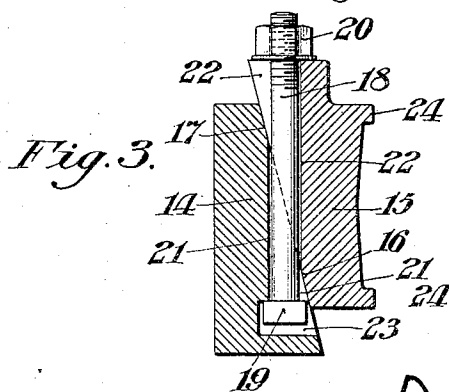
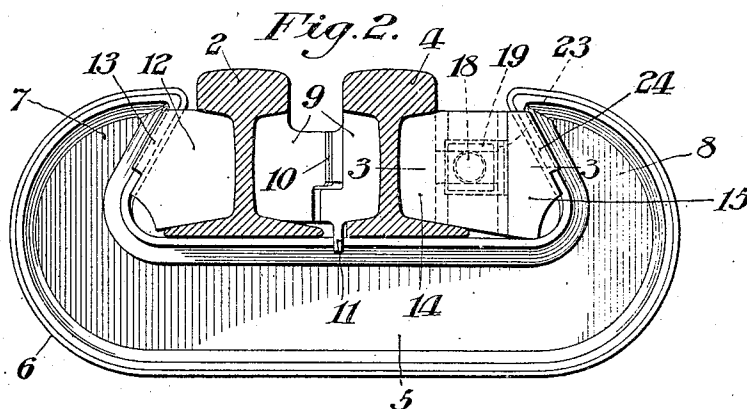
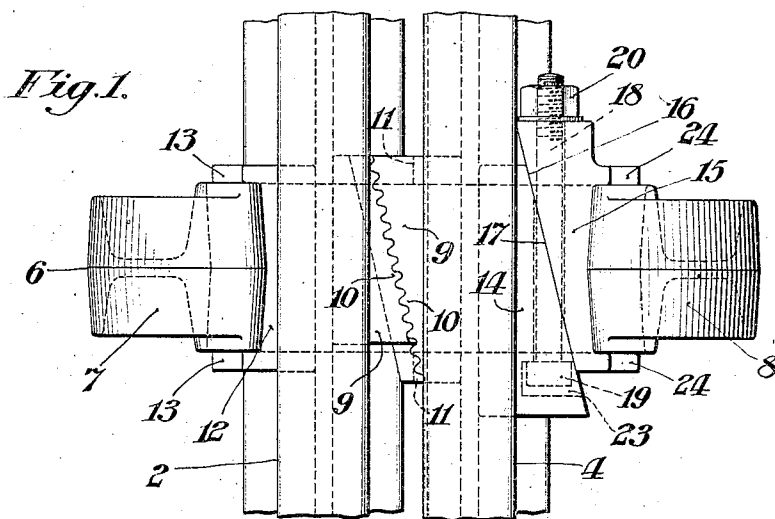


C. A. ALDEN.
 RAIL CLAMP.
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1,050,417.

Patented Jan. 14, 1913.



WITNESSES

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RAIL-CLAMP.

1,050,417.

Specification of Letters Patent.

Patented Jan. 14, 1913.

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To all whom it may concern:

Be it known that I, CHARLES A. ALDEN, a citizen of the United States, residing at Steelton, in the county of Dauphin and State of Pennsylvania, have invented certain new and useful Improvements in Rail-Clamps, of which the following is a specification.

This invention relates to railroad rail clamps of the class employing a yoke adapted to extend beneath a rail or rails and having means on one end thereof to engage one side of a rail and an adjustable clamping means cooperating with the other end of the yoke to clamp a rail or rails therein; the invention being particularly though not exclusively adapted for use in connection with guard rail clamps.

The object of the invention is to provide a novel, simple and efficient clamping means which may be readily adjusted to clamp a rail or rails within the yoke and which may also be readily adjusted to compensate for wear.

With this object in view, the invention consists in the novel construction and combinations of parts hereinafter fully described and particularly claimed.

In the accompanying drawings, illustrating my invention: Figure 1, is a plan view of a portion of a main rail, an adjacent guard rail and a rail clamp, clamping and holding the rails relatively to each other, the clamp being provided with one form of embodiment of my improved adjustable clamping means. Fig. 2, is an elevation of the parts shown in Fig. 1, the rails being shown in section. Fig. 3, is a horizontal section through the adjustable clamping means, on line 3—3 of Fig. 2.

Referring to the drawings, 2 designates a railroad main rail and 4 a guard rail adjacent thereto. Extending transversely beneath the rails 2 and 4 is the body portion 5 of a yoke 6 having upwardly and inwardly extending end portions 7 and 8. The bottoms of the bases of the rails 2 and 4 engage the top of the body 5 of the yoke, and the rails are embraced by the end portions 7 and 8, as shown. The rails 2 and 4 are held spaced from each other by a pair of adjustable, wedge-shaped separating or filler blocks 9 engaging each other and the adjacent faces of the rails 2 and 4 between the heads and bases thereof. These blocks 9 are provided with coacting teeth 10 hold-

ing the blocks in proper positions relatively to each other and one block of the pair is provided with projections 11 engaging the sides of the yoke 6 and preventing displacement of the pair of blocks relatively to the yoke.

