G. B. ANDERSON.

RAIL JOINT.

APPLICATION FILED APR. 23, 1910.

985,096.

Patented Feb. 21, 1911.

3 SHEETS—SHEET 1.

Fig. 1.

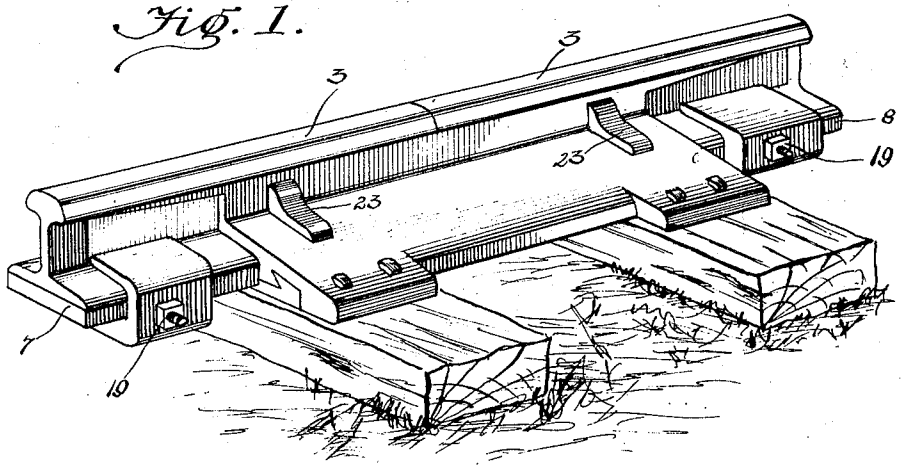
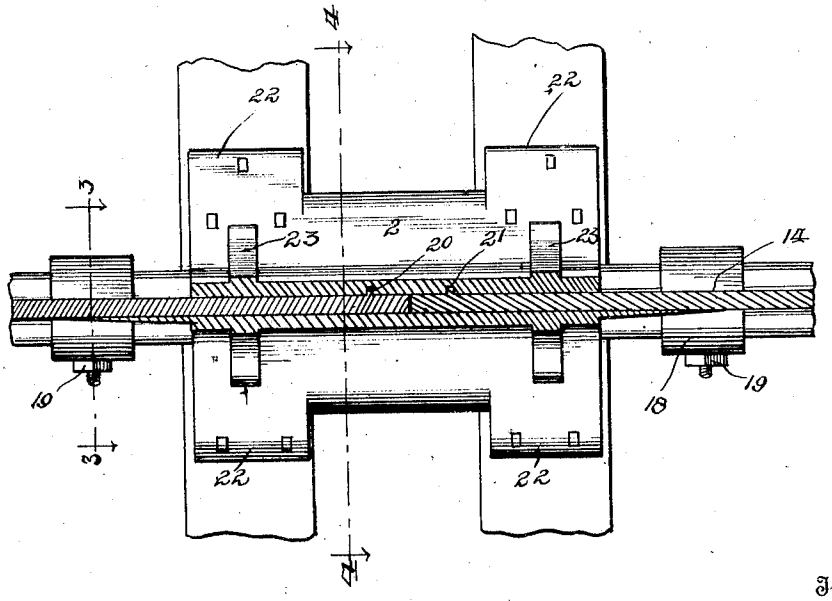


Fig. 2.



Witnesses

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3 SHEETS—SHEET 2.

Fig. 3.

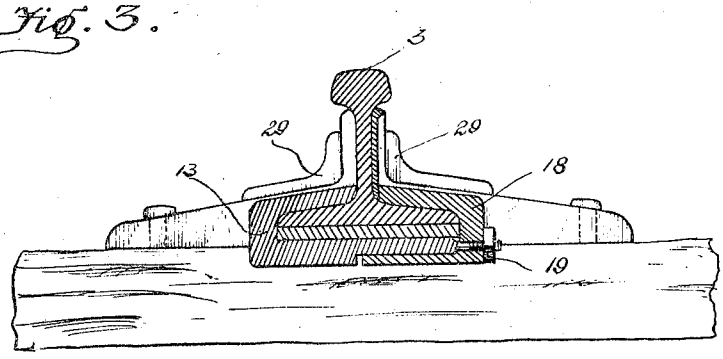


Fig. 4.

