O. C. SIMMONS.

GUARD RAIL.

APPLICATION FILED AUG. 26, 1909.

948,597.

Patented Feb. 8, 1910.

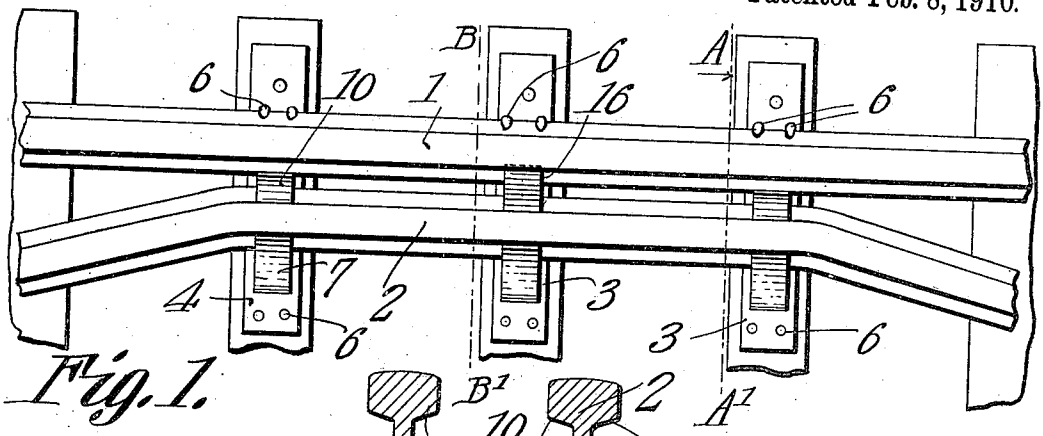

Fig. 1.

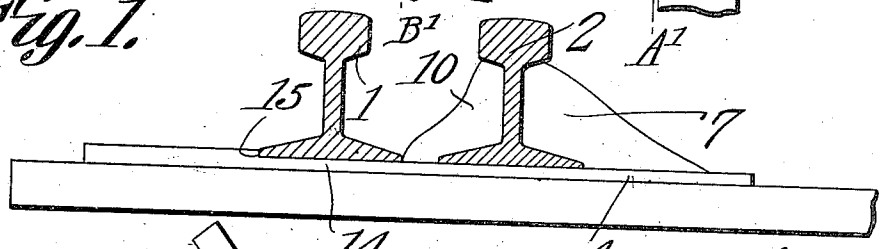

Fig. 2.

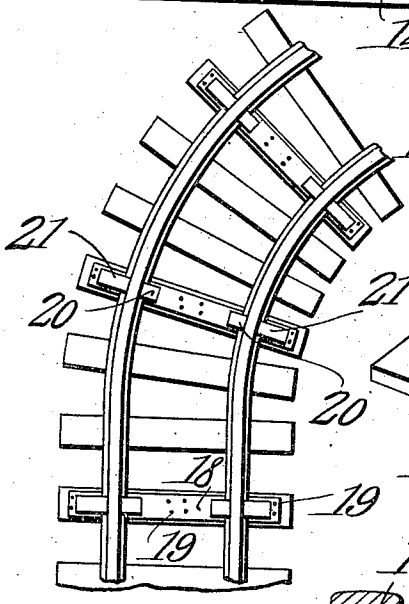

Fig. 4.

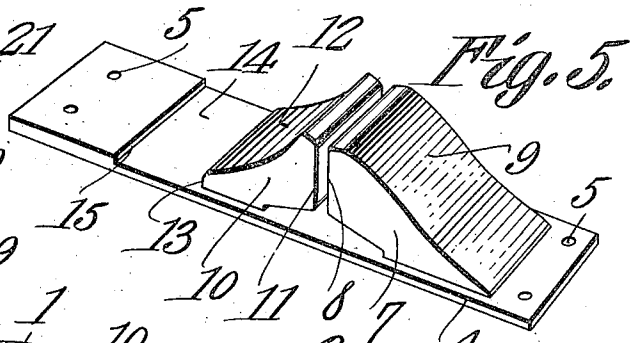

Fig. 5.

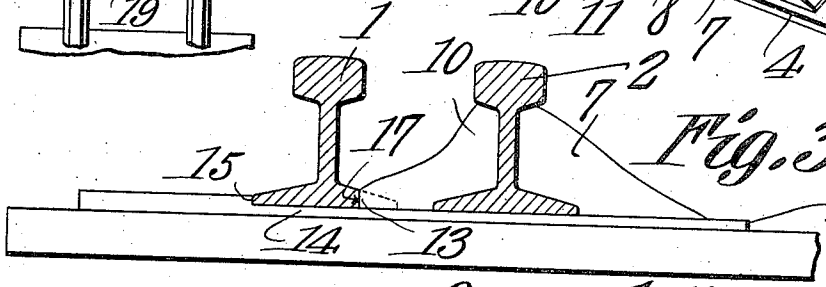

Fig. 3.

Witnesses

Francis Boyle

Inventor

Oscar C. Simmons.

By C. A. Snow & Co.

Attorneys

UNITED STATES PATENT OFFICE.

OSCAR C. SIMMONS, OF AVOCA, TEXAS.

GUARD-RAIL.

948,597. Specification of Letters Patent. Patented Feb. 8, 1910.

Application filed August 26, 1909. Serial No. 514,820.

