J. G. WOLFE.

GUARD RAIL CLAMP.

APPLICATION FILED MAR. 7, 1910.

988,056.

Patented Mar. 28, 1911.

2 SHEETS—SHEET 1.

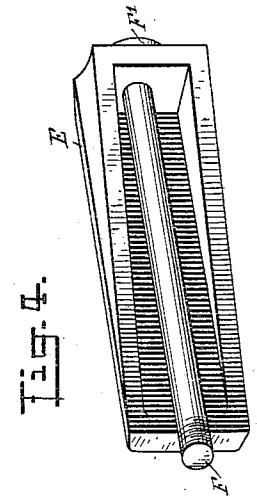

Fig. 4.

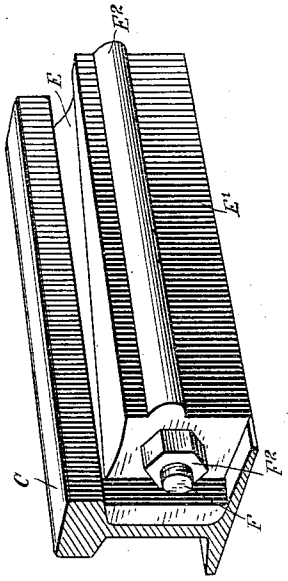

Fig. 3.

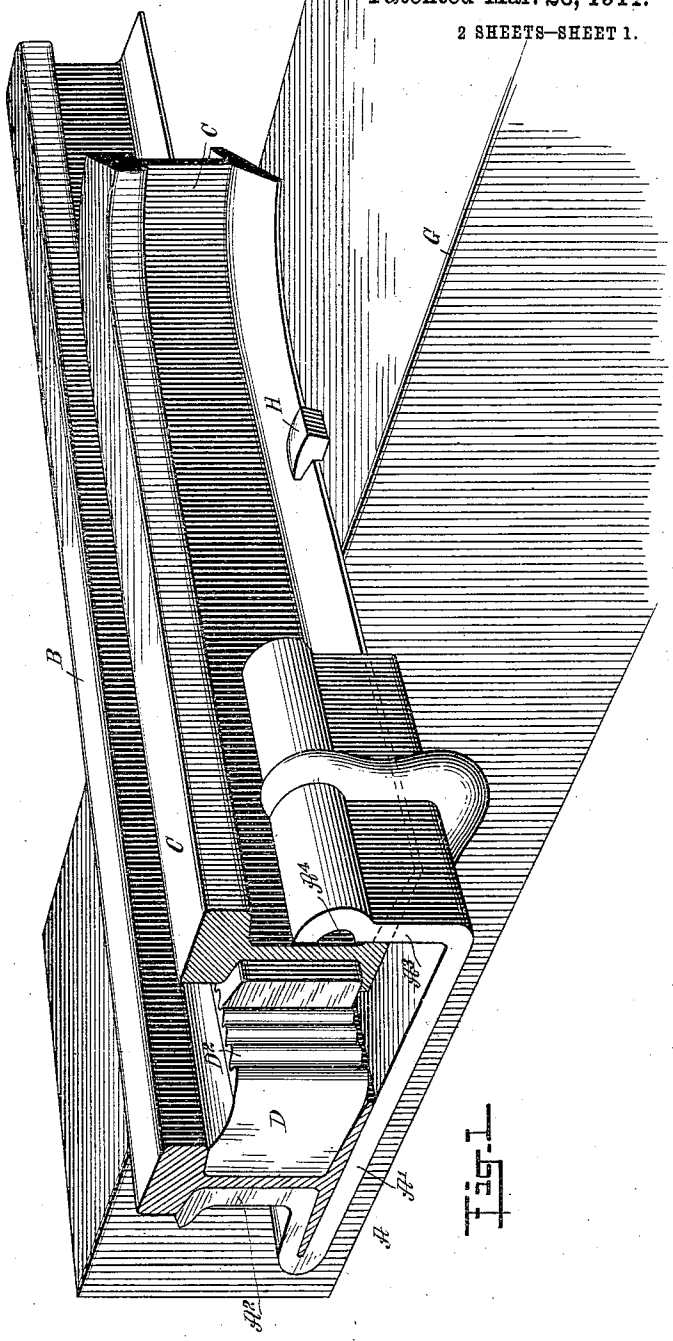

Fig. 1.

WITNESSES:

INVENTOR

John G. Wolfe

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ATTORNEYS

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2 SHEETS—SHEET 2.

