F. B. BYERS.

ANTI-RAIL CREEPER AND SPLICE BAR.

APPLICATION FILED JULY 29, 1911.

1,023,991. Patented Apr. 23, 1912.

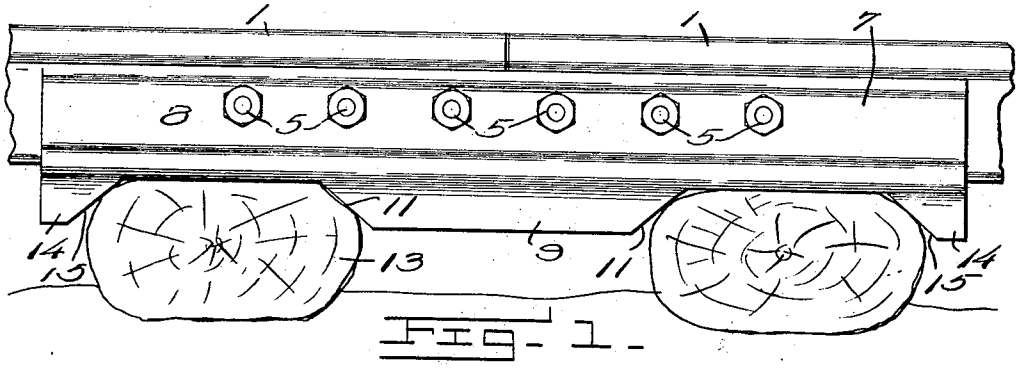


Fig. 1.

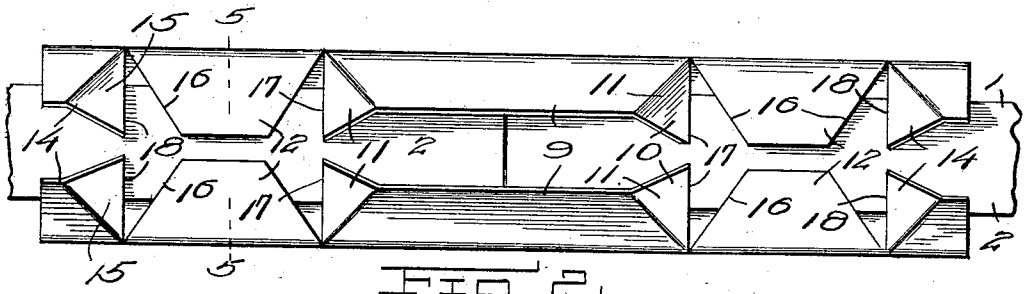


Fig. 2.

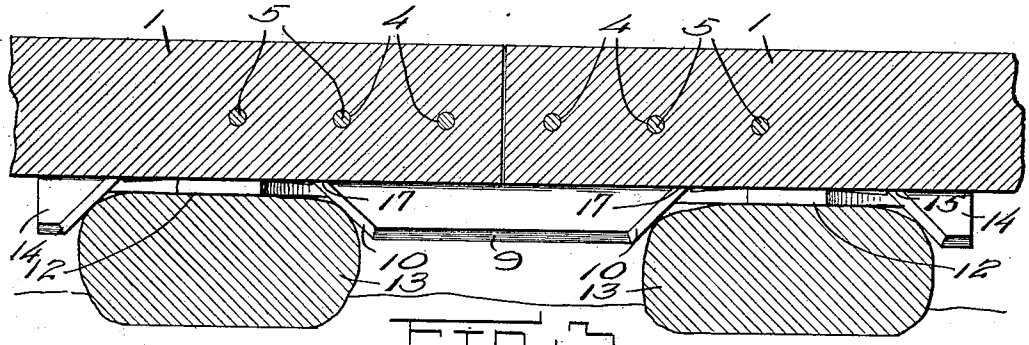


Fig. 3.

Fig. 4

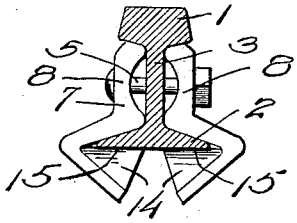
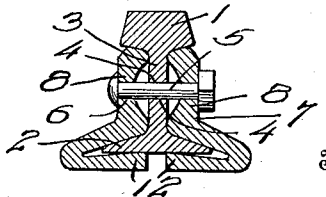


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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ANTI-RAIL-CREEPER AND SPLICE-BAR.

1,023,991. Specification of Letters Patent. Patented Apr. 23, 1912.

Application filed July 29, 1911. Serial No. 641,196.

To all whom it may concern:

Be it known that I, FIRM B. BYERS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Anti-Rail-Creepers and Splice-Bars, of which the following is a specification.

This invention relates to splice bars or holders for rails at their meeting ends or intermediate thereof, and has for its object to so construct a device of this character adapted to bear upon and engage a plurality of ties so as to prevent movement of the same toward or away from each other.

A further object of the invention is to provide a device of this character which will prevent the breaking or cracking of the base flanges of the rail when clamped.

A still further object of the invention is to produce a device of this character which will permit the use of a sixty foot rail as well as the conventional thirty foot rail, and in each instance imparting the necessary stability, and at the same time permitting the usual expansion and contraction of the rails due to change of temperature, but preventing the sliding and buckling of the rails during travel of heavy locomotives and trains thereover.

With these and other objects in view the invention consists of certain novel details of construction and combination of parts hereinafter described and pointed out in the claims.

