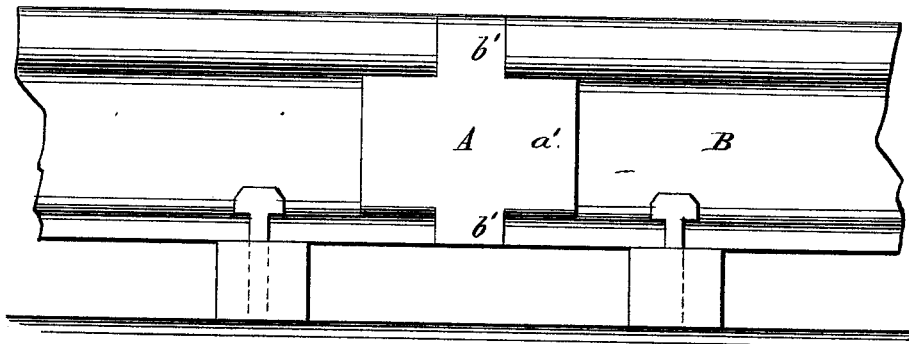


Fig: 2.

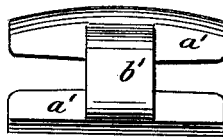
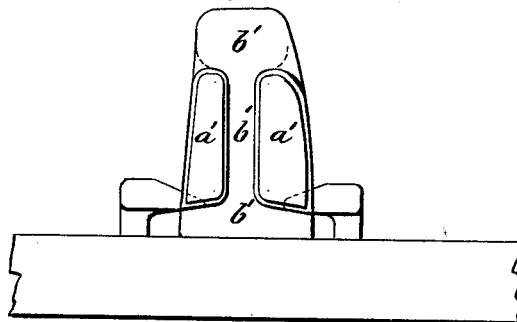


Fig: 3.



WITNESSES:

Achilles Schehl.
C. Sedgwick

INVENTOR:

A. T. Wilson
BY *Munn & Co*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

ALEXANDER T. WILSON, OF FAIRFIELD, ILLINOIS.

IMPROVEMENT IN RAIL-JOINTS.

Specification forming part of Letters Patent No. **220,155**, dated October 7, 1879; application filed June 16, 1879.

To all whom it may concern:

Be it known that I, ALEXANDER T. WILSON, of Fairfield, in the county of Wayne and State of Illinois, have invented a new and useful Improvement in Railroad-Rail Connections, of which the following is a specification.

Figure 1 is an elevation of the connection applied to rails. Fig. 2 is a plan of the connection. Fig. 3 is an end elevation of the connection.

Similar letters of reference indicate corresponding parts.

The object of this invention is to provide a cheap and simple device for securing and connecting the ends of rails, by the use of which fish-plates and nuts and bolts may be dispensed with, and the necessity of punching holes in the rails be obviated.

The invention consists, essentially, of a doubly-slotted block of iron or steel, the top of which conforms to the tread of a rail, and whose bottom is flush with the foot of the rail, and which may be set between the rail, so that their ends may be fixed in the slots and held fast.

In the drawings, A is the connection, which consists of two side pieces, *a' a'*, from six to eight inches long, or thereabout, and of the depth of the web of the rails B, and beveled on their inner edges to fit against the flange and tread of the rails, and also on the inside of their ends to afford an easier entrance for the ends of the rails; and these two side pieces are connected at their centers by a cross-piece, *b'*, from two to three inches thick, of a depth equal to the depth of the rail from the surface of the tread to the bottom of the flange, and with a top rounded to conform with the shape of the tread of the rails. The ends of the rails are firmly held in these connections, and the rails themselves are spiked, as usual, to the cross-ties.

With this connection it will be seen that there are no holes to be punched or drilled in the rails, no nuts or bolts to get loose, and that when once in place it cannot be moved except by removing the rails.

In putting pieces of rail in a track, such

as in replacing worn-out or broken rails, it is necessary only to draw the spikes from the rail to be removed, and the one next to and connected with it, and then push the connected ends of the two toward the opposite side of the track until they can be withdrawn from the connection. Then the new rail is put in the place of the old one, and the rails pushed back to their proper position on the track, to be spiked down, as usual. The beveling or chamfering of the inside of the ends of the side pieces facilitates this method of applying the connections.

Wherever this device is used each rail can expand and contract without affecting any of the others; and it is found that with this connection a given length of track can be laid in less than half the time that is required to lay the ordinary track, and that a very great reduction of the expense of laying is assured.

I am aware that it is not new to use two plates provided with enlargements adapted to enter between the ends of the adjacent rails and form a small sectional end rail to fill the gap between the ends of said rails; also, that it is not new to fill the gap between the ends of rails by a saddle-piece having a crown portion and forked portions that embrace the webs of the rails; also, that it is not new to use a chair with a central bearing-piece between the rails, and the split key for securing the parts together; but

What I claim as new and of my invention is—

The within-described railroad-connection A, consisting of two side pieces, *a' a'*, beveled on their inner edges and ends, set far enough apart to receive between them the web of a rail, and connected at their centers by a cross-piece, *b'*, the shape of whose top conforms to the shape of the tread of the rail, and that reaches from the top of the tread to the bottom of the flange of a rail, substantially as herein shown and described.

ALEXANDER T. WILSON.

Witnesses:

A. B. RIDER,
L. J. RIDER.