

(No Model.)

L. O. DION.
LAST FOR BOOTS AND SHOES.

No. 245,942.

Patented Aug. 23, 1881.

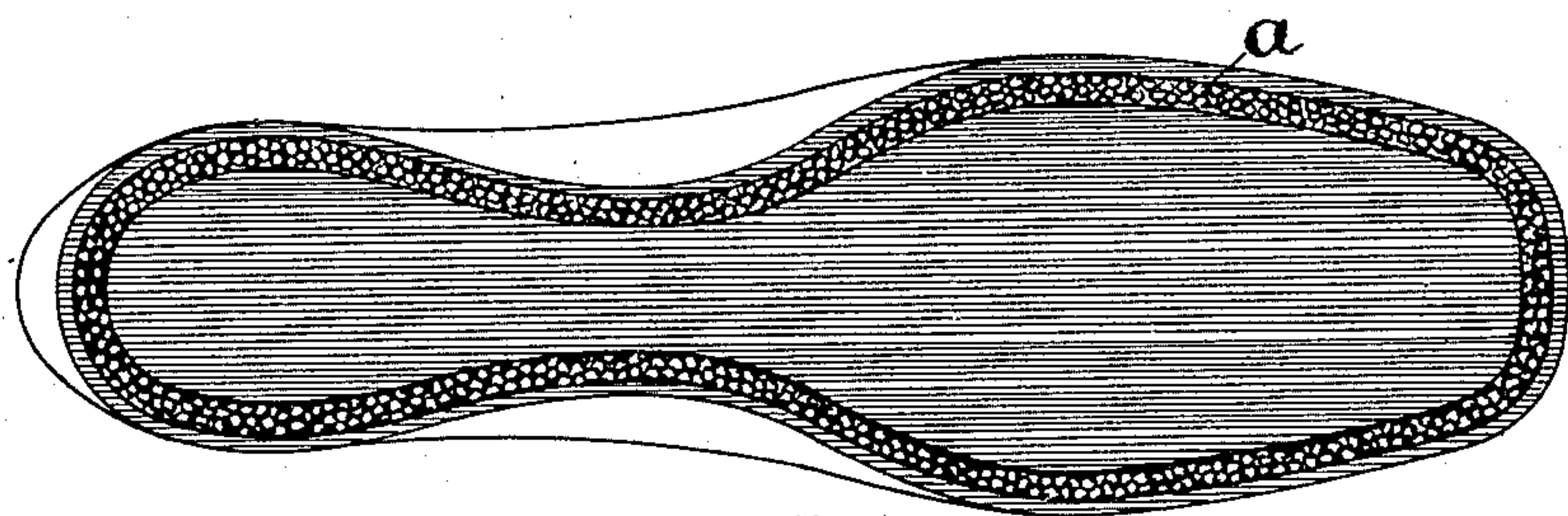


Fig. 1.

