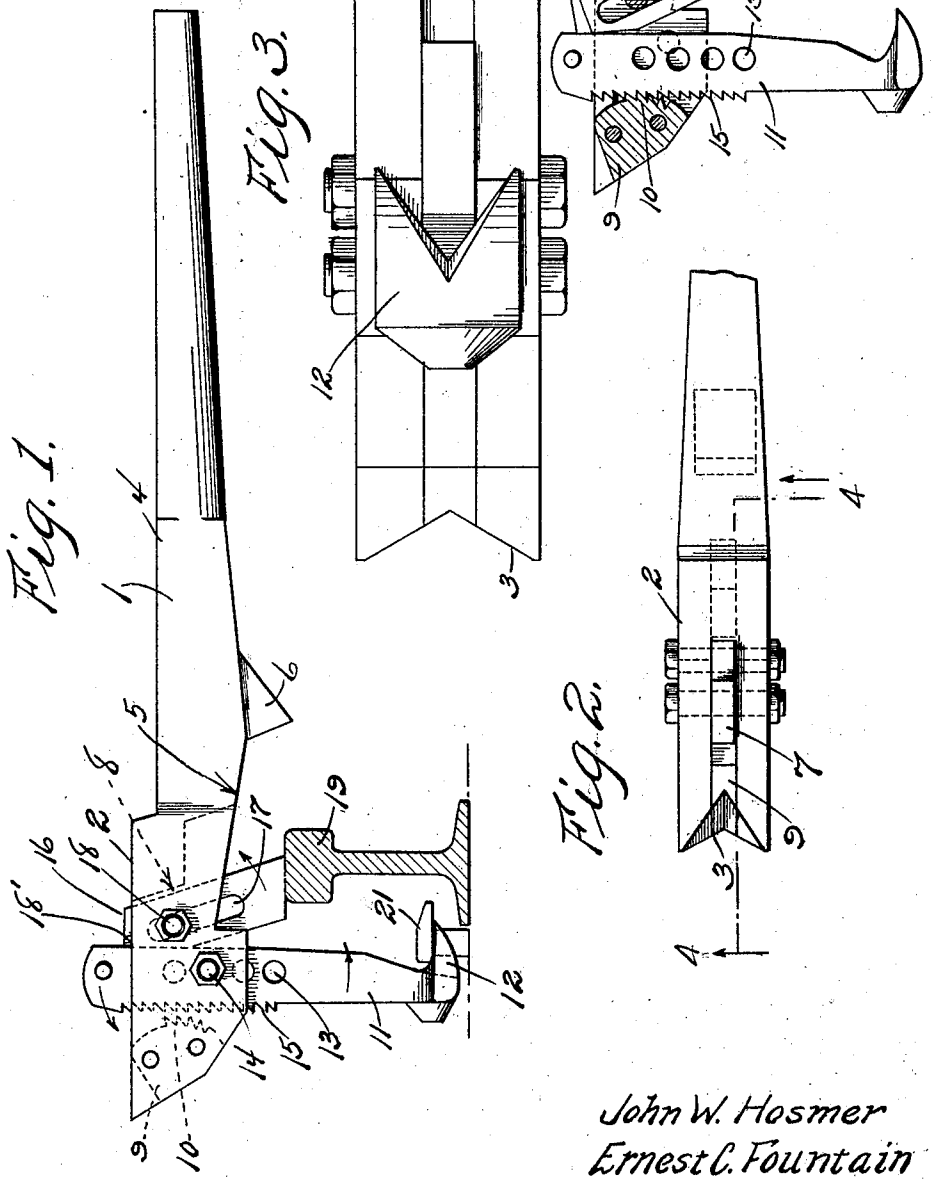
March 31, 1925. 1,531,941

J. W. HOSMER ET AL.

SPIKE PULLER

Filed Nov. 25, 1924



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WITNESS:

Patented Mar. 31, 1925. 1,531,941

UNITED STATES PATENT OFFICE.

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SPIKE PULLER.

Application filed November 25, 1924. Serial No. 752,186.

To all whom it may concern:

Be it known that we, JOHN W. HOSMER and ERNEST C. FOUNTAIN, citizens of the United States, residing at Bessemer, in the county of Jefferson and State of Alabama, have invented new and useful Improvements in Spike Pullers, of which the following is a specification.

Our present invention has reference to a spike pulling device, especially designed for use in extracting the spikes that engage railway rails.

An object is the provision of a device of this character in which a spike engaging claw is positively locked on a handle bar when in engagement with the head of a spike, the said bar designed to be fulcrumed on the head of a rail so that the spike will be extracted with the minimum amount of physical exertion, the improvement being admirably adapted for use in extracting the outer rail engaging spikes on trestles or like rail supporting means.

