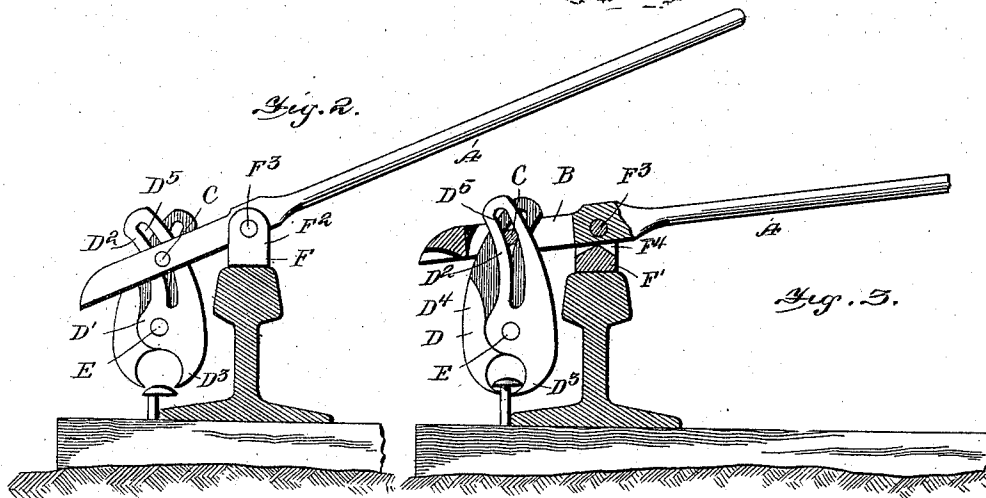
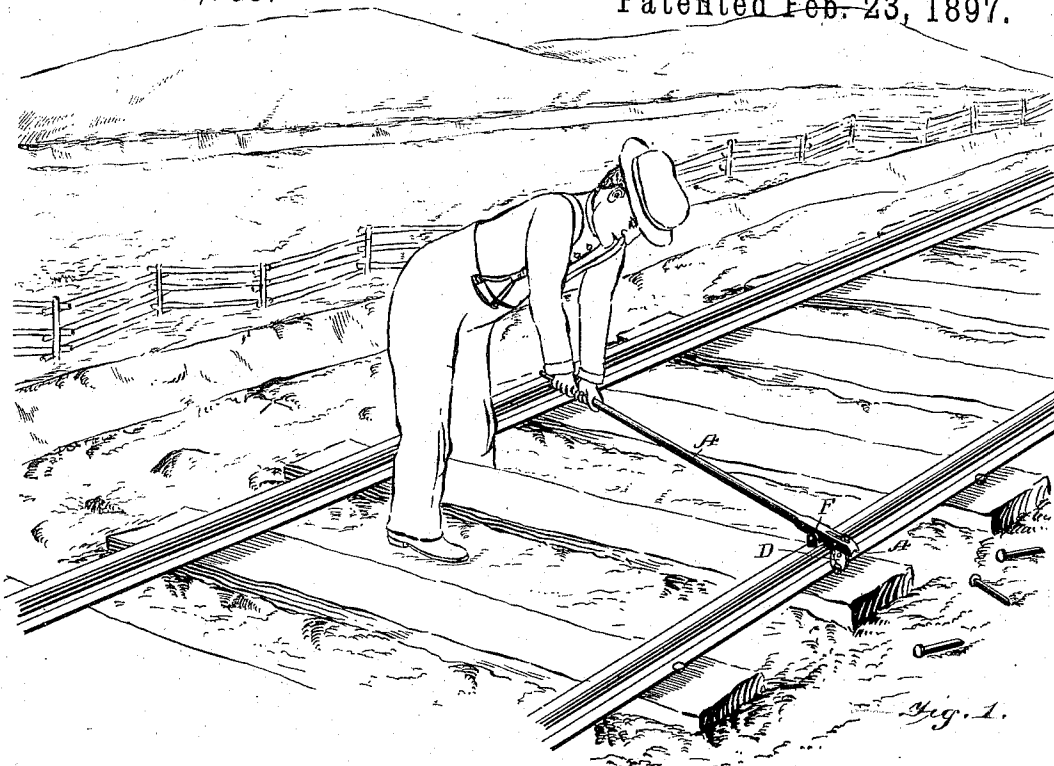


(No Model.)

L. C. POWELL.
SPIKE PULLER.

No. 577,783.

Patented Feb. 23, 1897.



WITNESSES:
T. W. Riley
Chas. E. Frock

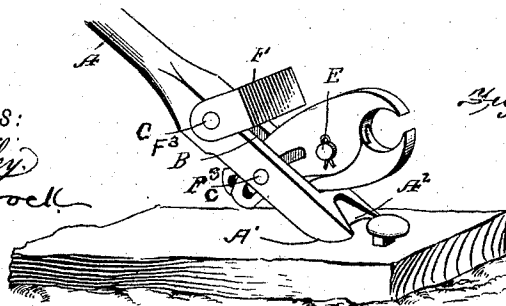


Fig. 4.

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LAWRENCE C. POWELL, OF CALIFORNIA, PENNSYLVANIA.

SPIKE-PULLER.

SPECIFICATION forming part of Letters Patent No. 577,783, dated February 23, 1897.

Application filed July 23, 1896. Serial No. 600,300. (No model.)

