Jan. 18, 1944. C. W. HENRICKS 2,339,399

RAILWAY TIE REMOVER

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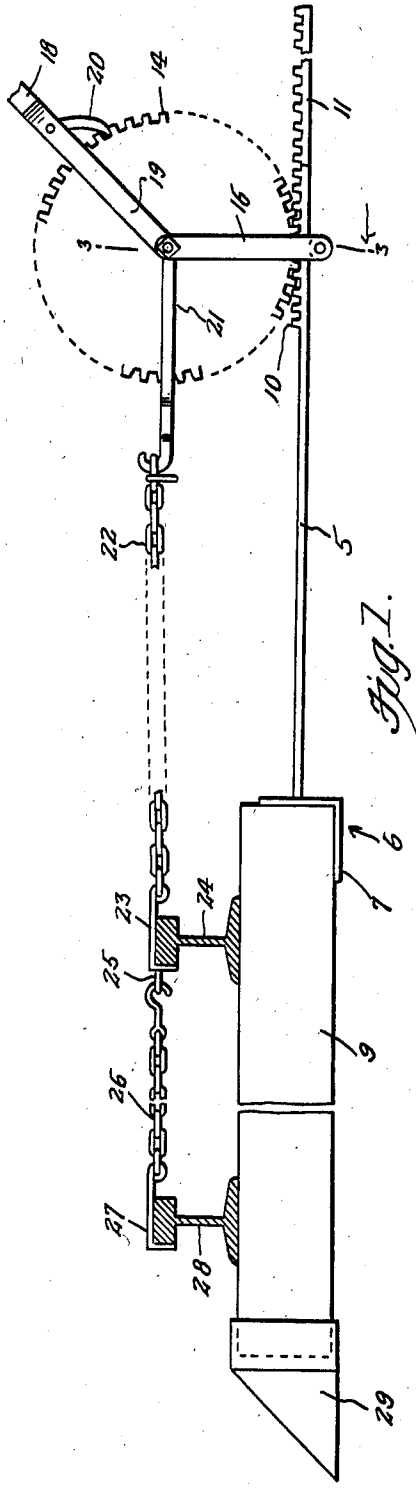


Fig. 1.

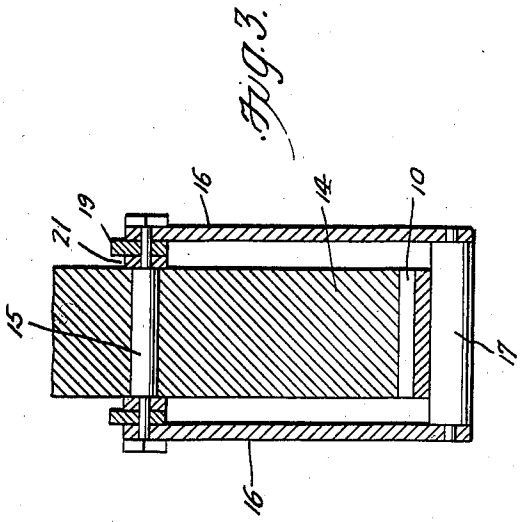


Fig. 3.

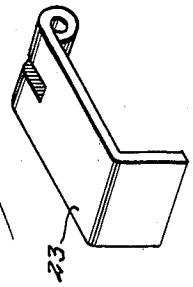


Fig. 6.

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Fig. 2.

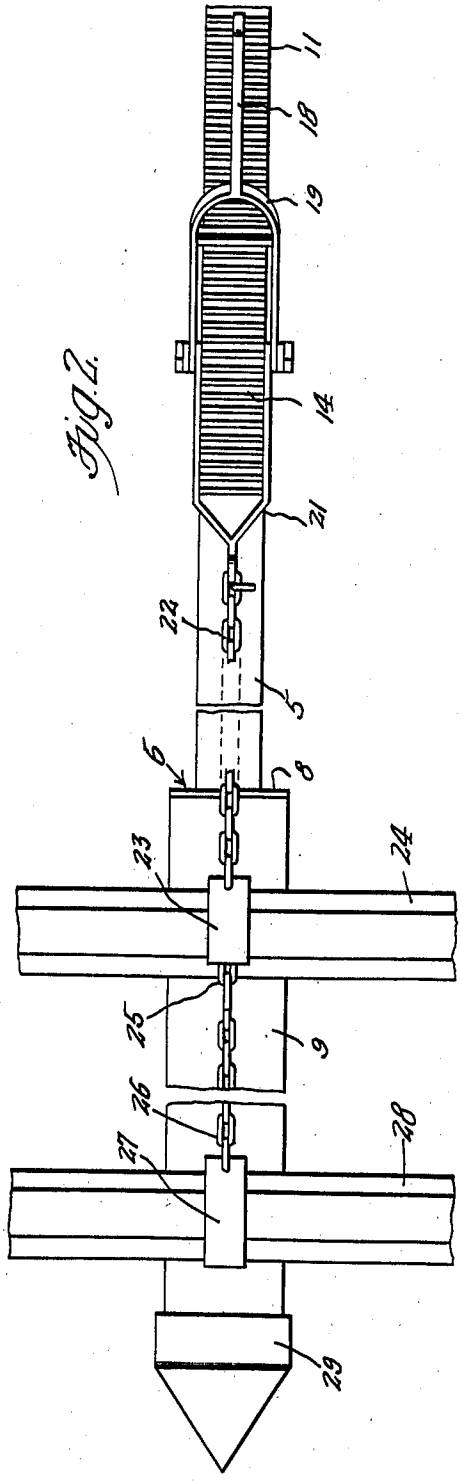


Fig. 4.

