

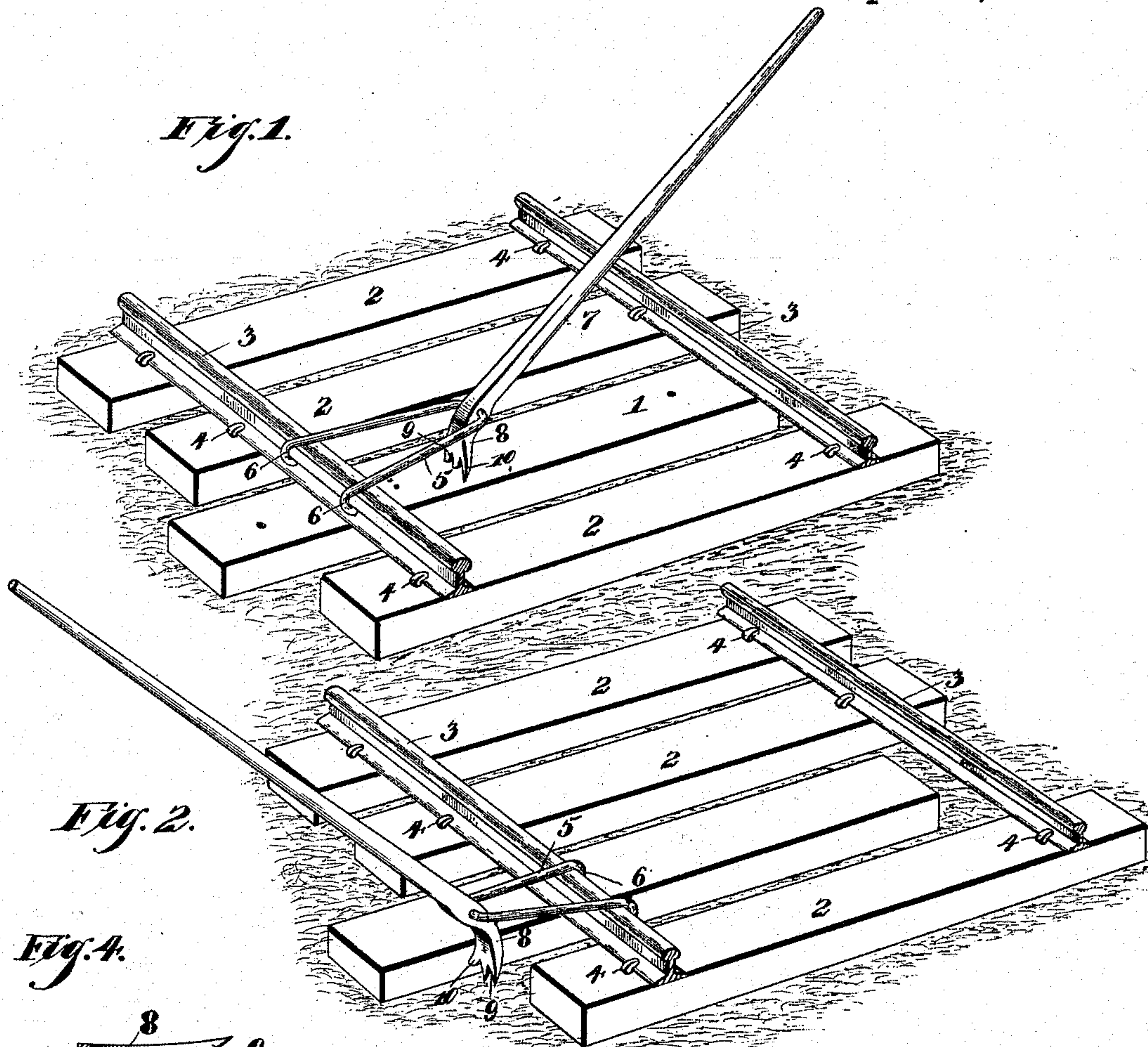
(No Model.)

G. EMERLING.  
RAILROAD TIE PULLER.

No. 526,520.

