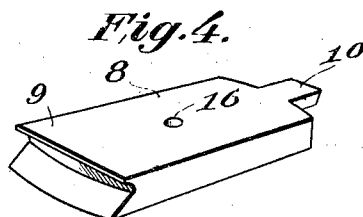
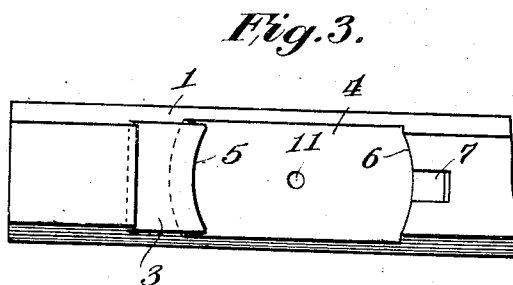
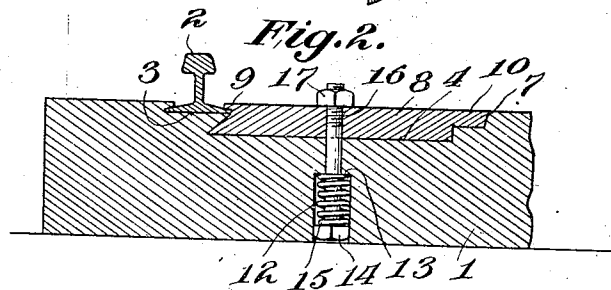
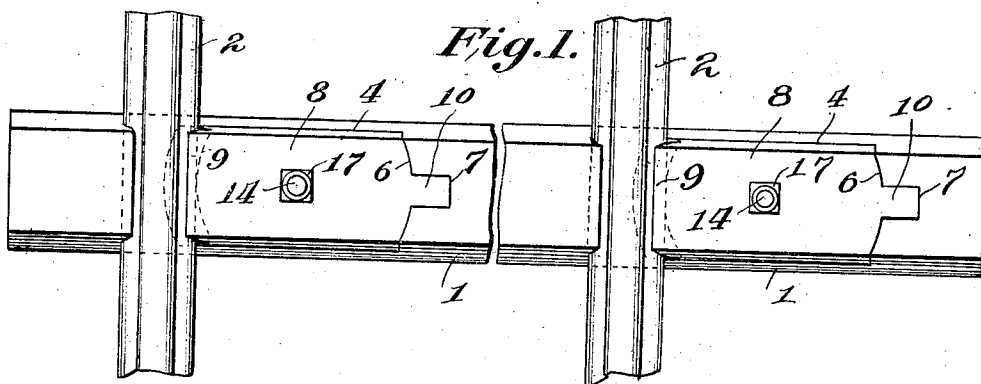


1,005,657.

R. E. SCHMITZ.
RAILROAD TIE.
APPLICATION FILED MAY 6, 1911.

Patented Oct. 10, 1911.



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UNITED STATES PATENT OFFICE.

RUDOLPH E. SCHMITZ, OF CALIO, NORTH DAKOTA.

RAILROAD-TIE.

1,003,657.

Specification of Letters Patent.

Patented Oct. 10, 1911.

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To all whom it may concern:

Be it known that I, RUDOLPH E. SCHMITZ, a citizen of the United States, residing at Calio, in the county of Cavalier and State of North Dakota, have invented new and useful Improvements in Railroad-Ties, of which the following is a specification.

This invention relates to improvements in ties for railway rails, and the object of the invention is to provide a tie having means forming a part of said tie whereby the rails are securely and effectively sustained upon the tie.

With the above, and other objects in view, which will be more apparent as the nature of the description progresses, the invention resides in the novel construction and arrangement of parts hereinafter fully described and claimed.

In the drawings—Figure 1 is a perspective view of a tie constructed in accordance with the present invention, a pair of railway rails being illustrated as positioned thereon. Fig. 2 is a central longitudinal sectional view through one end of the tie. Fig. 3 is a perspective view of one end of the tie, the lock being removed. Fig. 4 is a similar view of the rail locking member.

In the drawings, the numeral 1 designates the improved tie, and 2 the rails positioned upon the tie.

