

P. WARE, Jr.  
Lasts for Boots and Shoes.

No. 142,539.

Patented September 2, 1873.

Fig. 1.

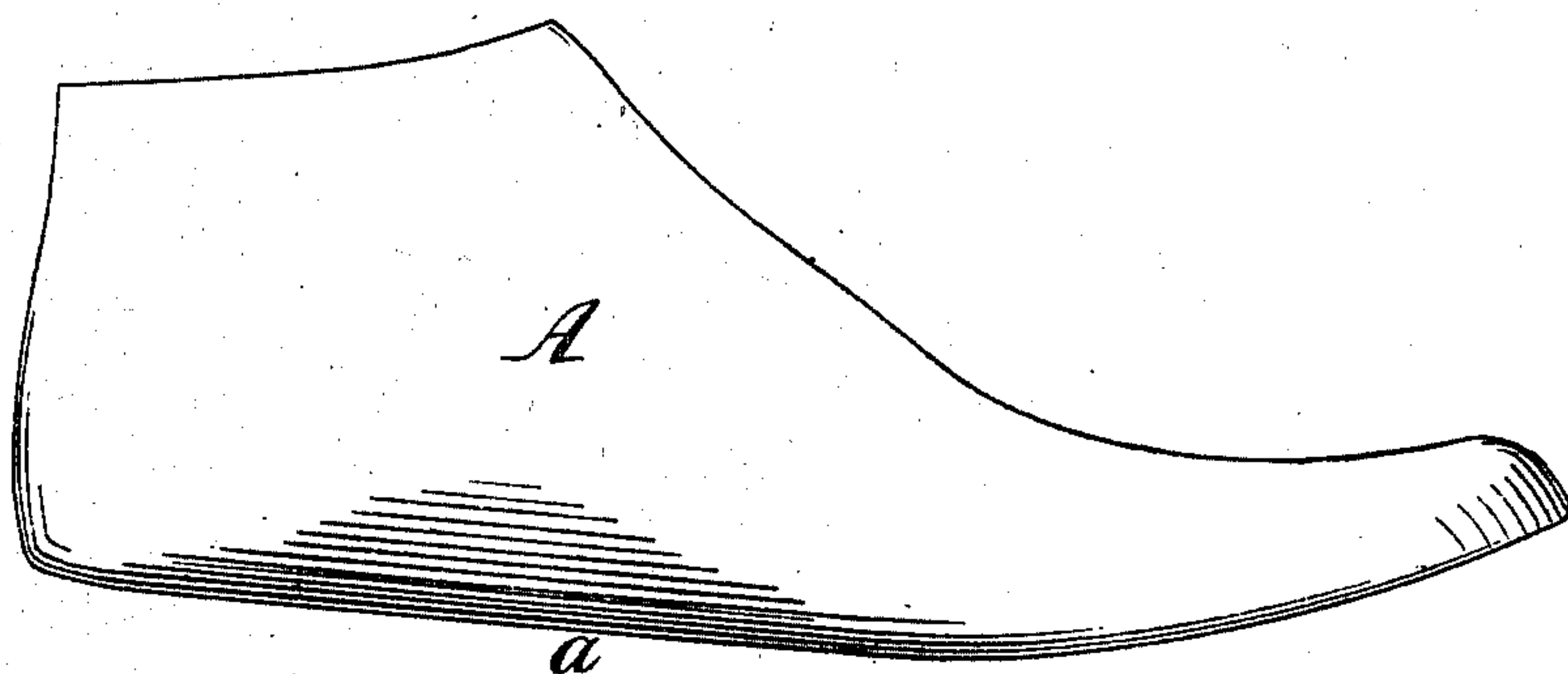
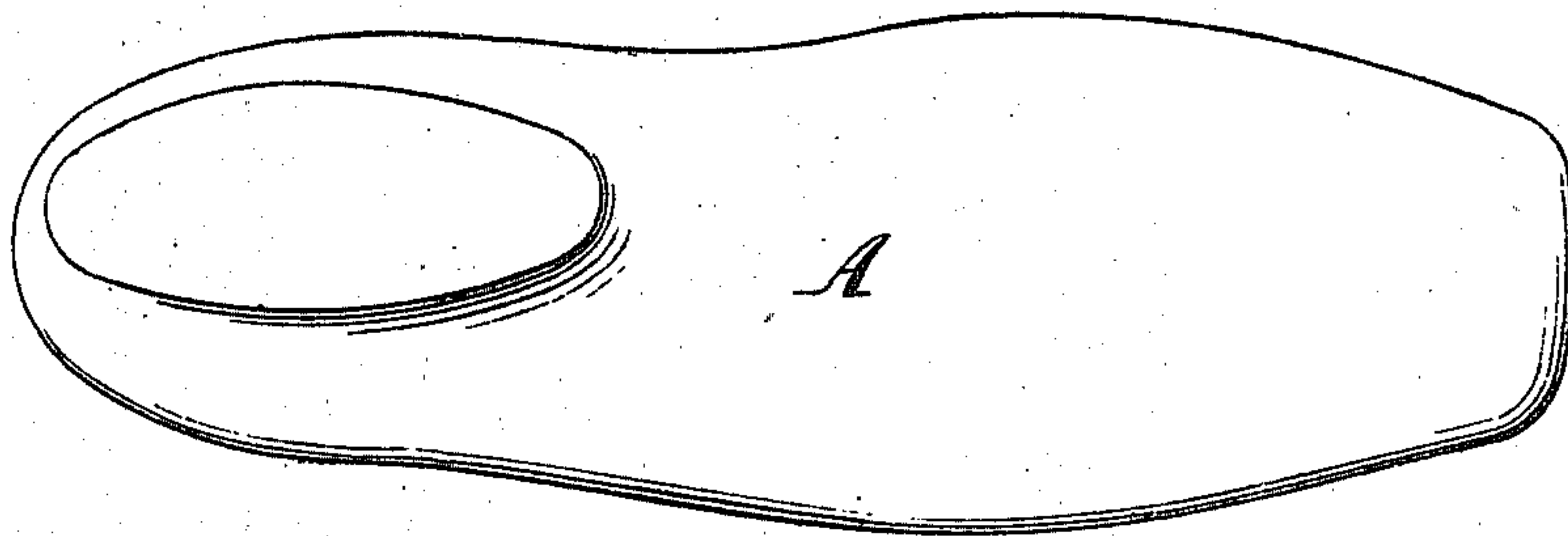