In the accompanying drawings: Figure 1 is a side elevation, showing the device applied upon a portion of a track. Fig. 2 is a bottom plan view of the device in use upon a portion of a track. Fig. 3 is a longitudinal sectional view of a portion of a track rail. Fig. 4 is an end view. Fig. 5 is a sectional view on line 5—5, Fig. 2.

Referring to the drawings, the numeral 1 designates the usual rail, the same being formed with a flanged base and web, 2 and 3, respectively. The web 3 is provided with a series of alined openings 4, and through which clamping bolts 5 are passed. Suitable apertures 6 are formed in the splice bars 7, said apertures being adapted to register with the bolt openings 4 of the web, said bolts firmly clamping the splice bars or holders in their proper position upon the meeting ends of the rails or intermediate thereof. The splice bars or holders are formed from rolled metal, and are each provided with webs 8, the upper edges of which are so shaped as to fit snugly against the lower face of the rail head. Each web 8 of the splice bars is provided at its lower edge with central portions which are inwardly directed so as to form downwardly inclined lugs 9, the opposite edge of each lug having an angularly bent portion 10, the converging outer edge of each portion 10 being adapted to rest flush against the under side of the flanged base of the rails, thereby forming tie engaging faces 11. Upon the opposite sides of the lugs 9 are formed inwardly bent flanges 12, the side edges of which converge, as clearly shown in Fig. 2 of the drawing, and upon which the rail bases rest.

Formed near the extreme outer end of each bar or holder 7 are angular extensions 14, said extensions being so bent as to provide tie engaging faces 15, the upper edges of said extensions, like those of the portions 10, being adapted to lie flush against under surface of the rail base.

It will be noted that each bar or holder 7 is formed from a single piece of rolled metal and is so cut or sawed to produce oppositely disposed converging side edges 16 upon the flanges 12, the bent portions 10 being also provided with converging edges 17, resulting from the method of cutting or sawing of the lugs, which when bent assume a position flush against the under side of the rail base. By this mode of cutting or sawing, the extensions 14 are likewise provided with converging edges 18, and when for contact with the rail bases rest flush against.

The flanges 12 are each gradually thickened, as at 19, toward their outer edges, so as to produce a space between the outer edges of the flanges of the rail bases, but at the same time permitting the under surfaces of the flanges to rest flat upon the upper surface of the ties 13, and thus prevent the initial weight of traffic from breaking the rail base flanges.

In applying the device, the bars or holders are placed upon opposite sides of the rails at their meeting ends or intermediate thereof, and in a position relative to the ties 13 so that the portions 10, with their tie engaging faces 11, will rest against the confronting sides of a pair of ties and the extensions 14 will engage the outer sides of

a pair of ties, thus firmly holding the same at all times in their proper spaced relation, when clamped to the rails. The bars or holders 7 are secured to the ties in any well known manner, and will not only prevent movement of the ties, but will prevent any undue creeping and buckling of the rails.

It will be understood that when in use upon a sixty foot rail the bars or holders are clamped not only at the meeting ends of the rails, but placed intermediate thereof, thus permitting the use of such rails, whereas, if only used at the meeting ends, the rails would spread or buckle due to the unusual length, the sliding movement of a sixty foot rail necessarily being greater than a thirty foot rail.

From this construction it will be seen that the device may be used not only at the meeting ends of the rails, but may be placed intermediate the ends when used upon sixty foot rails, thereby anchoring the same firmly against sliding or creeping at their centers.

Having thus described my invention, what I claim is:

1. The combination with the meeting ends of rails, of splice bars or holders comprising webs having inwardly and downwardly inclined lugs, the opposite ends of each lug having angularly bent portions which engage the confronting sides of a tie.

2. The combination with the meeting ends of rails, of splice bars or holders comprising webs having central inwardly and downwardly inclined lugs, angularly bent tie engaging portions formed integral at each end of said lugs and upon which the rail bases rest, each web being further provided near its extreme outer ends with angular extensions, the upper edges of both the angular bent portions and extensions resting flush against the under surface of the rail bases, thereby forming tie engaging faces for contact with the confronting sides and outer sides of a pair of ties, and means for clamping said bars or holders to the rails.

3. The combination with a track rail, of a plurality of ties, splice bars or holders having a pair of inwardly and downwardly inclined lugs arranged in opposing relation, each lug being provided with angular tie engaging portions, inwardly bent flanges at each end of said lugs, and a pair of alined angular extensions formed near the extreme outer ends of the bars or holders, and arranged in opposing relation, said portions and extensions engaging a tie upon opposite sides, and means for clamping the bars or holders to the rail.

4. The combination with a track rail, of splice bars or holders comprising webs having downwardly and inwardly inclined lugs, angular extensions, inwardly bent flanges arranged between said lugs and extensions, and being gradually thickened toward their outer edges, whereby a space is provided for the reception of the usual flanges of the rail base.

5. The combination with a track, of splice bars or holders formed each from a single piece of rolled metal, and comprising webs having formed at their central lower edges a pair of opposing lugs being so cut as to produce converging outer ends, which when bent form tie engaging faces, the outer edges of each lug being adapted to rest against the under side of a rail base, a pair of oppositely disposed angular extensions formed near the extreme outer end of each web, said extensions also having convergingly cut inner edges for engagement with the base of the rails, a pair of oppositely disposed flanges arranged between the outer ends of the lugs and inner edges of said extensions, said flanges having their opposite side edges cut convergingly during the sawing or cutting of the webs.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FIRM B. BYERS.

Witnesses:
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