

(No Model.)

P. EDELMAN.

GUARD RAIL CLAMP FOR RAILWAY TRACKS.

No. 454,639.

Patented June 23, 1891.

Fig: 1.

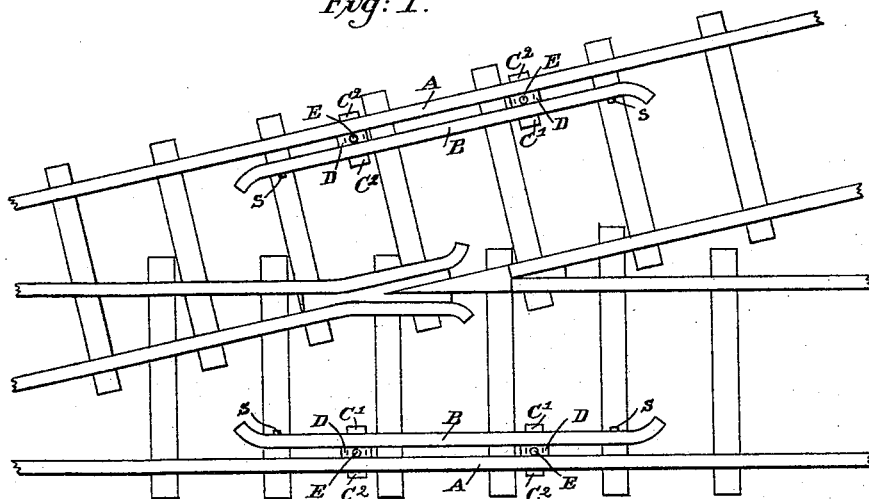


Fig: 2.

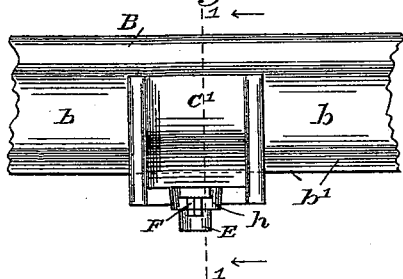


Fig: 3. Section 1-1.

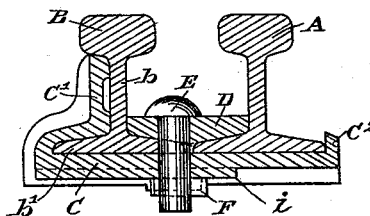


Fig: 6.

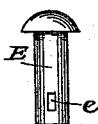


Fig: 5.

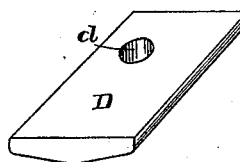
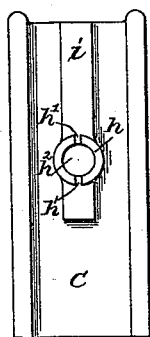


Fig: 4.



WITNESSES:

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GUARD-RAIL CLAMP FOR RAILWAY-TRACKS.

SPECIFICATION forming part of Letters Patent No. 454,639, dated June 23, 1891.

Application filed December 31, 1890. Serial No. 376,360. (No model.)

To all whom it may concern:

Be it known that I, PHILIP EDELMAN, a citizen of the United States, residing at Altamont, in the county of Albany and State of New York, have invented a new and useful Mechanical Device or Machine called by me "The Champion Guard-Rail Clamp," of which the following is a specification.

My invention relates to a device for the purpose of securing the guard-rail on railroad-tracks opposite the frog on switches to the main rail in said railroad-tracks; and the object of my improvement and invention is to secure the guard-rail to the main rail and the ties in such a permanent and solid manner as to prevent a passing train of railroad-cars from leaving the main track and running on a switch, thereby causing accidents to lives or property, unless regularly switched thereon, by reason of a loosening, moving, twisting, or turning of the guard-rail.

Said invention or device is constructed of malleable, cast, and wrought iron, and consists of four separate parts or pieces, and constructed, described, and combined as herein-after set forth: first, the bottom part or piece (marked C in the drawings) being ten inches in length, four inches wide, and one inch in thickness, with a hook or turn on one end about three-fourths of an inch in height, with a hook-brace on the other end about three inches in height, with a seven-eighth inch bolt-hole through the same near the center; second, the top part or piece or plate (marked D in the drawings) six inches long and three and one-half inches wide and three-fourths of an inch thick, beveled on both edges from the center on its underside, with a seven-eighth inch bolt-hole through the same near the center; third, a seven-eighth inch bolt (marked E in the drawings) four inches in length, with a key-hole in the end for keying the same; fourth, an iron key (marked F in the drawings) six inches long, one inch wide, and one-fourth of an inch thick, to fit the key-hole in the bolt and to be applied to the guard-rail and main rail as follows: the first or bottom piece to be placed under the rails with the small short hook on the end resting against the outside flange of the main rail and the the end with the brace-hook resting against

the inside of the guard-rail, running around the flange and up against the body of the rail; the second part or plate to be placed on the top of the flanges of both the guard-rail and main rail with the beveled side down; the third part or bolt to then be driven from the top through the hole in the plate down through the hole in the bottom piece; the fourth part or key to then be driven through the slot shown in the bottom piece through the key-hole in the lower end of the bolt, thus firmly and securely fastening the rails and this device or clamp solidly together or to each other.

The objects of the invention and the construction and mechanism are more fully illustrated and explained in the accompanying drawings, in which—

Figure 1 is a sectional view of a railroad-track, showing main rail A, guard-rail B; also, switch and frog with the guard-rail clamp attached to the rails and lettered and described, as shown in Figs. 2, 3, 4, 5, and 6.

Fig. 2 is a section of the guard-rail B b b', showing the brace end of the clamp C' attached, also the lower end of bolt E and key F in the same.

Fig. 3 is a vertical section of the entire clamp complete as attached to the rails A and B b b'. C is the bottom of the clamp. C' is the guard-rail end of the clamp. C² is the end of the clamp on the main rail. D is the clamp-plate fastened on the top of the flanges of the rails A and B. E is the bolt passing through the plate D and the bottom of the clamp C. F is the key in the bolt holding the plate D and the bottom of the clamp C securely together and firmly to the rails A and B.

Fig. 4 is the bottom or under side view of the clamp C. A strengthening-rib *i* is formed longitudinally on the bottom of the plate C at that end which is placed under the guard-rail, and the bolt-hole *h*² passes through the said rib. When the key is inserted through the end of the bolt, it bears against this rib *i*, and it is held in place and prevented from being twisted by the notches or guides *h*¹, formed in the guards *h*, which are provided on the under side of the plate C around the sides of the opening *h*².

Fig. 5 is the plate or top part of the clamp D.
Fig. 6 is the bolt E with the key-hole c in the lower end.

What I do claim for my invention, and desire to secure by Letters Patent, is—

5 The combination, with the guard and main rails, of the plate C, passed beneath the said rails and engaging the sides of the same and provided on its under side with the guards h,
10 having the guides h', the clamping-plate rest-

ing on the inner flanges of the rails, the bolt passed downward through the clamping-plate and the plate C, and the key inserted through the lower end of the bolt and through the guides h'.

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Witnesses:

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