

Nov. 18, 1924.

1,516,329

J. E. BUSBY

CROSSTIE NIPPER

Filed Aug. 4, 1923

Fig. 1.

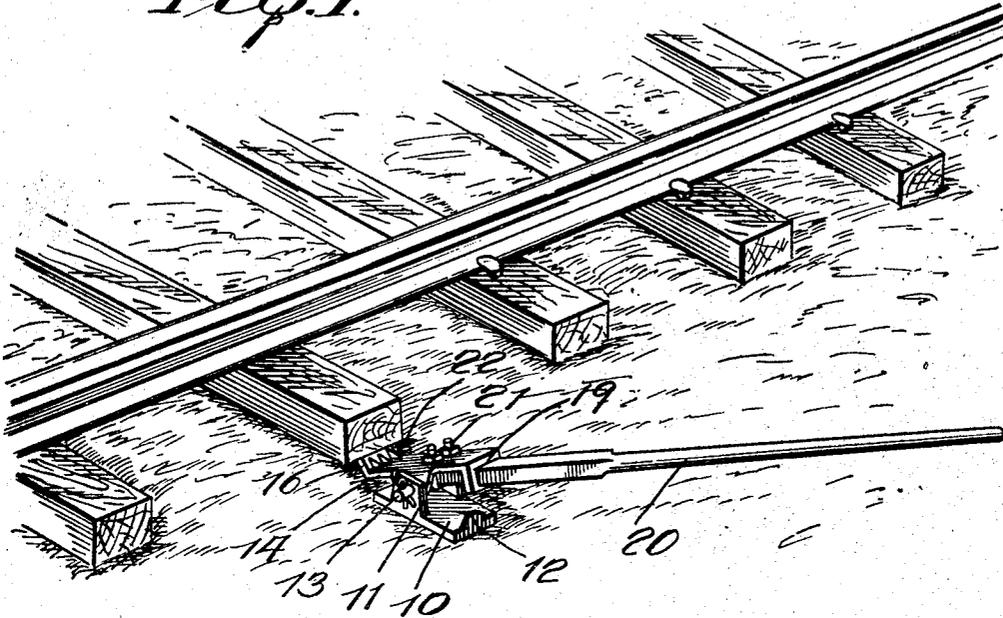


Fig. 2.

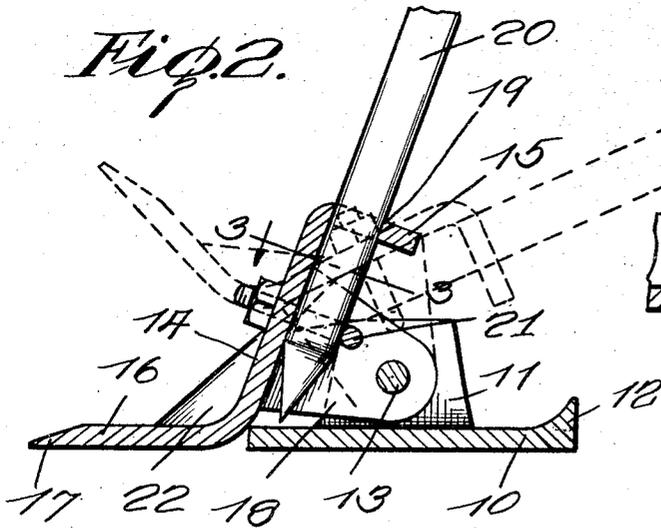
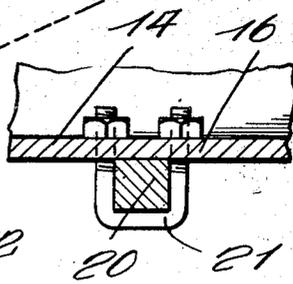


Fig. 3.



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Patented Nov. 18, 1924.

UNITED STATES PATENT OFFICE.

JUNIUS E. BUSBY, OF HAZARD, KENTUCKY.

CROSSTIE NIPPER.

Application filed August 4, 1923. Serial No. 655,635.

To all whom it may concern:

Be it known that I, JUNIUS E. BUSBY, a citizen of the United States, residing at Hazard, in the county of Perry and State of Kentucky, have invented certain new and useful Improvements in Crosstie Nippers, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to means for manipulating railroad ties, and particularly to a device for lifting the tie upward against the base of the track rails when the rails are being spiked to a tie.

