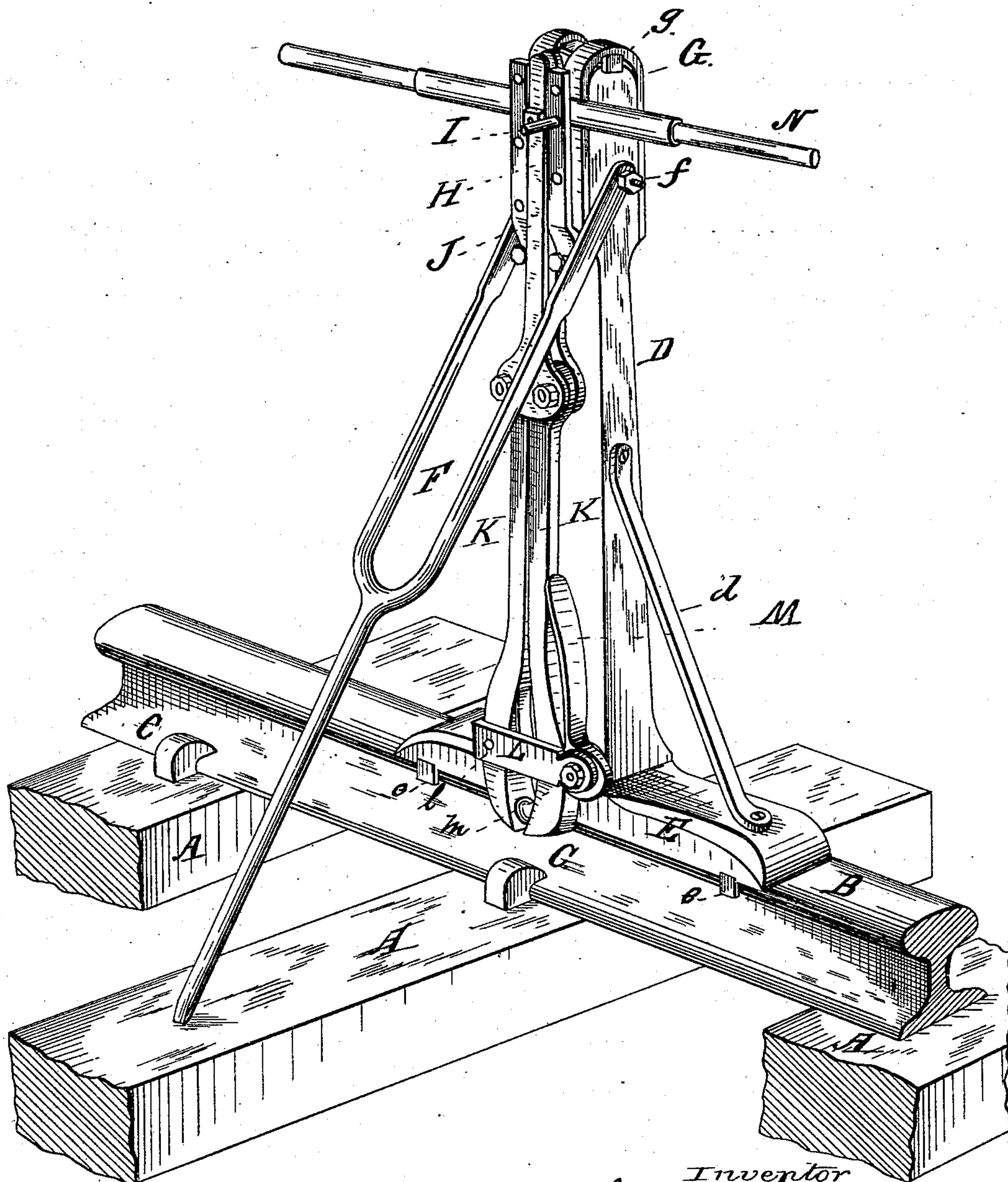


(No Model.)

