

No. 822,768.

PATENTED JUNE 5, 1906.

F. L. PRIEST.
RAILWAY RAIL JOINT.
APPLICATION FILED OCT. 7, 1905.

Fig. 1

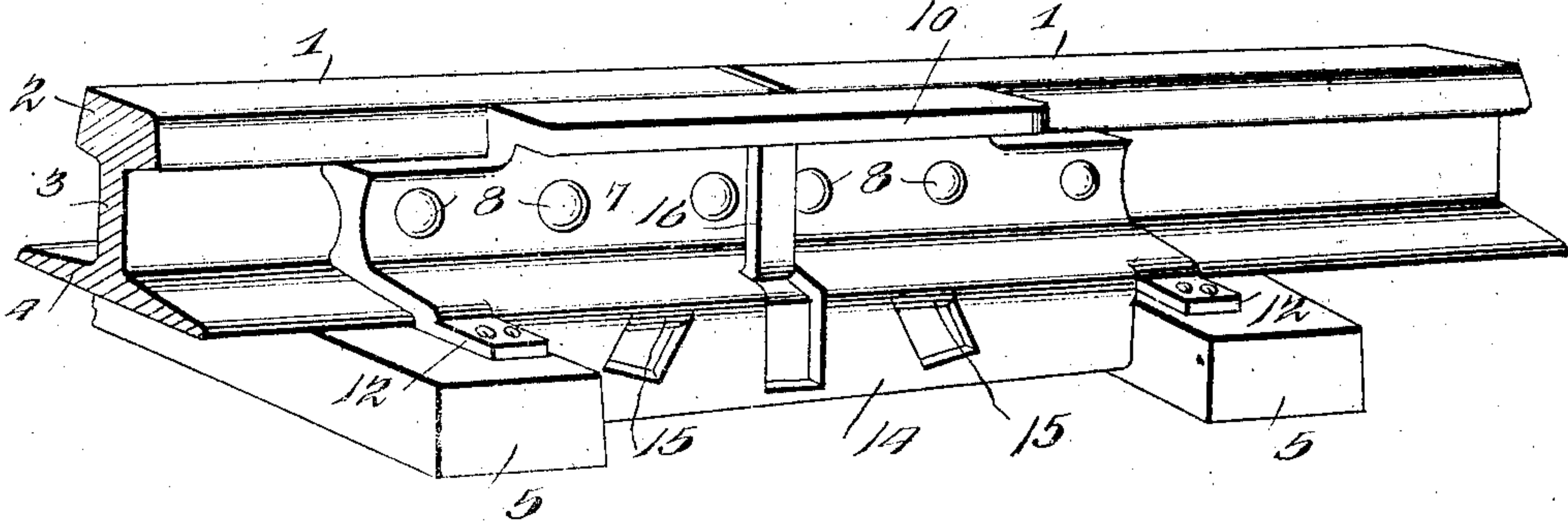


Fig. 2

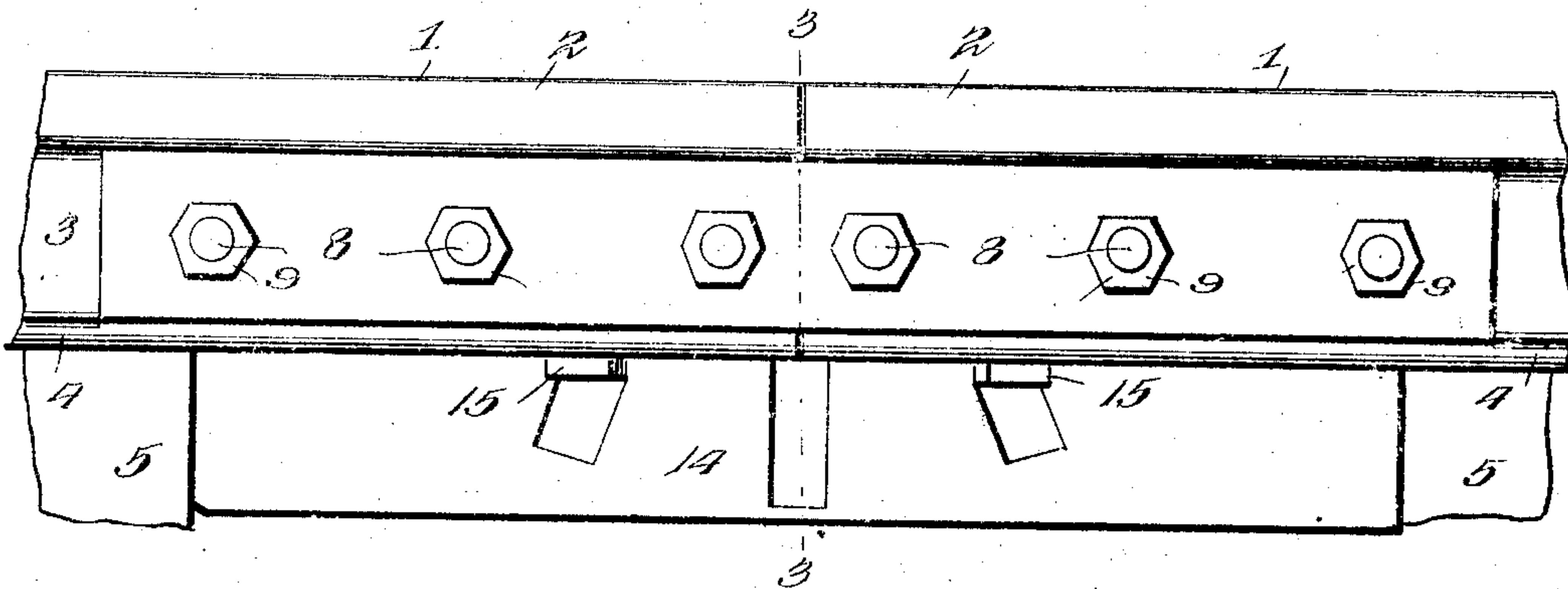
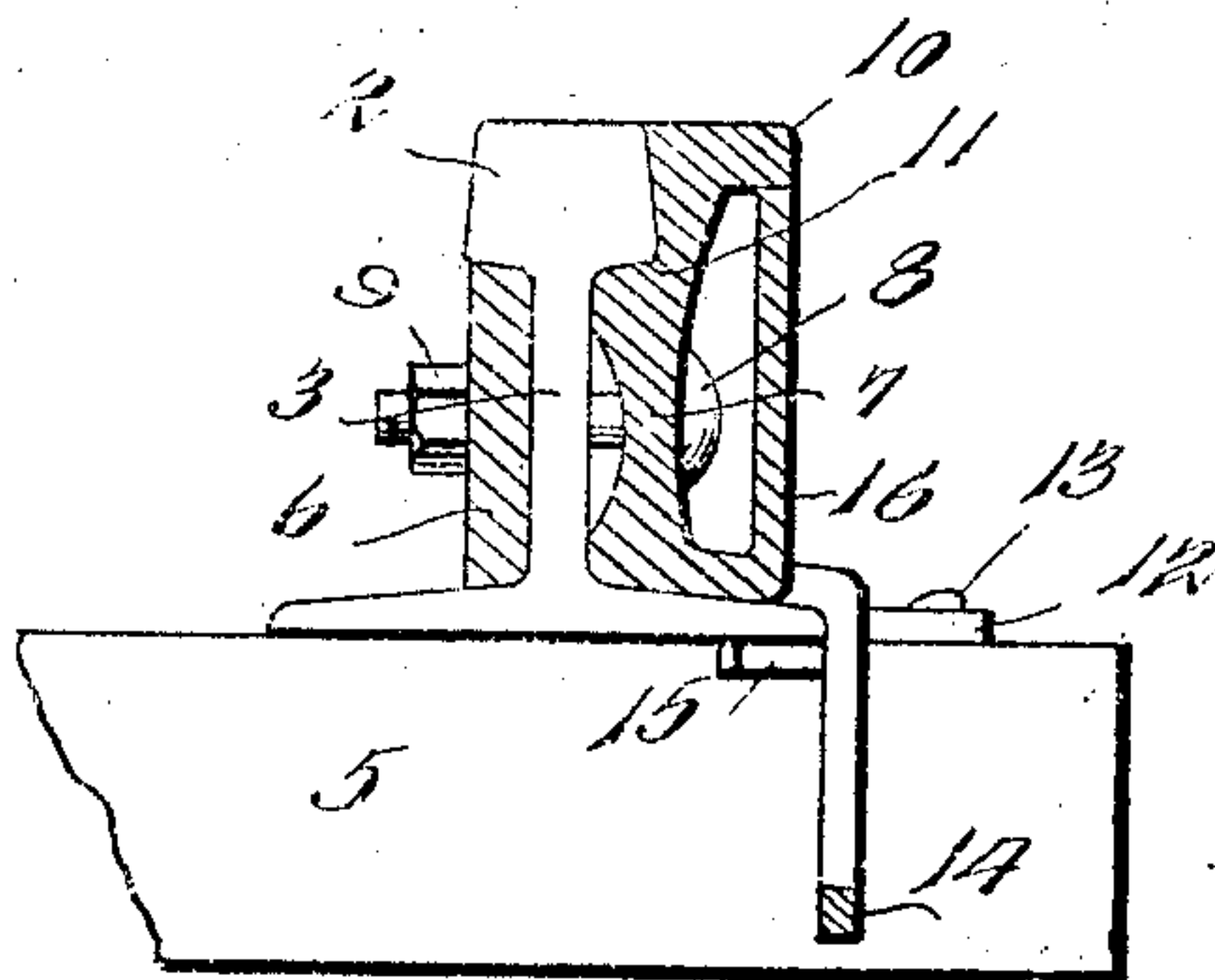