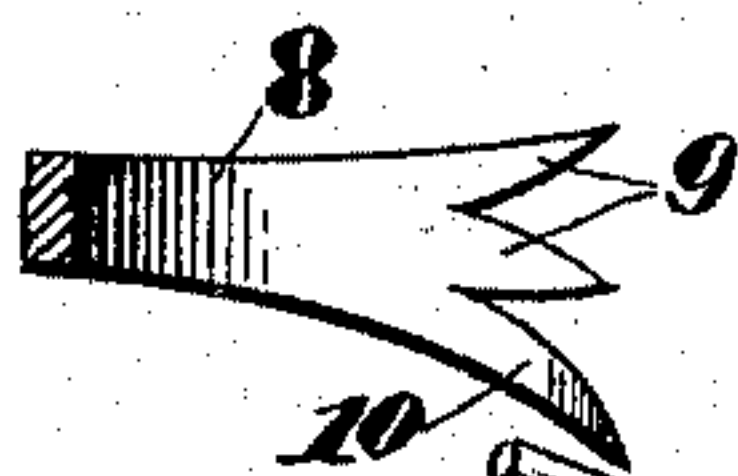
Patented Sept. 25, 1894.

*Fig. 1.*

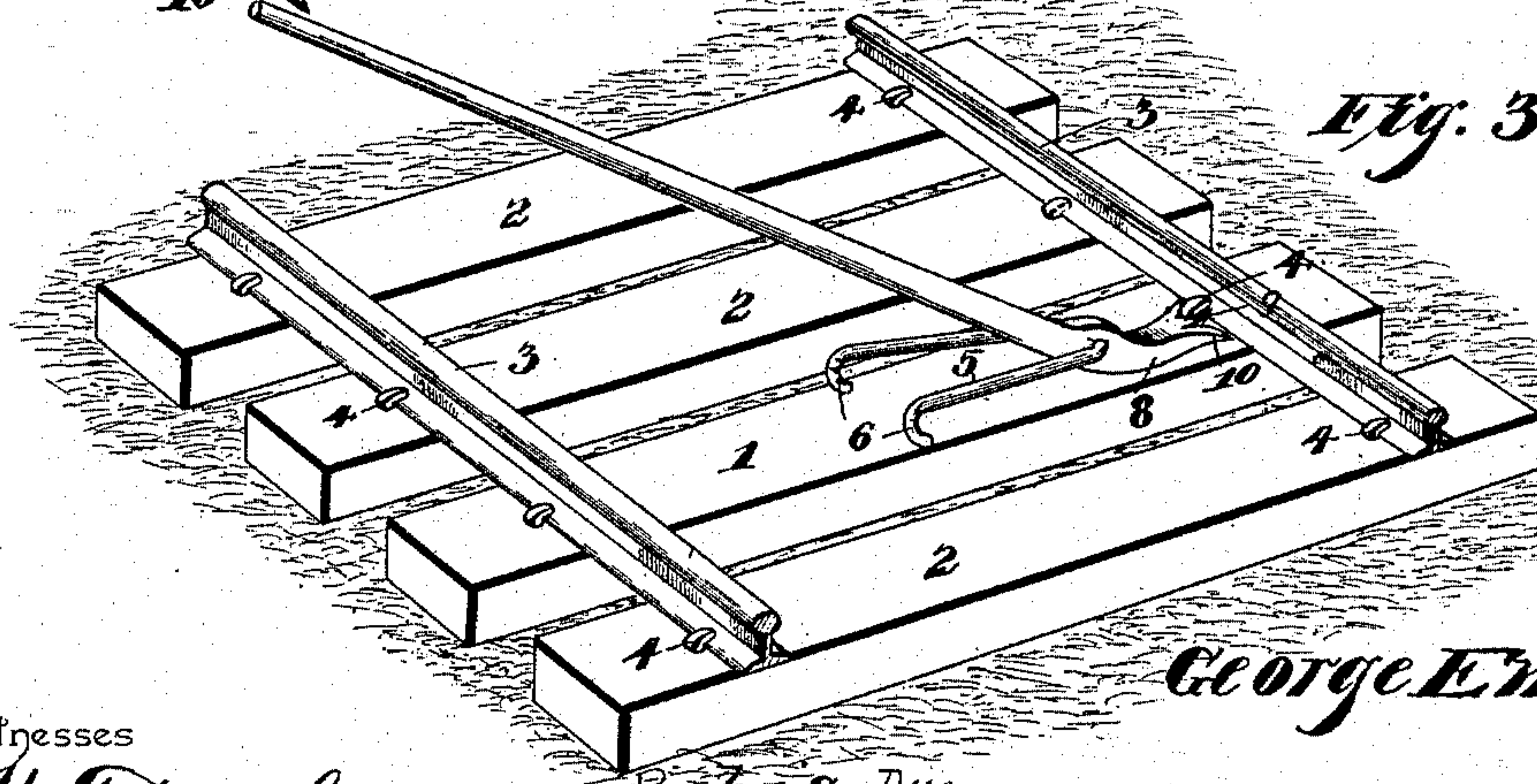


*Fig. 2.*

*Fig. 4.*



*Fig. 3.*



Witnesses

*W. T. Doyle.*

*O. E. Doyle*

*By his Attorneys.*

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Inventor  
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# UNITED STATES PATENT OFFICE.