To all whom it may concern:

Be it known that I, LAWRENCE C. POWELL, residing at California, in the county of Washington and State of Pennsylvania, have invented a new and Improved Spike-Puller, of which the following is a specification.

This invention relates generally to a spike puller or extractor, and more particularly to one employed for pulling or extracting railroad-spikes from the wooden cross-ties. Heretofore the ordinary crowbar has been employed for removing these spikes, and, so far as I am aware, all devices for removing these spikes have bent them so that they were not adapted for immediate use again.

Now the object of my invention is to provide a device which will not only pull or extract the spike in the quickest and easiest manner possible, but will also exert a straight pull thereon, so that the spike will be kept straight and ready for immediate use again.

Another object of my invention is to provide a spike puller or extractor which can be quickly and easily operated by any one and will therefore not require the services of a skilled mechanic.

With these various objects in view my invention consists, essentially, of a lever slotted longitudinally near one end, a pair of gripping-jaws pivotally connected with the lever within the slot, said jaws having teeth at their lower ends adapted to engage the spike, the upper ends of said jaws being slotted and through which the pivotal bolt passes, said slots being arranged in reverse order, so that as the lower end of the lever carrying the pivotal bolt is thrown upward the teeth of the jaws will be thrown together to clamp the spike, and the invention also includes a fulcrum, to which the lever is pivotally attached, said fulcrum being adapted to rest upon the rail while the spike is being drawn, whereby a straight pull is imparted to the spike.

My invention consists also in certain details of construction and novelties of combination, all of which will be fully described hereinafter, and pointed out in the claim.

In the drawings forming a part of this specification, Figure 1 is a view showing my invention in use. Fig. 2 is a side view show-

ing the jaws open. Fig. 3 is a similar view showing the jaws closed. Fig. 4 is a detailed view showing the manner of starting the spike.

In carrying out my invention I employ a lever A, which is in the nature of a metal bar about five and one-half feet long, the upper portion of said lever being rounded to provide a suitable handle. The lower end of this lever is rounded, as shown at A, and on the opposite side is grooved, as shown at A², in order that said end may be projected beneath the head of the spike, and by throwing the lever downward after inserting the grooved end thereof beneath the head of the spike said spike is elevated a short distance above the upper face of the cross-tie, the lever rocking or turning upon the curved end A'. The lower portion of the lever is slotted longitudinally, as shown at B, and arranged within said slot upon the pivotal bolt C are the clamping-jaws D, said jaws being pivoted together by means of a short bolt E.

The jaws D are similar in construction, and comprise a central portion D', the upper projection D², and the lower portion or jaws D³, and extending along one side of the jaw is a raised portion D⁴, the inner face of which is ogee-shaped and forms a stop for the opposing jaw. The upper portion D² is slotted longitudinally, as shown at D⁵, said slots being curved in reverse order.

The pivotal bolt C passes through these slots and thereby supports the said jaws within the slot of the lever, and also causes the teeth of the jaws to be brought together as the lower end of the lever is thrown upward, and also causes the said teeth to be thrown apart as the lower end of the lever is lowered, owing to the movement of the pivotal bolt within the curved slots of the jaws, which slots are arranged in reverse or cross directions.

A supporting-fulcrum F is pivotally attached to the lever A just to the rear of the slot B, said fulcrum comprising a base portion F', adapted to rest upon the tread of the rail and the side members F², between which the lever is pivoted by means of a bolt F³, and it will be noticed that the upper edges of the base portion between the side members are

cut away, as shown at F⁴, in order to permit the rocking motion of the lever upon the bolt.

Now in operation the extreme end of the lever is inserted beneath the head of the spike and said head elevated a short distance 5 above the upper face of the cross-tie. The supporting-fulcrum F is then placed upon the tread of the rail and the teeth of the clamping-jaws lowered upon the head of a 10 spike. The upper end of the lever of the handle is then thrown downward, causing said lever to rock upon the bolt of the supporting-fulcrum, thereby throwing the lower end of the lever upward, carrying with it the 15 pivotal bolt C, which slides in the curved slots of the clamping-jaws D, which action causes the teeth of the clamping-jaws to bind tightly upon the spike, and as the lever continues its downward movement the spike is 20 drawn from the cross-tie in a straight direction, inasmuch as the clamping-jaws have a pivotal movement upon the actuating-bolt, and, furthermore, the lever itself has a pivotal movement upon the supporting-fulcrum. 25 It will thus be seen that I provide an exceedingly cheap and simple form of a spike puller or extractor and one which will effect-

ively pull or extract the spike without bending the same.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is— 30

The herein-described spike-puller consisting of the lever having the slotted lower portion, and a solid lower end beneath said slotted part provided with the cut-out portion, 35 the clamping-jaws pivotally connected directly above the cut-out portion, the oppositely-arranged slots in the upper part thereof in which the slotted portion of the lever is 40 journaled, the fulcrum-block secured to the lever in the rear of the slotted portion thereof, depending therefrom and adapted to rest on the rail, the claw at the forward end when the spike-puller is turned in one direction 45 raising the spike, while the spike-puller when inverted by reason of the fulcrum-block resting on the rail will permit the jaws to grip the spike as set forth.

LAWRENCE C. POWELL.

Witnesses:

MABEL MOORE,
CHAS. E. BAKER.