Fig. 3



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UNITED STATES PATENT OFFICE.

FRANK LEWIS PRIEST, OF ST. LOUIS, MISSOURI.

RAILWAY-RAIL JOINT

No. 822,768.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANK LEWIS PRIEST, a citizen of the United States, residing at St. Louis, State of Missouri, have invented new and useful Improvements in Railway-Rail Joints, of which the following is a specification.

My invention relates to railway-rail joints; and its primary object is to provide a novel and highly - useful device of this character having one of its fish-plates or angle-bars provided with an integrally-formed tread portion or flange, said tread portion or flange being arranged in horizontal alinement with the upper surfaces of the treads of two rails and extending a considerable distance along the edges of the rail-treads adjacent the meeting of the rails to bridge the space therebetween and provide the treads of the rails with practically continuous surfaces and receive the weight of a train passing thereover, thus obviating the pounding incident to the wheels of a train riding over the space between the meeting ends of two rails.

A further object of the invention is to provide a joint having said fish-plate or angle-bar provided with an integrally-formed web to support the meeting ends of the rails against sagging and a brace to engage under the tread portion or flange to give the necessary rigidity to prevent its being bent downwardly or otherwise injured from the strain placed thereon by a moving train.

With the above and other objects in view the invention consists in the construction, combination, and arrangement of parts hereinafter fully described, claimed, and illustrated in the accompanying drawings, wherein—

Figure 1 is a perspective view of the meeting ends of two railway-rails, illustrating the application of my improved joint. Fig. 2 is a side elevation thereof looking in the other direction, and Fig. 3 is a transverse sectional view on the line 3 3 of Fig. 2.

