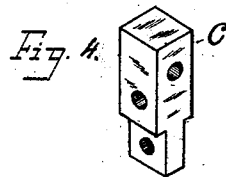
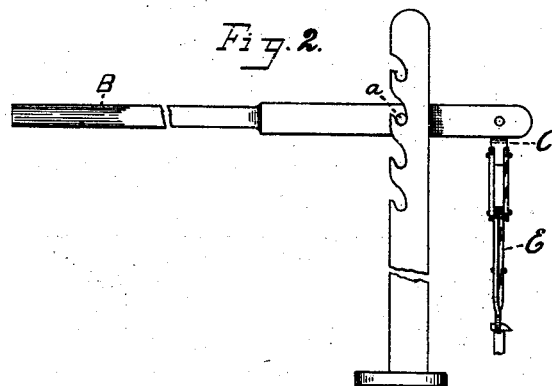
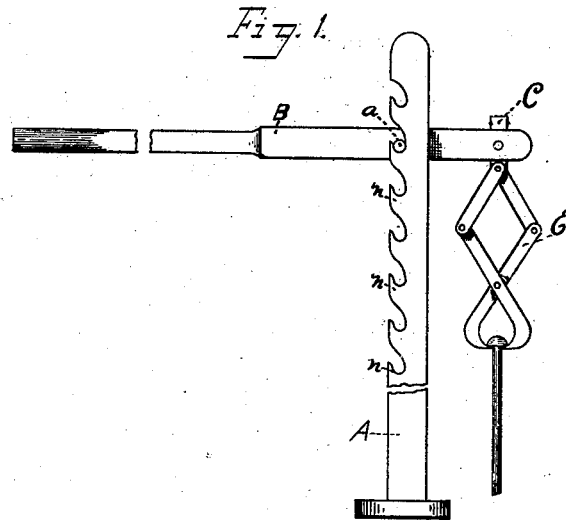


(No Model.)

J. S. CAMPBELL.  
SPIKE AND BOLT EXTRACTOR.

No. 301,799.

Patented July 8, 1884.



Witnesses.

Wm. E. Farnham.  
Jos. N. Jacobs

Inventor.

James S. Campbell  
by atty.  
J. H. O. Potter

# UNITED STATES PATENT OFFICE.

JAMES S. CAMPBELL, OF COAL VALLEY, PENNSYLVANIA, ASSIGNOR OF  
ONE-HALF TO SAMUEL O'NEIL, OF SAME PLACE.

## SPIKE AND BOLT EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 301,799, dated July 8, 1884.

Application filed May 14, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES S. CAMPBELL, of Coal Valley, county of Allegheny, State of Pennsylvania, have invented or discovered a new and useful Improvement in Railroad Spike and Bolt Drawing Devices; and I do hereby declare the following to be a full, clear, concise, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a view in side elevation of my device as shown in the act of drawing a bolt. Fig. 2 shows the same, but with the tongs or hooks in a different position, and one better adapted to the drawing of spikes, rather than bolts. Fig. 3 shows the lever with which I operate, and Fig. 4 is a view in perspective of the head-piece to the tongs or hooks by means of which I attach them to the lever.

The object of my invention is to provide a device which will enable me rapidly and with ease to draw from their places railroad or other spikes and long bolts—such as are used in the construction of flat-boats, barges, bridges, &c.—when it becomes desirable for any reason to remove them. I readily accomplish this by the use of my improvement, the operation of which will be readily understood, and the construction of which is as follows:

Referring to the drawings, A represents the standards which support, by means of the notches *n n n*, the lever B.

I intend my improvement to be applied chiefly to two classes of work—first, the drawing of railroad-spikes; second, the drawing of bolts. Hence I make the standards of two sizes. For railroad-spikes, I make the standards A about eighteen inches in height, and for bolts, which are much longer, and therefore require that the lever should be capable of being raised much higher, I make the standards A about forty-eight inches in height. The standards A are formed of one piece of metal, preferably (though two side pieces may be used) bent over or bowed at the top, and standing upon a base-plate, and having notches *n n n* cut in the sides to support the pin *a* of the lever B. The standards may be made of

any suitable material—such as malleable iron—or they may be made of cast-iron or of wood. The lever B, I make of steel, about five feet in length and one and three-fourths inch square at the outer end, rounding it off at the other end, to form a convenient handle. The portions of the lever may of course be varied; but those given I have found most convenient. At the outer end of the lever B, I cut a rectangular opening, C, for the reception of the head-piece of the tongs. This opening I make long enough to allow the head-piece C to swing quite freely in a plane parallel with the length of the lever. It is desirable that the head-piece C may swing in this way in order that the tongs E may be used either upon the inside or outside of a rail in removing spikes without the need of moving the whole device; and by making this opening C of sufficient size it adds much to the ease and effectiveness of working.

It is sometimes more convenient to turn the tongs E one way and sometimes another, and so I make two holes for the pivot through the head-piece C, in order that it may be inserted in the rectangular opening C either way.

The tongs E are of the ordinary lazy-tongs pattern, and when operated by means of the lever B will readily grapple the head of a spike or bolt and maintain a firm hold thereon until it is withdrawn.

Having described my improvement and its mode of construction, I claim as new and desire to secure by Letters Patent of the United States—

In a railroad spike and bolt drawing device, a suitable notched standard and a lever removably and adjustably supported thereon, in combination with suitable lazy-tongs pivoted to a reversible head-piece, which is in turn detachably connected to the lever, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand.

JAMES S. CAMPBELL.

Witnesses:

JOS. H. JACOBS,  
WM. E. FULTON.