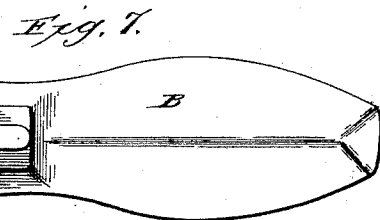
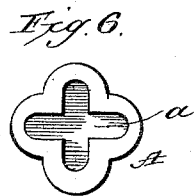
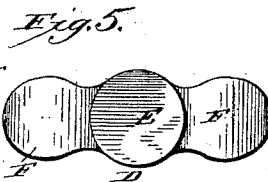
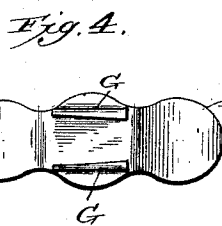
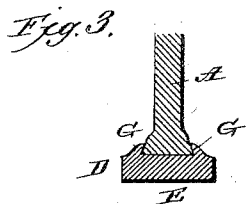
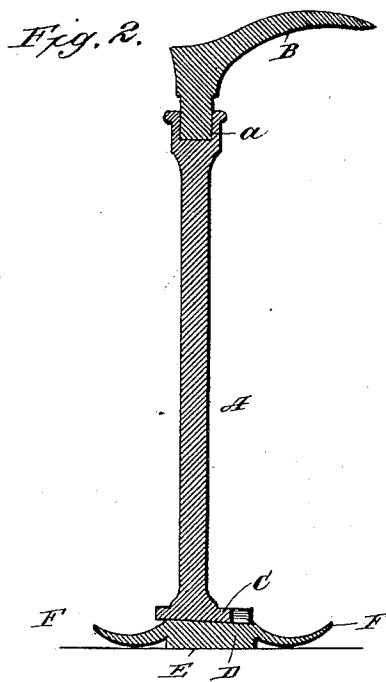
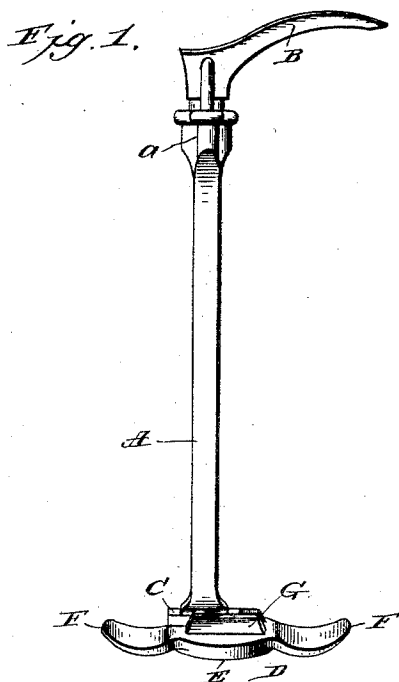


(No Model.)

J. A. CAULDWELL.
LAST STANDARD.

No. 468,385.

Patented Feb. 9, 1892.



Witnesses:

Ally Stewart.
Thomas Duant

Inventor:

James A. Cauldwell
By *Chunck & Chunck*
his Attyys

UNITED STATES PATENT OFFICE.

JAMES A. CAULDWELL, OF OWEGO, NEW YORK.

LAST-STANDARD.

SPECIFICATION forming part of Letters Patent No. 468,385, dated February 9, 1892.

Application filed June 15, 1891. Serial No. 396,324. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. CAULDWELL, of Owego, in the county of Tioga and State of New York, have invented certain new and useful Improvements in Last-Standards; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon.

This invention relates to last-standards for shoe-makers' use; and it consists in certain novel details of construction and combinations and arrangements of parts to be hereinafter described, and pointed out particularly in the claims at the end of this specification.

Referring to the accompanying drawings, Figure 1 is a perspective view of a last-standard and base or lap piece constructed in accordance with my invention. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a sectional view of the bottom of standard and base, taken at right angles to Fig. 2. Fig. 4 is a top plan view of the base or lap piece, and Fig. 5 is a bottom plan view of the same. Figs. 6 and 7 are views of the socket and tenon and last, respectively.

