

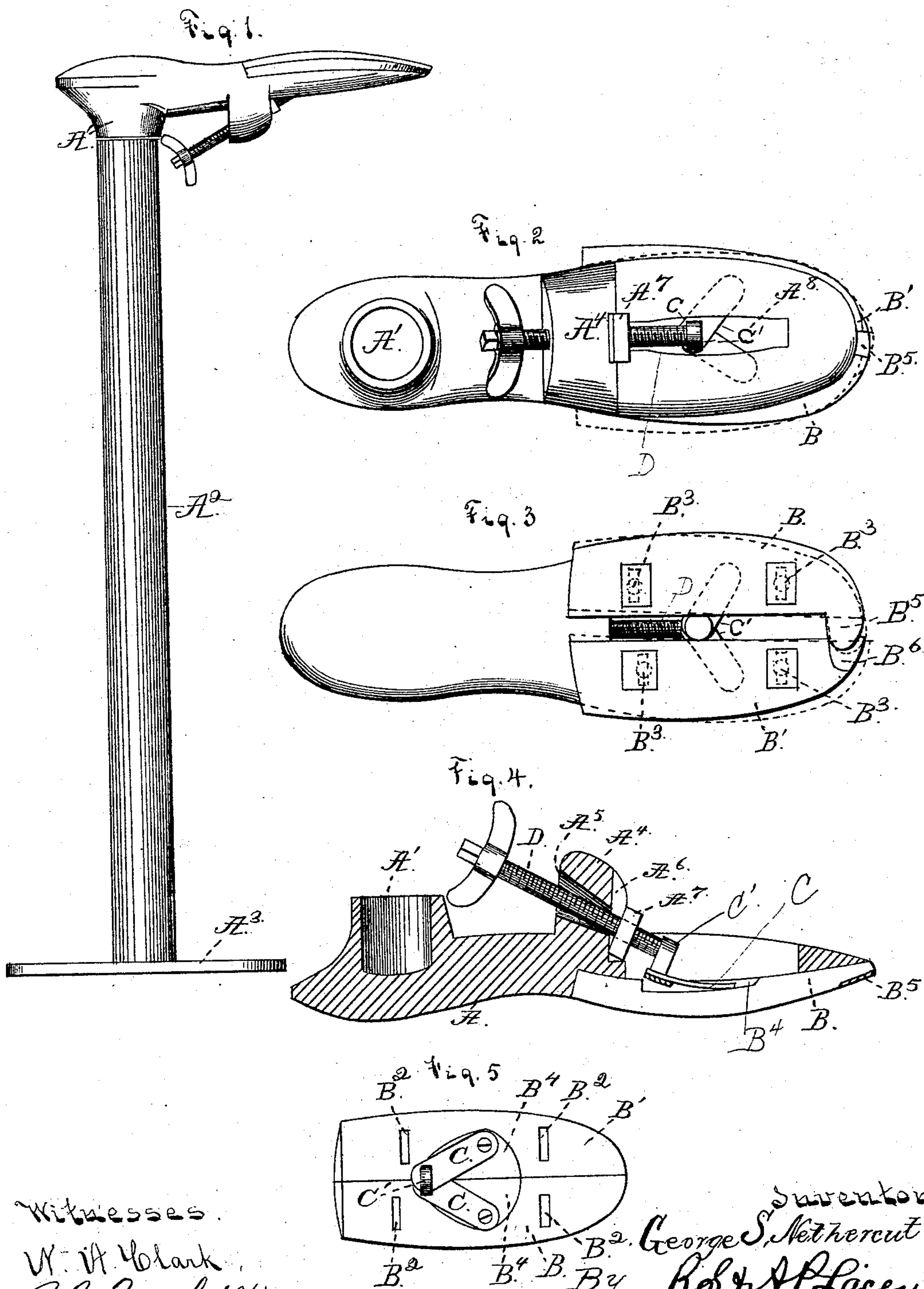
(No Model.)

G. S. NETHERCUT.

SHOE LAST.

No. 285,649.

Patented Sept. 25, 1883.



Witnesses.

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UNITED STATES PATENT OFFICE.

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SHOE-LAST.

SPECIFICATION forming part of Letters Patent No. 285,649, dated September 25, 1883.

Application filed July 23, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE S. NETHERCUT, a citizen of the United States, residing at Geneva, in the county of Walworth and State of Wisconsin, have invented certain new and useful Improvements in Shoe-Lasts; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in lasts, intended, primarily, for use as counterlasts; and it consists in the construction, combination, and arrangement hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of a last constructed according to my invention and mounted on a supporting-standard. Figs. 2 and 3 are respectively top and bottom plans of my last. Fig. 4 is a vertical section thereof, and Fig. 5 is a detail view of the ball-sections.

