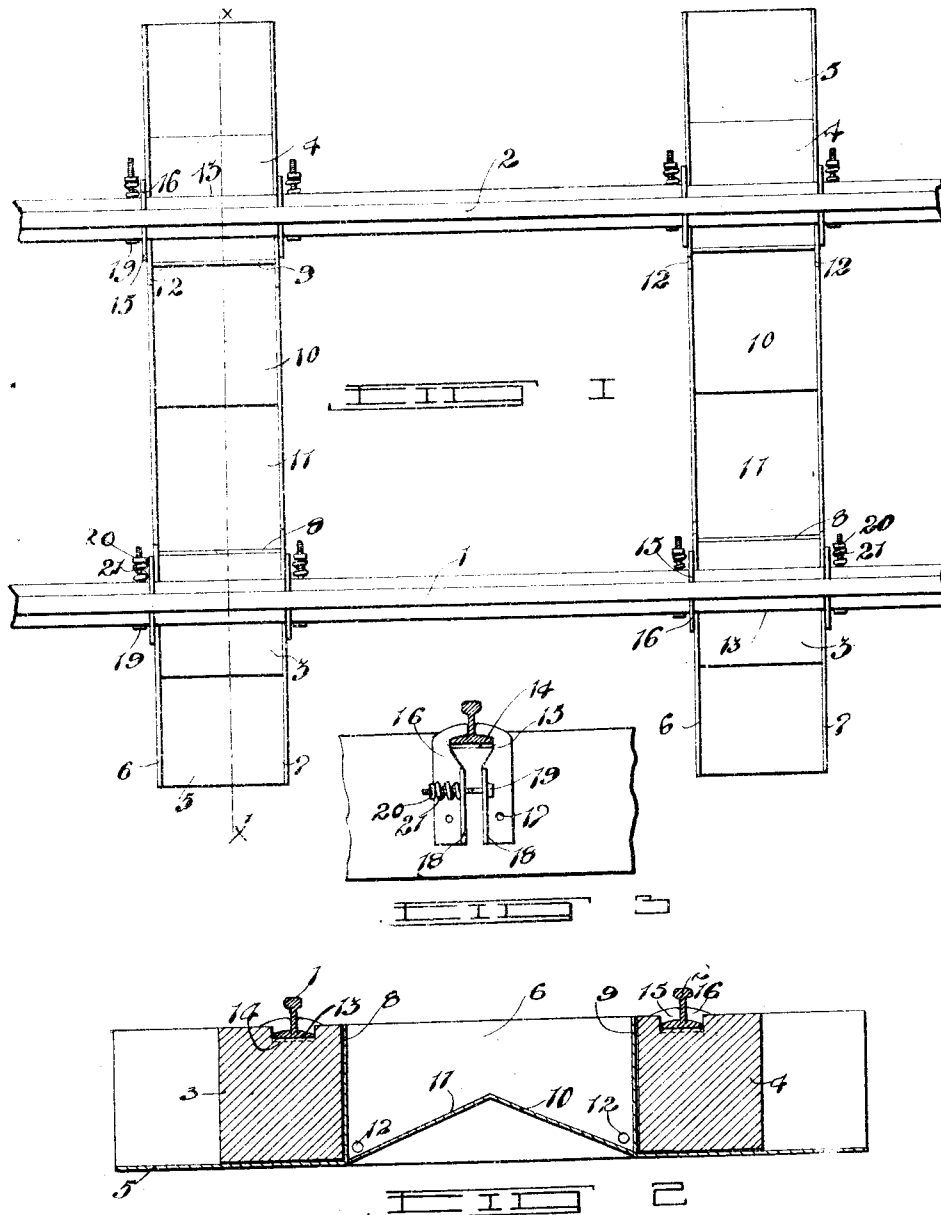


J. A. NAYLOR.
RAILWAY TIE.
APPLICATION FILED DEC. 2, 1911.

1,048,725.

Patented Dec. 31, 1912.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES ALISON NAYLOR, OF GLEICHEN, ALBERTA, CANADA.

RAILWAY-TIE.

1,048,725.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES ALISON NAYLOR, a subject of the King of Great Britain, and a resident of the village of Gleichen, in the Province of Alberta, Canada, have invented certain new and useful Improvements in Railway-Ties, of which the following is the specification.

