

No. 711,456.

Patented Oct. 21, 1902.

N. F. ANDERSON.

RAIL JOINT.

(Application filed June 25, 1902.)

(No Model.)

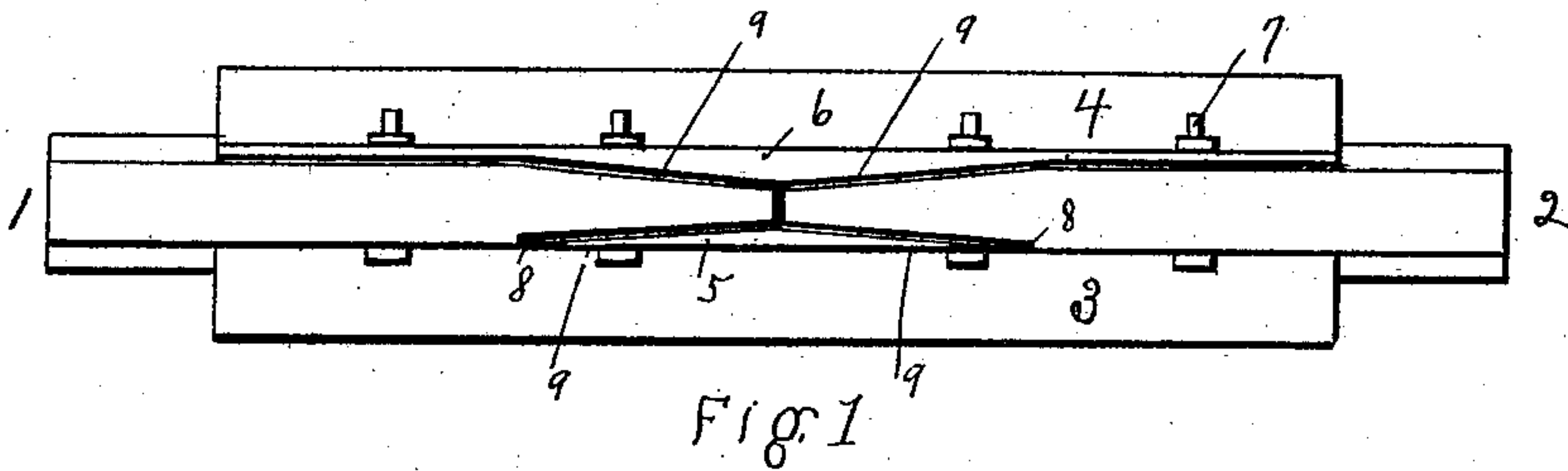


Fig. 1

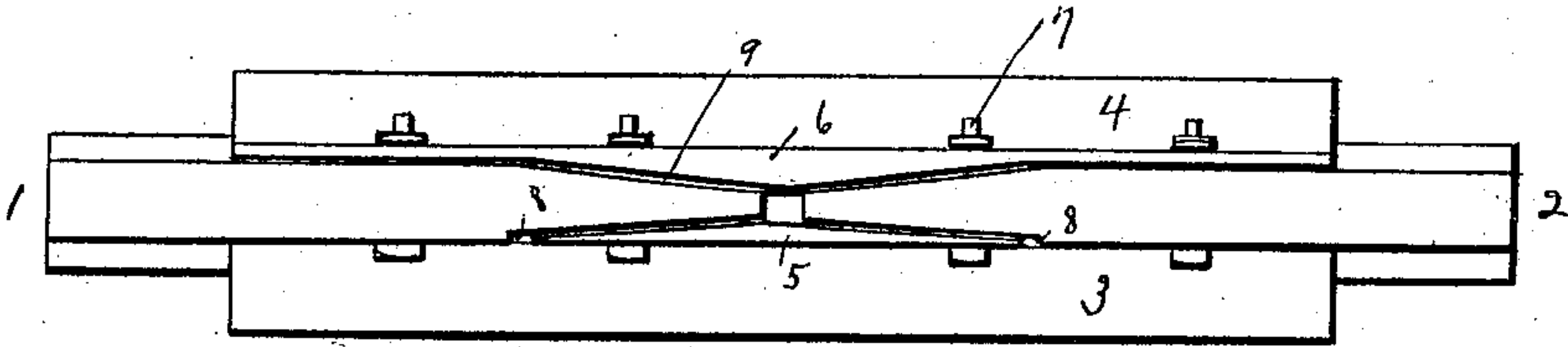


Fig. 2

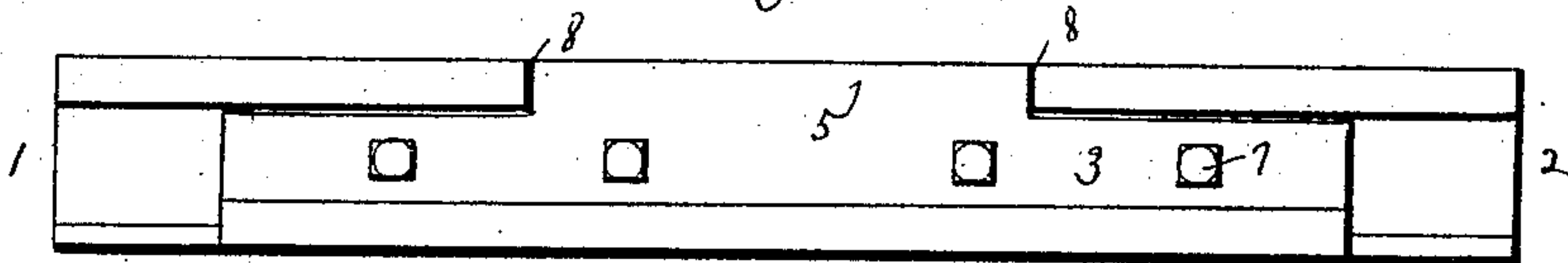


