

M. BURPEE.
 GUARD RAIL CLAMP.
 APPLICATION FILED SEPT. 5, 1908.

943,138.

Patented Dec. 14, 1909.

2 SHEETS—SHEET 1.

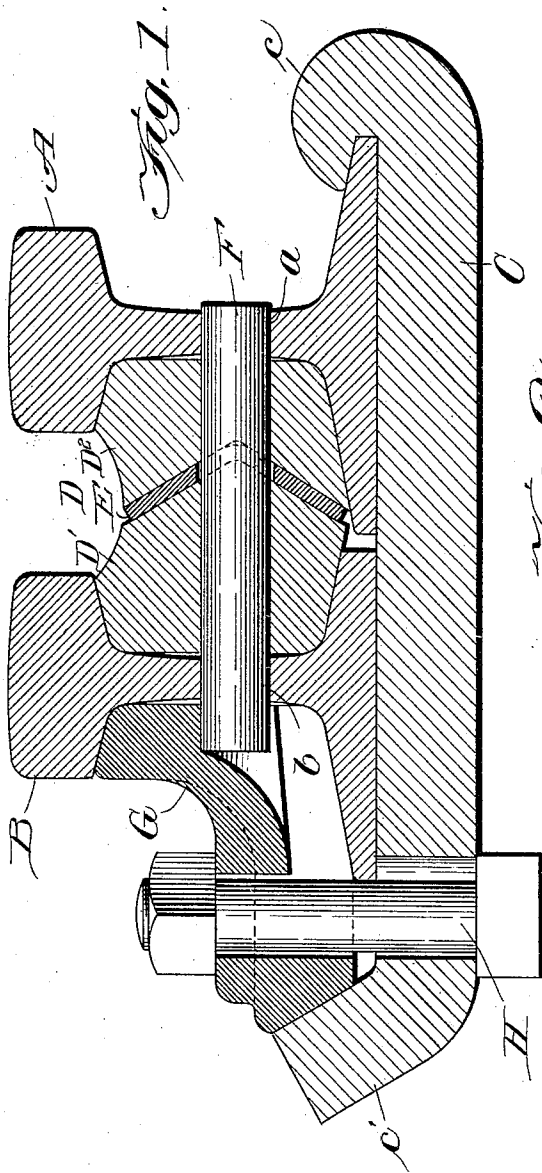
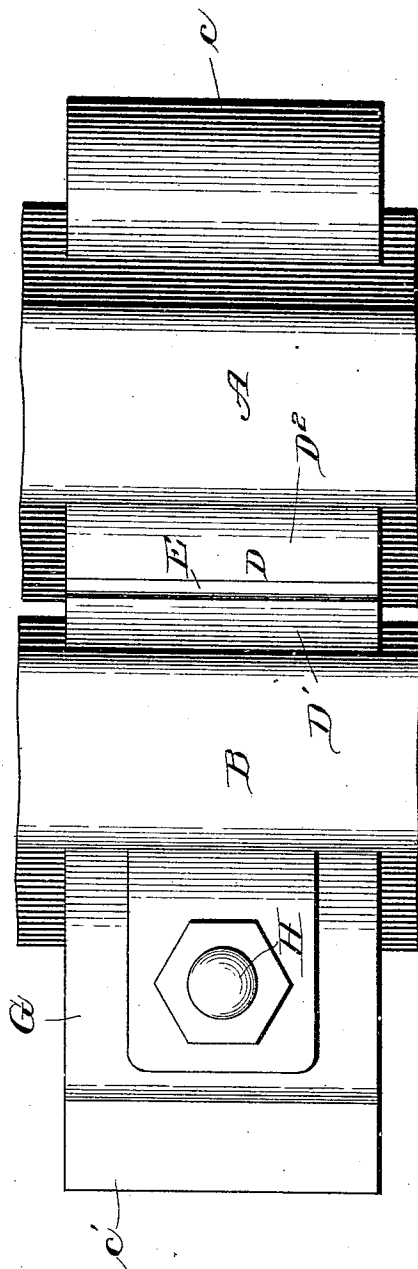


Fig. 1.



Witnesses:

Harry S. Grither
 Jm H. Freudenreich

Inventor:

