

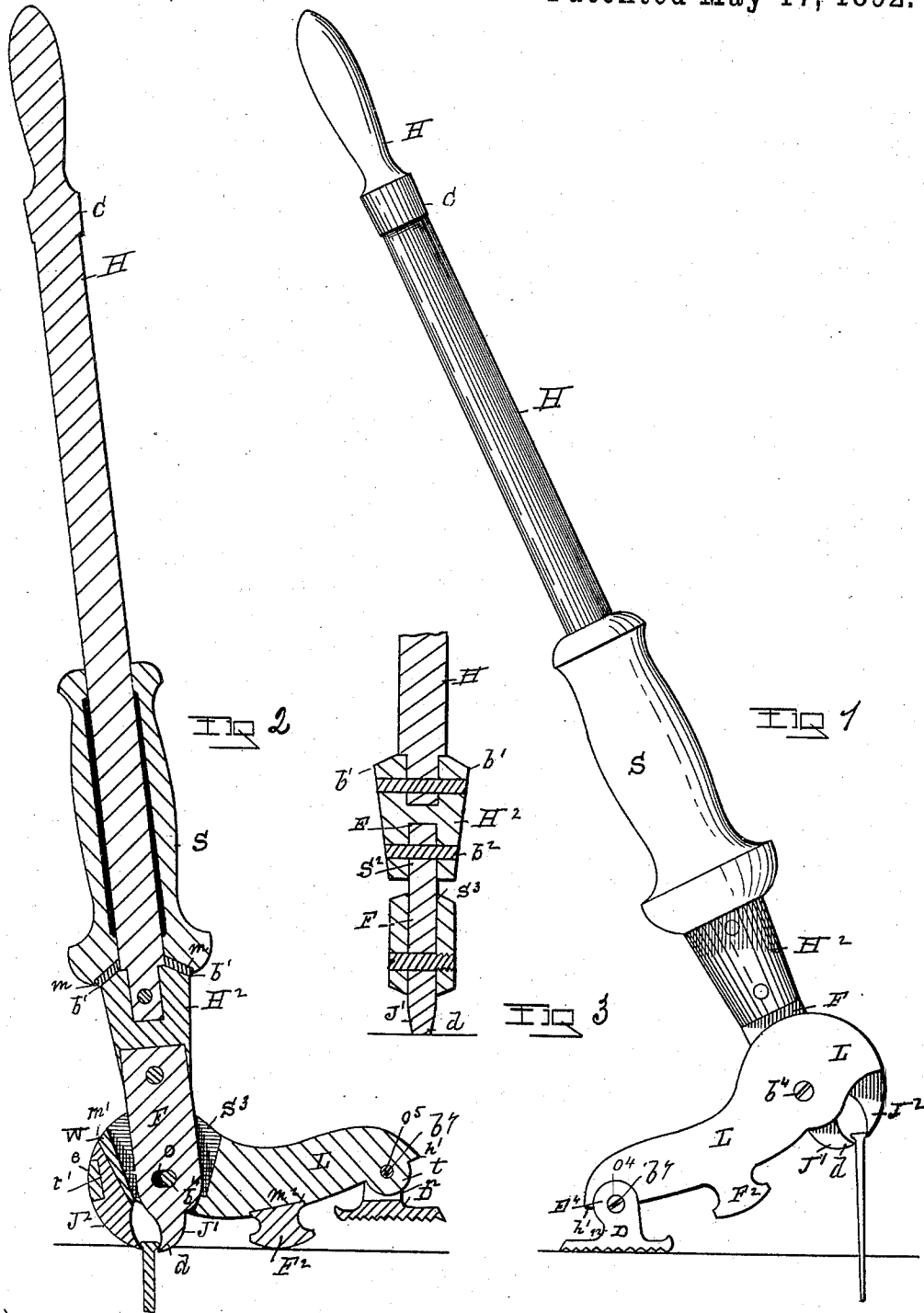
(No Model.)

2 Sheets—Sheet 1.

J. REID, Jr.
NAIL DRAWING IMPLEMENT.

No. 474,859.

Patented May 17, 1892.



