R. E. EINSTEIN.

ADJUSTABLE GUARD RAIL CLAMP.

APPLICATION FILED NOV. 29, 1909.

960,858. Patented June 7, 1910.

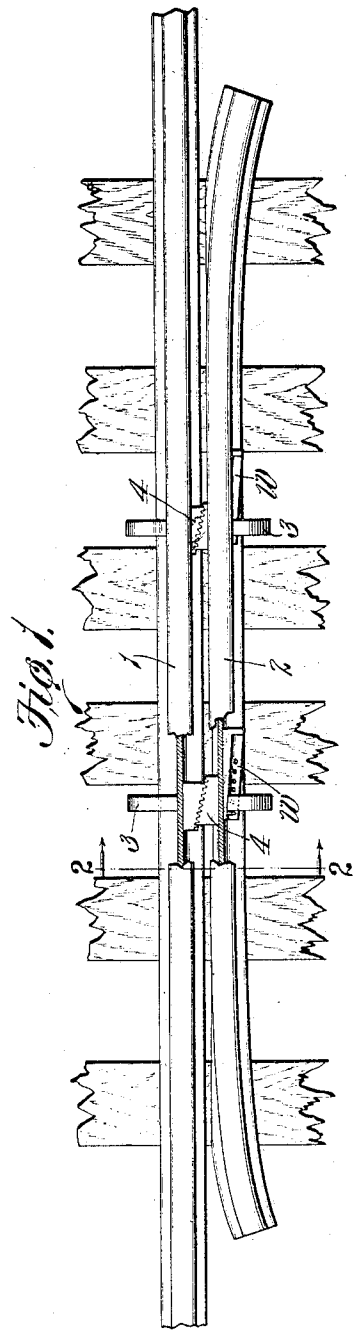

Fig. 1.

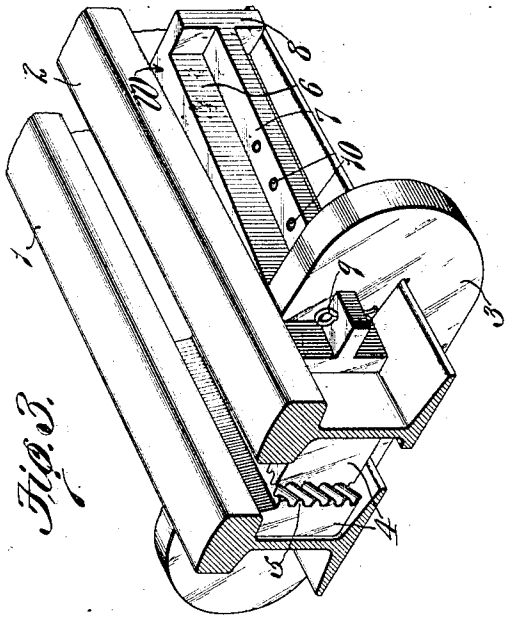

Fig. 3.

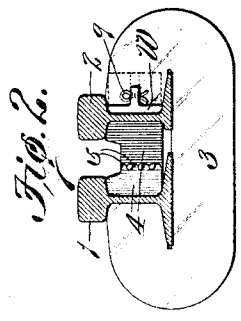

Fig. 2.

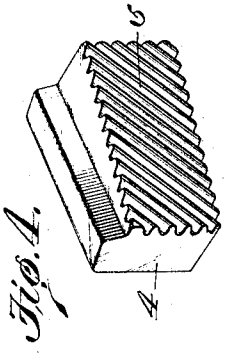

Fig. 4.

Witnesses:
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By Paul Bakewell Atty.

UNITED STATES PATENT OFFICE.

ROBERT E. EINSTEIN, OF ST. LOUIS, MISSOURI, ASSIGNOR TO ST. LOUIS FROG & SWITCH COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

ADJUSTABLE GUARD-RAIL CLAMP.

960,858. Specification of Letters Patent. Patented June 7, 1910.

Application filed November 29, 1909. Serial No. 530,402.