My invention relates to railway ties or sleepers, and the object of the invention is to provide an inexpensive, effective, and durable tie requiring little wood in its construction, and further one in which the customary spikes holding the track rails to the sleeper are entirely dispensed with.

A further object of the invention is to construct the parts so that the wooden blocks employed can be readily removed and new ones inserted.

With the above and other objects in view which will be more apparent as the description proceeds, the invention consists essentially in the arrangement and combination of parts hereinafter more particularly referred to and later pointed out in the appended claims.

Figure 1 is a plan view of a portion of a railway track supplied with my invention. Fig. 2 represents a vertical sectional view through one of the ties, the section being taken in the plane denoted by the line X X', Fig. 1. Fig. 3 represents a side elevation of a portion of one of the ties.

In the drawing like characters of reference indicate corresponding parts in each figure.

1 and 2 represent the ordinary track rails which customarily rest on wooden ties to which they are connected by metallic spikes driven in the wood by a sledge hammer.

In carrying out my invention the wooden ties and the spikes are entirely dispensed with and the rails rest on substantially square rectangular blocks 3 and 4 which are carried by metallic base plates 5 having their sides turned upwardly at 6 and 7 to form channel shaped members.

8 and 9 are cross plates or partitions passing between the upturned sides 6 and 7 of the plate 5 and located immediately at the inner faces of the blocks.

10 and 11 are drain plates inserted between the partitions where it will be noticed, the plate 5 has been cut away. The plates 10 and 11 drain to openings 12 adjoining the partitions 8 and 9. The blocks

3 and 4 are cut away to form cross channels 13 which receive the bases of the rails and the sides 6 and 7 of the plate 5 are also cut away or notched at 14 to allow the base of the rails to pass through, and it is here to be noticed that the notches 14 are deeper than the channels 13, so that the rails are allowed to wear away the wooden blocks a certain amount before they will bear on the sides of the plate.

I consider that the wooden blocks are better as a bed for the rails than the metal members, as they have a more pronounced cushioning effect than metallic members.

15 and 16 are opposing pairs of jaws pivotally secured at 17 to the upturned sides of the plate 5 and carrying flanges 18 which receive bolts 19 supplied with adjusting nuts 20.

Spiral springs 21 encircle the bolts and bear against the nuts and the adjoining flanges of the jaws. The jaws are constructed so as to receive the base of the rail and bear against the web thereof so that once the rail is caught by them it is held securely in position on the block. The blocks can be removed and new ones can be inserted when required by simply springing up the rail after the jaws have been released.

It is pointed out that the jaws will grasp the rail tightly at all times regardless of the looseness which might otherwise occur by the wearing of the block as the springs will always hold the jaws tightly to the rail.

What I claim as my invention:

1. A tie for railway tracks comprising a base plate having its sides upturned, blocks insertible within the base plate between the sides thereof, opposing releasable jaws securing the rails in position on the blocks, said jaws being carried by the sides of the base piece, means for resiliently forcing said jaws toward each other, and means preventing the blocks from displacement beneath the rails, as and for the purpose specified.

2. A tie for railway tracks comprising a base plate having upturned sides supplied with opposing notches, cross partitions passing between the upturned sides, blocks carried by the base piece and between the upturned sides, said blocks bearing against the partitions and being provided with cross channels which receive the bases of the rails, and pairs of spring pressed releasable jaws carried by the upturned sides of the base piece and holding the rails securely

in position on the blocks, as and for the purpose specified.

3 A tie for railway tracks comprising a base plate having upturned sides provided with opposing notches adapted to receive the rails, removable wooden blocks carried by the plate and supporting the rails, said blocks being supplied with cross grooves which receive the base of the rails, cross
10 partitions passing between the sides of the base plate, said partitions bearing against the inner faces of the blocks, opposing pairs of jaws pivotally secured to the upturned

sides of the plate, said jaws grasping the bases of the rails, adjusting bolts connecting the jaws of a pair, said bolts being supplied with nuts, and spiral springs carried by the bolts and bearing on the nuts of the adjoining jaw, as and for the purpose specified. 15

Signed at Gleichen in the Province of Alberta, this 17th day of April 1911. 20

JAMES ALISON NAYLOR.

In the presence of—

L. R. BLACKBURN,
K. M. BROWN.