H. J. GOODYER.

RAILWAY TIE.

APPLICATION FILED DEC. 7, 1912.

1,136,871.

Patented Apr. 20, 1915.

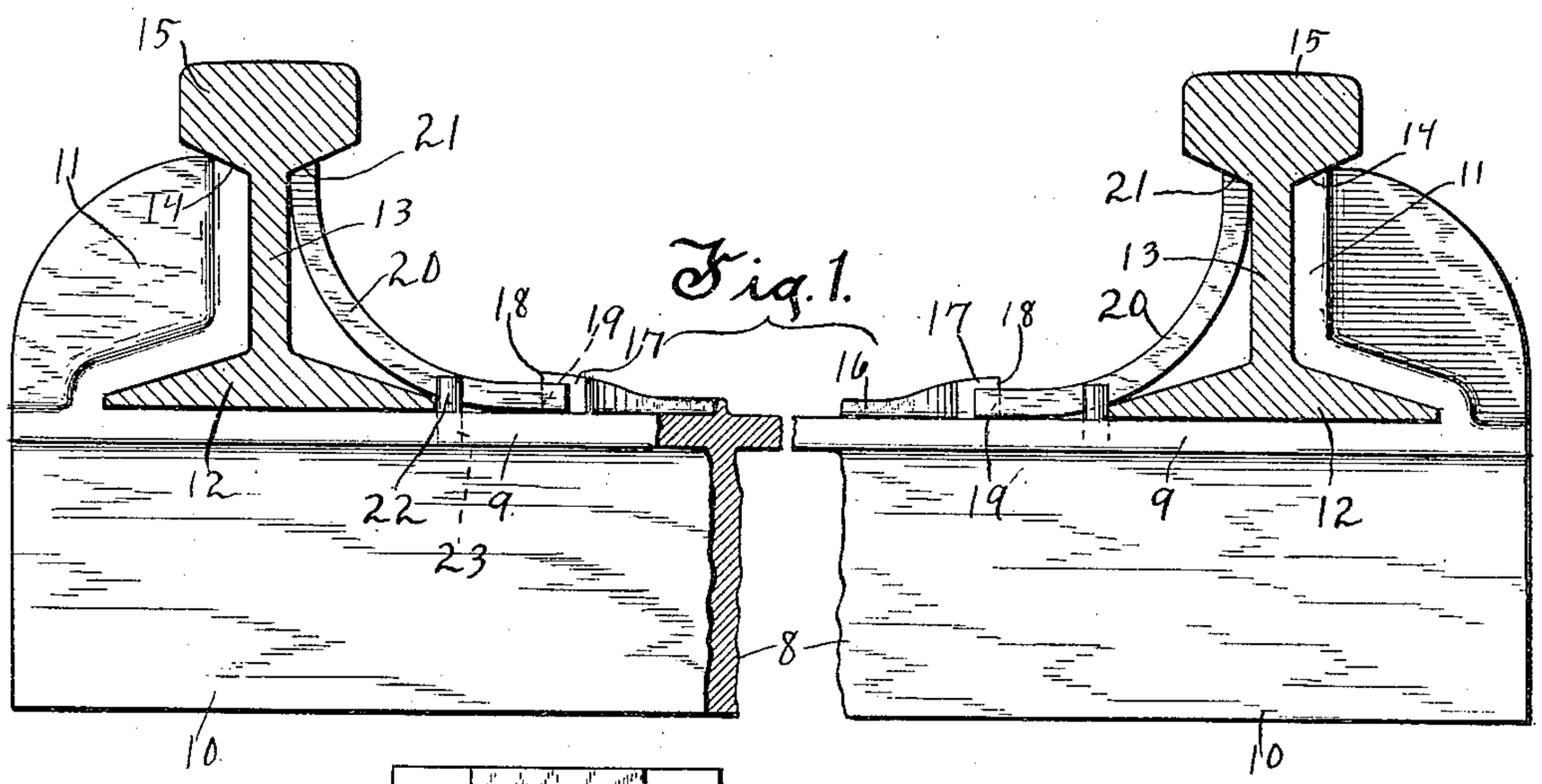


Fig. 1.