Fig. 3

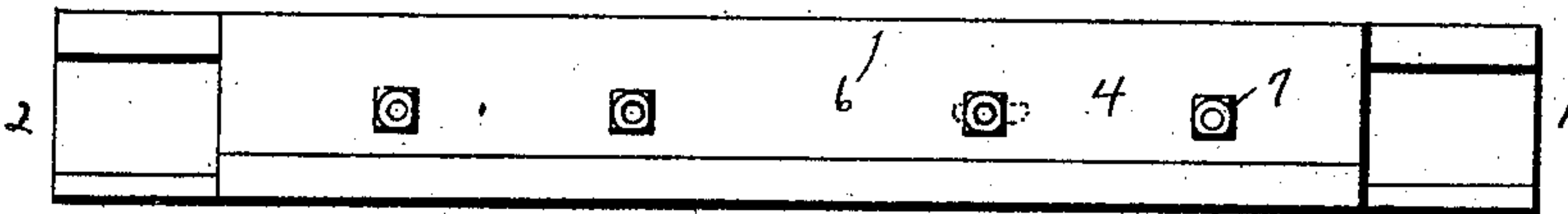


Fig. 4

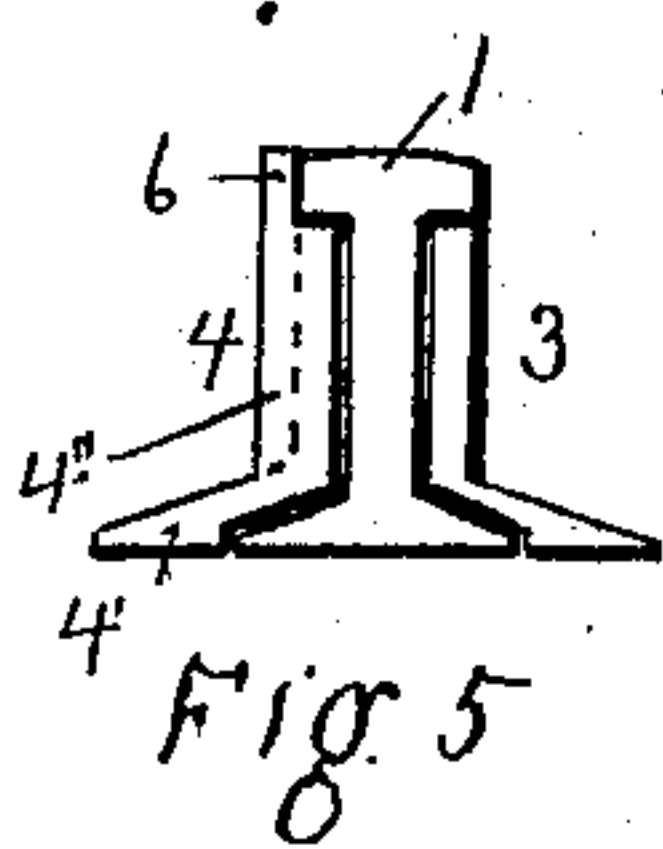


Fig. 5

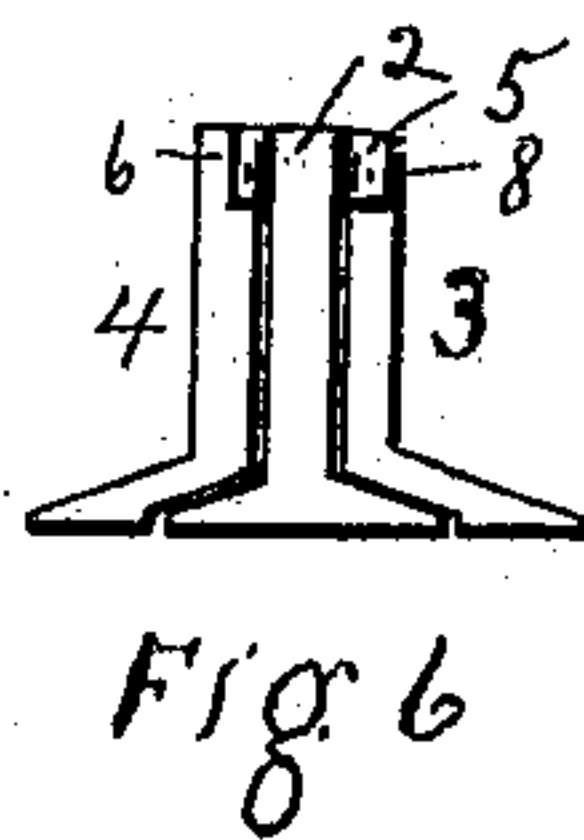


Fig. 6

Witnesses
J. T. Fisher
J. Rosen

Inventor
Nils F. Anderson
BY
J. Rosen
Atty

UNITED STATES PATENT OFFICE.