The body A of the last is constructed with a socket, A', on its upper side, near the heel, to receive the standard A'', which is provided with a suitable base, A'', and intended to be secured on the counter or other support in the store. The body is also provided with the instep projection A'', through which an inclined opening, A'', is formed to permit the passage of the feed-screw, and in front of this instep projection I form the mortise A'', in which the nut A'' is placed, as shown. This nut has a central threaded opening, and is secured within the mortise A'' and prevented from longitudinal motion, though it is capable of vertical movement to accommodate itself to the slightly-varying incline of the operating-screw, as the latter, which turns through the nut A'', is turned in the operation of the device. An elongated opening or slot, A'', is cut in the forward part of the body to provide a passage of the operating-screw and permit the motion of the toggled arms' pintle, to which the screw is swiveled.

The ball portion of the body of the last is cut away, and the movable sections B B' are fitted thereto, as shown. These ball-sections are provided near their opposite ends with slots B'', through which bolts B'' are passed into the body A, thereby securing the ball-sections to the body. The bolts B'' are slightly smaller than the slots B'', so as to permit the slight turning motion hereinafter described, and their heads are covered by suitable plates, as shown in Fig. 3.

On the upper faces of the sections B B', and from the meeting edges thereof, about midway their ends, I cut the mortises B'' B'', in which the toggled arms move. The toggled arms C C are pivoted at their outer ends to the ball-sections, and their inner ends are pivoted together, the pivot or pintle C' projecting up and having the end of the operating-screw D swiveled therein. From the meeting edge of section B, at the toe portion thereof, I project the bearing-plate B'', which extends across the space between the sections and rests on sections B' in a depression, B'', formed therefor. This plate serves to steady the sections as they are set apart and provide a bearing over the space between them, against which to hammer down the nails and pegs in the center of the toe portion of the shoe.

The screw D is provided with thumb-lever D', and is passed through nut A'', and its forward end is swiveled to the pintle C' of the toggle-arms C. As this screw is turned forward, it pushes the hinged ends of the toggled arms forward, causing their outer ends to spread, adjusting the ball-sections out to suit any sized shoe or boot.

By pivoting the sections on the ends of the arms C it will be seen the sections B B' can be moved to fit a right or left hand shoe. For instance, in Fig. 2 the rear outer edge of the section B and the forward outer edge of section B' have been pushed in. This gives the ball of the last the configuration of a "left," as shown. The reverse of this operation will give a right last, as partially indicated in dotted lines, Fig. 3.

My last is made of metal, and is intended, primarily, for use as a counter-last in stores or

shops for driving nails from the inside of shoes; but it will be understood that it might be employed as an ordinary last in manufacturing or repairing boots and shoes, though it is not intended specially therefor.

I prefer to use all the construction shown and described. It is obvious, however, that various means could be employed for adjusting the ball-sections laterally, such as set-screws working from the body A, with the sections fixed rigidly to the ends thereof; also that by pivoting the sections on the ends of the laterally-adjusting devices the change from rights to lefts, &c., may be accomplished; but, as before stated, I prefer the adjusting devices before described and shown, and also to employ the slots B² and bolts B³, whereby the ball-sections are secured to the body A, as the several parts are then held well together and a smoother action is obtained.

It will also be seen that by securing the ball-sections to the last-body by pivotal connection they may be set to be lefts or rights independent of any lateral adjustment.

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

1. The combination, with the last-body, of the ball-sections secured to the said body about midway their ends by a pivotal connection, and adapted to be rocked horizontally on said pivots, whereby the last may be adjusted to either rights or lefts, substantially as set forth.

2. The combination of the last-body, the toggled arms, the operating-screw, and the ball-sections pivoted midway their ends on the toggled arms, whereby the said sections may be adjusted laterally or rocked horizontally on said pivots, substantially as and for the purposes set forth.

3. The combination, with the last-body provided with suitable threaded screw-support,

of the operating-screw, the toggled arms swiveled at their meeting ends on the operating-screw, and the ball-sections provided with elongated openings near their opposite ends, and pivoted midway their ends on the other ends of the toggled arms and adapted to be rocked horizontally, and suitable fastening-bolts passed through the openings in the ball-sections and connecting the latter to the last-body, whereby the said last may be adjusted to any width desired, and adapted to rights or lefts, substantially as described, and for the purposes specified.

4. In a counter-last, the combination, with the last-body and the ball-sections secured thereto, and adjustable, as described, of a toe-piece projected laterally from the toe end of the one of the sections at the inner edge of the latter, and adapted to rest on the other section and cover the intervening space when the sections are separated, substantially as and for the purposes set forth.

5. The counter-last, substantially as described and shown, composed of the body, the operating-screw, the toggled arms, the ball-sections having slots, and secured to the body by bolts passed through the slots into the said body, and pivoted on the ends of the toggled arms, one of said ball-sections being provided with a plate extended from its meeting edge over the space between the two sections, and rested on the opposite section and forming a bearing-plate over the space between the sections at the toe of the last, all as and for the purposes specified.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE S. NETHERCUT.

Witnesses:

JOHN B. SIMMONS,
THOMAS B. GRAY.