

G. C. TAFT.  
Nail-Extractors.

No. 154,101

Patented Aug. 11, 1874.

Fig 3.

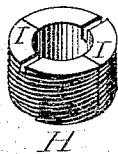


Fig 1.

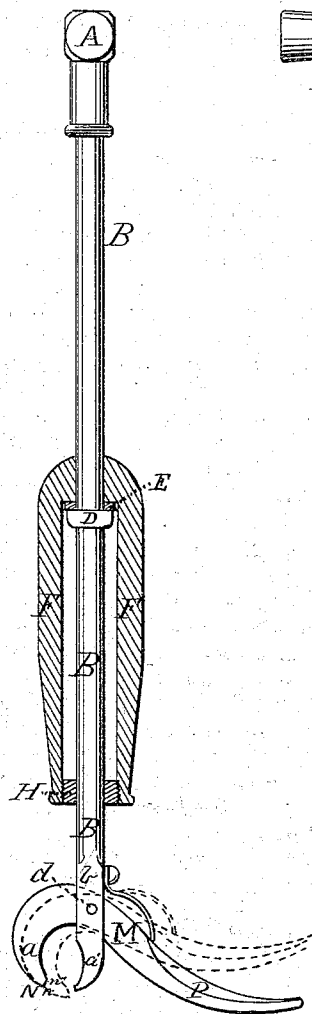


Fig 2.

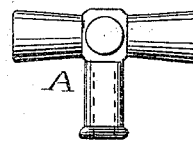


Fig 5.

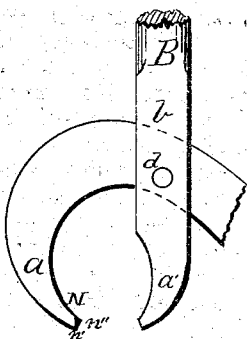
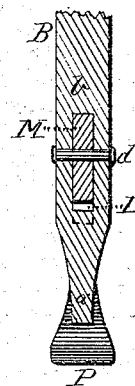


Fig 4.



Witnesses:  
Wm. E. Chaffee  
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Inventor:  
George C. Taft  
by his atty  
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# UNITED STATES PATENT OFFICE.

GEORGE C. TAFT, OF WORCESTER, MASSACHUSETTS.

## IMPROVEMENT IN NAIL-EXTRACTORS.

Specification forming part of Letters Patent No. **154,101**, dated August 11, 1874; application filed May 19, 1874.

### *To all whom it may concern:*

Be it known that I, GEORGE C. TAFT, of Worcester, Massachusetts, have invented certain new and useful Improvements in Nail-Extractors, of which the following is a specification, reference being had to the accompanying drawings.

The invention relates to a device for extracting nails; and consists of a vertical shaft or lever, the upper end of which may be composed of a hammer-head. The shaft is provided adjacent its center with a check-shoulder to receive the blow of the hollow percussive ram, through an aperture in the upper part of which the lever passes, the lower end of the ram being suitably provided with a disk having a guide-aperture at its center to give the ram a positive movement upon the lever. The lower end of the lever is reduced to a curved claw properly pointed, and having above it a shoulder or swell in which is provided an elongated slot, wherein, and below its upper end, is pivoted a fulcrum, which, on one side, is curved outward and then downward and toward the point of the claw, its extremity being reduced to an edge sharp on the under side, but beveled outward above, which end of the fulcrum comes below the point of the lever in operating. The other end of the fulcrum curves downward and expands into a foot so rounded on its under side that in operating the device the nail will not be bent. A spring is provided to keep the fulcrum in proper position.

The object of the invention is to furnish a convenient implement for extracting nails and for other analogous uses.

Figure 1 is an elevation of a device embodying the elements of the invention, the ram F shown in section. Fig. 2 is a detached view of the hammer-head A. Fig. 3 is a similar view of the guide H. Fig. 4 is a section of the lower part of the device. Fig. 5 is an enlarged view of the nippers.

A in the accompanying drawings is a double-headed hammer rigidly secured to the upper end of the shaft or lever B, upon which is provided the check-shoulder D, having above it the washer E, which is loose or swaged rigidly to the shoulder D, about which is placed the hollow ram F, closed at its upper end, save as to the aperture through which the lever B

passes, and which is of such dimension as to prevent the passage of the shoulder D. The lower end of the ram is closed in any suitable manner to give it a true movement upon the lever. In the present instance its lower end is provided with a female thread into which is introduced the bisected disk or cylinder H, severed into sections I, each having a coincident aperture at its center and threads upon their exterior surfaces, so that when joined the cylinder will screw into the lower end of the ram and the aperture at its center fit smoothly about the lever B. The lower extremity of the lever B is provided with the arched claw *a*, above which is the swell or shoulder *b*, in which is cut the elongated slot L, wherein is secured, by the pivot *d*, the fulcrum M, so that its upper surface touches the upper surface of the slot in order to prevent the blow of the ram acting upon the pivot *d*. By attaching the fulcrum M in this manner the force of the blow of the ram is, in a great degree, prevented from falling upon the pivot *d*, the upper edge of the fulcrum being in contact with the upper side of the slot L. One part of the fulcrum M, beyond the swell *b*, curves outward, then downward and toward the end of the claw *a*, terminating in an edge, N, which, when the device is operated, passes below the lowest plane of the claw *a'*. The edge N is of peculiar construction, its lower part, *n'*, being sharp, as shown, so as to penetrate the material adjacent the head of the nail, while the face *n''* is beveled upward toward the pivot *d*, forming a broad grasping-edge. That portion of the fulcrum M on the other side of the slot L curves downward and outward, expanding gradually into the foot P, the lower surface of which has a proper horizontal curve. The base of the spring *e* is secured to the swell *b* above the fulcrum M, upon which, near the adjacent foot P, its lower end impinges when the lever is actuated, thus giving it a spring-bearing. The hammer-head A is, preferably, placed transversely to the fulcrum M.

The device is placed with the edge of the claw *a* in close relation to the head of the nail. The ram F is now actuated, and, descending upon the shoulder D, drives the edge of the claw *a* and the edge N into the wood, owing to the specified construction thereof. The le-

ver is now tilted in the vertical plane of the fulcrum M, closing the edge N and claw *a* upon the nail below its head. This movement then continuing, the curved foot P causes the nippers to raise the nail in a right line, thus drawing the nail without bending it, the edge N, which is lower than the claw *a*, facilitating the operation.

What I claim as my invention, and desire to secure by Letters Patent, is—

The lever of a nail-extractor, provided with

a hammer-head on the end opposite the extracting mechanism.

In testimony that I claim the foregoing improvements in nail-extractors, as above described, I have hereunto set my hand and seal this 13th day of May, 1874.

GEO. C. TAFT. [L. S.]

Witnesses:

CHAS. H. BURLEIGH,  
HERBERT L. PARKER.