I. W. WOODS.  
NAIL EXTRACTOR.

No. 268,343.

Patented Nov. 28, 1882.



Witnesses:  
*E. B. Stocking*  
*Chas. Hunt*

Inventor  
*I. W. Woods*  
By *[Signature]*  
*J. L. L.*



# UNITED STATES PATENT OFFICE.

ISAIAH W. WOODS, OF RITCHIE COURT-HOUSE, WEST VIRGINIA.

## NAIL-EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 268,343, dated November 28, 1882.

Application filed July 5, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, ISAIAH W. WOODS, a citizen of the United States of America, residing at Ritchie Court-House, in the county of Ritchie and State of West Virginia, have invented certain new and useful Improvements in Spike-Pullers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to letters or figures of reference marked thereon, which forms a part of this specification.

The object of my invention is to provide an implement which is portable and adapted to draw spikes in a perfectly true and satisfactory manner; and it consists in certain features hereinafter described, and specifically set forth in the claims.

The drawing illustrates an implement constructed in accordance with my invention.

A represents the ties, and B the rail, of the railroad-track, and C the spikes.

D is a standard having a base-piece, E, provided with lugs *e*, which are adapted to retain the base-piece upon the tread of the rail. A suitable brace or braces, *d*, may be provided to strengthen the standard upon the base.

F is a bifurcated adjustable bracket, pointed at its lower end for ready insertion into a tie, and pivotally secured to the standard by a bolt, *f*. The upper end of the standard is bound by iron straps G, secured from spreading by a tie-bar, *g*.

In front and a distance from the straps *g* are upright bars H, secured to the face of the standard in any suitable manner; or they may form a part of the straps G. The bars and straps are perforated for the reception of pins *i*, the perforations being disposed in steps, as hereinafter described.

Between bars H and straps G is vertically disposed a lifting-rod, J, bifurcated at its lower end, where the jaws K are pivotally attached.

About the jaws at the base of the standard is a strap, L, in which the jaws operate, said strap being secured by a bolt or rivet, *l*, to one of the jaws, and outside of the other jaw the two ends of the strap are connected by a bolt, *m*, upon which and between the strap is pivotally secured an eccentric-lever, M.

The bar J is secured at its upper end by a bolt pivotally to an operating-lever, N.

This being the construction, the operation is as follows: The pins I are removed from the perforations in the bars and straps, and the jaws are lowered, with eccentric-lever raised, so that they grasp the head of the spike when the eccentric M is lowered, thus causing the jaws to firmly grasp the spike. One end of the lever N is elevated above one of the perforations in one of the bars H, a pin is inserted, and the opposite end of the lever is elevated above one of the perforations in the other one of the bars H, and this operation is repeated at each end of the lever, a pin being inserted at each operation, whereby the spike is drawn from its seat by successive lifting in a direct line above it, thus requiring less exertion than in machines which operate in a curved line, and the whole apparatus is light and transportable, so that two or even one man may successfully operate the same.

By means of the bifurcated adjustable brace an inclination may be given to the standard to adapt the apparatus for drawing spikes which have been driven in a slanted direction, and also to adapt the standard to any inequality of the ties, so the same can be operated in a vertical position.

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

1. In a device for drawing spikes, the vertical standard having attached thereto at its upper end straps G, supports H, perforated for the reception of an adjustable fulcrum, in combination with the lever N, connecting-bars J, jaws K K, and clamping means L M, substantially as shown.

2. In a device for removing spikes from railroad-ties, a vertical standard provided with a cross-bar at its base, with downward-projecting lugs, and on its upper part with a vertical adjustable lever having attached thereto means for clamping the spike, and an inclined standard brace bifurcated at its upper portion and embracing the standard, the parts being organized substantially as shown.

In testimony whereof I affix my signature in presence of two witnesses.

ISAIAH W. WOODS.

Witnesses:

P. W. MORRIS,  
W. RICHARDS.