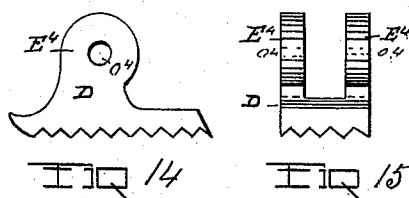
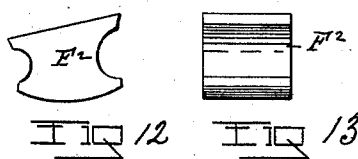
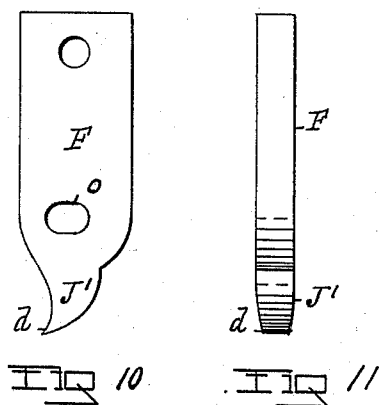
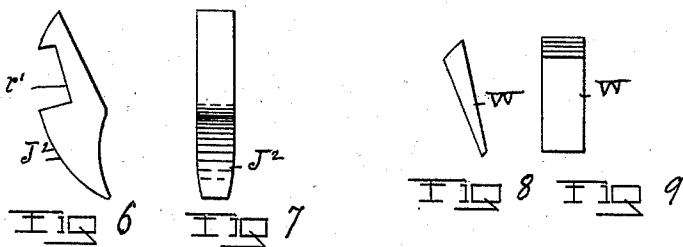
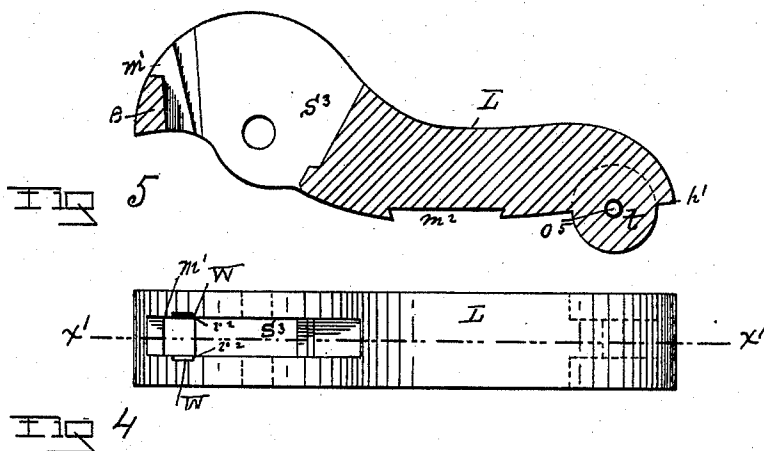
WITNESSES
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UNITED STATES PATENT OFFICE.

JAMES REID, JR., OF WEST TROY, ASSIGNOR TO HAGEN & REID, OF TROY,
NEW YORK.

NAIL-DRAWING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 474,859, dated May 17, 1892.

Application filed July 6, 1891. Serial No. 398,457. (No model.)

To all whom it may concern:

Be it known that I, JAMES REID, Jr., of West Troy, county of Albany, and State of New York, have invented a new and useful Improvement in Nail-Drawing Implements, of which the following is a specification.

My invention relates to improvements upon that class of nail-drawing devices which are used more particularly in opening packing-boxes; and my improvements have for their object to render this class of devices better adapted to the use for which they are designed, and by construction to condition them so that the nails drawn by them will come out straight and without being bent, so that they can be used again without straightening.

Accompanying this specification to form a part of it there are two plates of drawings containing sixteen figures illustrating my invention, with the same designation of parts by letter reference used in all of them.

In the illustrations, Figure 1 is a side elevation of my improved nail-drawing implement. Fig. 2 is a central vertical section of the implement shown at Fig. 1. Fig. 3 is a central vertical section taken through a part of the handle, the handle-socket, the stationary part of the jaw, and the jaw-lever taken at right angles to the section shown at Fig. 2. Fig. 4 is a top view of the pivoted jaw-lever. Fig. 5 is a section taken on the line $x'x'$ of Fig. 4. Fig. 6 is a side elevation of the lever-jaw detached from the lever. Fig. 7 is a front view of the detached lever-jaw. Fig. 8 is an edge view of the wedge used to secure the jaw in the pivoted lever, and Fig. 9 is a front view of said wedge. Fig. 10 is a side view of the jaw part that connects with the handle. Fig. 11 is an edge view of the jaw part shown at Fig. 10; Fig. 12, a side view of a short fulcrum-block adapted to be inserted in a recess made in the bottom surface of the jaw-lever; and Fig. 13 is an end view of the short fulcrum-block shown at Fig. 12. Fig. 14 is a side elevation of the pivoted fulcrum. Fig. 15 is an end view of the latter, and Fig. 16 a view of the under side of the pivoted fulcrum.

The several parts of the apparatus thus illustrated are designated by letter reference,

and the function of the parts is described as follows:

The letters J' and J^2 designate the jaw parts, by which the head of the nail is gripped, as will be hereinafter described.

The letter H designates the operating-handle, which at its lower end is connected with a socket part H^2 , which socket part has a greater diameter than the handle proper, and upon its upper edge where subtending the latter the socket is downwardly and outwardly beveled at b' . The handle H at its upper end is made with a collar C, secured to the handle thereat.