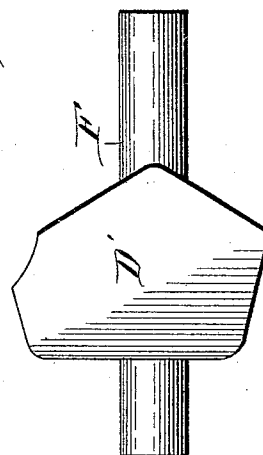
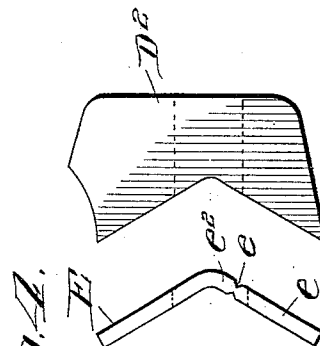
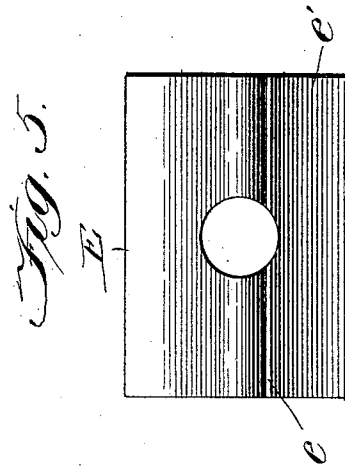
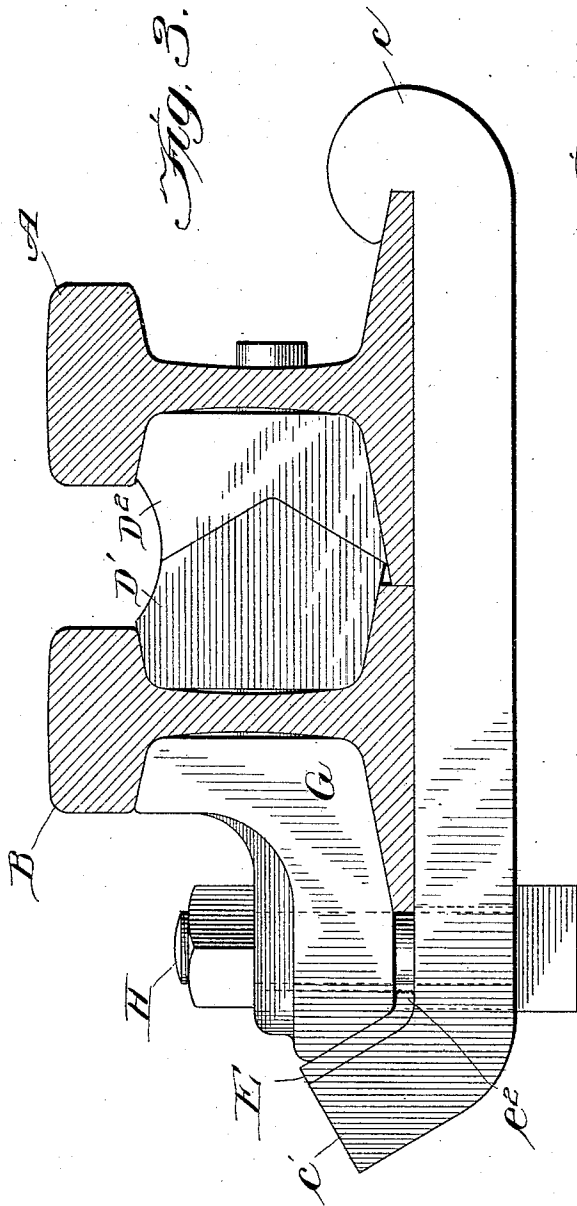
Moses Burpee

by Walter H. Kauler
 his atty

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 2 SHEETS—SHEET 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

MOSES BURPEE, OF HOULTON, MAINE.

GUARD-RAIL CLAMP.

943,138.

Specification of Letters Patent.

Patented Dec. 14, 1909.

Application filed September 5, 1908. Serial No. 451,852.

To all whom it may concern:

Be it known that I, MOSES BURPEE, a subject of the King of England, and a citizen of Canada, residing at Houlton, county of Aroostook, State of Maine, have invented a certain new and useful Improvement in Guard-Rail Clamps, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object to provide a simple durable and efficient device for securing together two rails such as a traffic rail and a guard rail associated therewith.

The various features of novelty whereby my invention is characterized will be hereinafter pointed out with particularity in the claims, but for a full understanding of my invention and of its object and advantages reference may be had to the following detailed description taken in connection with the accompanying drawings, wherein:

Figure 1 is a transverse section taken through a traffic rail and a guard rail and a clamping device arranged in accordance with a preferred form of my invention; Fig. 2 is a plan view of the parts shown in Fig. 1; Fig. 3 is a section through the rails taken at one side of the clamping device and showing a different adjustment from that in Fig. 1; Fig. 4 is a view showing the spacing block in exploded condition; and Fig. 5 is a side elevation of the filler forming part of the spacing block.

Referring to the drawings, A represents a traffic rail and B a guard rail. C is a yoke lying beneath and engaging with the bases of both rails. At one end of this yoke is a hook *c* which overlies the upper surface of the base of the traffic rail and in connection with the other parts hereinafter described prevents the guard rail from moving laterally in one direction or vertically. At the opposite end of the yoke is an upwardly and outwardly inclined projection *c'*.

