

No. 771,716.

PATENTED OCT. 4, 1904.

F. G. CONRAD.
RAIL JOINT.

APPLICATION FILED JUNE 7, 1904.

NO MODEL.

Fig. 1.

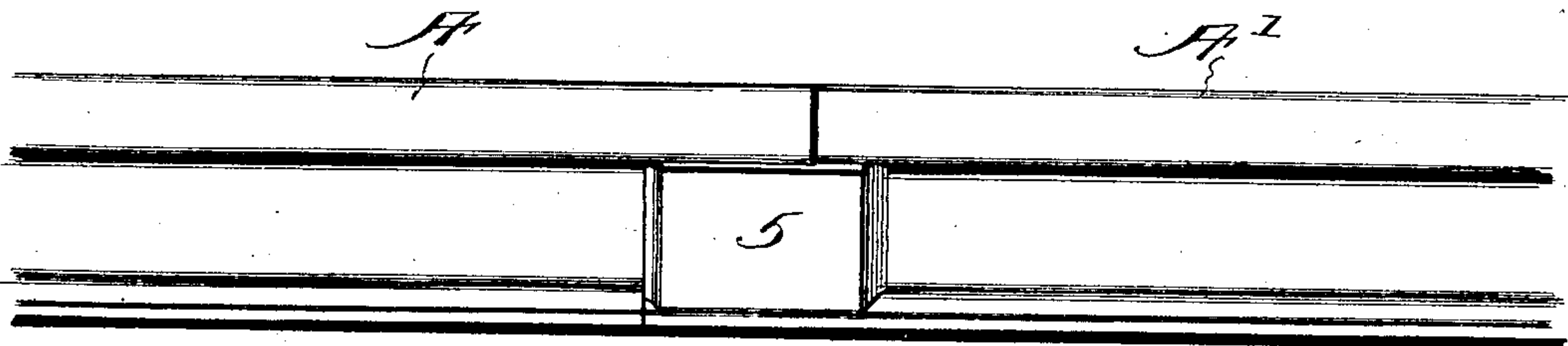


Fig. 2.

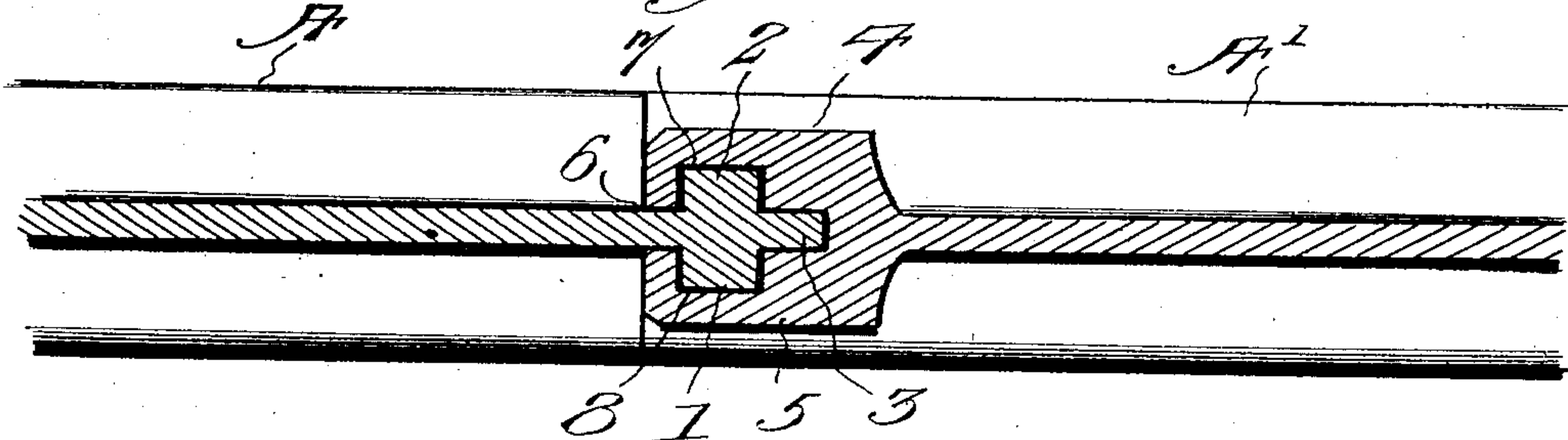


Fig. 3.