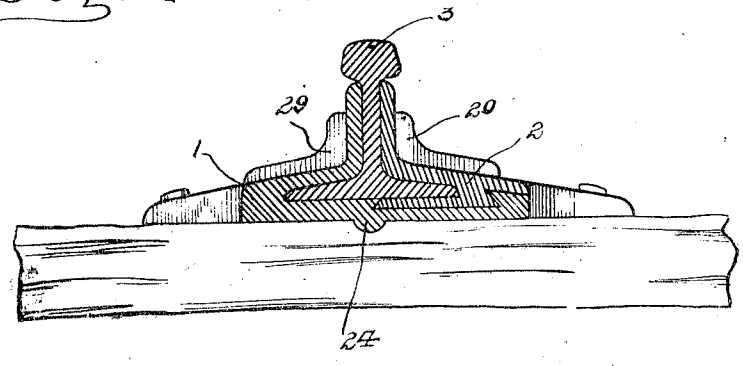
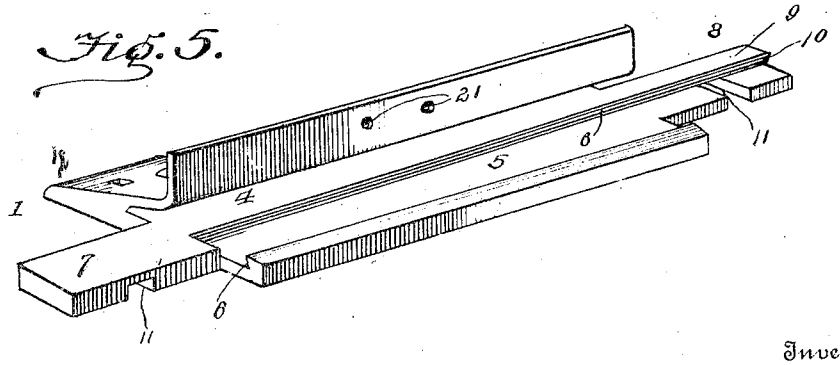


Fig. 5.



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3 SHEETS—SHEET 3.

Fig. 6.

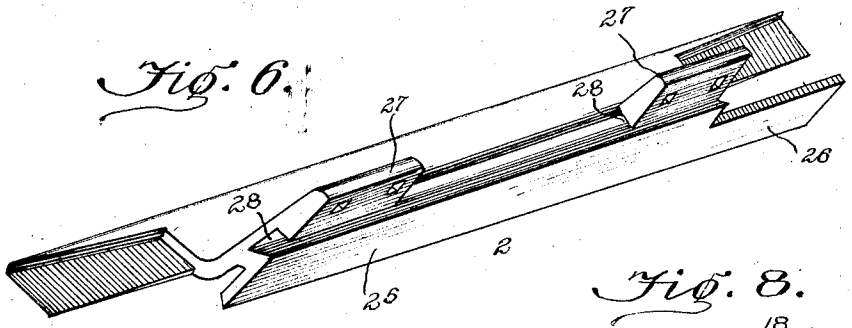


Fig. 8.

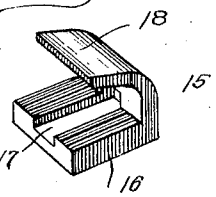


Fig. 7.

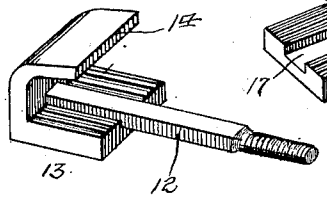
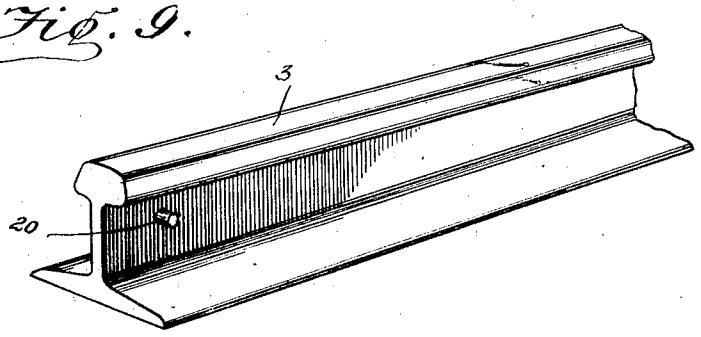


Fig. 9.