D is a spacing block adapted to be arranged between the rails so as to hold them separated apart from each other and at the same time interlock them. This block is preferably made of two pieces, D', and D'', the meeting faces of the two members being formed so as to interlock with each other and prevent relative vertical displacement

after assembly. E is a washer or filler arranged between the two members of the spacing block and conforming to the shape of the adjacent faces of the members thereof. It will be seen that when the parts are assembled the washer or filler is prevented from being displaced in the vertical direction because of its interlocking engagement with the parts of the spacing block. A dowel pin F, preferably permanently secured to one of the members of the spacing block, projects laterally from the sides of the spacing block and enters openings *a* and *b* in the traffic rail and the guard rail respectively. By permanently securing the dowel pin to one of the members of the spacing block as, for example, the member D', no auxiliary fastening means need be provided for preventing the pin from becoming displaced.

On the side of the guard rail farthest away from the traffic rail is preferably placed a brace G of any suitable construction, it being so formed, however, as to fit between the underside of the head of the rail and the inclined projection *c'* on the yoke. The brace may conveniently be fastened in place by means of a bolt H passing through the brace and through the yoke. It will be seen that, when the parts are assembled and the bolt H tightened, the brace will be drawn downwardly and at the same time inwardly, thereby forcing the guard rail toward the traffic rail and the traffic rail into close engagement with the hook at the opposite end of the yoke. Consequently the entire clamping device and the two rail members are bound into one rigid whole by means of the single bolt, and, as long as this bolt remains in position, there is no danger of accidental displacement of any of the parts.

When the guard rail has become worn by the flanges of passing wheels the washer or filler E is removed and the guard rail is moved closer to the traffic rail thereby compensating for the wear which has taken place. The washer or filler when removed from the spacing block is used as illustrated in Fig. 3, namely, by being placed between the end of the brace G and the portion *c'* of the yoke. By this means all of the parts are maintained in their proper relations with respect to each other and the space in yoke C, between hook *c* and inclined projection *c'* is completely filled. Since the

meeting faces of the two members of the spacing block are preferably shaped so as to form a V when viewed in the direction longitudinally of the rail, the washer or filler is preferably weakened along the longitudinal line as at *c* so that a portion thereof *c'* may be broken from the main portion before the washer is applied to its new use as a filler between the brace and the yoke.

10 By making the angle which the meeting faces of the two halves of the spacing block form equal to the angle which the projection *c'* forms with the main portion of the yoke, the weakened line on the washer or filler may be placed at one side of the center so as to leave a hook-like portion *c''* which underlies the lower face of the brace G and prevents accidental displacement of the mutilated washer when used as indicated

20 in Fig. 3.

Instead of using the adjustable spacing block illustrated it may at times be found convenient to use a solid block. By reason of the peculiar construction of my improved adjustable block it acts to all intents and purposes as a solid block after having once been assembled in operative relation to the rails.

When a train is passing over the traffic rail there is a lateral thrust against the head of the guard rail and a tendency to tilt the guard rail about the outer lower corner. This action is of course resisted by the brace G, but also by the load upon the traffic rail for the reason that a tilting action on the part of the guard rail produces an upward thrust beneath the head of the traffic rail through the spacing block. The lateral component of this thrust is such that a brace upon the outside of the traffic rail is unnecessary, the main component of the thrust being resisted by the load.

While I have described in detail only a single preferred embodiment of my invention I do not desire to be limited thereto since in its broader aspects my invention may take various other forms as will be evident from the terms employed in the definitions of my invention constituting the

50 appended claims.

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

1. In combination, a traffic rail and a guard rail, a base member underlying said rails and engaging with the bases thereof, a jaw integral with said member and overlying the base of the traffic rail, an upwardly and outwardly inclined projection on said member adjacent to the outer side of the guard rail, a spacing block between the rails, and a brace arranged between said inclined projection and the under side of the head of the guard rail.

2. In a guard-rail clamp, a two-part space block, a dowel pin permanently-secured to one member of said block, and the other member of said block being perforated to receive said pin, said pin being long enough to project entirely through the latter member.

3. In a guard-rail clamp, a two-part space block, and a dowel pin extending through said block and projecting therefrom on opposite sides thereof, said dowel pin being permanently secured to one of the members of said block.

4. In combination, a traffic rail and a guard rail, a base member underlying said rails and engaging with the bases thereof, a jaw integral with said base member and overlying the base of the traffic rail, an upwardly and outwardly inclined projection on said base member adjacent to the outer side of the guard rail, a spacing block between the rails, a brace arranged between said inclined projection and the outside of said guard rail and a bolt passing downwardly through said brace and said base member, said base member having an elongated opening through which said bolt passes so as to permit the brace to be adjusted transversely of the rails.

In testimony whereof, I sign this specification in the presence of two witnesses.

MOSES BURPEE.

Witnesses:

E. C. ALEXANDER,

C. E. F. STETSON.