

WILLIAM J. B. MILLS.

Shoe-Lasts.

No. 126,896.

Patented May 21, 1872.

FIG. 1.

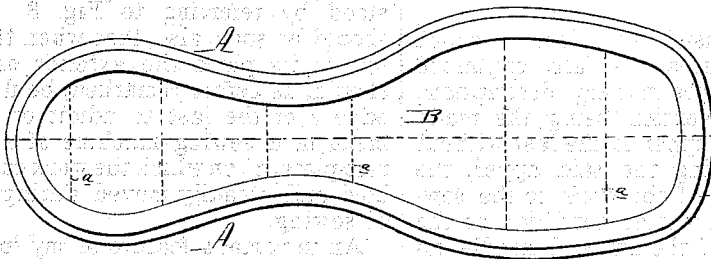


FIG. 2.

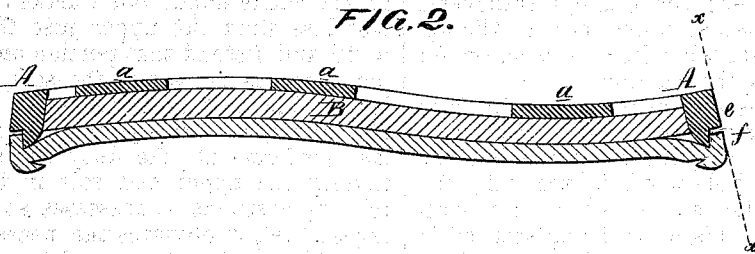
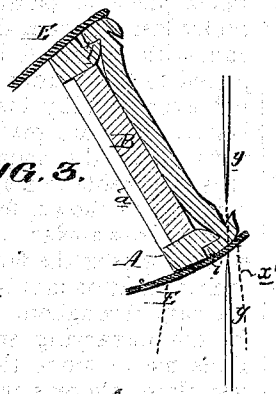


FIG. 3.



WITNESSES

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WILLIAM J. B. MILLS, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN SHOE-LASTS.

Specification forming part of Letters Patent No. 126,896, dated May 21, 1872.

Specification describing certain Improvements in Lasts for Turn-Round and Welted Shoes, invented by WILLIAM J. B. MILLS, of the city of Philadelphia and State of Pennsylvania.

My invention consists of a last in which are embodied features too fully explained hereafter to need preliminary description; the object of my invention being the ready adjustability of the upper to the last without straining or distorting the said upper, the steady presentation of the work to the sewing-machine, and a better condition of the work for the play of the awl and needle, together with other advantages hereafter referred to.

In the drawing, Figure 1 is a plan view of my improved last; Fig. 2, a longitudinal section on the line 1-2; and Fig. 3, a transverse section of the last, sole, and part of the upper as they appear when held in position for being stitched by the machine.

The last consists of a frame, A, of a form and a longitudinal curve corresponding with those of the sole. Within the frame is fitted a strip, B, of suitable wood for receiving the tacks by which the sole D is temporarily secured to the last, this wood being secured to cross-bars *a a*, which are attached to or form a part of the frame. When worn out the block may be removed and another inserted. The side or edge *e* of the last is inclined in the direction indicated by the dotted line *x x*, and although this inclination may vary in different lasts it should be unvarying throughout in the same last. A rabbet, *f*, is formed in this edge of the last for the reception of the turned border *i* of the sole, the rabbet extending entirely round the frame, and being of such dimensions that when the sole is fitted to its place, as shown in Fig. 2, the side of the border shall not protrude beyond the line *x x*, which coincides with the inclined edge of the last. After the sole has been temporarily tacked to the last both are fitted to the upper E, and the whole is held in the inclined position shown in Fig. 3, so as to receive the stitches which are made in the direction of the dotted lines *y y*. The nearer the turned border of the sole is at

right angles to the face of the same the better is the condition of the work for the action of the straight awl and needle of the sewing-machine, as will be readily understood by referring to Fig. 3. The rabbet should be such, also, that when the sole is fitted to its place the exterior of the border should, as before remarked, be flush with the edge *e* of the last to admit of the employment in a sewing-machine of a plain-faced rest-plate, *x'*, on which the work can be steadily held and steadily moved during the process of sewing.

An important feature of my improved last is its comparatively small depth or thickness. Heretofore it has been deemed necessary to make sewing-lasts of the same character as ordinary lasts, sufficiently large to fill the entire upper, but I make my improved last less than the upper, just thick enough to fill and distend that portion only of the upper which is nearest to the sole, the last being no thicker than is necessary for supporting the upper at this point. While the small last performs all the duty necessary for retaining the upper and sole in their proper relative positions, it possesses several advantages: first, it obviates the necessity of that stretching and distorting of the upper which takes place in passing it over an ordinary bulky last; second, the border of the upper can, with my small last, be more readily adjusted to the border-line of a sole than if fitted over a bulky last; and, third, the small last can be more readily withdrawn from the upper than the usual thick and bulky last. It is preferable to make the edge *e* of the last inclined, as shown, for the upper can be more readily drawn over it than if the edge were at right angles to the face of the last; but whatever inclination may be decided upon, it should not vary throughout in any part of the last, for the unvarying surface of the edge *e* enables me to move the work evenly over the rest-plate, whereas inequalities, such as exist in the sides of ordinary lasts, compel the operator to twist the work about as it is submitted to the action of the machine.

It will be observed that a recess is formed in the last for receiving the convex or bent

body of the sole. It is important that this recess should be present, for the convexity of the sole facilitates the turning of the shoe, and is the shape wanted when turned, while it affords more room for the play of the awl, needle, and thread-guide during the sewing. The wooden strip is not indispensable, as the upper may be tacked to the border of the sole, but whether the wood is present or not the last should be hollow to admit the protuberant body of the sole.

I claim as my invention—

1. A rabbeted sewing-last, which is less than the inside of the shoe to be stitched thereon, as set forth.

2. A rabbeted sewing-last, having an edge, *e*, made at the same angle throughout in respect to the face.

3. A rabbeted last, consisting of the metal frame A and wood lining B, as set forth.

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Witnesses:

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