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RAIL-JOINT.

985,096. Specification of Letters Patent. Patented Feb. 21, 1911.

Application filed April 23, 1910. Serial No. 557,191.

To all whom it may concern:

Be it known that I, GEORGE B. ANDERSON, a citizen of the United States, residing at Rosbys Rock, in the county of Marshall and State of West Virginia, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to improvements in combined rail-joints and chairs, and has for its primary object the provision of a device of this character, which will be composed of the fewest possible parts consistent with the desired ends sought to be obtained in a successful joint and chair.

The invention comprehends a combined joint and chair, comprising separable members having provision for their interlocking at the base whereby the flat uninterrupted bottom or bearing surface is obtained, and wherein the employment of bolts or analogous securing devices is obviated.

The invention further comprehends the employment of removable clamping members, adapted to be fitted within suitable recesses or pockets provided in projecting base portions of the rail engaging members or chairs, which have overhanging serrated lips which engage the faces of the webs of the rails and serve to steady the said rails as well as to prevent the longitudinal movement of the combined joint and chair.

The novel details in the construction and arrangement of the several parts of the invention will be apparent from the detailed description hereinafter when read in connection with the accompanying drawings, forming part thereof, and wherein the preferred embodiment of the invention is illustrated; it being understood however, that various changes in the form, proportion, size and minor details of construction, within the scope of the claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:—Figure 1 is a perspective view of a rail joint constructed in accordance with this invention. Fig. 2 is a horizontal sectional view of the same. Fig. 3 is a transverse section on the line 3—3 of Fig. 2. Fig. 4 is a similar section on the line 4—4 of Fig. 2. Figs. 5 and 6 are detail perspective views of the rail-engaging members. Figs. 7 and 8 are detail perspective views of the clamping members. Fig. 9 is a perspective view of one of the rail ends.

Like numerals of reference designate corresponding parts throughout the several figures of the drawings.

1 and 2 designate two rail-engaging members which are in the form of angle fish plates, and which fit against and engage the opposite sides of the rails 3, as clearly illustrated in Figs. 1, 3 and 4 of the drawings. The rail-engaging member 1 is formed with an integral bottom plate 4, forming a seat for the rails and extending beyond the outer side of the other rail-engaging member 2. The bottom plate or portion 4 of the rail-engaging member 1 is provided in its upper face with a longitudinal recess 5 located at the outer portion of the plate or body portion 4. The side walls provided by the recess 5 are inclined toward each other from one of the ends of the rail-engaging member 1 to the opposite end thereof and the said walls are inwardly beveled as indicated by the numeral 6.

The base or bottom 4 of the rail-engaging member 1 is provided with projecting members 7 and 8, which extend a suitable distance beyond the angle fish plate. The extension 7 which is positioned adjacent the reduced end of the recess 5 is adapted to partially close said recess and to also act as a stop or abutment for the base of the rail engaging member, as will presently be described. The opposite extension 8 is arranged in a parallel plane with the recess 5 and is provided with an enlarged portion 9 having a beveled wall 10 registering with and forming a continuation of the inner beveled wall 6 of the recess 5. Both of the extensions 7 and 8, have their under faces provided with transverse depressions or pockets 11 which are of a substantially rectangular formation and which are adapted for the reception of the rectangular stem 12 provided upon the base of one member 13 of the rail clamp. This member 13 is provided with an overlying jaw portion having its under face and its edge serrated as at 14 to provide biting teeth which are adapted to engage the base flange and web upon one side of the rails 3. The second member 15 of each of the clamps comprises a base 16 having a central passage 17 and being further provided with an overlying portion or jaw 18. The longitudinal edge of the jaw, its under face and the portions of the base adjacent the passage 17 are all serrated to provide biting surfaces which engage the opposite side of the rail to that of the mem-

ber 13. The stem 12 is of a rectangular formation for only part of its length and the portion of the stem projecting through the passage 17 of the second clamp member 15 is rounded and threaded for the reception of a nut 19, which effectively retains the clamp upon the rails and within the recesses or pockets 11 of the base extensions 7 and 8.

