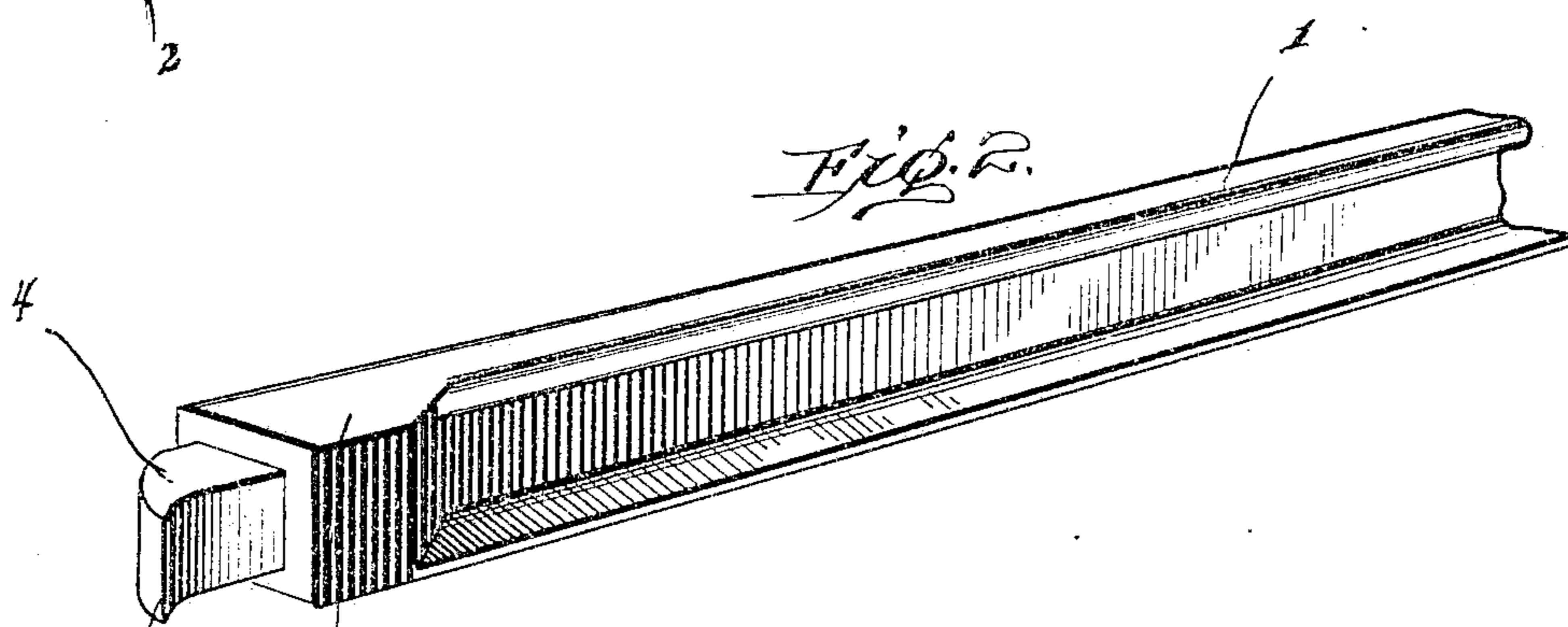