Referring to the drawings by reference-numerals, 1 designates two railway-rails provided with the usual treads 2, webs 3, and bases 4, the same being supported by means of ties 5. The ends of the rails are united by means of a fish-plate 6 and an angle-bar 7, said fish-plate and angle-bar being secured in applied position by means of bolts 8 and nuts 9. The angle-bar 7 has its upper end enlarged and extended upwardly and bent horizontally to provide a tread portion or flange

10, said flange fitting closely the outer edges of the treads 2 and extending on either side for a considerable distance beyond the meeting ends thereof. The upwardly-extended portion of the bar 7 is cut away to provide a shoulder 11, abutting against the under sides of the webs 3. The angle-bar 7 is extended laterally from each end of the tread-piece or flange 10 to engage considerable portions of the webs 3, said extending portions being provided with attaching members 12, through which are let suitable fastening means 13 to engage the ties 5, whereby to prevent the spreading of the rails. The horizontally-disposed portion of the angle-bar 7 is bent downwardly to provide a web 14, which is adapted to occupy the space intermediate the ties 5, said web serving to prevent longitudinal creeping of the rails. On either side of the transverse center of the web 14 are struck-up base-engaging members 15, said members engaging the under surfaces of the bases 4 of the rail, whereby to prevent the sagging of the joint, and thereby avoid the pounding incident thereto. The web 14 has also struck up therefrom another supporting member 16, the same being bent upwardly to dispose its upper end in engagement with the under side of the tread-piece or flange 10, whereby to give to the tread-piece or flange the desired rigidity and prevent its being bent downwardly under the strain placed thereon by a train moving over the joint.

It is apparent that the angle-bar, tread portion or flange 10, and the web 14, together with the members 15 and 16, may be constructed of one piece, thereby providing a device which can be manufactured and sold at a comparatively small cost and which may be easily and quickly secured in applied position. It is further apparent that the use of this device will prevent the sagging of the rails at their meeting ends, and thus avoid the pounding incident to sagging joints, and that the space between the meeting ends of two rails is bridged, so that the rails are provided with a practically continuous tread-surface, whereby to prevent the pounding incident to wheels running over the space at their joints. It is also further apparent that by striking the members 15 up from the web 14 the making of the cumbersome and necessarily expensive web is obviated, and that said members serve the purpose admirably for which they are adapted and, that by striking up the member 16 from said web 14 pro-

vides a support for the tread-piece or flange 10 without necessitating the enlargement of the vertical member of the bar 7 at this point.

Changes in the form, proportions, and minor details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having fully described and illustrated my invention, what I claim is—

1. In a device of the character set forth, a joint member provided with a tread-piece or flange and with a web, said web being provided with tread-piece and rail-engaging 15 means.

2. In a device of the character set forth, the combination with two railway-rails, of a joint having one of its members provided with an integrally-formed tread-piece or 20 flange, and with an integrally-formed and downwardly-extended web.

3. In a device of the character set forth, the combination with two railway-rails, of a joint having one of its members provided 25 with an integrally-formed tread-piece or flange, and with an integrally-formed web, said web being stamped up to provide members for engaging the under sides of the rails.

4. In a device of the character set forth,

the combination with two railway-rails, of a 30 joint having one of its members provided with an integrally-formed tread-piece or flange, and with an integrally-formed web, said web being struck up to provide members adapted to engage the under sides of the 35 bases of the rails and to engage under said tread-piece or flange.

5. In a device of the character set forth, the combination with two railway-rails, of a 40 joint having one of its members provided with an integrally-formed tread-piece or flange, an integrally-formed web, and with integrally-formed securing members, said web being struck up to provide members for 45 engaging the under sides of the bases of the rails and to engage under the tread-piece or flange.

6. In a device of the character set forth, a joint member provided with a tread-piece 50 and web, said web being stamped up to provide rail and tread-piece engaging means.

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

FRANK LEWIS PRIEST.

Witnesses:

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MABLE L. CHANDLER.