It is one of the primary objects of this invention to obviate the necessity of employing a plurality of bolt receiving openings in the webs of the rails 3, so that the rails will not be needlessly weakened and, as clearly shown in Fig. 2 of the drawings, each of the webs of the rails 3 is provided adjacent its end with a knob or teat 20. These teats are adapted to be received in depressions 21 provided in the vertical portion of the fish plate formed upon the rail-engaging member 1. The member 1 is also provided upon its outer face with spaced ears 22, provided with suitable openings adapted for the reception of securing spikes. The ears and the vertical outer face of the rail-engaging member 1 are reinforced through the medium of integrally formed ribs 23, and the under face of the base 4 is also provided with a longitudinally extending reinforcing rib 24.

The rail engaging member 2 has the edges of its base or bottom 25 inclined toward each other from one of its ends to its opposite end so as to adapt itself to the recess 5 of the base 4 of the rail engaging member 1 and the longitudinal edges of the said base are beveled at opposite angles to the beveled walls 6 so as to be snugly received within the recess 5 and to engage with the walls thereof as well as to contact with the inner end of the extension 7 of the rail engaging member 1. The base 25 of the rail-engaging member 2 is of a thickness corresponding with the depth of the recess 5 of the member 1 so that when the members 1 and 2 are interlocked their bases will present a level horizontal floor. The wider end of the base 25 of the member 2 is provided with a horizontal extension 26, of a thickness corresponding with that of the said base, and this extension has its inner wall beveled and continued in a plane with the inner beveled edge of the base 25. The beveled edge of the extension 26 is adapted to be received by the beveled edge of the extension 8 of the member 1. The outer face of the member 2 is provided with spaced ears 27 which are provided with openings adapted for the reception of retaining spikes and the under faces of the said ears are recessed so as to provide channels 28 between the base 25 and the said ears 27. These channels 28 are adapted to receive the outer portion of the base 4 of the member 1. The ears 27 and the vertical wall of the fish plate provided by the rail-engaging member 2 are reinforced by suitable, integrally formed ribs 29, and the said vertical member is projected a suitable distance from each end of the rail-engaging member proper to provide and lengthen the support for the balls of the rails.

From the above description, taken in connection with the accompanying drawings the merits and advantages of the device as well as the method of assembling the parts of the combined joint and the chair will be, it is thought, perfectly apparent to those skilled in the art to which the invention appertains and further description is therefore deemed unnecessary.

Having thus described the invention, what I claim is:—

1. A combined rail joint and chair comprising two oppositely disposed rail engaging members having base portions, one of said base portions having a receiving recess and being provided with extensions upon both of its ends, one of the extensions serving as a wall for partially closing the recess, the second member having its base received within the recess and to have one of its ends contact the wall of the extension, and securing clamps upon the extension.

2. In a combination with the meeting ends of a pair of rails, said rails having their webs provided with teats, of a rail joint and chair for the rails comprising two oppositely disposed members, one of said members having its base portion provided with a receiving recess, the said member having its side provided with depressions for the teats of the rails, the second member having its base received within the recess of the first member, and removable clamps engaging the ends of both of the members and the opposite sides of the rails.

3. A combined rail joint and chair comprising two oppositely disposed rail engaging members, each comprising an angle fish-plate and a base, means for interlocking the bases of the members, the vertical portion of the fish plate of one of the members projecting at each end beyond the base of the said member, and clamps for the ends of the members.

4. A combined rail joint and chair comprising two oppositely disposed rail engaging members, each comprising an angle fish plate and a base and each of said members having its outer edges provided with spaced apertured ears, the base of one of the members adapted to extend beyond the outer side of the second member when the members are locked together the base of the first member having a longitudinally extending wedge shaped recess, the said base being provided with an extending portion upon each of its ends, one of said extensions being in alinement with the base and adapted to provide

a wall for the reduced end of the recess, the opposite extension having its base in the plane of the floor of the recess and having an offset beveled wall forming a continuation of the inner wall of the recess, both of said extensions being provided with substantially rectangular transverse pockets, the second member having its base wedge shaped and its longitudinal edges beveled oppositely to the beveled walls of the first member, the second member being provided with channels between its ears and base and having one of its ends provided with an extension having a beveled edge, clamp members for the projecting portions of the first member, said clamp members comprising a pair of members each provided with serrated jaws, one of said members having a stem which is partially rectangular and adapted to engage the pocket of the extension, the second member of the clamp being also provided with a base having an overhanging serrated jaw and means for adjustably securing the second member to the stem of the first member.

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

GEORGE B. ANDERSON

Witnesses:

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