

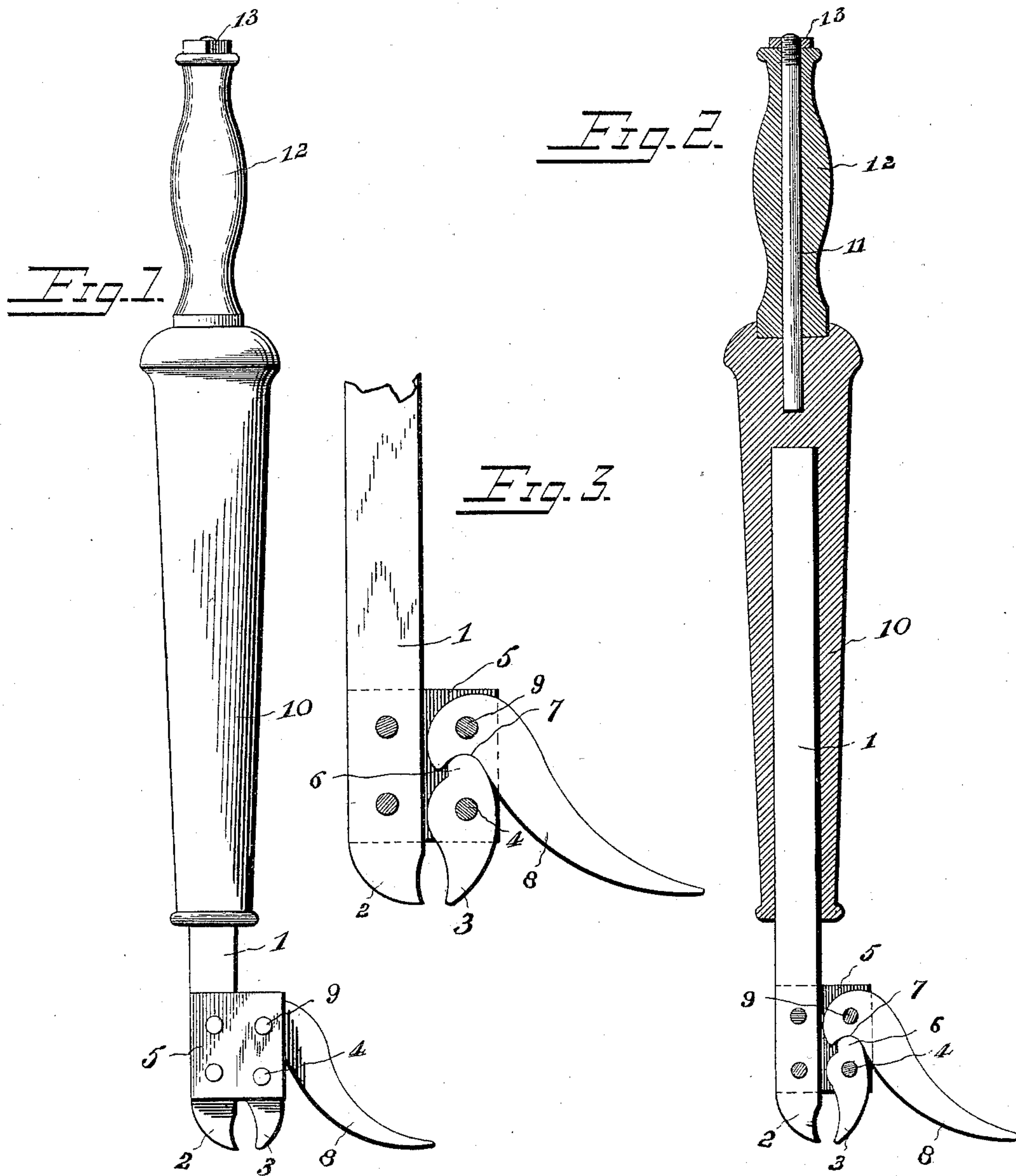
No. 612,853.

Patented Oct. 25, 1898.

J. A. LELAND.
NAIL EXTRACTOR.

(Application filed Mar. 28, 1898.)

(No Model.)



John A Leland

Inventor

Witnesses

F. C. Alden.

By his Attorneys,

J. F. Rely

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UNITED STATES PATENT OFFICE.

JOHN A. LELAND, OF MILLER'S FALLS, MASSACHUSETTS, ASSIGNOR TO THE MILLER'S FALLS COMPANY, OF EWING, MASSACHUSETTS.

NAIL-EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 612,853, dated October 25, 1898.

