

(No Model.)

C. COOPER.

SHANK FOR BOOTS OR SHOES.

No. 388,263.

Patented Aug. 21, 1888.

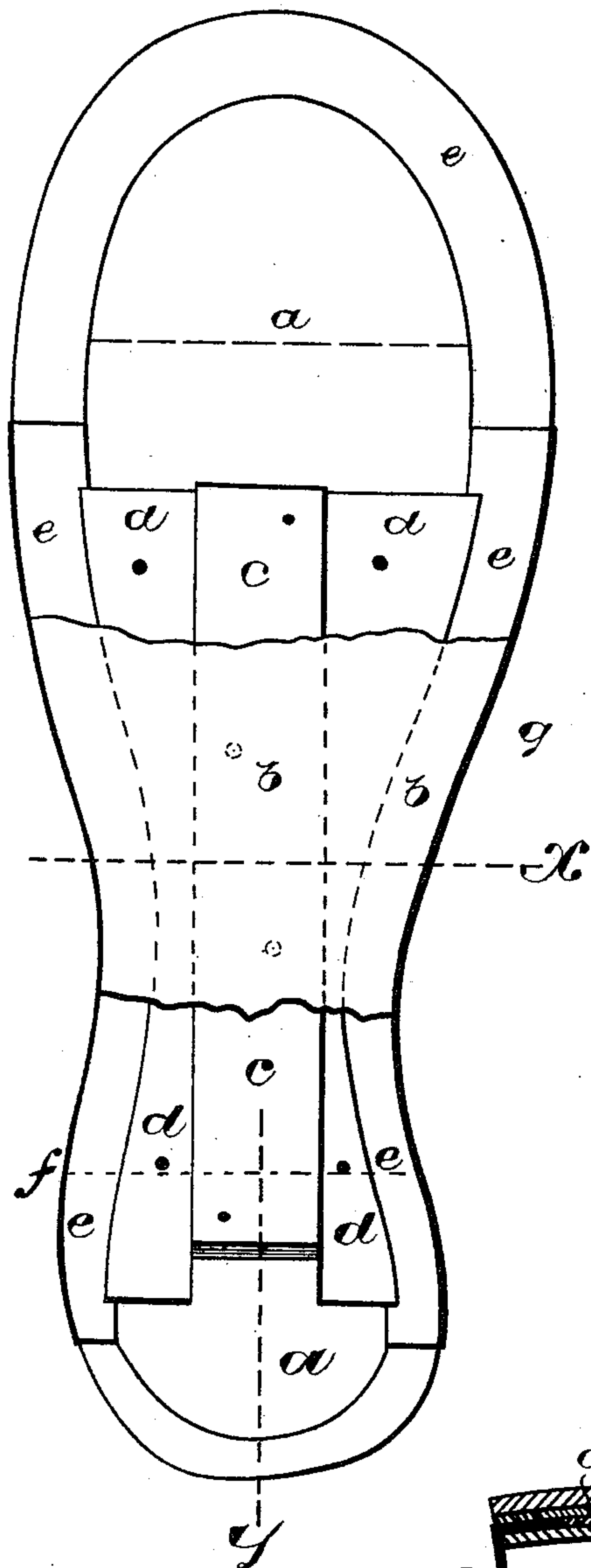


Fig. 1.

