

(No Model.)

H. ELLIOT, Jr.
RAILWAY RAIL BRACE.

No. 560,982.

Patented May 26, 1896.

Fig. I.

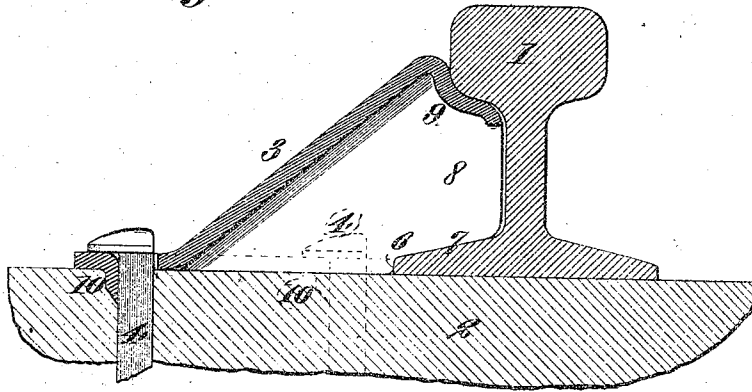


Fig. II.

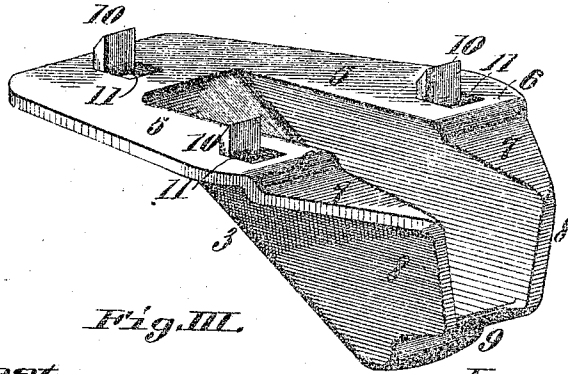
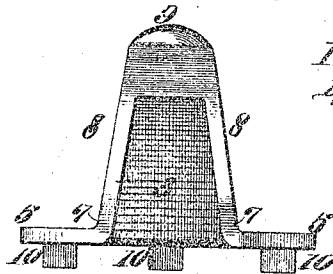


Fig. III.



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RAILWAY-RAIL BRACE.

SPECIFICATION forming part of Letters Patent No. 560,982, dated May 26, 1896.

Application filed February 26, 1896. Serial No. 580,824. (No model.)

To all whom it may concern:

Be it known that I, HENRY ELLIOT, Jr., of the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Railway-Rail Braces, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to that class of railway-rail braces such as are used by the Pennsylvania Railway Company, and illustrated by a blue print deposited in the Patent Office about October 1, 1888, and such as are set forth in the Alkins patent, No. 365,222, dated June 21, 1887, and the Weir and Partington patent, No. 407,753, dated July 23, 1889; and my invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a vertical transverse section of a rail and my improved brace. Fig. I. is an inverted perspective view of the brace. Fig. III is an end view of the brace.

Referring to the drawings, 1 represents an ordinary railway-rail, and 2 one of the ties. 3 represents my improved brace, and 4 the spikes.

The brace has a flat bottom 5, that rests upon the tie, shoulders 6, that bear against the vertical edge of the base of the rail, inclined faces 7, that bear against the top of the base of the rail, diverging sides 8, and a shoulder or head 9, that fits beneath the head or tread of the rail.

The object of my invention is to provide such a brace with means that will prevent it from working horizontally away from the rail and with means that will cause it to be tightened against the rail as the spikes are driven. The spikes have heretofore been depended upon to hold these braces; but the spikes in practice never fit the holes accurately, thus allowing for some play to the braces, and, moreover, in time the spikes work loose in the ties, allowing the braces to shift laterally to a limited extent, which thus far destroys

their efficiency. I avoid these difficulties by providing the lower face of each brace with toes or projections 10, that are embedded in the tie, as shown in Fig. I, and which serve to keep the brace tight up against the rail even should the spike not fit tight against the inner edges of the spike-holes in the brace. These toes or projections I prefer to form by bending down the metal that is displaced to form the spike-holes 11, as shown in Fig. II, so that the projections do not add to the cost of the brace, for if these projections were not turned down they would be entirely removed in forming the spike-holes and would be mere scrap, without any commercial value. As shown in the drawings, the projections are formed with chisel-shaped lower ends, the inclines being presented outwardly. The result of this is that when the brace is placed in position with the projections resting on the tie and the spikes are driven down, the projections will draw the brace toward the rail, and when the spikes are fully driven and the base of the brace brought down into contact with the tie the shoulder 9 and the inclines 7 will bear, respectively, in close and firm contact with the tread and base of the rail.

I claim as my invention—

1. A rail-brace of the character described, having toes or projections extending downwardly from the bottom thereof, said projections being formed with chisel-shaped ends, the inclines of which are presented outwardly, substantially as and for the purpose set forth.

2. A rail-brace of the character set forth, consisting of a flat bottom 5, shoulders 6, inclined faces 7, diverging sides 8, head 9, and integral projections 10 extending downwardly from the bottom of the brace, substantially as set forth.

HENRY ELLIOT, JR.

In presence of—

W. FINLEY,
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