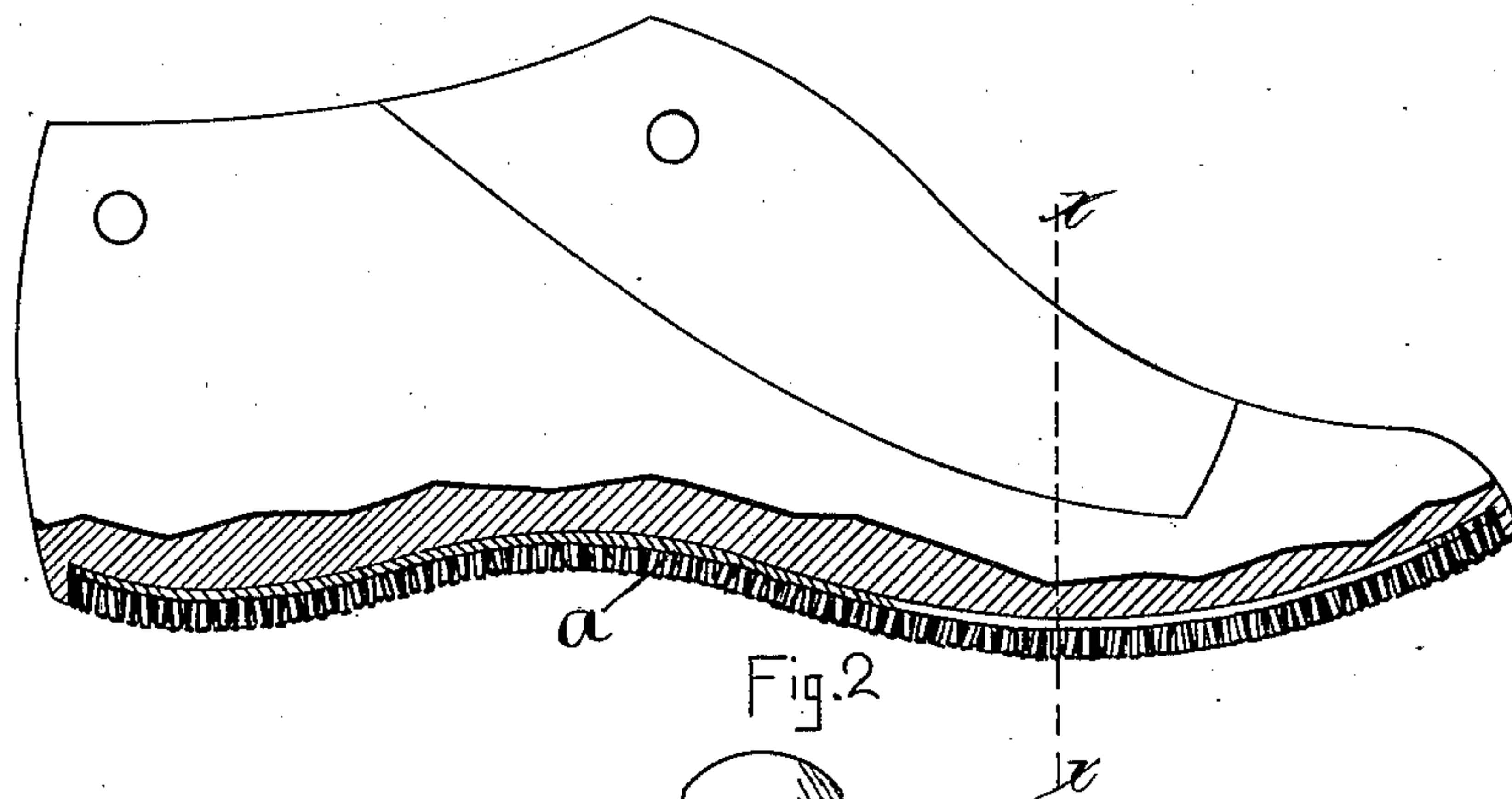


Fig. 2.



Fig. 4.