To all whom it may concern:

Be it known that I, OSCAR C. SIMMONS, a citizen of the United States, residing at Avoca, in the county of Jones and State of Texas, have invented a new and useful Guard-Rail, of which the following is a specification.

My invention relates to guard rail clamps and has for its object to provide a device of this character which will brace the guard rail and securely hold it in proper position with relation to the main track rail without the use of the usual spacing blocks interposed between the main rail and the guard rail.

Another object is to provide a device of this character which will have no bolts or similar connections to pass through the web of either the guard rail or main rail.

A further object is to provide a device of this character which will hold the main rail from spreading relatively to the guard rail.

A still further object is to provide a device of this character which will prevent the creeping of the guard rail.

With the above advantages and other objects in view which will appear as the nature of my invention is better understood, my invention embraces the novel details of construction and the combination of parts illustrated in the accompanying drawings, described in the following specification and set forth in the appended claim.

In the accompanying drawing:—Figure 1 is a perspective view of a main rail with the guard rail and clamps in position. Fig. 2 is a transverse sectional view taken on the line A—A′, Fig. 1. Fig. 3 is a transverse sectional view taken on the line B—B′, Fig. 1. Fig. 4 is a perspective view of a section of a railway curve, showing the main rails braced by my improved clamps. Fig. 5 is a perspective view of my improved clamp.

Like characters of reference designate similar parts in the view shown.

Referring now to the drawings, 1 designates a main rail and 2 designates the guard rail, the opposite ends of which are turned inward in the usual manner.

Arranged beneath the main and guard rails are the clamping devices 3, one of which is disposed adjacent each end of the guard rail and another positioned intermediate the ends of the guard rail and preferably opposite the frog point of the opposite main rail which is not shown in the drawing. Each of the clamping devices comprise a base plate 4 constituting a support for the guard and main rails and which is provided with openings 5 through which spikes 6 are driven to secure the base plate to the tie.

Formed adjacent one end of the base plate is an integral clamping block 7 having a face 8 to conform to the outline of and snugly fit over the outer side of the web, base flange and under surface of the head of the guard rail. The outer surface 9 of the clamping block 7 is sloped as shown, to provide a wedge-shaped clamp to firmly brace the guard rail and positively prevent the accidental turning over of the same.

Arranged adjacent the clamping block 7 is an integral wedge-shaped clamping block 10 having formed on its thickened end a face 11 shaped to conform to the outline of and snugly fit over the inner side of the web, base flange and under surface of the head of the guard rail. The outer surface 12 of this clamping block is rounded downwardly as shown, and terminates in a substantially vertical end face 13.

The base plate is considerably thickened adjacent the end remote from the clamping blocks, to provide a rabbet 14 adapted to receive the base flange of the main rail. The base flange of the main rail is thus clamped between the wall 15 of the rabbet and the vertical face 13 of the adjacent clamping block 10, the particular advantage of this construction being to prevent the main rail from spreading in relation to the guard rail. In order to prevent the creeping of the guard rail the base portion of the clamping block 10 is engaged in a recess 16 formed in the flange of the main rail, the vertical face 13 of the clamping block being held in contact with the opposed wall 17 of the recess, as shown.

As may be seen by referring to Fig. 1, only the block 10 of the intermediate clamping device is engaged in a recess formed in the base flange of the main rail. The block 10 of this clamping device is made slightly longer than in the terminal clamping devices so that the vertical face 13 will abut the opposed face of the recess in the main rail flange, as above described, and hold the base flange of the main rail snugly impinged against the wall 15 of the rabbet, while at the same time the side faces of the block en-

gage the opposed side faces of the recess 16 and positively prevent the longitudinal creeping of the guard rail.

A modified form of my device is shown in Fig. 4, in which the clamping blocks are shown applied to the main rails of a curve and operate to prevent the spreading of the rails in relation to each other and to brace and strengthen the rails against turning over. In this case the base plate 18 is sufficient in length to extend beyond the base flanges of both rails and is provided with spike holes 19 adjacent the ends and intermediate the rails through which spikes are driven to secure the base plate to the tie. The bracing and clamping blocks 20 are formed integral with the base plate and are spaced a sufficient distance apart to inclose the webs and flanges of the rails, as above described. It will be noted that the blocks 21 having the greatest body are placed adjacent the ends of the base plate, so as to bear upon the outer faces of the rails and brace the same against turning over.

From the above description, taken in connection with the accompanying drawing, it is thought that the construction and operation of my invention will be easily understood without a more extended explanation, it being understood that various changes may be made in the form, proportion and minor details of construction without departing from the spirit or sacrificing any of the advantages of the invention.

What is claimed is:—

A guard rail clamping and bracing device consisting of a base plate adapted to support a main and a guard rail upon a tie, said base plate having a rabbet in its top face to receive the base flange of the main rail, a wedge-shaped block upon the base plate having its thick end formed with a face to conform to the web, bottom face of the head and top face of the flange upon the inner side of the guard rail, and its thin end formed with a substantially flat face to engage the opposed longitudinal edge of the main rail flange and hold said flange snugly impinged against the wall of said rabbet, and a second wedge-shaped block upon the base plate having its thick end formed with a face to conform to the web, bottom face of the head, and top face of the flange upon the outer side of the guard rail.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

OSCAR C. SIMMONS.

Witnesses:
T. W. PRICE,
R. D. MORGAN.