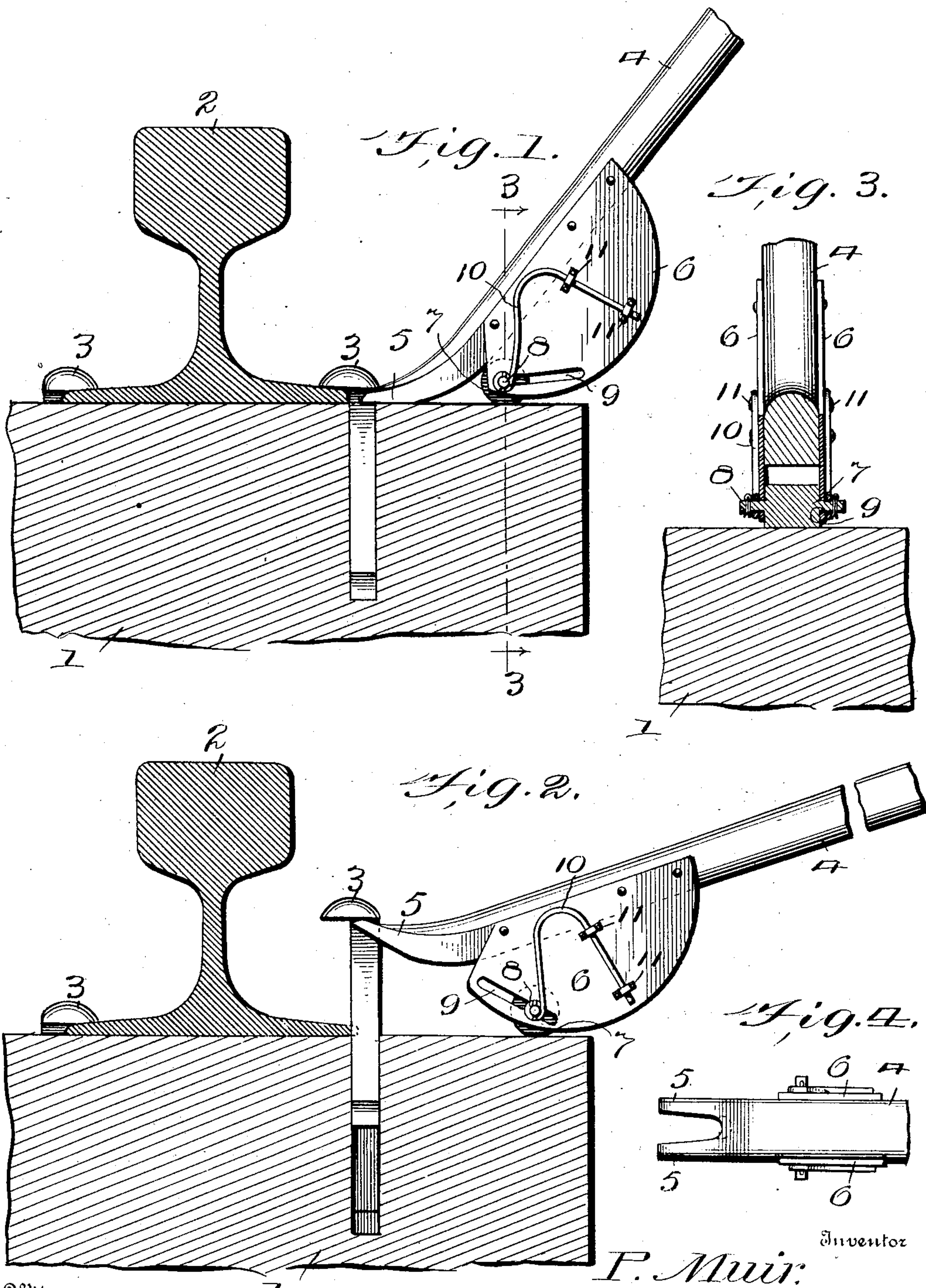


No. 765,246.

PATENTED JULY 19, 1904.

P. MUIR.  
NAIL OR SPIKE EXTRACTOR.  
APPLICATION FILED APR. 27, 1904.

NO MODEL.



Witnesses

H. C. Barry.

F. C. Crook.

By

W. S. Fitzmaurice

Attorneys.



# UNITED STATES PATENT OFFICE.

PETER MUIR, OF SUTHERLAND, NEBRASKA.

