

R. NEWLAND.
SPIKE-EXTRACTOR.

No. 172,154.

Patented Jan. 11, 1876.

Fig. 1.

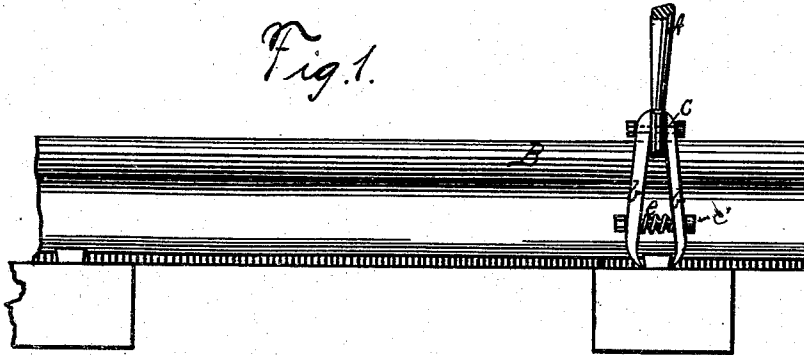


Fig. 2.

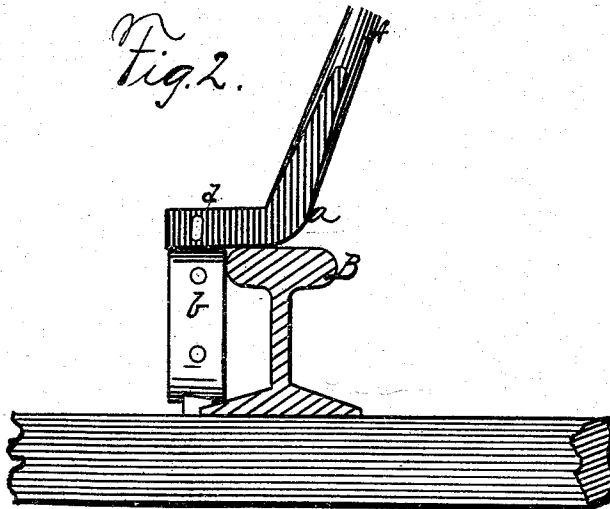


Fig. 3.



Witnesses:
T. H. Parsons
J. R. Drake

Rial Newland.
Inventor.
By his attorney
J. R. Drake.

UNITED STATES PATENT OFFICE.

RIAL NEWLAND, OF ATTICA, NEW YORK, ASSIGNOR OF ONE-HALF HIS
RIGHT TO A. R. MILLER, OF SAME PLACE.

IMPROVEMENT IN SPIKE-EXTRACTORS.

Specification forming part of Letters Patent No. **172,154**, dated January 11, 1876; application filed
September 8, 1875.

To all whom it may concern:

Be it known that I, RIAL NEWLAND, of Attica, in the county of Wyoming and State of New York, assignor to myself and A. R. MILLER, of same place, have made certain Improvements in Devices for Drawing Spikes, of which the following is a specification:

This device is more especially intended to be used on railroads for drawing the spikes which hold the rails to the ties; and the invention consists of a lever bent at an angle at its lower end, forming a short arm thereon with beveled or wedge-shaped sides, in combination with two jaws pivoted to the beveled sides of said arm, a connecting-rod for connecting said jaws below, and a spring interposed between the jaws and surrounding said rod, substantially as described.

In the drawings, Figure 1 is a front elevation; Fig. 2, side elevation of one-half of the device, and in connection with the rail and spike; Fig. 3, detail.

A represents the lever-handle bent at *a*, and resting on the rail B, which acts as the fulcrum of the lever. The end of the bent portion sets between the upper part of two jaws, *b b*, of the clamp C, and is beveled up on its sides, as shown in Fig. 3, the heads of the jaws being also beveled to coincide with the end of the lever. A bolt, *c*, the ends held by nuts, goes through both jaws, and through a slot, *d*, in the end of the lever, as more fully shown in Fig. 2. This slot is for the purpose of allowing the beveled end of the lever to rise when the lever is pulled back over the rail. At the same time it spreads apart the upper ends of the jaws *b b*, which causes the lower ends of the clamp to tightly gripe the spike-head, and, at the same time, draws the spike out in a straight line, and without bending it at all. These jaws are made adjustable

to fit over any sized spike-head or large nail, by means of a spring, *e*, arranged between the jaws *b b*, over a bolt or rod, *c*, with nuts on each end outside the jaws. The spring throws the jaws open, after being released from the spike, by returning the handle to its upright position—ready for the next one—and by setting the outside nut the jaws remain open at any width desired.

The operation is simply as follows: The jaws are slipped under or over the head of the spike, the bent end of the lever-handle setting on the rail, as shown in Fig. 2. The operator then pulls the handle back and downward, which forces the beveled end up, spreading apart the clamp at its upper ends, and compressing it at its lower ends. This draws the spike out, as before stated.

By the use of this device spikes can be drawn with comparatively little trouble, and without destroying or bending the spike. It is also very important for use on bridges, or on a narrow trackway, as the operator will not be obliged to stand outside the rails, and in danger of falling off. Any of the parts, if broken, can easily be replaced and duplicated at small expense and trouble.

I claim—

The lever A, constructed with a bent arm, *a*, with beveled or wedge-shaped sides, in combination with the jaws *b b* pivoted thereto, and the connecting-rod *c* and interposed spring *e*, substantially as described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

RIAL NEWLAND.

Witnesses:

J. R. DRAKE,
A. R. MILLER.