

J. M. HALFPENNY.
RAILROAD TIE AND RAIL SEAT.
APPLICATION FILED JAN. 16, 1913.

1,062,459.

Patented May 20, 1913.

Fig. 1.

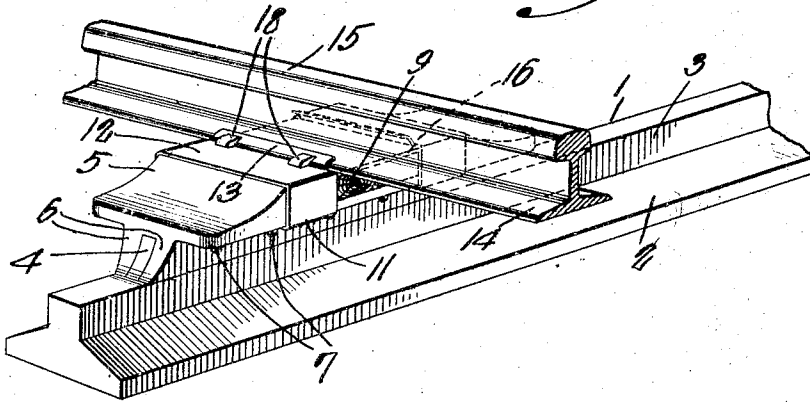


Fig. 2.

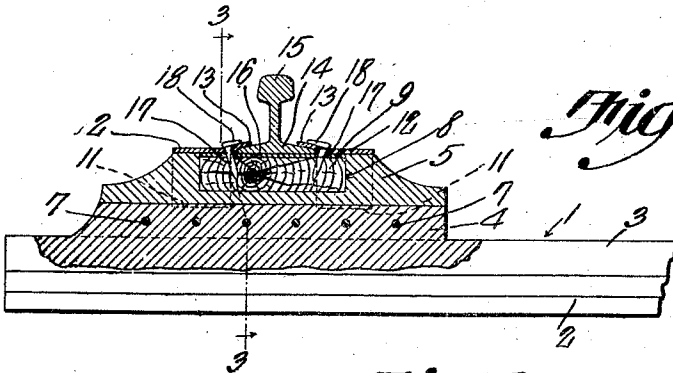


Fig. 3.

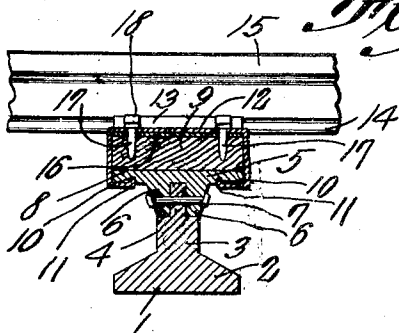
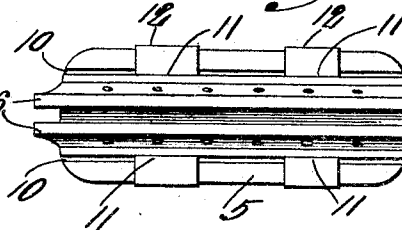


Fig. 4.



Witnesses

J. M. Halpenny
Witness

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UNITED STATES PATENT OFFICE.

JAMES M. HALFPENNY, OF JUNIATA, PENNSYLVANIA, ASSIGNOR TO JAMES M. HALFPENNY AND LEWIS D. ROBERTS, BOTH OF JUNIATA, PENNSYLVANIA.

RAILROAD-TIE AND RAIL-SEAT.

1,062,459.

Specification of Letters Patent.

Patented May 20, 1913.

Application filed January 15, 1913. Serial No. 742,294.

To all whom it may concern:

Be it known that I, JAMES M. HALFPENNY, a citizen of the United States, residing at Juniata, in the county of Blair and State of Pennsylvania, have invented a new and useful Railroad-Tie and Rail-Seat, of which the following is a specification.

The present invention relates to improvements in railroad ties and rail seats, the primary object of the present invention being the provision of a metallic tie provided with means whereby a rail carrying seat is properly positioned thereupon, said rail seat being provided with means whereby the base of the rail is properly gripped and held against spreading, the base also being properly supported so as to have the desirable cushioning effect of a wooden tie.