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

The main object of the present invention is to provide a combination-standard adapted to receive the shank of the last and a base therefor normally adapted to rest upon the floor and support the standard in upright position, but capable of being removed, and of such shape as to form a convenient lap-piece upon which the shoe-maker may beat and harden the leather being operated upon.

A represents the standard proper, preferably formed of iron, with the chilled socket *a* at the top, into which the shank of the last B, or its equivalent, is adapted to fit and be thereby retained in proper position.

At the bottom the standard A is provided with a relatively small foot C, preferably slightly inclined, as shown in Fig. 2, and made wedge shape, for a purpose which will now appear.

The base D is preferably cast in an integral structure to form a solid mass to arrest the shock in beating the leather, and consists,

essentially, of a central, preferably circular, flat surface E on the under side, upon which the base rests when the standard is in place, and upon which the beating is done, and two laterally-extending wings or projections F, preferably of concavo-convex section, to fit the knees of the shoe-maker when the base is inverted. On the upper side the base is provided with a socket or dovetailed recess formed by flanges G for the reception of the foot C of the standard, which recess is preferably slightly inclined, as shown in Fig. 2, by which construction it will be seen that when the foot is inserted in position within the socket any blows on the last or upper end of the standard will tend to drive the foot farther into the socket instead of causing the same to work loose and allow the standard to wobble about or fall over sidewise. This construction, further, it will be seen, does not weaken the base to any material extent at the center, and hence there is little or no liability of the same cracking or breaking when subjected to shocks or blows.

When it is desired to use the base as a support upon which to beat the leather, the standard is removed and the base inverted and laid upon the shoe-maker's lap, the laterally-extending wings F fitting his knees and forming comfortable supports, with the surface E in the most convenient position to receive the leather being operated upon. Besides serving as knee-rests the projections F subserve a most useful function when the standard is in place, as the shoe-maker may then put his feet upon the same to assist in holding the standard in upright position, instead of resting his knees against the standard, as heretofore. The surface E of course may be extended as far as desired along the bottom of the projections F; but I prefer the circular shape for obvious reasons.

The socket *a* is chilled with a brass chill, which gives it greater toughness than an ordinary iron or steel chill, thereby enabling it to stand greater shock and strain, and is in the form of a cross with the ends of the passages preferably rounded, one passage being a very little larger than the other. The tenon on the last is correspondingly shaped, all as shown clearly in Figs. 6 and 7. By making the socket and tenon of the shape mentioned

the slight lateral strain in removing the shoe from the last will cause the tenon to bind in the socket and thereby prevent the separation of the last and standard. This binding
 5 action I attribute to the ribs or projections between the arms of the socket, which enter the depressions in the tenon.

When new the tenon and socket fit securely and firmly together, with the largest extensions of the tenon in the largest arms of the
 10 socket; but when worn they become loose, and in order to cause a tight fit it is only necessary to insert the tenon at right angles—that is to say, with the largest extensions in the
 15 smallest arms of the socket—when it will be found that the parts again fit tightly together.

As thus constructed the parts of the whole device may be quickly separated and packed away for storage or shipment, occupying,
 20 when so packed, a very small space, and when desired can be instantly set up in working order, then forming a most useful combination device for shoe-makers' use, which will be readily appreciated by those skilled in
 25 the art.

Having thus described my invention, what I claim as new is—

1. The combination, with the standard pro-

vided with the foot having converging sides and lower face inclined slightly to the horizontal plane, of the base provided with the
 30 recess having converging side walls and inclined floor or horizontal face to receive the lower face of the foot, substantially as described.
 35

2. As an improved article of manufacture, the herein-described device, consisting of the last-standard having the socket at the upper
 end, the base having the socket for receiving the lower end of the standard, the flat sur-
 40 face on the bottom, and the laterally-extending projections having the concaved face to fit the shoe-maker's knees, substantially as described.

3. The combination, with the last-standard
 45 having the cross-shaped socket, the two opposite arms of which are larger than those at right angles thereto, of the last having a corresponding cross-shaped tenon for co-operation with said socket, whereby wear may be
 50 compensated for by inserting the tenon at right angles, substantially as described.

JAMES A. CAULDWELL.

Witnesses:

THOMAS DURANT,
 ALVAN MACAULEY.