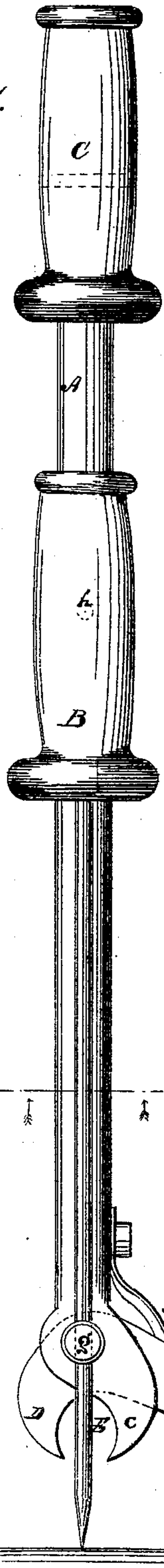


G. J. CAPEWELL.  
Nail-Extractors.

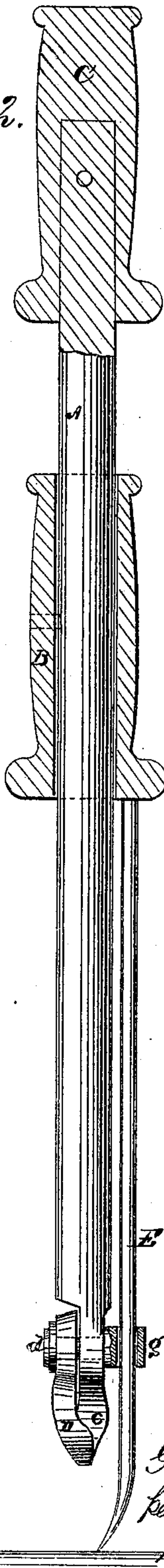
No. 149,196.

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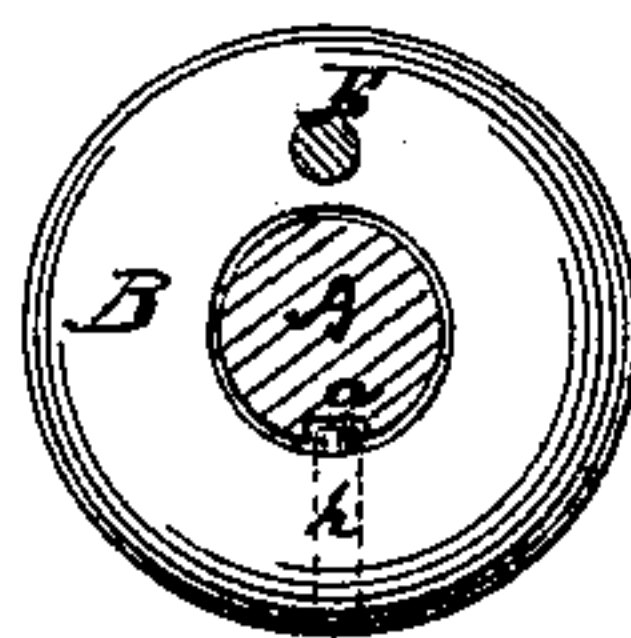
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Witnesses.*  
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# UNITED STATES PATENT OFFICE.

GEORGE J. CAPEWELL, OF CHESHIRE, CONNECTICUT.

## IMPROVEMENT IN NAIL-EXTRACTORS.

Specification forming part of Letters Patent No. 149,196, dated March 31, 1874; application filed October 15, 1873.

*To all whom it may concern:*

Be it known that I, GEORGE J. CAPEWELL, of Cheshire, in the county of New Haven and State of Connecticut, have invented a new and Improved Nail-Extractor; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

This invention is in the nature of an improvement in nail-extractors; and the invention consists in constructing a nail-extractor with a guide-rod and sleeve, substantially as hereinafter described.

In the accompanying sheet of drawings, Figure 1 is a side elevation of my improved nail-extractor; Fig. 2, an elevation of rear side of same, partly in section; and Fig. 3, a plan view of under side of sleeve, and cross-section of stem, taken in the line *x x*.

Similar letters of reference indicate like parts in the several figures.

In nail-extractors of the class to which this invention belongs, heretofore constructed, some difficulty has been found in placing and steadying the jaws of the extractor directly over the head of the nail to be drawn. In fact, the act of forcing the jaws into the wood around the nail-head preparatory to drawing the nail was apt to change the position of the jaws. By my present invention I obviate these difficulties, as will be seen from the following description.

A represents a stem or rod, of iron or steel, having formed therein a channel, *a*. Onto the stem A is placed a loosely-fitting sleeve, B, of cast metal, and to the upper end of said stem is securely affixed a handle, C, which may be of cast metal or other suitable material. The lower end of the stem A is formed into a claw, *c*. Secured to the claw *c* by a pivot-bolt, *d*, is a claw, D, one side of said claw being prolonged and formed into a fulcrum, *e*. To the lower part of the stem A is affixed a spring, *f*, one end of which bears upon said fulcrum, as shown in Fig. 1. The sleeve B has firmly secured to its lower side a guide-rod, E, this

guide-rod working through a guide, *g*, affixed to the claw *c*, the lower end of the guide-rod being brought to a point. To insure the sleeve B traveling freely and without turning, a pin, *h*, is affixed thereto, one end of said pin entering into the channel *a*.

My nail-extractor being constructed substantially as above described, its operation is as follows: The nail-extractor is held vertically, so that the head of the nail to be drawn is brought between the jaws *c* and D, when the sleeve B is forced downward, causing the guide-rod E to slightly enter the wood on one side of the nail-head, the guide-rod being kept in such position by steadily holding the sleeve B; the handle C is then raised, drawing the stem A upward through said sleeve. The jaws *c* and D being in this way raised, the handle C is rammed downward, by which operation the jaws are forced into the wood surrounding the head of the nail, being guided in their descent by the guide-rod E, so that they will certainly descend in the desired place—that is, in the wood immediately surrounding the nail-head. The handle C is then inclined in the direction of the fulcrum *e*, when the nail is withdrawn with facility, straight, and without injury to the wood surrounding the nail.

As before stated, the users of nail-extractors have experienced more or less difficulty in directing the jaws properly over the nail-head; but, as will be clearly seen from the foregoing description, a nail-extractor constructed with a sleeve and guide-rod will remedy the difficulty.

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

In a nail-extractor, the combination, with a sliding sleeve, of a guide-rod for directing the claws in the operation of embracing the nail for withdrawal, the whole constructed substantially as described.

GEORGE J. CAPEWELL.

Witnesses:

EDWARD A. CORNWALL,  
CORNELIA A. CORNWELL.