Application filed March 28, 1898. Serial No. 675,450. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. LELAND, a citizen of the United States, residing at Miller's Falls, in the county of Franklin and State of Massachusetts, have invented a new and useful Nail-Extractor, of which the following is a specification.

The invention relates to improvements in nail-extractors.

The object of the present invention is to improve the construction of nail-extractors and to provide a simple and comparatively inexpensive one adapted to be easily manufactured and capable of exerting great power in clamping a nail.

A further object of the invention is to provide a nail-extractor in which the weight of the lever will operate to open the jaws when relieved of strain.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a side elevation of a nail-extractor constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is an enlarged sectional view of the lower portion of the device.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a shank or rod provided at its lower end with a tapering rigid jaw 2, adapted to engage one side of a nail and cooperating with a movable jaw 3, pivoted between its ends and having its lower portion tapered similar to the rigid jaw. The movable jaw, which is perforated near its center to receive its pivot 4, is mounted between a pair of rectangular plates 5, secured to opposite sides of the shank or bar 1 and projecting from the same, as clearly shown in the accompanying drawings. The central portion of the movable jaw is enlarged, as shown, and the upper end is reduced to form a lug 6, which is arranged within a recess 7 of a lever 8.

The lever 8, which is fulcrumed between the plates 5 on a pivot 9, is curved downward and outward, as shown, and its upper end is

substantially hook-shaped to form the said recess 7. The curved portion of the lever 8 presents a lower convex face upon which the device is fulcrumed in extracting a nail, and the strain on the lever when pulling a nail operates to force the upper portion of the jaw 3 outward and causes the lower engaging end to clamp a nail. By this arrangement a powerful clamping action is produced and the weight of the lever operates to open the jaws to release a nail automatically when the same is extracted. The plates 5 form projecting flanges to receive the pivoted jaw and the head of the lever, and the pivots 4 and 9 may consist of rivets or any other suitable fastening devices.

It will be observed that the movable jaw 3 and lever 8 are arranged wholly to one side of the rod 1, with their pivots in vertical alinement, thereby enabling the rod to be used as a lever for prying out staples, lifting heavy objects, and opening boxes and the like. The jaw 3 is disposed longitudinally and about parallel with the rod 1, and its rounded lug 6 articulates with the pivoted or hook-shaped end of the lever 8, which overhangs it, in such a manner as to result in a mutual sustaining of the pivots 4 and 9 when the jaw 3 and lever 8 are subjected to strain, as when the implement is in operation.

The jaws are forced into the wood surrounding a nail by a rammer 10, consisting of a tubular body portion and provided with a rod or stem 11, extending upward from the tubular portion of the rammer or handle and receiving a wooden handle or grip 12, which is secured upon the rod or stem by a nut 13, engaging a threaded portion of the latter.

The invention has the following advantages: The device is simple and comparatively inexpensive in construction and may be readily manufactured, and as the pivots 4 and 9 of the jaw 3 and the lever 8 are located in vertical alinement the lever is adapted in extracting a nail to engage the inner edge of the upper portion of the jaw to cause the same to clamp the nail firmly, and after the nail has been extracted the lever automatically engages the outer edge of the upper portion of the jaw, thereby automatically opening the jaws and releasing the nail.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

5 What I claim is—

1. In a nail-extractor, the combination of a rod having its lower end made tapering and formed into a jaw and having offstanding projections in proximal relation to the fixed
10 jaw, a movable jaw located wholly to one side of the rod about parallel therewith and pivoted between the offstanding projections and having a rounded lug at its upper end, and a lever arranged upon the same side of the rod
15 with the movable jaw and pivoted between the offstanding projections, the pivots of the lever and movable jaw alining vertically, and the inner or upper end of the lever overhanging and articulating with the rounded lug of
20 the movable jaw, substantially as set forth for the purpose described.

2. In a nail-extractor, the combination of a rod having its lower end made tapering and

formed into a jaw, companion plates secured to opposite sides of the rod, a movable jaw 25 located wholly to one side of the rod about in parallel relation therewith and pivoted between the said plates and having a rounded lug at its upper end, and a lever arranged upon the same side of the rod with the mov- 30 able jaw and pivoted between the aforesaid plates, the pivots of the lever and movable jaw alining vertically, and the inner or upper end of the lever overhanging the rounded lug and recessed upon its inner side forming a 35 hooked portion to coöperate with the said rounded lug, substantially in the manner and for the purpose specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 40 the presence of two witnesses.

JOHN A. LELAND.

Witnesses:

PERRY E. AMICLON,
AUGUSTUS C. CAREY.