A further object of the present invention is the provision of a rail seat adapted to be rigidly yet adjustably connected to a metal tie, the same being provided with a spike receiving and yielding cushion for the rail base, so that the rail is properly secured in place and permitted the necessary longitudinal movement due to contraction and expansion.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings—Figure 1 is a perspective view of one end of a railroad tie and one rail seat with a portion of the rail positioned thereupon. Fig. 2 is a cross section through the rail and a corresponding section through the rail seat and adjacent portion of the tie. Fig. 3 is a cross section taken on line 3—3 of Fig. 2. Fig. 4 is a bottom plan view of the rail seat.

Referring to the drawings, the numeral 1 designates the metal tie, which is formed with the base 2, which with the web or flange 3 is substantially T-shaped in cross section, the web 3 adjacent each end thereof being provided with the reduced flange or rib 4 for carrying the rail seat 5. This rail seat 5 is composed of metal and is provided with the longitudinally disposed and spaced ribs

6 which are so disposed as to permit of the fitting of the rib or flange 4 of the web 3 therebetween, so that the rivets or bolts 7 may properly retain the rail seat 5 upon the rib 4 so that the ribs will constitute a rigid connection between the tie 1 and the rail seat 5. This rail seat 5 is provided with the transversely disposed socket or recess 8 for the removable reception of the block 9, preferably made of wood or material having the same qualities, the block 9 being positioned to be beneath the rail 15 and thus provide a yielding support for the base 14 similarly to a wooden tie.

Upon the under side of the seat 5 exteriorly of the rib 6 and in parallel relation to the outer edge of the seat are two grooves 10, in which are adapted to fit the hooked ends 11 of the respective locking plates 12, each of said plates being slidable upon the rail seat, toward the rail base 14, so that the rail base engaging lips or rims 13 thereof will engage the base 14 upon opposite sides, the plate 12 being clamped beyond the ends of the block 9 so as to retain the block 9 seated within the recess 8 of the seat 5.

Positioned beneath the rail base 14 upon the block 9 is a metal projecting plate 16 which prevents the cutting of the rail base into the block 9 and also prevents the intrusion of water that may tend to decay the block 9.

In order to properly secure the rail base 14 upon the rail seat 5, the spikes 17 are driven through the plates 12, the plate 16 and into the wooden block 9 as clearly shown in Figs. 2 and 3, so that the heads 18 thereof engage the rims 13 of the plates 12 and clamp the same upon the base 14 of the rail 15. By this means the rail is properly secured to the rail seat 5, the wooden block 9 permitting the use of spikes which are more readily and easily placed in position than bolts, and which permit the ready removal of the block 9 when it is necessary to renew the same.

The under surface of the base 2, may be plain, corrugated or otherwise formed to prevent longitudinal creeping or slipping.

From the foregoing description, taken in connection with the drawings it is evident that a tie constructed according to the present invention will permit of the ready attachment thereto of a rail, the body of the tie being so constructed that the same may

be retained against movement relatively to the road bed and rails, the ballast preventing the tipping of the base, while with the removability of the rail seat 5, the ties 5 may be used upon various gages of roads. It is also evident that by the employment of the wooden block 9, that the desirable resiliency, due to wooden ties, is retained in a tie of this character, and that by placing 10 the metal plate 16 upon the block beneath the base of the rail, the wear upon such block is reduced.

What is claimed is:

1. A railroad tie, having a base member, a 15 longitudinal rib carried thereby, a rail carrying member, a pair of spaced ribs carried thereby for interlocking with the rib of the first member, means for connecting the ribs rigidly together, and a spike receiving 20 rail supporting block disposed in the rail carrying member.

2. A railroad tie, having a base member, a longitudinal rib carried thereby, a rail 25 carrying member, a pair of spaced ribs carried thereby for interlocking with the rib of the first member, means for connecting the ribs rigidly together, said rail carrying member being recessed transversely, a spike

receiving block disposed in said recess, means carried by the rail carrying member 30 for retaining the block within the recess, and spikes disposed through said last means into the block and engaging the base of the rail.

3. A railroad tie, having a base member, a 35 longitudinal rib carried thereby, a rail carrying member, a pair of spaced ribs carried thereby for interlocking with the rib of the first member, means for connecting the ribs rigidly together, said rail carrying 40 member being recessed transversely, a spike receiving block disposed in said recess, means carried by the rail carrying member for retaining the block within the recess, a metal wearing plate disposed upon the upper 45 surface of the spike receiving block, and spikes piercing the block holding means and for engaging the base of a rail.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature 50 in the presence of two witnesses.

JAMES M. HALFPENNY.

Witnesses:

L. D. ROBERTS,
R. M. HARKNESS.