

J. S. BUTCHER,
RAILROAD TIE.
APPLICATION FILED MAY 13, 1910.

980,758.

Patented Jan. 3, 1911.

Fig. 1.

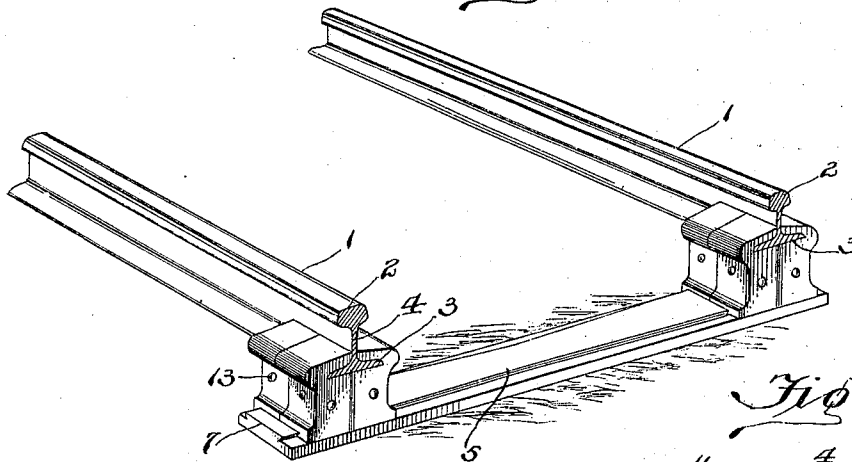


Fig. 2.

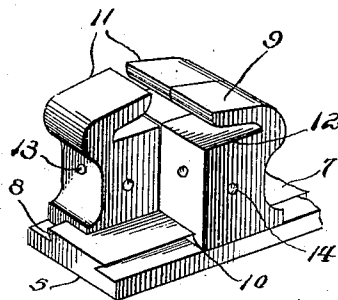


Fig. 4.

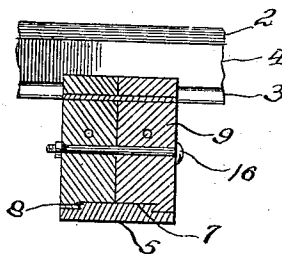


Fig. 3.

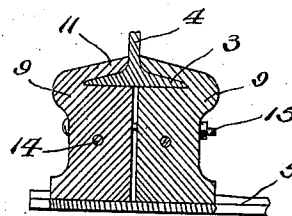


Fig. 5.

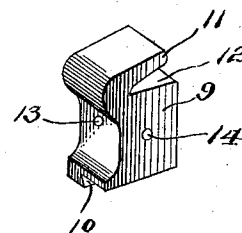
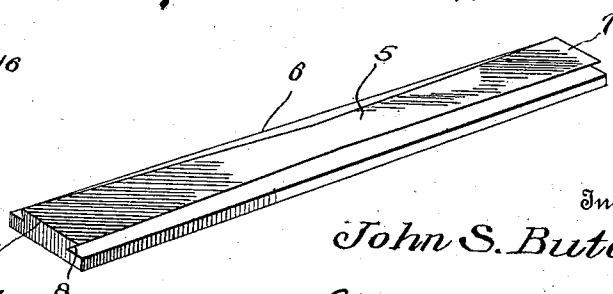


Fig. 6.



Witnesses

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RAILROAD-TIE.

980,758.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN S. BUTCHER, a citizen of the United States, residing at Vineland, in the county of Cumberland and State of New Jersey, have invented new and useful Improvements in Railroad-Ties, of which the following is a specification.

This invention relates to improvements in rail ties, and the object of the invention is to provide a simple and effective device for preventing the spreading of the rails.

The invention resides in the novel construction and combination of elements hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a pair of rails provided with the improved tie or anti-spreading device. Fig. 2 is a detail perspective view of one of the ends of the device with the rails removed. Fig. 3 is a horizontal sectional view through one end of the device. Fig. 4 is a transverse sectional view of the same. Fig. 5 is a detail perspective view of one of the clamping jaws removed from the tie. Fig. 6 is a similar view of the tie.

In the accompanying drawings the numerals 1 designate a pair of rails. Each of the rails 1 is of the ordinary construction, comprising a head 2, a base flange 3 and a connecting web 4.

The numeral 5 designates the improved tie. This tie 5 is constructed of some suitable metal and comprises substantially a rectangular member. The tie 5 is centrally provided with a longitudinal integrally formed enlargement 7 and the said enlargement has its opposite longitudinally extending edges undercut toward the center of the tie as designated by the numeral 8. The enlargement 7 is so formed that its central portion is reduced and its edges 8 extend at opposite angles toward the ends of the tie, so that the outer extremities of the enlargement are of greater widths than the center of the tie, whereby the inner clamping members, hereinafter to be described, may be slid free of the rails and removed from the tie without the necessity of disconnecting said members.

The numeral 9 designates the clamping elements for each of the rails. These elements 9 are of a similar construction and the reference characters applied to the securing element upon one of the rails and tie

may be taken as equally applicable to the opposite rail and the opposite end of the tie. The member 9 has its base portion horizontally straight to correspond with the flattened face of the tie 5 adjacent the offset or enlargement 7. The clamp comprises a plurality of members, preferably four in number, and each of these members has its base provided with a substantially V-shaped tongue, which is adapted to engage the inclined side wall 8 of the member 7. Each of the members comprising the clamp has an overlying jaw 11 and positioned directly below the said jaw is a horizontally straight bearing surface 12, the latter being adapted for the reception of the base flange of the rail, while the overlying jaw is adapted to contact and engage the upper face of the said rail. It will be noted by reference to Figs. 1 and 2 of the drawings that a pair of the said clamping elements are arranged adjacent each of the sides of the rail and the body portion of each of the members comprising the tie is provided with longitudinal openings 13 as well as transverse openings 14, and the said openings are adapted to align when the members comprising the clamp are positioned for the reception of retaining members 15 and 16, whereby the members comprising the clamp are effectively and securely retained upon the edges 7 of the tie 5 and whereby longitudinal or lateral movement of the said members is effectively prevented.

Having thus fully described the invention, what I claim as new is:—

1. In a device of the character described, a tie, said tie being provided with a centrally arranged longitudinally extending projecting portion, the longitudinal edges of the said projection being undercut and converging toward the longitudinal center of the tie, clamping members for the ends of the tie, said clamping members comprising a plurality of elements, each of said elements having its base member provided with an angular cut away portion adapted to engage with the undercut edges of the projection of the tie, the elements being arranged in pairs adjacent each other, and means for securing the members together both longitudinally and transversely.

2. In a device for the purpose set forth, a metal tie, said tie comprising a substantially rectangular member having a central longi-

itudinally projecting portion, the edges of the
said projecting portions being undercut and
converging toward the longitudinal center
of the tie, clamping members for the ends,
5 said clamping members comprising four ele-
ments, each of said elements having a base
portion provided with an offset inclined por-
tion adapted to engage with the undercut
projection of the tie, each of the clamping
10 members being further provided with an
overlying lip and a horizontally straight

portion positioned directly below the lip, the
members being further provided with longi-
tudinal and transverse openings, and re-
movable securing elements for the openings. 15

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

JOHN S. BUTCHER.

Witnesses:

OLIVE EBERASPERGER,
IRA P. SHARP.