D. Hale,

Nail Extractor,

No. 8,889 Patented Apr. 20, 1852.

Fig. 3.

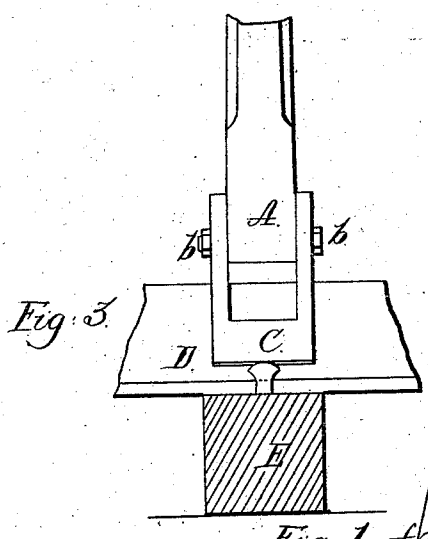
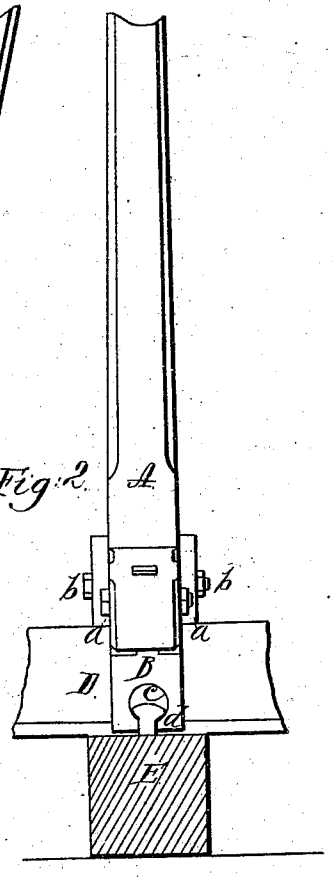


Fig. 1.

Fig. 2.



UNITED STATES PATENT OFFICE.

DANIEL HALE, OF HINSDALE, NEW YORK.

MACHINE FOR DRAWING SPIKES.

Specification of Letters Patent No. 8,889, dated April 20, 1852.

To all whom it may concern:

Be it known that I, DANIEL HALE, of Hinsdale, in the county of Cattaraugus, in the State of New York, have invented a new and useful Machine for Drawing Spikes on Railroads and Elsewhere, which I term a "Spike-Drawer"; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 represents my spike drawer in a side elevation with the bent lever A prepared to be acted upon. At its lower extremity I attach the shackle B by means of a pivot *a* which has as shown by dotted lines the arrangement *c* for securing the head of the rail bolt *d* for the action of the machine. Fig. 2 front elevation showing fully the securing arrangement *c* formed in the shackle B. Fig. 3 a rear or back elevation which with Fig. 1 shows fully the clevy C which is held by the pivot *b* and acts as a fulcrum to the lever A.

D in Fig. 1 represents in section the rail with a side view of the sleeper or cross-tie E set at right angles to it. E Figs. 2 and 3, the sleeper or cross-tie in section and reversely the rail D in a side view.

The bent lever A may be constructed either of wood or iron of convenient lengths with an angle of about 70° at the point *f* caused by the bent form of the lever near its lower extremity as seen at Fig. 1. At this angle near the outer side of the lever I attach a clevy marked C Fig. 1 which is held to the lever A by means of the pivot bolt *b* and acts as a fulcrum to the lever A. Further down the lever say at a distance of from four to six inches I attach the shackle B by means of the pivot-bolt *a*, which shackle has a circular opening *c* with a mouth of sufficient width to take in the head of the spike *d* as shown in Fig. 2. This shackle plays loose upon the pivot bolt *a* passing through the lever, and allowing the lever to turn without disengaging the hold of the shackle upon the spike.

In using the lever it may first rest upon the rail D the clevy C being thrown back so as not to act, and the rail being used as a fulcrum in starting the spike; after which, the clevy may be adjusted upon the spike opposite to the one being drawn, or the cross-tie E, and thus be used as a fulcrum to the lever for completing the withdrawal of the spike.

The advantage of my spike drawer consists in having, 1st, a shackle swung upon a pivot so that in drawing a spike, the spike is not bent or crooked; 2d, the mouth of the shackle is so formed where it takes hold of the spike that it bears equally on both sides, and thus leaves the head of the spike in its original shape, and 3d the using of the rail for a fulcrum which thus always secures a ready and permanent bearing and greatly facilitates the work.

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

The shackle with the arrangement for clasping the head of a spike, for the purpose of drawing it from the cross-tie of a railroad track, in combination with the clevy C and the lever A, substantially as hereinbefore described and set forth.

DANIEL HALE.

Witnesses:

DANL. JUDD,

W. L. STOSKI.