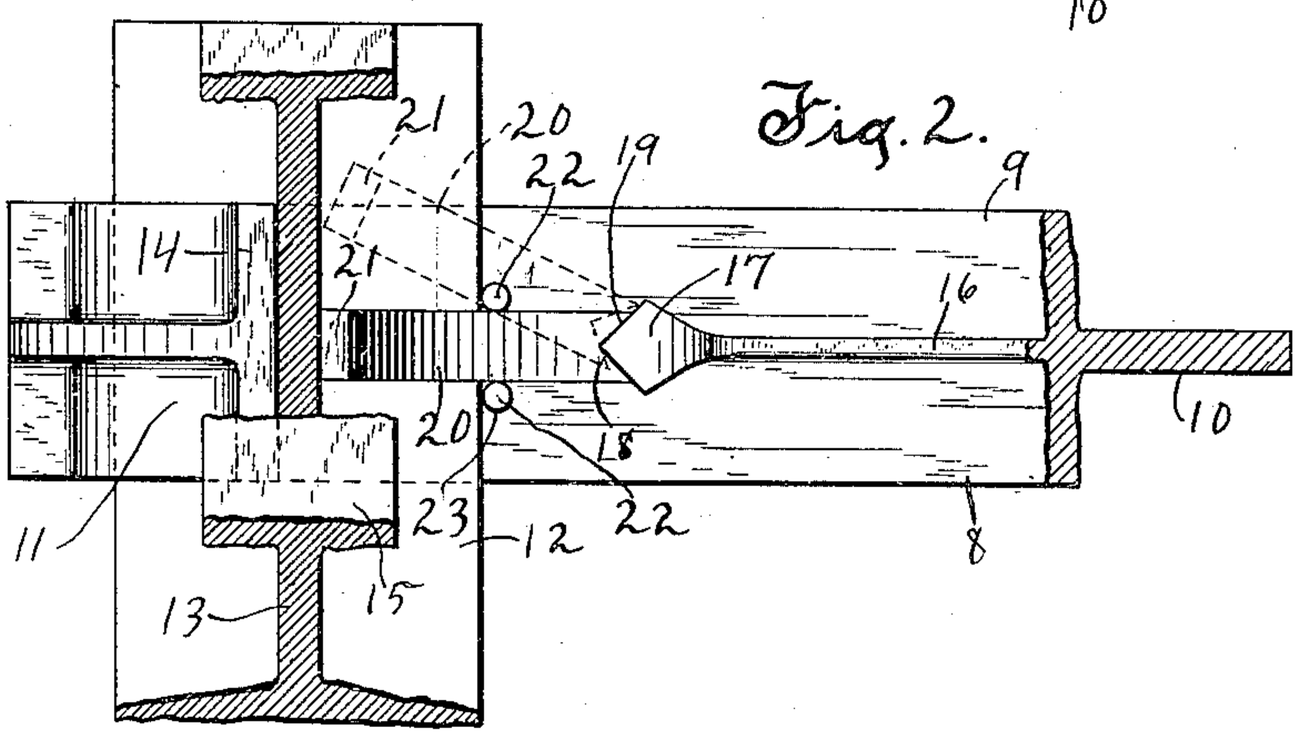


Fig. 2.

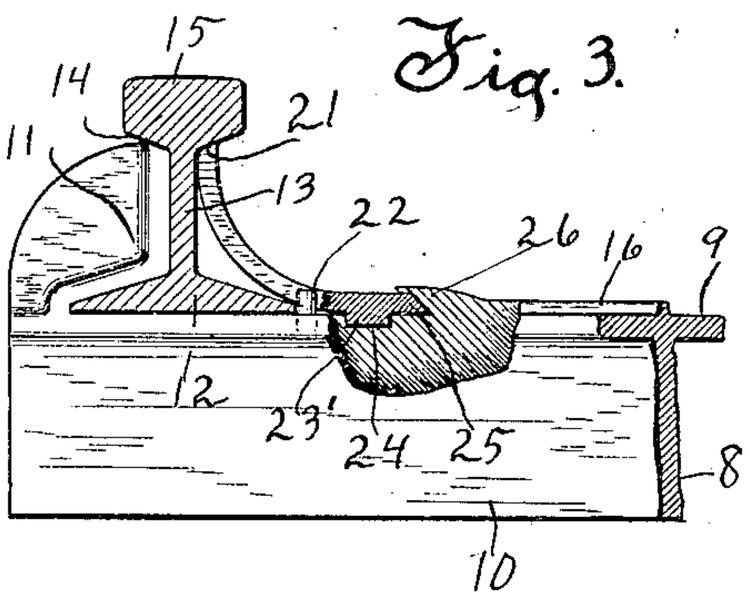


Fig. 3.

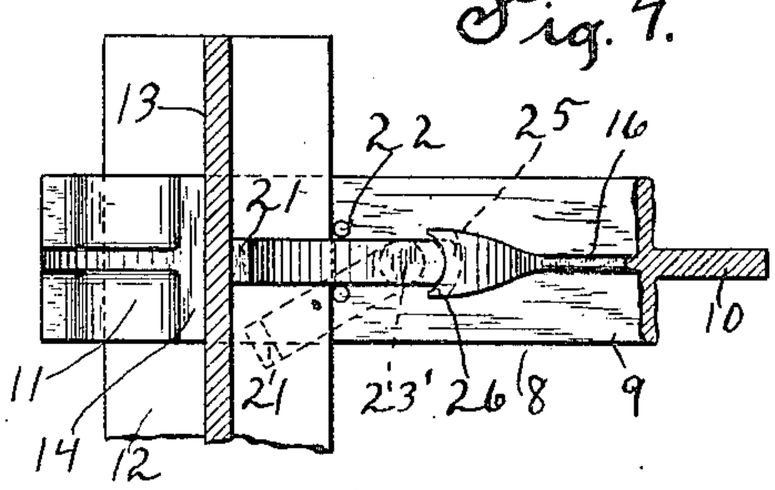


Fig. 4.

WITNESSES

Arthur F. Miller.