To all whom it may concern:

Be it known that I, ROBERT E. EINSTEIN, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Adjustable Guard-Rail Clamps, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to guard rail clamps.

One object of my invention is to provide an improved adjustable guard rail clamp which is so constructed that the spacing means arranged between the main rail and the guard rail cannot work loose or become displaced.

Another object is to provide an adjustable guard rail clamp having a locking wedge of novel construction.

Figure 1 of the drawings is a top plan view of a railway track structure equipped with one of my improved guard rail clamps, a portion of the main rail and guard rail being broken away to more clearly illustrate the construction of the clamp; Fig. 2 is a vertical sectional view taken on the line 2—2 of Fig. 1; Fig. 3 is a perspective view of the parts shown in Fig. 1; and Fig. 4 is a perspective view of one of the adjusting blocks that is arranged between the main rail and guard rail.

Referring to the drawings which illustrate the preferred form of my invention, 1 designates one rail of the track, and 2 designates a guard rail arranged adjacent same. The guard rail 2 is retained in position by means of a plurality of clamps, each of which consists of a member 3 that embraces the guard rail and the main rail, a pair of adjusting blocks 4 interposed between said rails, and a locking wedge W arranged between the guard rail and the member 3, as shown clearly in Fig. 3. The member 3 is provided with a pocket in which the base flanges of the rails fit, and the adjusting blocks 4 are made substantially wedge-shaped so that the combined thickness of said blocks can be varied by moving one block relatively to the other. The meeting faces of the blocks 4 are provided with corrugations 5 that interlock with each other and thus prevent one block from moving longitudinally relatively to the other block, and said corrugations 5 are arranged diagonally or at an angle so as to prevent one block from moving upwardly or downwardly relatively to the other block, thereby preventing either block from working loose or becoming displaced. This feature of constructing the adjusting blocks in such a manner that they cannot move upwardly or downwardly makes my guard rail clamp a decided improvement upon those which have heretofore been in use for in such prior constructions the downward pressure which is exerted on the main rail when it is in service causes the adjusting block arranged adjacent thereto to work downwardly and the other block to work upwardly. By providing the meeting faces of the blocks with inclined or diagonal ribs, as herein shown, I prevent the blocks from moving in either direction; namely, upwardly or downwardly, or longitudinally of the rails between which they are arranged. The locking wedge W that is interposed between the guard rail and the member 3 is also of novel construction, and comprises a wedge-shaped part 6 provided with a laterally projecting rib 7 that fits into a socket or recess in the member 3, said rib extending longitudinally of said wedge-shaped part 6. If desired, the wedge-shaped part 6 can be provided at one end with a laterally projecting wing 8 to which one end of the web 7 is integrally connected, said wing constituting a head which can be struck a blow so as to force the wedge into locking position. After the wedge has been driven into position the key 9 is inserted in one of the series of holes 10 in the web 7 so as to positively lock the wedge in position and prevent it from working loose. A T-shaped wedge of this construction is exceptionally strong, and as the means for locking it consists of a key 9 that is adapted to be inserted in one of a plurality of holes in the wedge, it is a very simple matter to lock the wedge or release it.

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

A guard rail clamp comprising a clamping member provided with a pocket for receiving portions of the base flanges of the rails and having a part that bears against the outer side of the web of one rail, a pair of wedge-shaped blocks interposed between the rails, coöperating diagonal ribs on said blocks that extend unbrokenly across the meeting faces of said blocks, said ribs being

adapted to interlock with each other, a locking device arranged between the guard rail and the clamping member and comprising a vertically disposed web that bears against the web of the guard rail, a longitudinally extending rib on said wedge that fits in a recess formed in the clamping member, a head on one end of said wedge that is formed integral with the longitudinally extending rib thereon, and a key arranged in an opening in said rib and bearing against one side of said clamping member for retaining said wedge in position.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this twenty-sixth day of November 1909.

ROBERT E. EINSTEIN.

Witnesses:

WELLS L. CHURCH,

GEORGE BAKEWELL.