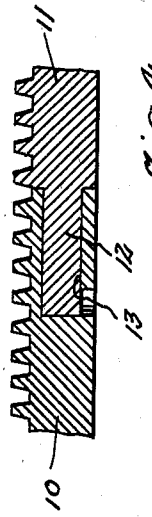
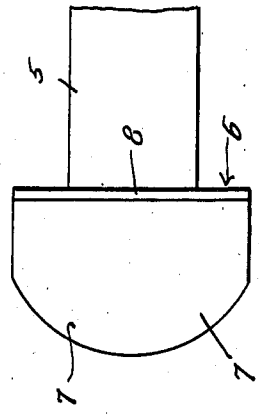


Fig. 5.



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RAILWAY TIE REMOVER

Clarence W. Henricks, Emporia, Kans.

Application September 21, 1943, Serial No. 503,295

3 Claims. (Cl. 254—43)

The present invention relates to new and useful improvements in devices for removing railway ties under the rails and has for its primary object to provide a pushing bar operated by a rack and pinion to force the tie outwardly from its position in the road bed.

A further object is to provide a device of this character of simple and practical construction, which is strong and durable, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a side elevational view.

Figure 2 is a top plan view.

Figure 3 is a fragmentary sectional view taken on a line 3—3 of Figure 1.

Figure 4 is a fragmentary sectional view of the sectional rack.

Figure 5 is a top plan view of the head of the rack, and

Figure 6 is a perspective view of one of the rail engaging hooks.

Referring now to the drawings in detail, the numeral 5 designates a push bar having a head 6 at one end formed of horizontal and vertical plates 7 and 8 adapted to abut one end of a railway tie 9.

The other end of the bar 5 is formed with a rack 10 which includes an extension 11 having a reduced end 12 fitted in a socket 13 of the push bar (see Figure 4).

A pinion 14 is engaged with the rack, the pinion being freely mounted on a centrally disposed bolt or pin 15 on the ends of which are pivoted a pair of legs 16 having their lower ends connected by a roller 17 disposed under the rack 10.

A handle 18 is pivoted on the ends of the pin 15 by a yoke 19 and a dog 20 pivoted on the handle engages the pinion to rotate the latter.

A second yoke 21 is also pivoted on the ends of the pin 15 and to which is attached one end of a chain 22 having an angle plate forming a hook 23 at its other end engaging the nearest rail 24. An eye 25 is formed on the hook 23 for attaching one end of a chain extension 26 which also has a second hook 27 at its other end for engaging the second rail 28.

In the operation of the device as the pinion 14 is rotated by the handle 18, pressure is exerted on the rack 10, and push bar 5 which is engaged against the end of the tie and thus force the tie outwardly from under the rails. The hooks 23 and 27 and chains connecting the pinion 14 with the rails provide an anchor for the pinion.

A pointed nose 29 is fitted on the other end of the tie to facilitate sliding movement thereof through the ballast and dirt of the road bed.

It is believed that the details of construction and manner of use of the device will be readily understood from the foregoing without further detailed explanation.

Having described the invention, what is claimed as new is:

1. A device for removing railway ties and comprising a push bar adapted for engaging one end of the tie, a rack on the push bar, a pinion, means carried by the pinion for maintaining the pinion in engagement with the rack, means for rotating the pinion to exert longitudinal pressure on the push bar, and means extending from the pinion parallel to the bar and connecting the pinion to a stationary structure to secure the pinion against bodily movement.

2. A device for removing railway ties and comprising a push bar adapted for engaging one end of the tie, a rack on the push bar, a pinion, a pin rotatably supporting the pinion, a pair of legs extending from the ends of the pin, a roller connecting the outer ends of the legs and disposed under the rack to maintain the pinion in engagement therewith, means for rotating the pinion to exert longitudinal pressure on the push bar, and means connecting the pinion to a stationary structure to secure the pinion against bodily movement.

3. A device for removing railway ties and comprising a push bar adapted for engaging one end of the tie, a rack on the push bar, a pinion, a pin rotatably supporting the pinion, a pair of legs extending from the ends of the pin, a roller connecting the outer ends of the legs and disposed under the rack to maintain the pinion in engagement therewith, means for rotating the pinion to exert longitudinal pressure on the push bar, and flexible means connecting the pin to a rail for securing the pinion against bodily movement.

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