Katherine Holt

INVENTOR.

Harold J. Goodyer

By Morsell & Caldwell

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HAROLD J. GOODYER, OF RACINE, WISCONSIN, ASSIGNOR OF ONE-THIRD TO EZRA R. BURGESS AND ONE-THIRD TO LESLIE M. FOWLER, BOTH OF RACINE, WISCONSIN.

RAILWAY-TIE.

1,136,871. Specification of Letters Patent. Patented Apr. 20, 1915.

Application filed December 7, 1912. Serial No. 735,389.

To all whom it may concern:

Be it known that I, HAROLD J. GOODYER, a citizen of the United States, and resident of Racine, in the county of Racine and State of Wisconsin, have invented new and useful Improvements in Railway-Ties, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

This invention relates to improvements in railway ties.

It is one of the objects of this invention to provide a railway tie formed of metal to which railway tracks may be easily and rigidly secured in a simple manner.

A further object of the invention is to provide a railway tie of the metal type with means forming part of the tie for locking rails thereto without the use of spikes or bolts.

A further object of the invention is to provide a metal railway tie of the requisite strength which shall provide adequate bearing surface for the rail flanges, is of simple construction and may be manufactured at a minimum cost.

With the above and other objects in view, the invention consists of the improved railway tie and its parts and combinations as set forth in the claims, and all equivalents thereof.

In the accompanying drawing in which the same reference characters indicate the same parts in all of the views: Figure 1 is a side view of the improved railway tie with a medial portion removed to permit illustrating the tie on a larger scale, the drawing also showing rails in cross section secured to the tie; Fig. 2 is a top view of one end portion of the tie and a portion of the rail, the rail being shown partly in section and the rail clamping member also being shown in open position by dotted lines; Fig. 3 is a side view partly in section of one end portion of a modified form of tie, the drawing also showing a rail in cross section secured to the tie; and Fig. 4 is a top view thereof, the rail being shown in section and the rail clamping member also being shown in open position by dotted lines.

Referring to the drawing the numeral 8 indicates the tie which is preferably of metal, is of T form and is composed of a horizontal bed plate 9 and a reinforcing flange or rib 10 arranged medially beneath the plate and extending longitudinally from end to end thereof. The flange is embedded in the ground and the bed plate is adapted to rest upon the surface thereof. The outer ends of the bed plate are provided with integral upwardly and inwardly projecting rail engaging extensions 11 which are formed to closely fit the outer portions of the base flanges 12 and the webs 13 of the rails. The upper ends 14 of the extensions are also adapted to bear against the outer under surfaces of the rail head flanges 15 and to serve as a support for same.

The upper surface of the bed plate 9 is provided with a rib 16 which extends longitudinally along the plate for a portion of its length and terminates at opposite ends in enlargements or heads 17 having triangular pointed ends 18 which are engaged by the recessed ends 19 of the clamping members 20. These clamping members are in the form of curved bars and are adapted to have their upper ends 21 impinge against the inner under surfaces of the rail head flanges 15 and force the rails firmly against the extensions 11. The inner recessed ends of the clamping members are positioned at an angle against the pointed ends of the enlargements and are then driven wedgingly against the rail heads into positions in line with the ribs. When thus positioned they are locked from movement by means of pins 22 which are driven into openings 23 provided in the bed plate 9. These pins are positioned against the inner edges of the base flanges of the rails and also serve as an additional means for locking the rails against lateral movement. The recesses of the clamping members and the pointed ends of the ribs are of such angles as to permit the clamping members being forced into wedging engagement with the rails and to remain in such engagement, due to said angular engagement of the ends, even though the pins be dispensed with. The curve of the clamping members provides for the said members yielding slightly when being driven to locking positions and provides a constant clamping engagement between the parts to compensate for variation in manufacture and changes occurring due to expansion and contraction of the parts.

In the modified form the clamping member shown is provided with a depending lug 23′ which enters a recess 24 in the bed plate

9 and the end of the member is beveled and rounded as indicated by the numeral 25 to fit beneath the curved and recessed end 26 of the rib 16. This construction securely locks this end of the clamping member in place.

From the foregoing description it will be seen that the railway tie is of very simple construction and is well adapted for the purpose desired.

What I claim as my invention is:

1. A railway tie, comprising a reinforced bed plate provided with upwardly and inwardly projecting rail engaging extensions, and yielding clamping members constructed to pivotally engage the bed plate and to impinge against the inner sides of rails engaged by the extensions.

2. A railway tie, comprising a reinforced bed plate provided with upwardly and inwardly projecting rail engaging extensions and with angular shoulders, and clamping members having recessed angular ends engaging the angular shoulders and having their opposite ends impinging against rails engaged by the extensions, and pins extending into the bed plate on opposite sides of the members for locking said members in clamping position.

3. A railway tie, comprising a reinforced bed plate provided with upwardly and inwardly projecting rail engaging extensions, and yielding clamping members engaging the bed plate and constructed to be swung horizontally into clamping engagement with rails engaged by the extensions.

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

HAROLD J. GOODYER.

Witnesses:

JENNIE DECKER,

E. E. GITTINS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."