NILS F. ANDERSON, OF CONWAY, KANSAS.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 711,456, dated October 21, 1902.

Application filed June 25, 1902. Serial No. 113,093. (No model.)

To all whom it may concern:

Be it known that I, NILS F. ANDERSON, a citizen of the United States of America, residing at Conway, in the county of McPherson and State of Kansas, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

The object of my invention is to provide a rail-joint which will form a bridge carrying the wheel from rail to rail without the usual jar or jolt, which will prevent the speedy wearing out of the ends of the rails, and which will itself not wear out quickly.

My invention belongs to that class of rail-joints in which the ends of the rail-heads are beveled off, the fish-plate extending upwardly to form a continuous rail. My particular improvement consists in giving the wheel a greater surface for bearing on, so that the joint will not quickly wear out, and also in so constructing the joint as to prevent splintering thereof.

My invention consists of the novel combination, arrangement, and disposition of the parts, as herein described and claimed and as shown in the drawings accompanying and forming part of this specification.

Figure 1 is a top or plan view of my invention, the two adjoining rails fitting closely together, as when laid in the track. Fig. 2 is a similar view, but with the rails drawn slightly apart, as in shrinking. Fig. 3 is a side elevation taken from the inside of the track. Fig. 4 is a side elevation taken from the outside of the track. Fig. 5 is an end view, as if taken from the left of Fig. 3; and Fig. 6 is a similar view, but with the near rail removed. The bolts 7 are not shown in Figs. 5 and 6.

Like numerals refer to similar parts throughout the several drawings.

1 and 2 are the adjoining ends of two rails, having their heads beveled off on both sides, as shown at 9. Preferably the bevel runs at a sharp angle to the length of the rail, commencing at a line at the end of the rail which coincides with the plane of the side of the web, extending outwardly.

3 is the fish-plate for the inside of the rail and has an upwardly-projecting portion 5, which corresponds to and fills the triangular

recess formed by bringing the two rails together, as when laid in the track.

4 is the outer fish-plate and is of somewhat greater width than that portion of the rail-head which extends beyond the web. The outer plate has an upwardly-projecting portion 6, which corresponds to and fills the triangular recess and also which extends laterally beyond the side of the rail-head and longitudinally beyond the bevels, so as to rest on or over neighboring cross-ties, said ties not being here shown. I am enabled to make this extra projecting portion by making the outer fish-plate of greater width than that portion of the rail-head which extends beyond the web, as shown. This extra portion also projects upwardly to the top of the rail and is intended to serve as an additional bearing to carry the wheels from rail to rail and to strengthen the joint itself, as well as to prevent the usual jolt or jar. Most wheels are constructed with their tread wider than the rails. Hence the efficiency of this auxiliary portion in relieving the rails and the triangular portions of the joint of much of the weight of the wheels.

Instead of running the inner bevels to the side of the head of the rail in a straight line I preferably make a slight offset 8 at the outer end of the bevel at about right angles to the length of the rail, the triangular portion of the fish-plate being dubbed off to correspond thereto.

The plates and rails are bolted together in the usual manner by the bolts 7. The plates rest of course on the base of the rails, and they may be provided with horizontal portions, as shown in the drawings, in which case they would perhaps more properly be called "angle-bars." The outer plate may be in a single piece or in two portions 4' and 4'', the division being shown by dotted line in Fig. 5; and there may be other variations from the exact description herein and in the drawings without departing from the spirit of the invention.

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

1. In a rail-joint the combination with two rails having the sides of the heads at their ad-

joining ends beveled off so as to form a triangular recess in each side of the rail-head at the joint; of a fish-plate on each side of the rail having an upwardly-projecting portion corresponding to and filling the recess, the outer plate having also an upwardly-projecting portion extending laterally beyond the side of the rail-head and longitudinally beyond the bevels, so as to form an additional bearing-surface for the wheels in passing over the joint, substantially as described.

2. In a rail-joint the combination with two rails having the sides of the heads at their adjoining ends beveled off so as to form a triangular recess in each side of the rail-head at the joint; of a fish-plate on each side of the rail having an upwardly-projecting por-

tion corresponding to and filling the recess, the outer plate having also an upwardly-projecting portion extending laterally beyond the side of the rail-head and longitudinally beyond the bevels, so as to form an additional bearing-surface for the wheels in passing over the joint, the inner bevels having the slight offsets 8, the triangular portion of the fish-plate being shaped to correspond thereto, substantially as described.

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

NILS F. ANDERSON.

Witnesses:

JAMES KYDD,

J. K. BREMYER.