The letter S designates a sleeve-form hammer made to encircle the handle H and adapted to slide thereon between the said collar C and the projecting edge b' of the socket, the function of which sleeve-form hammer will be described hereinafter. The jaw part J' is arranged in a slot S^2 , made in the socket part H^2 , as shown at Fig. 3, with the upper end of said jaw part at F abutting against the interior end of said socket-slot, and this jaw part J' is secured within said slot by means of a bolt b^2 . This jaw part J' is made with the beak end d .

The letter L designates the lever-jaw part constructed with a beak-form jaw part J^2 , which latter is made to be inserted in a socket m' , formed in the end of the lever part L and to be therein secured in position by means of a wedge W, which latter is shown as detached at Figs. 8 and 9 and in position at Fig. 2. This jaw part J^2 has a recess r' , adapted to receive a correspondingly-fitted end e of the socket m' , so that when the jaw part J^2 is inserted in the socket m' , with the end e of the latter within the recess r' , and the wedge W is driven into said socket, so as to project into the recesses $r^2 r^2$ at each side of the socket, as shown at Fig. 4, the jaw part J^2 is firmly held in place, and so constructed that when broken or injured it may be removed and a new one put in its place.

The letter S^3 designates a slot made in the jaw-lever part L for the reception of the jaw part J' , as shown at Figs. 2, 3, and 4, and within which slot the flat part F of the jaw part J' is pivoted by the bolt b^4 . The bolt-

passage o , through which the pivoting-bolt b^4 passes, is made to be laterally elongated or elliptical, which allows for the lateral adjustment of the lever-jaw part L.

5 The letter F^2 designates a short fulcrum produced on the bottom of the lever-jaw part L, and this fulcrum part F^2 may be made integrally with the lever-jaw part L, as shown at Fig. 1, or made to slide into a dovetail recess m^2 , made in the bottom of the lever-jaw part L, as shown at Figs. 2, 5, 12, and 13.

10 The letter D designates the main fulcrum, which is provided with hinging-ears E^1 E^4 , projected from the top thereof, adapted to intermediately receive a tonguing-piece t , downwardly extended from the lever-jaw part L, with a pivot-bolt b^7 , passed through pivot-holes o^4 , made in said ears, and a pivot-hole o^5 , made in the tonguing-piece t , as shown at 20 Figs. 1, 2, 5, 14, and 15.

The letter h' designates a stop formed on the rear end of the jaw-lever part L, which stop engages with the upwardly-projected edge n of the fulcrum part D to limit the upward movement of the lever-jaw part L.

25 The letter m designates a ring of leather arranged on the bevel b' of the socket, against which the sleeve-hammer strikes when moved down over the handle to sink the beak ends into the wood each side of the nail-head, the function of this leather ring being to relieve the hand from the jar produced by the descent of the sleeve-hammer.

35 As thus made my improved nail-drawing implement is operated by placing the beak ends of jaws J' and J^2 at each side of the head of the nail to be drawn. Then the sleeve-hammer is raised and forced down upon the bevel b' to drive the beak ends of the jaws 40 into the wood, when the handle is moved over, so as to cause the jaw-beaks to grasp the nail-head with the jaw-lever resting upon the

short fulcrum F^2 , and with the parts in position, as shown at Fig. 2. When this has been done, the handle is moved over and down 45 farther, so that the jaw-lever bears only upon the pivoted fulcrum, and this draws out the nail in a straight line, as the jaw-lever laterally adjusts on its pivoted connection with the jaw part J' . As thus made and 50 arranged to be operated the apparatus is well adapted to draw nails without bending them.

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

55 1. In a nail-drawing implement provided with a sleeve-form hammer arranged on its handle, and a beak-form jaw upon the lower end of the latter, substantially as described, of a jaw-lever provided with a beak-form jaw 60 that is adjustably pivoted to the handle-jaw, said jaw-lever being provided with an end fulcrum pivoted to its outer end and having a short fulcrum upon its under side between said end fulcrum, and the pivotal connection 65 made with the handle-jaw, substantially in the manner as and for the purposes set forth.

2. In a nail-drawing implement, the combination, with the handle H, made with the socket part H^2 and the jaw part J' , of the 70 jaw-lever L, having a jaw part J^2 , made with a removable beak, and having a slot S^3 , with said jaw-lever, pivoted to the main fulcrum D, and having a short fulcrum F^2 , with said jaw part J' , adjustably pivoted within said 75 slot of the jaw-lever part, substantially in the manner as and for the purposes set forth.

Signed at Troy, New York, this 1st day of December, 1890, and in the presence of the two witnesses whose names are hereto written.

JAMES REID, JR.

Witnesses:

W. E. HAGAN,

CHARLES S. BRINTNALL.