(No Model.)

P. SEMONIN.

RAILROAD TRACK AND TIE.

No. 421,769. Patented Feb. 18, 1890.

FIG. 1.

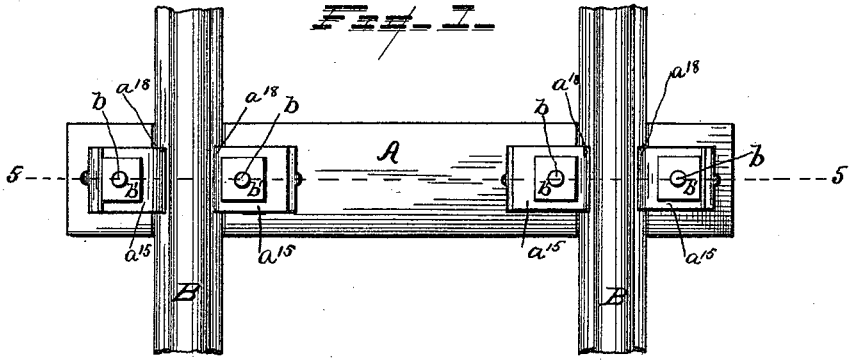
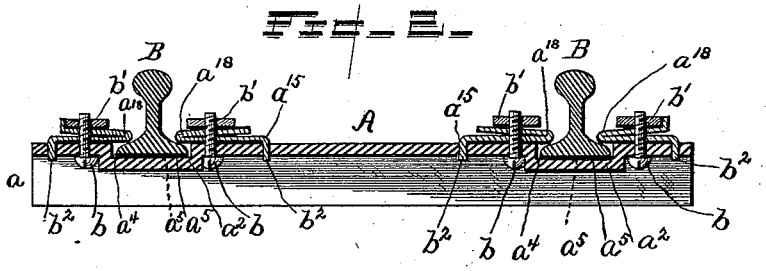


FIG. 2.



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RAILROAD TRACK AND TIE.

SPECIFICATION forming part of Letters Patent No. 421,769, dated February 18, 1890.

Application filed February 25, 1889. Serial No. 301,144. (No model.)

To all whom it may concern:

Be it known that I, PETER SEMONIN, a citizen of the United States, residing at Evansville, in the county of Vanderburg and State of Indiana, have invented a certain new and useful Improvement in Railroad Tracks and Ties; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to railroad tracks and ties for the same.

The main object of my invention is to so construct the road that the danger of the track slipping will be reduced to the minimum.

The secondary object of the invention is to attach the rails securely to the ties, to provide means for reducing the noise, and at the same time add to the resiliency of the track.

There are also minor objects, which will hereinafter be referred to.

The invention consists of constructions and combinations, all as will be hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 represents a top plan; and Fig. 2, a longitudinal section on line 5 5, Fig. 1.

A represents the ties, made of sheet or wrought iron, and B the rails. The ties are made in any desired form in cross-section, but preferably as shown in the drawings. Near each end is a depression a^2, which extends below the under side of the tie and forms a recess a^4, in the bottom of which is placed a packing a^5, of any suitable material, for the rails B to rest on. The packing may be formed of india-rubber, gutta-percha, sheet metal, asbestus, wood of any suitable thickness and durability, or any other material that may be known or suggested. By using gutta-percha or rubber the cushion can be made to stand any degree of resistance and to carry any size or weight of rolling-stock. This is a very important point, as both the rail and tie are made of metal and unless some resilient material be introduced between them the jarring and concussion would be unbearable and the rails and ties would become crystallized and liable to break after a certain time. The distance of the side walls of the recess from each other is a little greater than the width of the foot of the rail, so that when the rail is seated in the recess the walls of the latter will prevent all lateral movement, and thus preserve the gage and avoid all danger of the track spreading or the train being derailed from such causes. The rails are held in place by clips a^{15}, formed of copper, iron, or steel plates bent upon themselves and having the bend a^{18} overlapping the foot of the rail, so as to have the stiffened portion thereof at the point of greatest resistance. They are held in place by bolts b and nuts b'. The upper end of the plates is turned to form a lock for the nut, while the lower end is provided with a projection b^2, embedded in the tie to prevent the plate from turning.

What I claim as new is—

1. The combination of the tie, the rail, and the bent spring-clips having one end secured to the tie and bent upon itself, the elbow of the bent portion overlapping the foot of the rail, and nuts and bolts for holding the parts in place.

2. The combination of the tie having the depressions or recesses at each end, the rails seated in said depressions or recesses, and the bent spring-clips secured in place by bolts and nuts and having the bent portion overlapping the foot of the rails.

3. The combination of the tie having the depressions or recesses at each end, the rails seated in said recesses or depressions, a packing between the rails and bottom of the recesses or depressions, and the bent spring-clips secured to the ties and having their bent portion overlapping the foot of the rails.

4. The combination of the ties, the rails, and the clips held in place by nut and bolt and having one end secured to the tie and the other bent over the nut of the clip-retaining bolt.

5. The combination of the tie having the depressions or recesses at each end, the rails seated in said depressions or recesses, and the clips held in place by nuts and bolts, and having one end secured to the tie and the other bent over the nut of the clip-retaining bolt.

In testimony whereof I affix my signature in presence of two witnesses.

PETER SEMONIN.

Witnesses:
GEO. L. DIXON,
CHARLES W. FUHRER.