

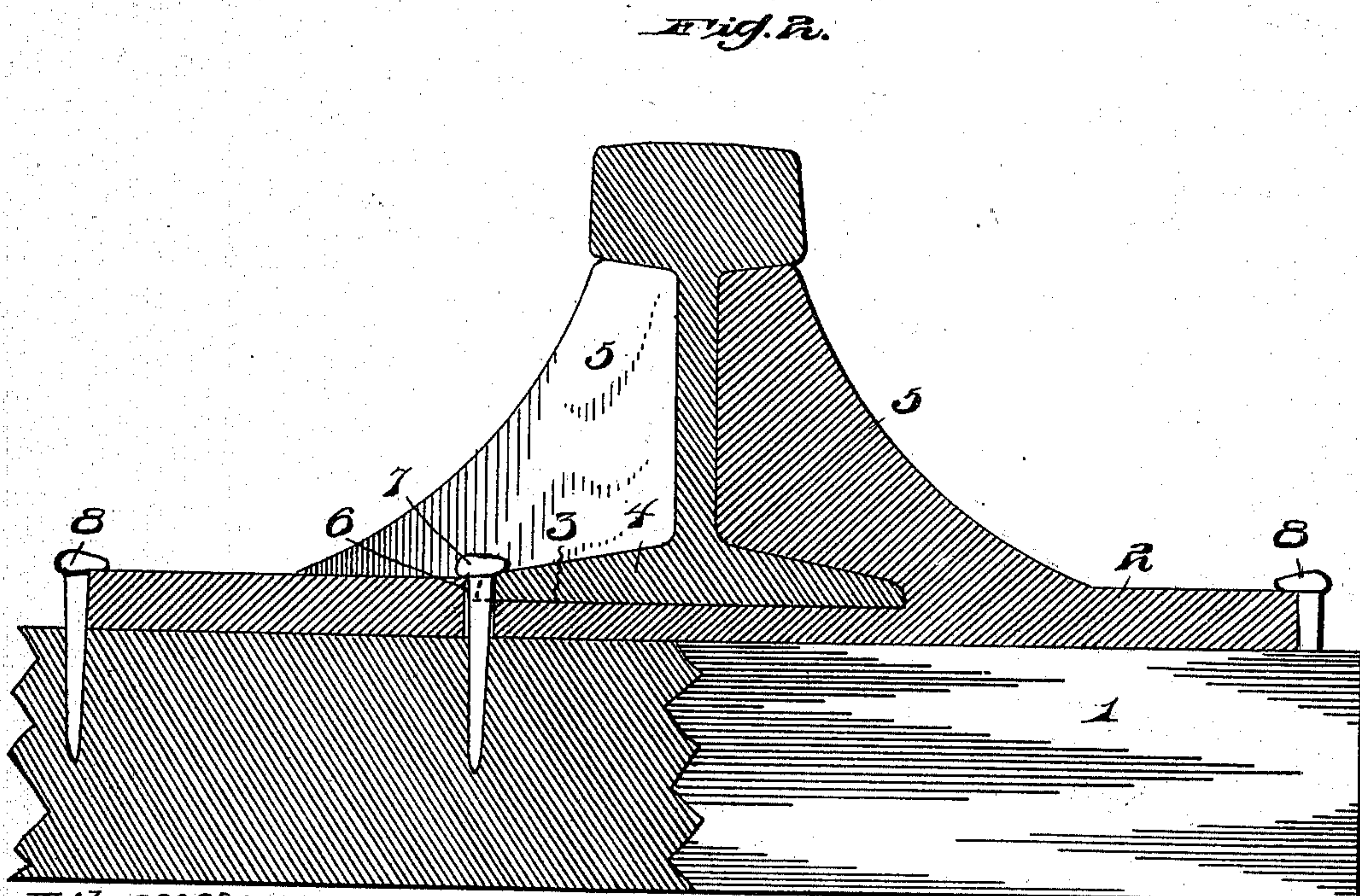
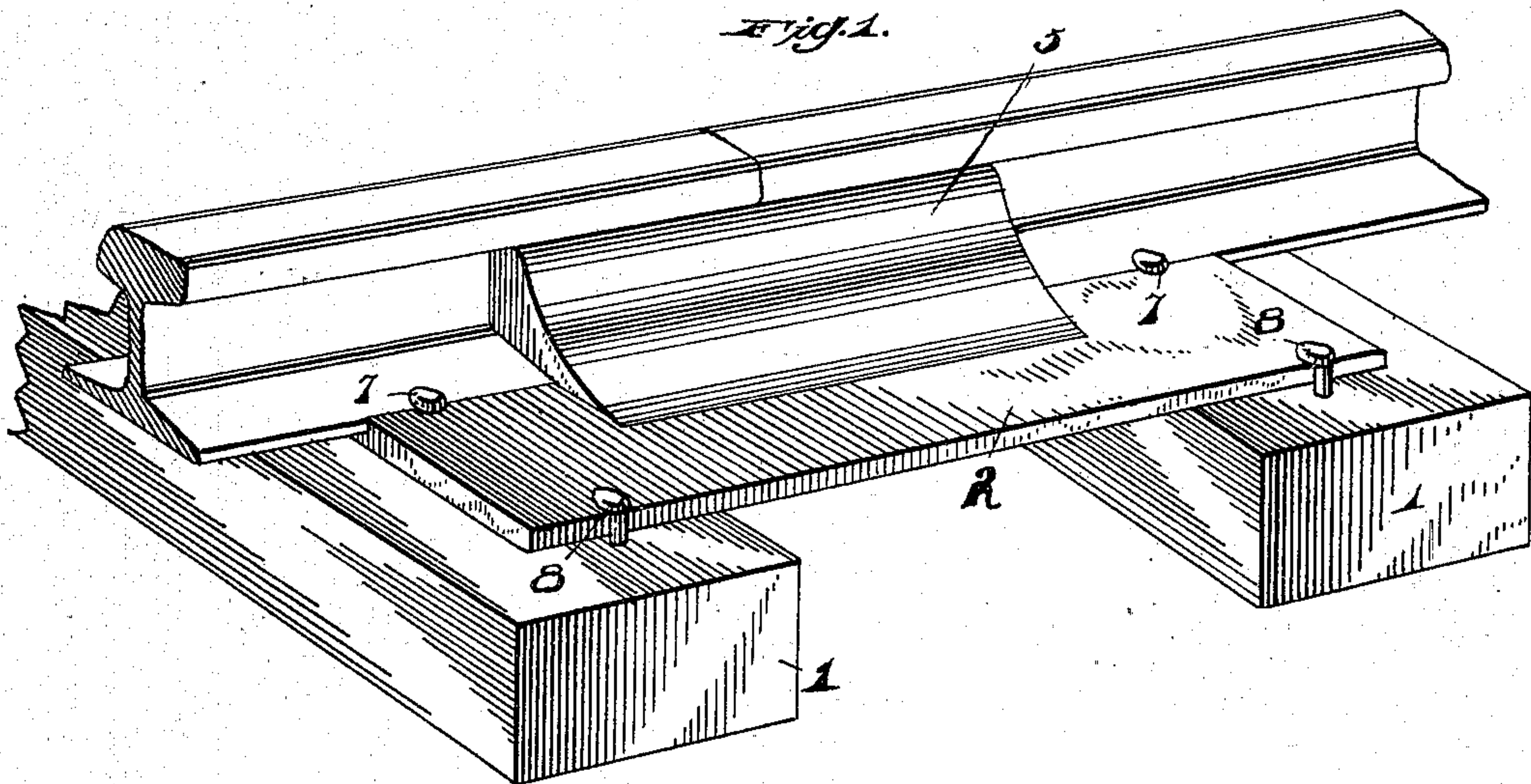
No. 681,043.