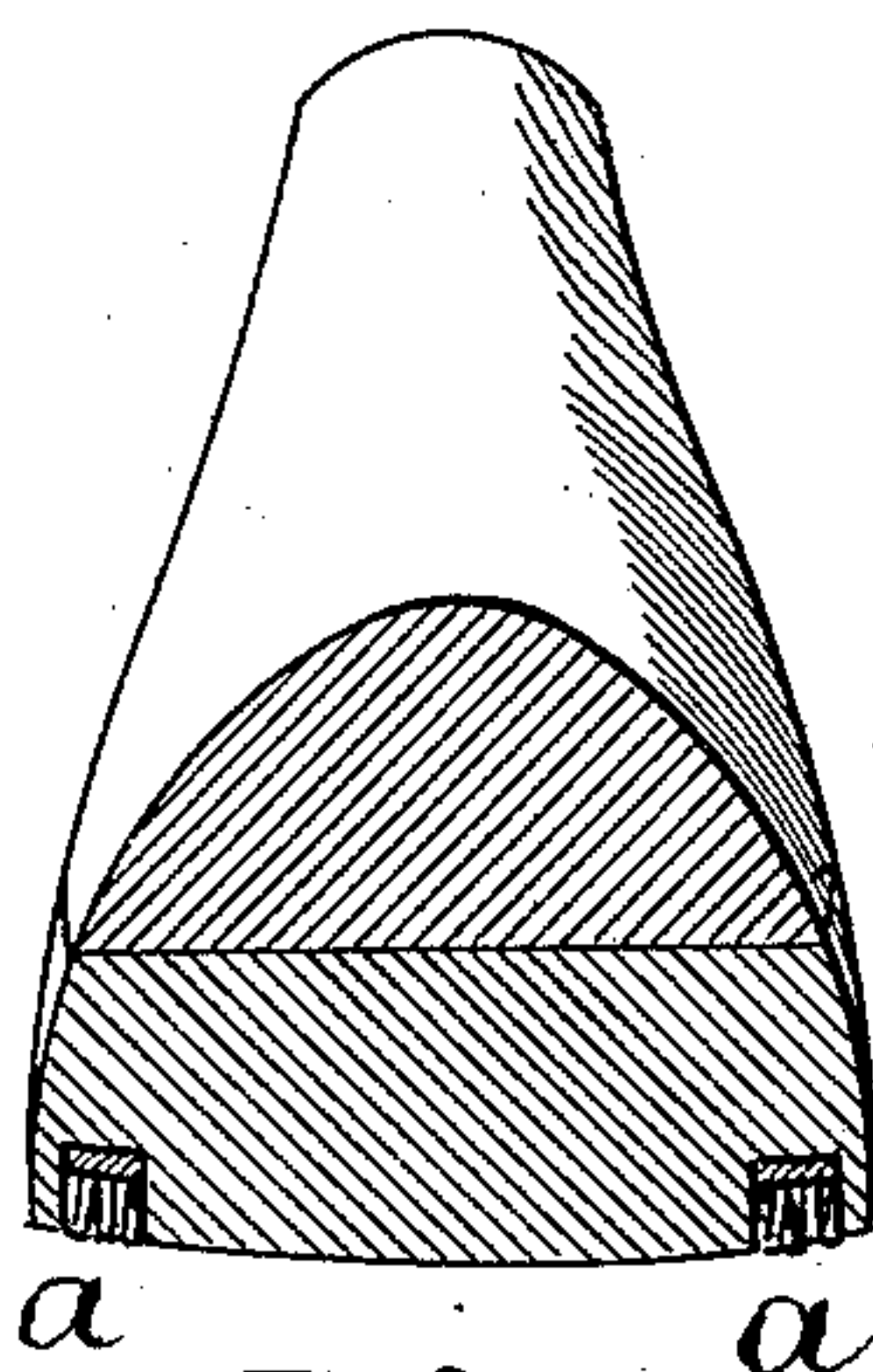


Fig. 3.



Fig. 5.

Witnesses:
Homer Rogers,
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UNITED STATES PATENT OFFICE.

LÉON O. DION, OF NATICK, ASSIGNOR TO HIMSELF, GEORGE S. TROWBRIDGE
AND STEPHEN MOORE, OF NEWTON, AND HOMER ROGERS, OF BOSTON,
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LAST FOR BOOTS AND SHOES.

SPECIFICATION forming part of Letters Patent No. 245,942, dated August 23, 1881.

Application filed June 22, 1881. (No model.)

To all whom it may concern:

Be it known that I, LÉON O. DION, of Natick, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Lasts for Boots and Shoes, of which the following is a specification.

In pegging shoes upon the ordinary wooden last, the awl which punctures the sole for the pegs passes through the sole and enters the last more or less, as do also the pegs themselves, and that portion of the last which is thus repeatedly punctured soon becomes grooved out and worn away so as not to support the inner sole properly against the action of the awl, and thus becomes useless for good work.

The object of my invention is to provide a last which shall not be worn away by such action of the awl and pegs upon it; and my invention consists in the construction of a last having a portion of its lower or "sole" surface composed of a series of points, ridges, or projections made of metal or similar hard material, and adapted to support the inner sole of a boot or shoe being pegged thereon, against the action of the awl, and allow the awl to pass between them, as hereinafter more fully described; and my invention also consists in the construction of a last having a portion of its lower or sole surface composed of a series of metallic points, ridges, or projections which are so elastic as to be capable of resuming the position from which they may be bent by the action of an awl or pegs, as used in pegging a boot or shoe thereon when such awl or pegs are withdrawn; and, further, my invention consists in making a last with a groove in its sole-surface, containing a strip of leather, rubber, or similar flexible material, in which are set upright nails or wires; and, further, in the construction of a last having a portion of its sole-surface cut away and having substituted therefor a series of upright wires or pins made of metal or other hard material, and adapted to support the inner sole of a boot or shoe being pegged thereon against the action of the awl, and allow the awl to pass freely between such wires or pins, all as more fully set forth hereinafter.

