W. S. HARBER.

TIE CUTTER.

APPLICATION FILED DEC. 24, 1915.

1,191,176. Patented July 18, 1916.

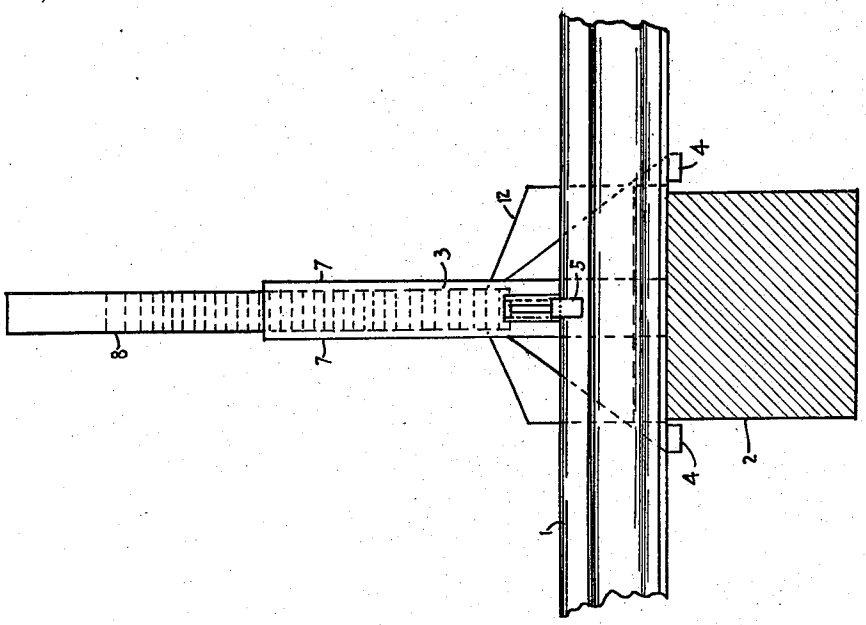


FIG. 1.

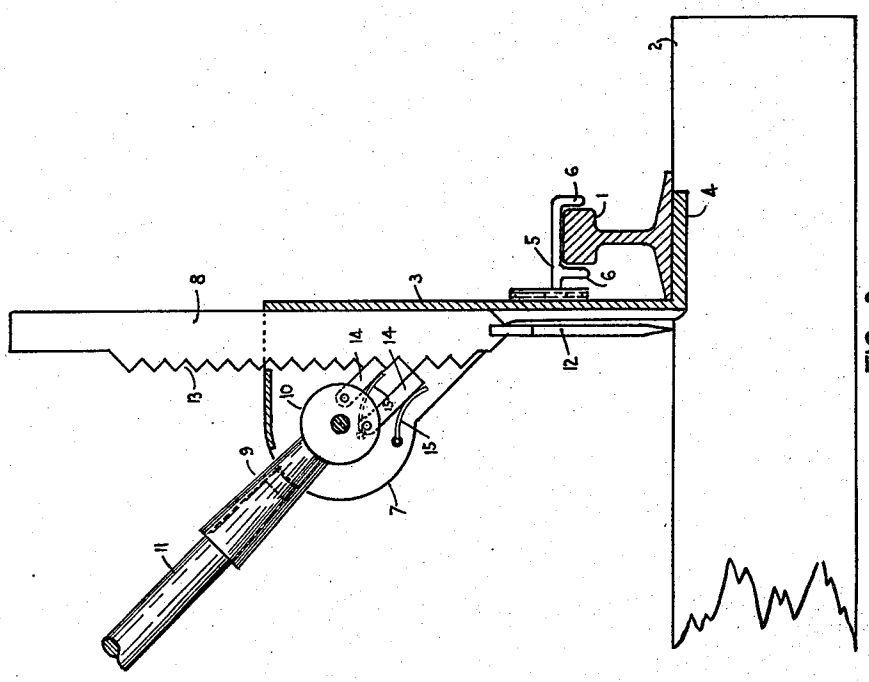


FIG. 2

WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM S. HARBER, OF SHELDON, TEXAS.

TIE-CUTTER.

1,191,176. Specification of Letters Patent. Patented July 18, 1916.

Application filed December 24, 1915. Serial No. 68,563.