GEORGE EMERLING, OF SHASTA, OHIO.

## RAILROAD-TIE PULLER.

**SPECIFICATION** forming part of Letters Patent No. 526,520, dated September 25, 1894.

Application filed January 16, 1894. Serial No. 497,058. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE EMERLING, a citizen of the United States, residing at Shasta, in the county of Van Wert and State of Ohio, have invented a new and useful Railroad-Tie Puller, of which the following is a specification.

My invention relates to a device for removing railway ties, provided with means for extracting the spikes by which the rails are secured to the ties, the object in view being to provide a simple, inexpensive and efficient tool whereby the spikes may be drawn and the old tie removed when decayed or injured to permit of the insertion of a new tie without necessitating the disturbance of the road-bed or the ballast.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings: Figure 1 is a perspective view of a tie remover embodying my invention applied in the operative position, as seen when removing an old tie. Fig. 2 is a similar view showing the disposition of the parts when the apparatus is employed to insert a new tie. Fig. 3 is a view showing the position of the device when used to extract a spike. Fig. 4 is a plan view, enlarged, of the engaging end of the tool, to show more clearly the disposition of the claws and spur.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a tie to be removed, 2 the adjacent ties, and 3 the rails which are secured to the ties by means of the ordinary spikes 4.

Referring to Fig. 1, 5 represents a bail or loop, the sides of which terminate in hooks 6, which are engaged with the rail, and 7 represents a lever which is fulcrumed upon the closed end of the loop and is provided, beyond this fulcrum point, with an angularly-disposed flattened head 8, which is terminally bifurcated to form claws 9. Said claw is tapered to facilitate its insertion between the head of a spike and the tie or rail when the device is used to extract the retaining spikes.

Integral with the head of the lever, and

projecting laterally therefrom, is a sharpened spur 10, the function of which will be explained hereinafter.

As shown in Fig. 1, the hooked terminals of the bail or loop are engaged with the rail, and the claw is engaged with the upper surface of the tie to be removed, whereupon, by the proper manipulation of the lever, the tie may be moved longitudinally out of the bed. The angular disposition of the head of the lever enables the latter to be arranged in an inclined position, whereby the operator is enabled to utilize weight as well as strength in removing the tie.

In Fig. 2 I have shown the device arranged as seen when introducing a new tie in place of an old one just removed. In this case the bail or loop is engaged with the rail with the lever arranged outside of the track, and the lateral spur 10 is engaged with the side of the tie. This is preferable to engaging the claw with the upper surface of the tie, for the reason that the latter operation forms depressions which hold water and hasten the decay of the tie. Therefore, in applying a new tie to a roadbed I prefer to use the lateral spur, in that it leaves the surface of the tie unimpaired.

In Fig. 3 I have shown the position of the device when used to extract spikes, in which case the claw forms the means for engaging the head of the spike. Its use in this capacity will be readily understood without further explanation, and it will be seen that a further advantage gained by the annular placement of the head of the lever is that the device is thus adapted for the double use of extracting the spike and removing the tie, thus avoiding the necessity of an additional tool for the former operation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

1. In a device of the class described, the combination of a loop or bail provided with hooked terminals to engage a rail, and a lever fulcrumed through the loop or bail and hav-



ing a head provided with a terminal claw to engage the upper surface of a tie, and a lateral spur adapted to engage the side of a tie, substantially as specified.

- 5 2. In a device of the class described, the combination of a loop or bail provided with terminal hooks to engage a rail, and a lever fulcrumed upon said loop or bail and having a flattened head disposed at an angle to the

body-portion of the lever and provided with a tapered claw, substantially as specified.

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

GEORGE EMERLING.

Witnesses:

GEORGE WITTUNG,  
WILLIAM DIBERT.