When cross ties are being applied to a track, the ties have to be prized up tightly against the rails in order to support the rails while the spikes are being driven. This operation is called "nipping," and the present practice is to attach a wood block to the lining bar or crow bar for lifting the ties into position against the rails and holding them tightly against the rails while the spikes are being driven, and a considerable amount of time is consumed in "nipping" ties and the tie rocks on the bar and thus a good hold on the tie and a good support for the tie is not secured.

The general object of my invention is to provide a tie nipping device which will lift the tie upward against the rails without any danger of the tie rocking or being unsupported.

A further object is to provide a device of this character which may be readily forced beneath a tie and whereby the tie may be readily raised up against the rails and held raised while the spikes are being driven.

A still further object is to so construct this nipping device that it may be readily driven beneath the tie whenever necessary to do so.

Other objects will appear in the course of the following description.

My invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a perspective view of a track with my tie nipper in use thereon;

Figure 2 is a vertical sectional view through the tie nipper, showing in dotted lines the nipper raised;

Figure 3 is a section on the line 3—3 of Figure 2;

Referring to these drawings, 10 designates the base of the nipping device, which may be made of any suitable material but is preferably made of iron or steel, and

this base is provided with the upwardly extending ears 11 and the rear end of the base will have attached to it or formed with it an upwardly projecting heel 12. The ears 11 are perforated for the passage of an attaching bolt or pin 13.

Coacting with this base is a tie engaging and lifting member consisting of an angular plate member of cast or wrought metal having sufficient thickness and rigidity, formed to provide a downwardly and forwardly extending main portion 14, a rearward extension 15, and a nose piece 16 whose forward edge is downwardly and forwardly beveled, as at 17. The portion 14 is formed with the ears 18 which are adapted to engage between and against the ears 11, and these ears 18 are perforated for the passage of the bolt 13. The bolt or pin 13 may be of any suitable character and may have a head on one end and a cotter pin on the other end to permit the ready detachment of the two parts. The extension 15 is formed with a square opening 19 for the passage of a crow bar or other lever 20 and this lever is held in place against the main portion 14 by a U-bolt 21 which passes through openings therein. Any other suitable means for holding the lever 20 in place may be used, however, though this I have found to be particularly convenient, strong and rigid while at the same time permitting disassembling of the parts. Preferably, in order to strengthen the nose piece 16 and to prevent bending, I provide ribs 22 which are integral with the portions 14 and 16 and which connect the same at the junction thereof.

In the operation of this device, assuming that it is disposed beneath the rails of the track and it is desired to lift the tie up so as to spike the rails thereto, the nose piece is forced beneath the tie and power is applied to the lever 20 which causes the foot to rise, lifting the tie up against the rails and permitting the tie to be held in position while the rails are being spiked down. Afterwards, of course, the tie nipper is withdrawn and the ballast or other material tamped beneath the tie. In some instances the tie will lie so closely against the ballast or ground that it will be necessary to force the nose piece 16 in place beneath the tie and in this case a sledge hammer may be used against the heel 12 to drive the device into place.

While I have illustrated certain details of construction and arrangement of parts which will be found to be particularly convenient, I do not wish to be limited thereto as it is obvious that these might be changed in many ways without departing from the spirit of the invention as defined in the appended claims.

I claim:—

1. A device of the character described comprising a base formed with spaced upstanding ears at opposite sides thereof located intermediate the ends, a member of angular formation having a pair of spaced ears pivoted upon said first named ears, said member having a laterally extending rear portion formed with an opening, a lever having one end engaged through said opening and underlying the intermediate portion of the angular member, and means carried by the angular member and embracingly engaging the lever for maintaining the same in operative relation.

2. A cross tie nipper comprising a relatively stationary base member having spaced upstanding ears at the intermediate portion thereof, a relatively movable member of angular formation having its intermediate portion provided with ears pivotally connected with said first named ears, the

forward portion of said relatively movable member constituting a nose for engagement beneath a tie to be removed, the rear portion of the relatively movable member having a lateral extension provided with a rectangular opening, a lever having a squared end extending through said opening, and a U-bolt carried by the intermediate portion of the relatively movable member and embracing the lever.

3. A device of the character described comprising a base provided with upstanding ears, an angular member having ears at the sides thereof pivotally connected with said first named ears, said member terminating at one end in a nose piece and having its other end formed with an extension having an opening therein, and means for attachment of a pry bar to said angular member whereby the pry bar will serve as a handle, the pry bar being insertible through said opening in the extension, a U-bolt extending through said angular member and adapted to receive the end of the pry bar, and nuts on said U bolt for clamping the same onto the pry bar to prevent disengagement of the latter.

In testimony whereof I hereunto affix my signature.

JUNIUS E. BUSBY.