The tie 1 may be constructed of any desired or preferred material, the same being of sufficient length and having its side the longitudinal faces inclined from the bottom of the tie toward the top thereof, the object being to provide means whereby the ballast of the road will engage the said beveled or inclined faces to sustain the tie immovably upon the bed. The upper face of the tie adjacent its opposite ends is provided with a depressed portion 3, the transverse wall formed by the said depression being beveled to provide rail base flange engaging members. The face of the tie adjacent the said depressed portions 3 is also formed with recessed pockets 4, and the opposite transverse walls provided by the said pocket are both rounded as designated by the numerals 5 and 6. The wall 5 is beveled or inclined downwardly from the floor provided by the depression 3, as clearly illustrated in Fig. 3 of the drawings, while the opposite wall 6 is substantially vertically straight.

The numeral 7 designates a depression or

groove, the same communicating with the wall 6 and with the pocket.

The numeral 8 designates the lock. This lock is of a size and shape adapted to engage within the pocket 4 to snugly contact with both the inclined wall 5 and the straightened wall 6 formed by the said pocket. The lock 8, when positioned within the pocket, has its upper face parallel with the upper face of the tie, and the portion of the lock adjacent the inclined wall provided by the depression 3 is formed with an outwardly extending V-shaped portion or mouth 9 which is adapted to engage with the inner base flange of the rail. The lock 8 is formed adjacent its vertically straight end with a tongue 10, and the said tongue is adapted to be received within the groove 7 of the tie.

Each of the pockets of the tie is centrally provided with an opening 11, the said opening being reduced adjacent the walls of the pockets and having an enlarged extending portion 12, so as to provide the shoulders 13 between the said openings.

The numeral 14 designates the headed threaded member which is adapted to be inserted through the openings. This member is provided with a helical spring 15, the said spring being adapted to contact with the shoulder 13. The lock 8 is also centrally provided with an opening 16, through which the projecting portion of the threaded element extends, and the numeral 17 designates a nut which is connected with the threaded extension. The spring of the threaded member bearing between the head of the said member and the shoulder 13 at all times exerts downward pressure so as to force the nut 17 tightly against the lock 8, and thereby prevent the accidental removal of the said nut from the threaded member or bolt.

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

1. A tie for railway rails, the said tie being formed adjacent each of its ends with a depression having one of the walls formed thereby beveled, the said tie being provided with pockets which communicate with the depressions, the wall between the pockets and the depressions being inclined and rounded, the opposite wall of each of the pockets communicating with a centrally arranged groove, a locking member having 11

one of its ends formed with a substantially V-shaped mouth and its opposite end arranged and provided with a tongue which is adapted to engage within the groove removably and resiliently secured within the pocket.

2. A tie for railway rails having its upper face adjacent its opposite ends formed with a depression, each of the said depressions being inclined to form a lip which is adapted to receive one of the longitudinal edges of the base flange of a rail, the tie being provided with a pocket which is arranged below and which communicates with a depression, the wall of the depression and pocket being inclined, the opposite wall provided by the pocket being formed with a registering groove, the pocket being centrally provided with an opening, a locking element of a size and shape corresponding with the pocket, said locking element having one of its ends substantially V-shaped to engage with the inclined wall of the pocket, the opposite end of the locking element having a tongue which is received within the groove, the said locking element having an opening registering with the opening of the pocket, a headed threaded element engaging both of the openings, and having its head arranged within the opening of the tie, a

helical spring contacting the head of the said element and exerting pressure between the said element and the tie, and a nut arranged upon the upper face of the locking element and engaging with the threaded extension of the bolt.

3. A tie for railway rails comprising a member having its face adjacent its ends formed with depressions, each of said depressions having an inwardly extending angular wall, the tie adjacent each of the said depressions being provided with a pocket, the wall of the pocket adjacent the depression being rounded and inclined, the opposite wall being rounded and substantially vertically straight, a lock having its end walls corresponding with the walls of the pocket adapted to be received within said pocket, the said pocket having its inner wall formed with an angular extension partly overlying the depression, and means including a resilient element for retaining the lock upon the pocket.

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

RUDOLPH E. SCHMITZ.

Witnesses:

W. H. REMPEL,
H. P. SCHMITZ.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."