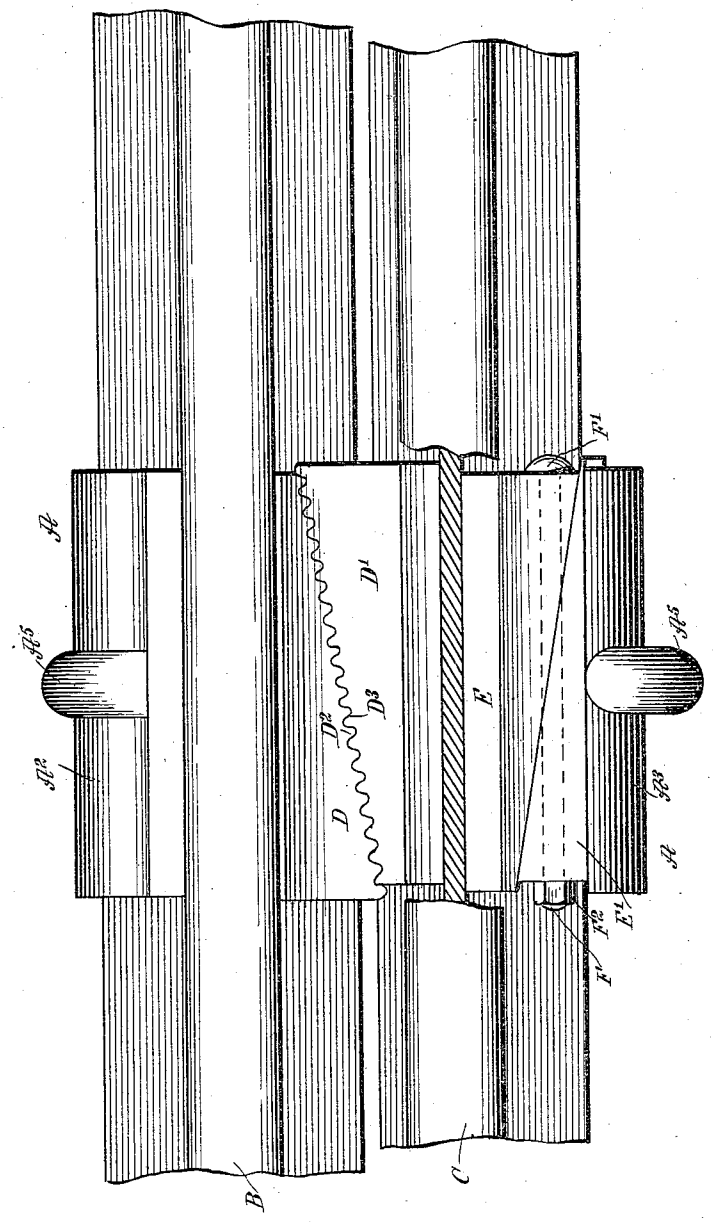

Fig. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN G. WOLFE, OF NEW YORK, N. Y.

GUARD-RAIL CLAMP.

988,056. Specification of Letters Patent. Patented Mar. 28, 1911.

Application filed March 7, 1910. Serial No. 547,655.

To all whom it may concern:

Be it known that I, JOHN G. WOLFE, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Guard-Rail Clamp, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved guard rail clamp, arranged to hold the main rail and the guard rail at all times in proper position one relative to the other, and without danger of the said rails spreading apart, the clamp being simple and durable in construction, and arranged to permit of conveniently placing it in position. In order to accomplish this result, use is made of a retaining member, having rising flanges, of which one engages the outer side of the main rail, and the other flange is spaced from the outer side of the guard rail, and pairs of wedges, one pair being interposed between the opposite faces of the main rail and guard rail, and the other pair being arranged between the outer side of the guard rail and the spaced flange.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the rail clamp, as applied, and with the wedges between the guard rail and flange removed; Fig. 2 is a plan view of the rail clamp as applied, part of the guard rail being shown broken out; Fig. 3 is a perspective view of the double wedge in position on the guard rail; and Fig. 4 is a perspective view of one of the wedges and the bolt for drawing the wedges in clamping position.

The retaining member A of the guard rail clamp consists of a plate A′, extending transversely underneath the bases of the main rail B and the guard rail C, and terminating in the rising flanges A^2, A^3, of which the flange A^2 is shaped to fit onto the outer side of the main rail B, that is, engages the base, the web and the under side of the head of the said rail, as plainly indicated in Fig. 1. The flange A^3 is spaced from the guard rail C, and is provided at the face opposite the guard rail with a groove A^4, extending lengthwise of the rails. A transverse rib A^5 extends integrally on the under side of the plate A′ and the outer faces of the flanges A^2, A^3, to reinforce the member A.