To all whom it may concern:

Be it known that I, WILLIAM S. HARBER, a citizen of the United States, residing at Sheldon, in the county of Harris and State of Texas, have invented certain new and useful Improvements in Tie-Cutters, of which the following is a specification.

This invention relates to new and useful improvements in a tie cutter.

The object of the invention is to provide a device of the character described designed to be used for the purpose of cutting railway ties into parts preparatory to their removal from the track after they have decayed or become worn out.

As at present removed, the spikes are first withdrawn and the discarded tie is moved endwise from under the rail and in order to accomplish this purpose it often becomes necessary to jack up the rail in order to permit the removal of the tie, and this is a difficult and laborious operation. The device herein described is used for cutting a tie in two just inside each rail and then removing the same in three parts.

With the above and other objects in view the invention has particular relation to certain novel features of construction, operation and arrangement of parts, an example of which is given in this specification and illustrated in the accompanying drawings wherein:—

Figure 1 shows a side elevation of the device, Fig. 2 shows a vertical sectional view thereof.

Referring now more particularly to the drawings wherein like numerals of reference designate similar parts in each of the figures the numeral 1 refers to a railway rail and 2 to a tie forming part of a railway track.

The numeral 3 refers to the cutter stand, whose lower end is flared to form a substantial support and which has the laterally extending fingers 4, 4 which engage under the rail while the stand is supported upon the tie. A brace 5 is slidably attached to the stand and has the depending fingers 6, 6, which embrace the tread of the rail to secure the stand in vertical position. The upper end of the stand has laterally extending ears 7, 7 in parallel relation, forming between them a channel or bearing in which the cutter bar 8 slides and between these ears is pivoted the socket 9 whose inner end is formed into a disk 10 said socket member being provided to receive the handle 11. The lower end of the cutter bar carries the cutting blade 12, which in length and width is equal to or greater than the corresponding dimensions, to-wit, the thickness and width of the tie to be cut, and the outer or exposed face 13 of the cutter bar is serrated, as shown in Fig. 2 forming a rack face with which the dogs 14, 14 engage. These dogs are pivoted to the disk 10 on opposite sides of the axial line of the handle and are held in engagement with the teeth of said rack face by means of flat springs 15, 15 which are pivoted to the ears 7 and press against said dogs. When the handle 11 is manipulated downwardly, the lower dog will engage against the alined tooth of the face 13 and force said cutter bar and the blade 12 carried thereby downwardly into the tie and at the same time the other dog will be released from one tooth and will engage with the next succeeding tooth thereabove. On the upstroke of the handle the upper dog will operate to force the cutter bar and blade downwardly while the other one will be released from the tooth with which it is engaged and will engage with the next succeeding tooth thereabove. Thus the cutter bar and blade are forced downwardly with each stroke of the handle and said blade is thus gradually forced through the tie. In case the tie is very firm a heavy hammer or mallet may be used to strike the upper end of the bar 8 to assist in forcing the blade through the tie.

What I claim is:

1. A tie cutter including a stand, laterally extending fingers carried by the lower end thereof to engage under a railway rail, a slidably mounted brace carried by the stand and engaging with the tread of said rail, a cutter bar slidably mounted in said stand, whose lower end is formed into a cutting blade and means for forcing said bar lengthwise relative to the stand.

2. A tie cutter including a stand, laterally extending fingers carried by the lower end thereof to engage under a railway rail, a slidably mounted brace carried by the stand and engaging with the tread of said rail, a cutter bar slidably mounted in said stand, whose lower end is formed into a cutting blade, said bar also having a rack face, a handle pivoted to the stand, a pair of dogs pivoted to the handle on opposite sides of the axial line thereof, which engage with said

rack face and through which the reciprocation of said handle imparts a lengthwise movement of the bar relative to the stand.

3. A device of the character described including a stand, whose lower end is formed into fingers which engage under the rail of a railway track, a brace having a slidable engagement with the stand and engaging over the tread of said rail, a cutter bar slidably mounted relative to said stand and whose lower end is formed into a cutting blade and means for imparting a lengthwise movement to said bar relative to the stand.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM S. HARBER.

Witnesses:
JAS. W. OLIVER,
A. L. CARY.

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