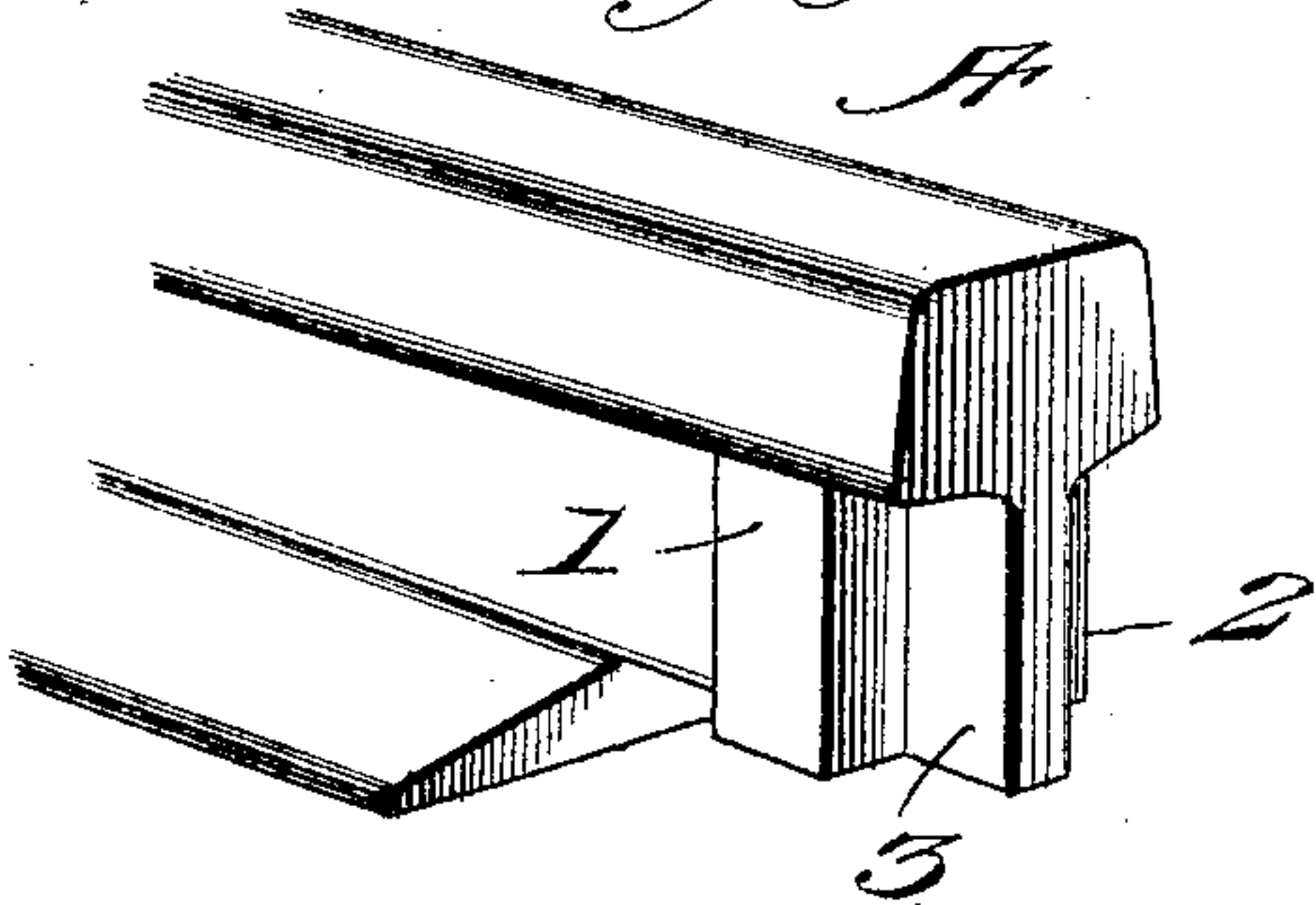