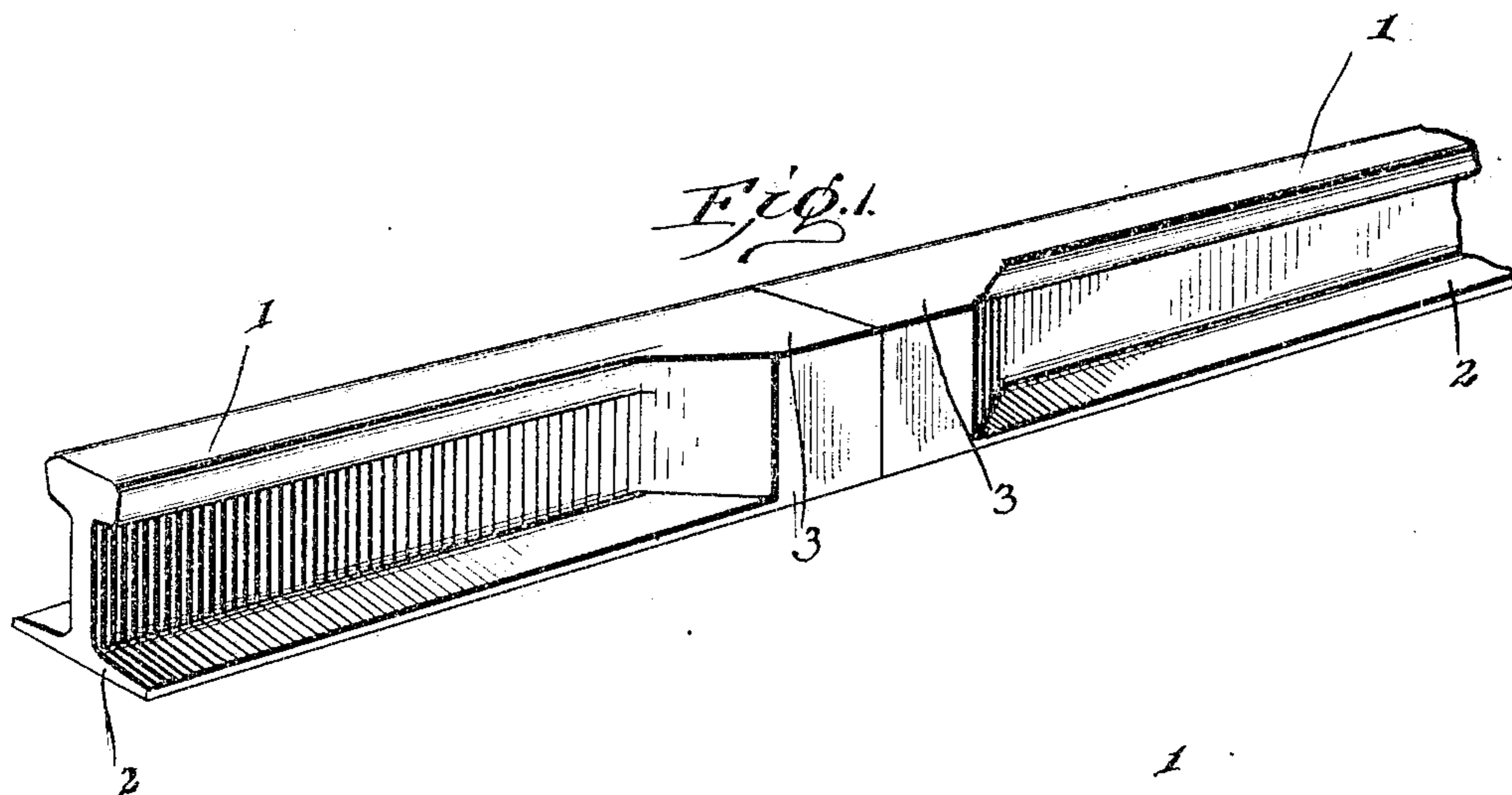