A further object is the provision in a spike extracting device of a pivotally supported spike engaging claw, and a wedge key which serves as a fulcrum and which co-engages with the claw to first swing the same to spike engagement and then lock the claw for the extraction of the spike, and further wherein the wedge key when canted or permitted to move to certain positions effects a ratchet engagement with the claw.

With the above broadly stated objects in view and others which will appear as the nature of the invention is better understood, reference is to be had to the drawings which accompany and which form part of this application.

In the drawings:—

Figure 1 is a side elevation of the improvement in operative position.

Figure 2 is a top plan view of the outer end of the bar.

Figure 3 is an enlarged inverted plan view of the outer end of the bar.

Figure 4 is a sectional view on the line 4—4 of Figure 2.

If desired, we may make use of the usual claw bar 1, the same including the usual handle that terminates in a widened head 2 that is notched at its end to provide a claw 3. In the present instance, the under face of the head 2, at its juncture with the handle 4, is in-cut at an inclination, as indicated by the numeral 5 and the said under face of the handle, at its juncture with the inclined wall 5' is formed with a lug 6. The head, from the claw end thereof is formed with a longitudinal slot 7 whose inner wall is arranged at an inward angle, as indicated by the numeral 8. The outer portion of the slot is preferably closed by a block 9. The block has its inner edge rounded and centrally formed with projecting teeth 10. It is, of course, to be understood that the head 2 may be provided with a longitudinal opening and not slotted, as disclosed by the drawings.

In the slot 7 there is a shank 11 that has formed on its lower end a widened and bifurcated claw 12. The shank 11 is provided with spaced openings 13, one of which receives therethrough a pivot in the nature of a bolt 14 that also passes transversely through the head 2. The outer edge of the shank 11 is formed with teeth 15 engageable with the teeth 10 of the block 9 but normally out of such engagement. Received in the slot 7 and positioned adjacent the inner and non-toothed edge of the shank 11 there is a wedge key 16. The wedge key is in the nature of a flat plate centrally provided with an elongated slot 17 through which passes a pin 18 secured in the head 2. The flat and substantially reticulated wedge key 16 has its corner confronting the shank 11 cut at an angle, as indicated by the numeral 18.

As disclosed in Figure 1 of the drawing, the wedge key 16 is designed to rest on the ball or head of a rail 19 and thus provide a fulcrum element for the bar 1. The spike to be withdrawn from the tie is indicated by the numeral 21. The wedge key, incident to the weight of the bar will move upwardly through the slot 7, being guided on the pin 8 so that the angle edge 18' of the said key will contact with the shank 11 of the claw, swinging the said shank on its pivot 14 to bring the claw to engage with the under face of the head of the spike and likewise causing the teeth 15 on the shank to be brought into engagement with the teeth 10 of the block 9. The greater the pressure upon the wedge key, the more tightly the shank will be locked on the block when the bar 1 is tilted. By moving the bar 1 to cant the wedge key, as disclosed in Figure 4 of the drawings, a ratchet movement will be effected between the said key and the shank. In this instance, however, the pivot 14 is withdrawn so that the wedge

key will not only swing the claw shank but will have a tendency to move the same outwardly through the opening in the bar.

Having described the invention, we claim:—

1. A spike extracting means, including a bar having an opening therethrough, a claw carrying spike slidable through said opening and designed for contact with one of the end walls provided thereby, and a slidable wedge key movable through said opening for engagement with the shank when the wedge key is fulcrumed on the object engaged by the spike.

2. A spike extracting device comprising a slotted bar, a claw carrying shank in the slot and engageable with the outer wall thereof, a wedge key movable through the slot and guided in such movement, and said wedge key having an angle edge to contact with the shank to swing the latter on its pivot to bring the claw thereof to engage beneath the head of a spike when the wedge key is fulcrumed on the object engaged by the spike and is moved through the opening by the weight of the bar.

3. A spike extracting device comprising a bar having an opening entering from the outer end thereof, a block partly closing the opening and having an inner rounded edge provided with spaced teeth, a claw having a shank received through the opening and having its edge opposite the block provided with teeth, an angularly disposed slotted wedge key movable through the opening, a guide pin passing through the bar and through the slot of the wedge key, and said wedge key having an angle edge disposed opposite the non-toothed edge of the shank and engageable with the said edge of the shank, as and for the purpose set forth.

In testimony whereof we affix our signatures.

JOHN W. HOSMER.
ERNEST C. FOUNTAIN.