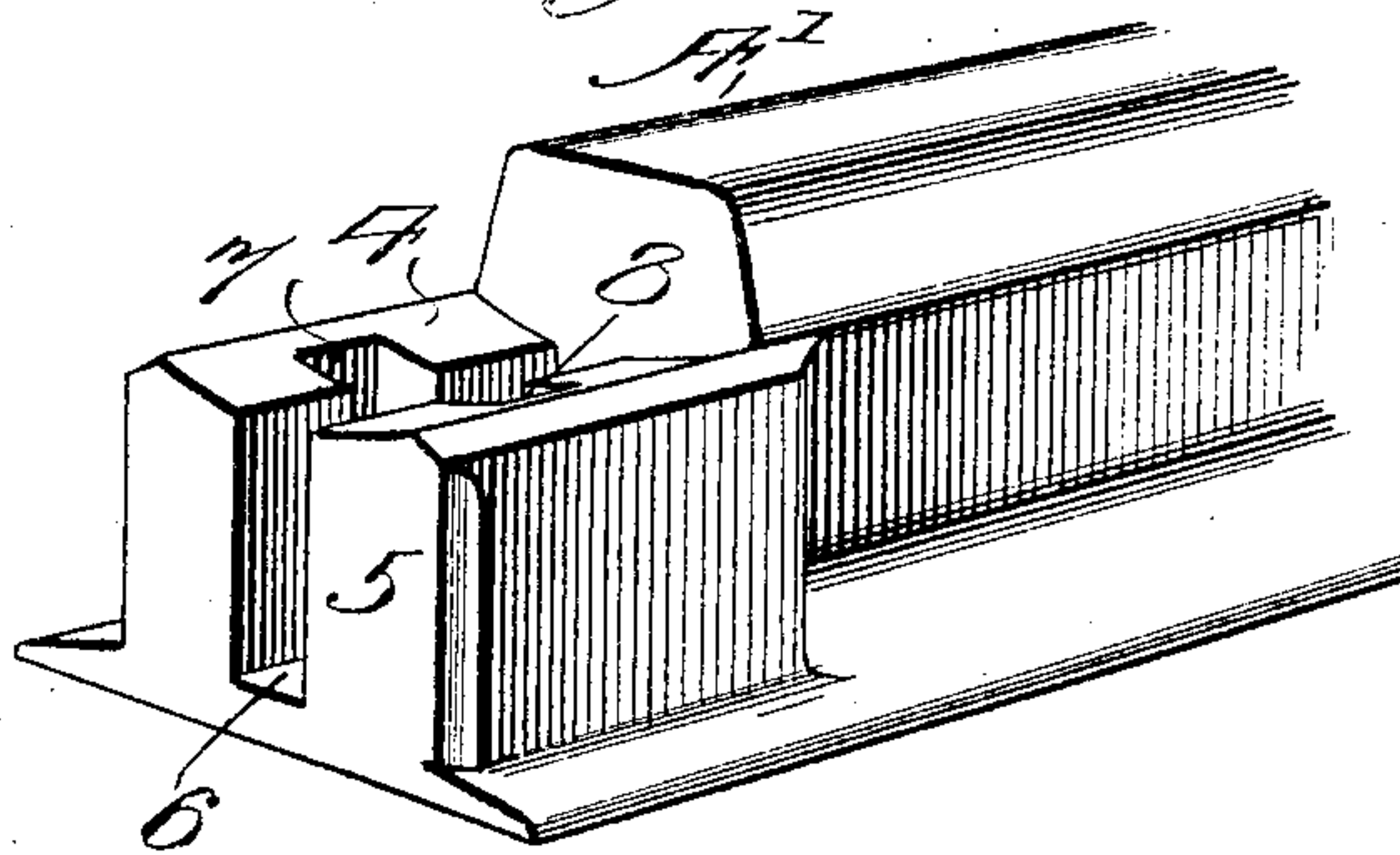


