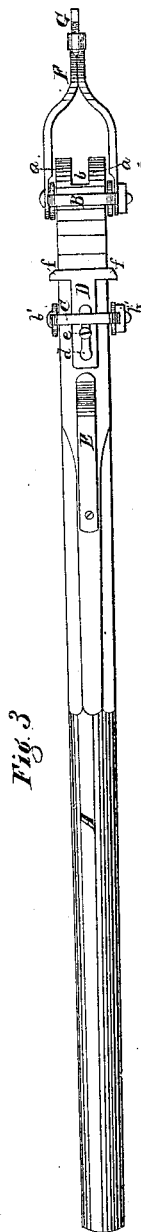
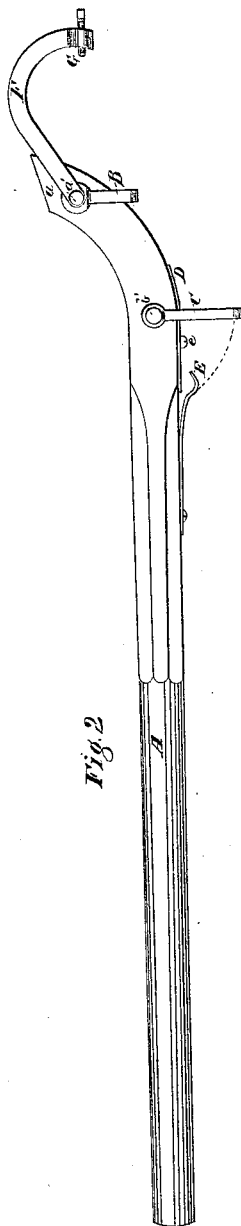
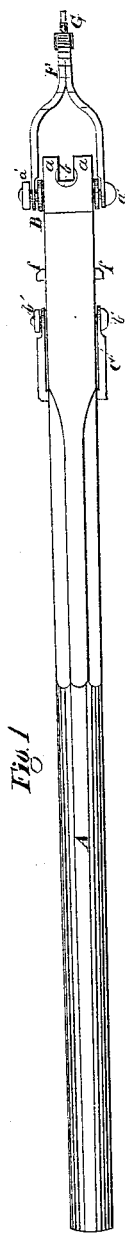


*M. E. Bishop,*

*Nail Extractor,*

*No 52,017.*

*Patented Jan. 16, 1866.*



*Witnesses*  
*J. Hale Jr*  
*L. H. Washburn*

*Inventor*  
*Major E. Bishop.*  
*By his Attorney*  
*R. H. Kelly*

# UNITED STATES PATENT OFFICE.

MAJOR E. BISHOP, OF SOUTHBOROUGH, MASSACHUSETTS.

## IMPROVED SPIKE-EXTRACTOR.

Specification forming part of Letters Patent No. 52,017, dated January 16, 1866.

*To all whom it may concern:*

Be it known that I, MAJOR E. BISHOP, of Southborough, in the county of Worcester and State of Massachusetts, have invented an Improved Spike-Extractor; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a side elevation; and Fig. 3 a bottom view, of it.

The improvement is intended for the extraction of a spike from a railroad-sleeper or other timber, and to accomplish this by a direct lift, so as not to bend the spike during the process of so removing it.

In the drawings, A denotes a long bar of metal, curved at one end, and there formed with two claws, *a a*, and a spike-receiving space, *b*, arranged between them. The said bar may be about five or six feet in length, and be square in section for a distance of about a foot from its claws. Thence it may be made to taper to its other extremity, in manner as represented in Figs. 1, 2 and 3. Near the claws two or any other suitable or greater number of fulcrum-bearers, B C, (each being shaped or formed as shown in the drawings,) are hinged or connected to the bar, the connection being by each bearer being made to embrace the bar on two of its opposite sides, and to receive a screw-bolt, *a'* or *b'*, extending through the bar. Each of the bearers should turn freely on its screw-bolt, and the bearer C should be longer than the bearer B. In other words, each bearer of the series should be larger than that immediately adjacent to and in advance of it.

The second bearer, C, I provide not only with an adjustable stop, D, for checking its forward motion, but with a spring-catch, E, for holding it back in its rearmost position while the bearer B is in the act of being used as a support for the bar during the operation of extracting a spike.

The stop D, shaped as shown in Fig. 3, has

a slot, *d*, made in it to receive one or more clamp-screws, *e*, which go through the slot and screw into the bar A.

The ears *ff* of the stop project beyond the opposite sides of the bar and serve as means of arresting the bearer at the extreme of its forward movement.

A furcated retainer, F, spans the bar, turns on the screw-bolt of the first bearer, B, and is formed and arranged with respect to the claws in manner as shown in the drawings. A pointed screw, G, goes through the retainer and extends therefrom, as shown in Figs. 1 and 2. This retainer, when the extractor is in use, is intended to extend over the iron rail and down against the side of the timber on which such rail may be spiked, and it serves, by its hold on the timber or rail, as the case may be, to enable a person to force the claws underneath the spike-head and retain their grasp of it while in the act of lifting it out of its place.

On depressing the bar A the bearers B C may be successively caused to sustain it, and on fulcra so elevated as to cause the claws of the bar to lift the spike in a longitudinal direction without bending it.

I claim—

1. The combination and arrangement of two or more bearers, B C, of different lengths, with the clawed bar A, the whole being applied together and so as to operate in manner as set forth.

2. The combination and arrangement of the stop D with the bearer C and the clawed bar A.

3. The combination and arrangement of the spring-catch E with the bearer C and the clawed bar, as described.

4. The combination of the retainer F and its screw G, or the equivalent thereof, with the bar A, and one or more bearers, B C, applied to such bar, as specified.

MAJOR E. BISHOP.

Witnesses:

R. H. EDDY,  
F. P. HALE, Jr.