In carrying out my invention I construct a

last as shown in the accompanying drawings, in which—

Figure 1 is a plan view of the sole-surface of the last; Fig. 2, a side elevation of a last with a portion of the wood cut away, so as to show the sole-supporting wires; Fig. 3, a vertical cross-section on line *x* of Fig. 2. Fig. 4 represents a piece of the filling for the groove, and Fig. 5 a modified form thereof.

The last is made with a groove in its lower or sole side near its edge, as shown at *a*, the groove being preferably from one-fourth to three-eighths of an inch deep and one-half an inch in width, and occupying that portion of the last which in use would be subject to the action of the awl. At the bottom of this groove I fasten a strip of leather or rubber, (see Figs. 4 and 5,) in which are set nails or wires of such a length that the projecting ends will, when the strip is in place, be flush with the sole-surface of the last. The leather or rubber strip may be cemented to the bottom of the groove, and the wires may be set in the strip with a head on the lower side of the same, as shown in Fig. 4, or the wire may be bent into a U shape, as shown in Fig. 5, and inserted as are the card-teeth in general use. If rubber is used, the teeth or wires are more elastic than when set in leather; but they present so small a surface to the action of the awl that I have found leather satisfactory. The upper ends of the wires or teeth are preferably rounded, so that if struck by the awl they will bend slightly out of its way. Other material than metal—as, for instance, horn—may be used, and other shapes than round wires.

The leather backing may be omitted, and a strip of sheet metal bent in a zigzag form and set on edge in the groove, so as to present but a slight obstruction to the awl, and capable of springing out of the way when struck by the awl, may be used; or a coiled-wire spring may be laid longitudinally along in the groove, one part of its circumference being flush with the surface of the last, and supporting the sole along the center of the groove; or the spring may be coiled upon a square rod, (when made,) and thus be adapted to fill the groove and pre-

sent a substantially level surface to the action of the awl.

The nails or wires may, instead of being set in leather, be driven into the bottom of the groove, and, if made of steel or equally elastic material, will answer the purpose well.

If desired, the whole or any portion of the sole part of a last may be made of iron, a suitable groove being cast in the same, and set with wires or other suitable sole-supporting devices, such as are herein mentioned.

All these devices are modifications of my invention; but I make no claim to a last having a groove in its sole-surface filled with india-rubber, prepared wood, or leather, as such materials thus disposed are in use penetrated by the awl and pegs and worn away, while my invention allows no penetration of the body of the material.

I claim—

1. A last for a boot or shoe having a portion of its lower or sole surface composed of a series of points, ridges, or projections made of metal or similar hard material, and adapted to support the inner sole of a boot or shoe being pegged thereon against the action of the awl, and allow the awl to pass between them, substantially as and for the purpose set forth.

2. A last for a boot or shoe having a portion of its lower or sole surface composed of a series of metallic points, ridges, or projections, which are elastic and capable of resuming the position from which they may be bent by the action of an awl or pegs, as used in pegging a boot or shoe sole thereon, when such awl or pegs are withdrawn, substantially as herein set forth.

3. A last for a boot or shoe having a portion of its sole-surface cut away, and having substituted therefor a series of upright wires or pins made of metal or other hard material, and adapted to support the inner sole of a boot or shoe being pegged thereon against the action of the awl, and allow the awl to pass freely between such wires or pins, substantially as and for the purpose specified.

4. A last for a boot or shoe having a groove in its sole-surface containing a strip of leather, rubber, or similar flexible material, in which are set upright nails or wires, substantially as shown and described.

LÉON O. DION.

Witnesses:

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