Fig. 4.



Witnesses

Wm. L. North
A. G. Heyman

Inventor

Fredrick G. Conrad,

By

Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

FREDRICK G. CONRAD, OF LOUISVILLE, KENTUCKY.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 771,716, dated October 4, 1904.

Application filed June 7, 1904. Serial No. 211,568. (No model.)

To all whom it may concern:

Be it known that I, FREDRICK G. CONRAD, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

My improvements relate to rail-joints of the T class; and the object is to simplify and improve that style of joints used to lock together the meeting ends of railroad-rails without using bolts or plates.

I accomplish the purposes of my invention by the constructions illustrated in the annexed drawings, wherein—

Figure 1 is a side view of two rails having their meeting ends locked together by my improved joint-pieces. Fig. 2 is a horizontal section through the webs of two rails held together by my improved locking-joint. Fig. 3 is a perspective view of the end of the rail formed with a tongue which interlocks with the groove formed in the end of the rail which engages therewith. Fig. 4 is a perspective view of the rail having its end made with the interlocking groove.

In the drawings the same parts appearing in different illustrations are denoted by similar reference notations, and reference being had to the drawings, A and A' designate rails the ends of which abut. The rail A has the base-flange cut off for the proper distance even with the web of the rail, as shown, so that the lower edge of the web will lodge on the bottom of the groove in the other rail and the line of the tread-flange thus be preserved. On the side faces of the web are formed square side flanges 1 2, which engage in coincident recesses made in the other rail, the end portion of the web extending beyond the outer walls of the flanges, as at 3, so that the projection will take in the continuation of the groove, as indicated in Fig. 2 of the drawings, and thus strengthen the engaging parts. The tread-flange of the rail A' is cut away for the proper distance, as shown, down to the upper edge of the web and is formed with strong end pieces 4 5 integral with the web and standing parallel to each other with a vertical longitudinal space

or groove 6, in the walls of which are made square vertical grooves 7 8, adapted to receive the tongue and flanges on the rail A, as shown in Fig. 2 of the drawings. It will now be seen that the parts of the rail A will fit in the grooves of the rail A' with the under faces of the tread-flange resting on the inclined upper faces of the end pieces 4 and 5, it being the purpose to have the tops of the end pieces conform to the contour of the under faces of the tread-flange, as indicated in Fig. 1 of the drawings. It is apparent that such a connection insures a convenient and reliable lock for the meeting ends of the rails. To secure the locked ends of the rails against vertical displacement, they may be spiked down in the usual well-known manner.

The utilization of the improvements is apparent to any one skilled in the trade. The rail A' is laid in place, and then the end of the rail A is brought into place and fitted in the groove. The rails are secured by the spikes, as stated. To take out the rails as may be required, the spikes are withdrawn and the rail lifted out, and then the new rail may be placed in position.

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

A rail-joint for the meeting ends of railway-rails, comprising a rail having the base-flange cut away at the end portion even with the lower edge of the web-flange and the standing web formed with square vertical side flanges and the web left standing beyond the side flanges, and a rail having its tread-flange cut off at its end portion and formed with strong vertical side pieces having a vertical longitudinal space between them in the walls of which at intermediate points are formed square vertical grooves to take the web and side flanges of the other rail.

In testimony whereof I affix my signature in presence of two witnesses.

FREDRICK G. CONRAD

Witnesses:

A. E. HITT,
C. GEORGES.