Between the web of the main rail B and that of the guard rail C is arranged a pair of interlocked wedges D, D′, extending in height from the bases of the rails B and C to the under sides of the rail heads, and the upper faces of the said wedges, adjacent the head of the rail B, are slightly hollowed for the passage of the car wheel flanges, as will be readily understood by reference to Fig. 1. The parallel faces of the wedges D, D′ are in contact with the webs of the rails B and C, and the contacting inclined faces of the wedges D, D′ are disposed in a vertical plane at an angle to the rails (see Fig. 2), and the said inclined faces are interlocked, preferably by interlocking or meshing corrugations or teeth D^2, D^3, to permit of properly spacing the rails B and C the desired distance apart, it being understood that when the wedges D, D′ are driven in place between the rails B and C, they are not liable to work loose. Between the guard rail C and the spaced flange A^3 of the member A, is arranged another pair of wedges E, E′, which abut with their parallel faces on the webs of the guard rail C and the inner face of the flange A^3, and the contacting inclined faces of the wedges E, E′ are disposed in a vertical plane at an angle to the guard rail C and the flange A^3, as plainly shown in Fig. 2. The wedge E extends from the base of the guard rail C to the under side of the head of the said rail, and the wedge E′ is provided with a longitudinally-extending integral tongue or rib E^2, fitting the groove A^4 in the flange A^3. The contacting inclined faces of the wedges E, E′ are hollowed out (see Fig. 4) for the passage of a bolt F, extending through apertures in the heads of the wedges E, E′, the head F′ of the bolt resting against the outer end of the head of the wedge E, while the nut F^2 of the bolt F screws against the outer end of the head of the wedge E′, as plainly shown in Figs. 2 and 3.

The rails B and C rest on the usual ties G, and are secured thereto by spikes H or other suitable fastening devices.

In using the guard rail clamp the retaining member A is placed under the rails B and C, between adjacent ties G, the flange A^2 is engaged with the outer side of the

main rail B, the pair of wedges D, D′ is then driven into place between the main rail B and the guard rail C, to hold the said rails the desired distance apart, and the pair of wedges E, E′ are placed in position between the guard rail C and the flange A^3, and the nut F^2 is screwed up to draw the wedges E, E′ together, in place between the guard rail C and the flange A^3, so that the several parts of the rail clamp securely hold the main rail and the guard rail spaced the desired distance apart and prevent the rails from spreading one relatively to the other, thus insuring at all times proper functioning of the guard rail.

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

1. A guard rail clamp, comprising a member adapted to extend under the bases of the main rail and guard rail, the said member having rising flanges, of which one engages the outer side of the main rail and the other flange being provided with a longitudinal groove on its inner face and spaced from the outer side of the guard rail, a pair of wedges between the said rails, and a pair of wedges between the guard rail and the said spaced flange, one of the said wedges having a longitudinal rib entering the groove of said flange.

2. A guard rail clamp, comprising a member adapted to extend under the bases of the main rail and guard rail, the said member having rising flanges, of which one engages the outer side of the main rail and the other flange is spaced from the outer side of the guard rail, a pair of interlocked wedges extending lengthwise of the said rails and interposed between the webs thereof, a second pair of wedges extending lengthwise of the rails and interposed between the web of the said guard rail and the said spaced flange, and means for simultaneously moving the wedges of the second pair of wedges in opposite directions.

3. A guard rail clamp, comprising a member adapted to extend under the bases of the main rail and guard rail, the said member having rising flanges, of which one engages the outer side of the main rail and the other flange is spaced from the outer side of the guard rail, a pair of interlocked wedges extending lengthwise of the said rails and interposed between the webs thereof, a second pair of wedges extending lengthwise of the rails and interposed between the web of the said guard rail and the said spaced flange, the wedges of the said second pair of wedges being provided with registering recesses in their opposing faces, and a bolt held in the head of one of the wedges and engaging the head of the other wedge, the bolt extending through the said registering recesses.

4. A guard rail clamp, comprising a member adapted to extend under the bases of the main rail and guard rail, the said member having rising flanges, of which one engages the outer side of the main rail and the other flange is spaced from the outer side of the guard rail, a pair of interlocked wedges extending lengthwise of the rails and interposed between the webs of the said rails, a pair of adjusted wedges extending lengthwise of the rails and interposed between the web of the said guard rail and the said spaced flange, the latter having a lengthwise-extending groove in its inner face, and a tongue on the wedge in contact with the said flange, the tongue engaging the said groove.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN G. WOLFE.

Witnesses:

THEO. G. HOSTER,

JOHN P. DAVIS.