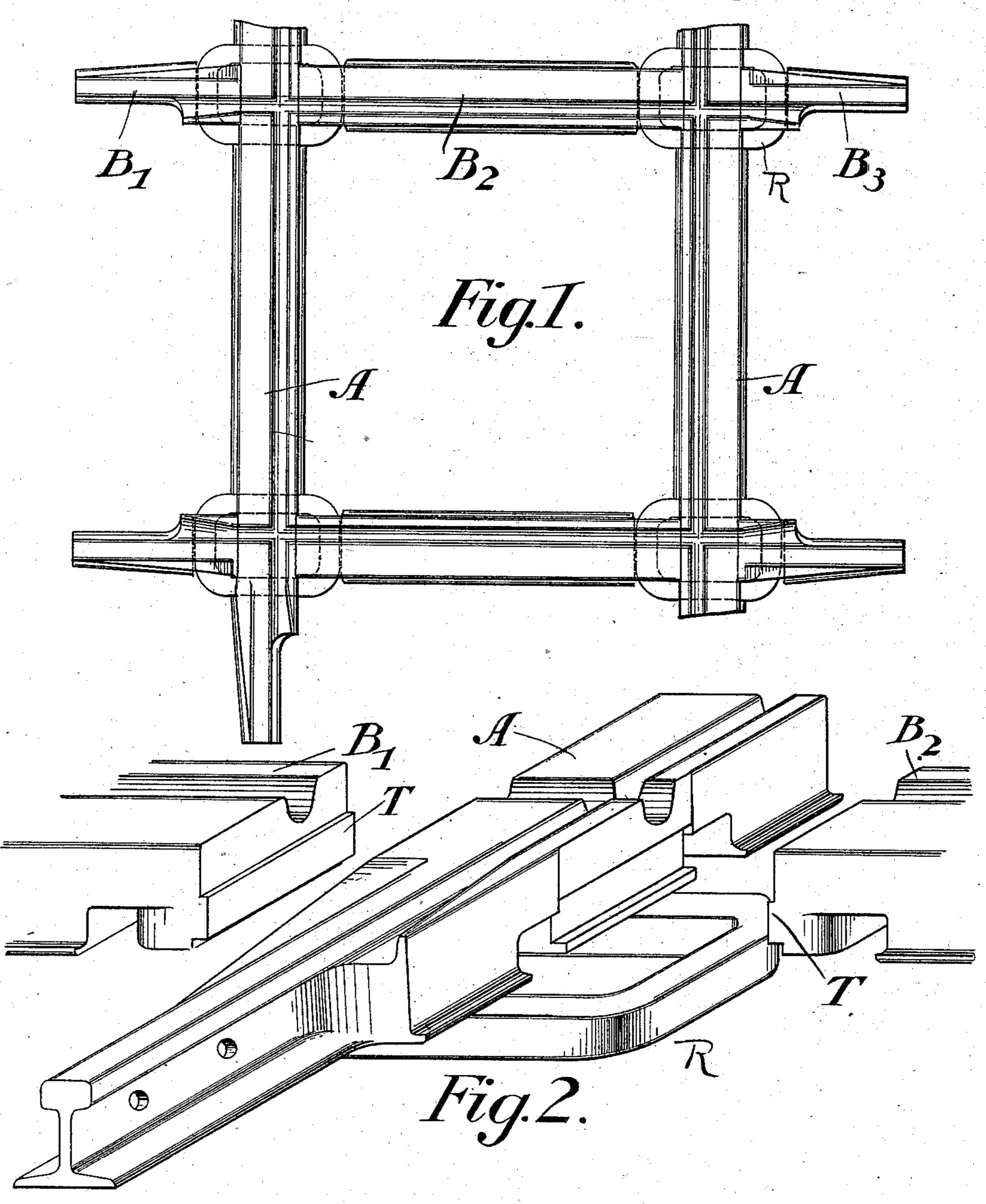
(No Model.)

## H. HARTWELL. RAILROAD CROSSING.

No. 559,284.

Patented Apr. 28, 1896.



WITNESSES: H. H. Grazier

INVENTOR

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HARRY HARTWELL, OF JOHNSTOWN, PENNSYLVANIA, ASSIGNOR TO THE JOHNSON COMPANY, OF LORAIN, OHIO.

## RAILROAD-CROSSING.

SPECIFICATION forming part of Letters Patent No. 559,284, dated April 28, 1896.

Application filed January 22, 1896. Serial No. 576,409. (No model.)

To all whom it may concern:

Be it known that I, Harry Harrwell, of Johnstown, county of Cambria, State of Pennsylvania, have invented certain new and useful Improvements in Railroad-Crossings, of which the following specification is a true and exact description, due reference being had to the accompanying drawings.

My invention relates to certain improvements in railroad-crossings, and has for its object to provide a crossing of great strength and durability.

Referring to the drawings, Figure 1 represents a top view of a crossing embodying my invention. Fig. 2 shows to a larger scale one corner of the crossing, the several parts being separated for the purpose of describing them.

In general, a crossing embodying my invention comprises a pair of through-rails and a number of abutting rails forming a crossing track, the whole being secured together by means of a ring or yoke engaging the several rails, as will be hereinafter described, and

5 securing them all together.

In the drawings, A are the through-rails, and B', B², and B³ the abutting rails, forming the crossing track. It will be seen that the rails are formed having a substantially rectangular body, affording a wide wheel-tread, a groove for the wheel-flange, and a small base-flange on either side for spiking to the ties. The ends of the rails may be formed, as shown, to conform to the abutting track-rails.

My invention consists in the novel method in which the abutting rails of the crossing are secured to the through-rails.

Referring to Fig. 2 of the drawings, A is the through-rail, and B' B<sup>2</sup> the abutting ones.

I form the surface of rail A, at the place where the rails B' and B<sup>2</sup> abut, of a configuration

which will mate with the ends of these rails, there being, preferably, some interlocking tongues, as T, which are adapted to prevent displacement of the abutting rails. Into the 45 lower surface of the several rails I insert the ring R, the rails being grooved out to receive it. This ring, which I preferably shrink on, serves to securely hold the rails B' B<sup>2</sup> in contact with rail A, and the tongue T prevents 50 any lateral displacement.

The operation of assembling one of these crossings is as follows: The several rails having been prepared they are placed in position against each other, and the ring R, after it 55 has been heated so as to expand it, is placed in the groove formed for it in the lower part of the rails. This ring, as it shrinks in cooling, draws the several parts to a tight bearing and affords a fastening at the same time 60 simple and strong and not liable to become loose.

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

1. In a railroad-crossing, in combination with a through-rail and a plurality of abutting rails, a ring or yoke passing across the through-rail and embracing a portion of each of the abutting rails.

2. In a railroad-crossing, in combination with a through-rail and two abutting rails, a recess in the bottom of the several rails and a tie member lying in said recesses and adapted to secure the several rails together. 75

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

## HARRY HARTWELL.

Witnesses:

E. H. CONVERSE, WALTER MORAY PEGRAM.