## NAIL OR SPIKE EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 765,246, dated July 19, 1904.

Application filed April 27, 1904. Serial No. 205,149. (No model.)

*To all whom it may concern:*

Be it known that I, PETER MUIR, a citizen of the United States, residing at Sutherland, in the county of Lincoln and State of Nebraska, have invented certain new and useful Improvements in Nail or Spike Extractors; 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.

My invention relates to a spike-extractor; and it consists of certain novel features of combination and construction of parts the preferred form whereof will be hereinafter clearly set forth, and pointed out in the claim.

The prime object of my invention is to provide an appliance whereby a large nail or spike—as, for instance, those commonly employed to secure the track-rail—may be quickly withdrawn after having once been driven into the tie.

A further object of my invention is to provide a reliable support or fulcrum-point for my extractor.

Other objects and advantages will be hereinafter made clearly apparent, reference being had to the accompanying drawings, which form a part of this application, and in which—

Figure 1 shows my invention as applied to use in withdrawing a railroad-spike after the latter has been once seated in the tie. Fig. 2 is a similar view showing the spike partly withdrawn. Fig. 3 is a sectional view taken on line 3-3 of Fig. 1. Fig. 4 shows a top plan view of a portion of my spike-extractor.

For convenience of reference to the various details of my invention and coöperating accessories numerals will be employed, the same numeral applying to a similar part throughout the several views, and, referring to the numerals on the drawings, 1 indicates the railroad-tie, and 2 the track-rail, of the usual or any preferred construction, while 3 designates the securing-spikes driven into the tie to hold the track-rail in an adjusted position relative thereto.

My spike-extractor consists of the bar proper, 4, having a claw-like terminal, as designated by the numeral 5, said claw-ter-

minal being of proper size to engage the head of a spike, and in order to provide a reliably efficient fulcrum-point for my spike-extractor I have formed integral with the lower end of the bar or attach thereto the downwardly-directed flanges or jaws 6, between which I rotatably secure the fulcrum-roller 7, which is provided at each end with a lug or journal 8, designed to take into the slot 9, formed in the lower edge of each of the jaws 6. It is therefore obvious that the fulcrum-roller 7 will be in proper position to serve as a reliable support or fulcrum-point for the bar, and in order to insure that the fulcrum-roller will always be normally held in the inner ends of the slotted openings 9 I have provided the controlling-spring 10, there being one of said springs for each of the jaws 6, said springs being held in position in any preferred way, as by the brackets 11 or the equivalent thereof.

By reference to Figs. 1 and 2 it will be observed that when the spike is first engaged by the claws 5 the roller will be at the point nearest said claws; but as the spike is withdrawn the fulcrum-roller 7 gradually moves away from its first position relative to the spike, thereby causing the journals to move toward the rear ends of the slots 9. It will thus be seen that the fulcrum-roller changes its position relative to the spike in order to properly compensate for the movements of the claws incident to the raising of the spike from its driven position. The tension of the springs 10, it will be understood, shall be sufficient to permit the fulcrum-roller to move rearwardly in the slots 9 incident to use of the instrument and afterward restore the roller to its normal inward position.

It will thus be seen that I have provided a reliably-efficient device whereby a railway-spike or the like may be quickly withdrawn from its driven position, and it is obvious that the instrument may be any desired size, fitting it as an instrument for withdrawing an ordinary nail, or may be of larger and stronger size to fit it for extracting railway-spikes, as before explained, and while I have described the preferred combination and construction of parts deemed necessary in carrying out my invention I desire to comprehend in this ap-

plication all substantial equivalents and substitutes which may be considered as falling fairly within the scope and purview thereof.

What I claim as new, and desire to secure  
5 by Letters Patent, is—

The herein-described combined nail and spike extractor comprising the main member or bar 4 having at one end a spike or nail engaging terminal or claw 5; a pair of depend-  
10 ing jaws 6 integrally formed with the bar or properly attached thereto; a fulcrum-roller having journals adapted to fit suitable slots provided in the lower edges of said jaws; a

spring adapted to coöperate with said roller and hold it in a normally inward position, 15 whereby it will be at the desired point to serve efficiently as a fulcrum for the lifting-bar, all combined substantially as specified and for the purpose set forth.

In testimony whereof I have signed my name 20 to this specification in the presence of two subscribing witnesses.

PETER MUIR.

Witnesses:

ELI ETCHISON,  
H. E. WORRELL.