Patented Aug. 20, 1901.

L. C. CYPHERS.
RAIL JOINT.

(Application filed Apr. 24, 1901.)

(No Model.)



Witnesses:

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UNITED STATES PATENT OFFICE.

LAWRENCE C. CYPHERS, OF PITTSBURG, PENNSYLVANIA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 681,043, dated August 20, 1901.

Application filed April 24, 1901. Serial No. 57,283. (No model.)

To all whom it may concern:

Be it known that I, LAWRENCE C. CYPHERS, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in rail-joints, and more particularly to that class wherein the usual nuts and bolts are entirely dispensed with.

15 The invention has for one object the provision of novel means whereby two sections of rails may be effectually joined together and a device that can be easily removed when the occasion requires.

20 Another object of the invention is to provide a device of this character that will be extremely simple in construction, strong, durable, comparatively inexpensive to manufacture, and highly efficient in its use.

25 Briefly described, the invention consists of a base-plate of sufficient length to rest upon and between two cross-ties. This base-plate is centrally grooved to receive the base of the rail and is also provided with a pair of integral fish-plates, between which the sections 30 of the rails are joined together.

The invention further consists in the novel combination and arrangement of parts to be hereinafter more fully described, and specifically pointed out in the claim.

35 In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate like parts throughout both views, in which—

40 Figure 1 is a perspective view of my improved rail-joint applied to the rails. Fig. 2 is an enlarged vertical sectional view thereof, showing the same partly in end elevation.

45 In the drawings the reference-numeral 1 indicates the cross-ties, and 2 indicates the base-plate, having formed therein a central groove 3, adapted to receive the base of the rail 4, said rail being of the ordinary and well-known form.

The reference-numeral 5 indicates a pair 50 of integral fish-plates formed on the upper face of the base-plate and extending over the central recess 3 to a point where the one face of the fish-plate engages the web, the lower face of the head, and the upper face of the 55 base of the rail. This base-plate has formed therein a number of openings 6, adjacent to the centrally-recessed portion 3, to receive spikes 7, serving to fasten the plate to the rail, which is also fastened by a number of 60 spikes 8, secured in the cross-ties to the sides of the base-plate 2. The manner of fastening the two sections together is extremely simple, being performed by allowing the ends of the rail to be placed in the recesses 3 and 65 engage the inner sides of the fish-plates by slipping the ends of the rails into the openings lengthwise. When the rail is placed in proper position, the spikes 7 are then attached to the cross-ties, and the spikes 8 being pre- 70 viously secured to the cross-ties to retain the plate 2.

The many advantages of my improved rail-joint will be readily apparent from the foregoing description taken in connection with 75 the accompanying drawings.

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

In a rail-joint, a substantially flat base- 80 plate, of sufficient length to extend over two cross-ties, fish-plates made integral with said base-plate, the base-plate and fish-plates being recessed to receive the base and web of the rails, the said base-plate having apertures 85 formed therein to receive spikes which are adapted to engage the base of the rail, spikes secured to the ends of the base-plate, the said fish-plates being adapted to engage the under face of the tread of the rail, substantially as 90 described.

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

LAWRENCE C. CYPHERS.

Witnesses:

JOHN NOLAND,
E. E. POTTER.