No. 788,080.

PATENTED APR. 25, 1905.

R. M. WILLIAMS.  
RAIL JOINT.

APPLICATION FILED NOV. 15, 1904.



# UNITED STATES PATENT OFFICE.

ROBERT M. WILLIAMS, OF PERKINS, OKLAHOMA TERRITORY.

## RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 788,080, dated April 25, 1905.

Application filed November 15, 1904. Serial No. 232,842.

*To all whom it may concern:*

Be it known that I, ROBERT M. WILLIAMS, a citizen of the United States, residing at Perkins, in the county of Payne and Territory of Oklahoma, have invented certain new and useful Improvements in Rail-Joints; and I 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.

My invention relates to track-rails for railway-beds; and it consists of certain novel features of combination and construction of parts, the preferred form of which will be herein-  
after clearly set forth, and pointed out in the claims.

The prime object of my invention, among others, is to provide a rail-joint which will be reliably efficient in character and which is formed without the aid of bolts or fish-plates or the usual devices employed for uniting the ends of the track-rails together.

A further object of my invention is to provide a rail-joint construction which will enable the meeting ends of the rails to be quickly joined together, so that when the rails are spiked down in their operative positions upon the cross-ties they will remain in perfect alinement with each other after the securing-spikes are driven in place along the base of the rails, as in common.

Other objects and advantages will be hereinafter made clearly apparent, reference being had to the accompanying drawings, which are made a part of this application, and in which—

Figure 1 shows the ends of two meeting rails joined together by my method of juncture. Fig. 2 shows a perspective detail view of my rail-connecting device. Fig. 3 is a perspective view showing a socket formed in the end of the rail adapted to receive the extension carried by the end of the rail, as illustrated in Fig. 2, or the equivalent thereof.

For convenience of reference the various details and cooperating accessories of my invention will be designated by numerals, the same numeral applying to a similar part throughout the several views, and referring to the numerals on the drawings, 1 indicates

the body portion of a track-rail of the usual or any preferred construction, while 2 indicates the base of the rail, also of the usual construction. The ends of each rail are provided with a slight enlargement, as designated by the numeral 3, and one of said enlargements is provided with an extension or dowel 4, while the meeting end of the other rail is provided with a socket to receive said extension, as fully shown in Figs. 2 and 3.

It will be seen that the extension 4 is provided at its outer end with a curved terminal or lip 6, and it is obvious that the inner end of the socket 5 must be correspondingly formed, whereby when the curved extension 6 is entered in the seat provided therefor the ends of the rail must be drawn slightly to one side of the track alinement and afterward swung back into position, when the extension 4 will enter the socket 5 and the curved terminal 6 will follow the curved inner end of said socket, and thus prevent the rails from being drawn apart after they have been spiked to the cross-ties. It will also be seen that by enlarging the ends of the rails additional strength is added at their weakest point, so that the rails will be as unyielding at their joint or union as at any other point.

It is obvious that the curvature 6 and the corresponding curvature in the socket 5 may be otherwise formed—that is to say, the curved lip 6 may be directed upward or downward—in which case it will only be necessary to raise the meeting ends of the track-rails before entering the extension 4 in the socket provided for its reception. This latter form of construction is not illustrated in the drawings, and as it only involves a change of construction in forming the lip 6 I deem it unnecessary to illustrate the same in this application.

It will thus be seen that I have provided reliably efficient means for uniting the meeting ends of the track-rails without the aid of bolts or splice-bars, as is common, and it is furthermore obvious than when the track-rail shall have been secured to the cross-ties by the spikes commonly employed for this purpose the joint will remain tightly closed, inasmuch as the curved formation of the extension 4 will tightly secure the ends of the rails together.

Any reduction of strength of the ends of the rails due to the formation of the socket 5 is fully compensated for by the enlarged portions 3, as will be clearly obvious.

5 My improved rail may be very cheaply and expeditiously manufactured and the two meeting ends quickly brought together and the rails spiked in their respective operative positions, and while I have described the preferred  
10 combination and construction of parts I desire to comprehend in this application all substitutes and equivalents that may be considered as falling fairly within the scope of my invention.

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

20 1. The herein-described rail-joint comprising an integral extension for each end of the rail and protruding from one side thereof, one of said extensions having an outwardly-curved

terminal while the other extension is provided with a curved socket to receive the terminal of the next succeeding rail whereby, when the rails are joined together and said terminal entered in said socket, the rails cannot be disconnected except that they be moved inwardly out of alinement, all combined substantially as specified and for the purpose set forth. 25

2. As an article of manufacture, a track-rail 30 having outwardly-protruding extensions, one of said extensions having a curved socket and the opposite extension being provided with an outwardly-curved terminal, substantially as set forth. 35

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

ROBERT M. WILLIAMS.

Witnesses:

WESLEY L. IDAB,  
BROWDER J. BIRD.