Interposed between the outer face of the main rail 2 and the end portion 7 of the yoke is a block 12 which rests on the base of the main rail 2. The inner faces of the block 12 is fitted to and engages the outer face of the main rail 2 between the head and base thereof; and the outer face of the block 12 engages and supports the intumed end portion 7 of the yoke 6 thereby supporting one end of the yoke. The block 7 is provided with outwardly projecting ribs 13 which engage the sides of the yoke 6 and prevent displacement of the block relatively thereto.

Interposed between the end portion 8 of the yoke and the adjacent side of the guard rail 4 is a pair of wedge members comprising an inner member 14 and an outer member 15. The inner face of the member 14 is fitted to and engages the outer face of the guard rail 4 between the head and base thereof; and the outer face of the member 15 engages the inner face of the intumed end portion 8 of the yoke. The members 14 and 15 are supported upon the base of the guard rail 4 and the adjacent end of the yoke 6 is supported by the member 15. The outer face 16 of the member 14 is inclined with respect to the side of the guard rail 4, and the inner face 17 of the member 15 is similarly inclined and engaged with the outer inclined face 16 of the member 14, whereby, when the wide end of the member 14 is forced toward the wide end of the member 15, the rails 2 and 4, the block 12 and the pair of filler blocks 9 will be firmly clamped together within the yoke 6. To effect the clamping operation, I provide a bolt 18 having an integral head 19 formed on one end thereof and an adjustable nut 20 screwed on to the other end thereof. The bolt 18 intersects the plane of the engaged inclined faces 16 and 17 of the members 14 and 15, and the bolt 18 extends through horizontal grooves 21 and 22 formed in the members 14 and 15, respectively. The head 19 is arranged within a cavity 23 in the wide end of the member 14 and opening into the groove 21. The head 19 engages the wall of the cavity 23 adjacent the groove 21 and

facing the wide end of the member 14, and the nut 20 engages the wide end of the member 15. It will thus be seen that by tightening the nut 20, the wide end of the member 14 will be drawn toward the wide end of the member 15 in a manner to firmly clamp the rails within the yoke. The grooves 21 and 22 face each other and are open at the inclined faces of the members 14 and 15 to permit the parts to be readily assembled and to permit the members 14 and 15 to move laterally of the bolt 18 as one member is moved relatively to the other under the influence of the bolt 18 during the clamping operation. To prevent displacement of the pair of members 14 and 15 relatively to the yoke 6, I provide the member 15 with ribs 24 which engage the sides of the end portion 8 of the yoke.

I claim:

1. In a rail clamp, the combination of a yoke adapted to extend transversely beneath a rail and provided with means on one end thereof to engage a rail, a pair of wedge members having inclined faces and cooperating with the other end of said yoke to clamp a rail therein, the inclined face of one member of said pair engaging the inclined face of the other member of said pair, and a bolt intersecting the plane of said inclined faces and having a head on one end engaging the wide end of one member of said pair and having an adjustable nut on the other end thereof engaging the wide end of the other member of said pair, one member of said pair having a groove formed therein through which said bolt extends, said groove being open at the inclined face and at the wide end face of its member, permitting its member throughout the length thereof to move laterally from said bolt.

2. In a rail clamp, the combination of a yoke adapted to extend transversely beneath

a rail and provided with means on one end thereof to engage a rail, a pair of wedge members having inclined faces and cooperating with the other end of said yoke to clamp a rail therein, the inclined face of one member of said pair engaging the inclined face of the other member of said pair, and a bolt intersecting the plane of said inclined faces and having a head on one end engaging the wide end of one member of said pair and having an adjustable nut on the other end thereof engaging the wide end of the other member of said pair, one member of said pair having a cavity formed in its wide end and open at its inclined face, and said head being located within said cavity.

3. In a rail clamp, the combination of a yoke adapted to extend transversely beneath a rail and provided with means on one end thereof to engage a rail, a pair of wedge members having inclined faces and cooperating with the other end of said yoke to clamp a rail therein, the inclined face of one member of said pair engaging the inclined face of the other member of said pair, and a bolt intersecting the plane of said inclined faces and having a head on one end engaging the wide end of one member of said pair and having an adjustable nut on the other end thereof engaging the wide end of the other member of said pair, one member of said pair having a groove and a cavity formed therein and opening into each other and open at the inclined face of the member, said bolt extending through said groove and said head being located within said cavity.

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

CHARLES A. ALDEN.

Witnesses:

EDWIN C. LEEBER,
JOHN N. PEREGOV.