Fig. 2.



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# UNITED STATES PATENT OFFICE

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## IMPROVEMENT IN LASTS FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. 142,539, dated September 2, 1873; application filed May 23, 1873.

*To all whom it may concern:*

Be it known that I, PRESTON WARE, Jr., of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Lasts for Boots and Shoes; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a side view of my invention. Fig. 2 is a plan or top view of the same.

Similar letters indicate corresponding parts.

This invention relates to a last which corresponds in shape to the shape of the foot, which the same assumes when it supports a portion of the weight of the body in walking or standing, and the bottom surface is flat in contradistinction to ordinary lasts, which correspond in shape to the foot when the same is relieved from all weight, and the bottom surface of which is concave lengthwise to correspond to the bottom surface of the foot.

In carrying out my invention I first get a cast of a well-shaped foot with the stocking on, in plaster-paris, the foot being in the position which it assumes when one-half of the body rests thereon, the person standing in an erect position. From this plaster-paris cast I get an iron cast, which forms the pattern by which I turn my boot or shoe last A. In turning my last I can commence at the heel or at the toe, putting on such style at the toe as fashion, comfort, or inclination may dictate.

From the last, thus prepared, I make my mathematical gradations of widths and sizes, so that all the different sizes of lasts will be

in exact conformity of every bone and muscle of the human foot when a portion of the weight of the body is upon it, and all well-shaped feet can be readily fitted.

Previous to turning my last, however, I fill up the cavity in the bottom of the cast-iron pattern, so that the bottom surface of the sole *a* of my last will become level or flat. (See Fig. 1.)

By these means a last is obtained which corresponds to the shape of the human foot, which the same assumes when a portion of the weight of the body rests thereon in walking or standing, and by filling up the cavity in the sole of the last the muscles and cords in the concave of the foot are relieved from all pressure, and they retain full freedom of motion in a boot or shoe made on my last.

A last thus constructed will be readily distinguished in the market from those of the usual construction, since the bottom or sole is perfectly flat from the heel forward to the balls of the toes, no cavity or hollow being formed in the last, as would be the case if the last was produced from a cast secured while the foot was free from the weight of the body.

What I claim as new, and desire to secure by Letters Patent, is—

A last for boots and shoes made with a flat sole, *a*, and corresponding in shape to the shape of the human foot, which the same assumes when a portion of the body rests thereon, as shown and described, for the purpose specified.

P. WARE, JR.

Witnesses:

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