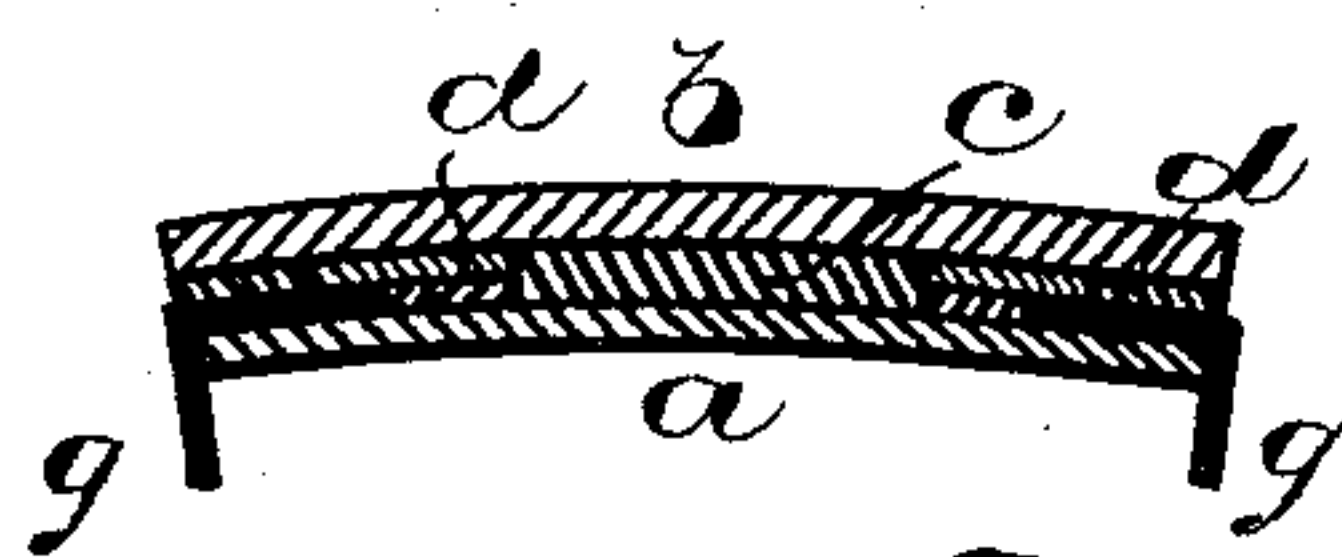


Fig. 3.

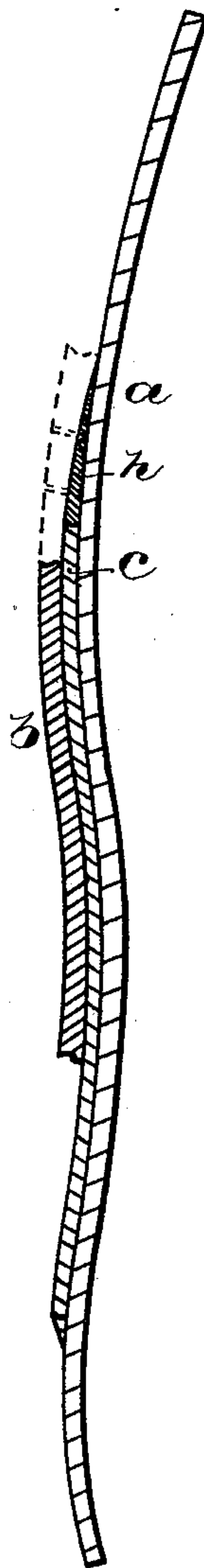


Fig. 2.

Witnesses,  
Alfred Sartner,  
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By his Attorney,  
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# UNITED STATES PATENT OFFICE.

CHARLES COOPER, OF NEWARK, NEW JERSEY.

## SHANK FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 388,263, dated August 21, 1888.

Application filed June 11, 1888. Serial No. 276,703. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES COOPER, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Shanks for Boots or Shoes; and I do hereby 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 letters of reference marked thereon, which form a part of this specification.

The object of this invention is to furnish a shank-stiffener for boots or shoes, lighter and more elastic than steel, stronger than leather, and more comfortable to the wearer; and the invention consists in a shank-stiffener composed, preferably, of Malacca wood, cane, or palm, because of its lightness, toughness, and peculiar elasticity; and it also consists in the combinations and arrangements of parts thereof, substantially as will be hereinafter set forth, and finally embodied in the clauses of the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several figures, Figure 1 is a plan of the sole of a boot or shoe, with the ball and the heel part of the outer sole removed, with my improved shank-stiffener attached; Fig. 2 is a sectional view through line *y*, and Fig. 3 is a cross-section through line *x*, Fig. 1.

In said drawings, *a* indicates an inner sole of a boot or shoe.

*b* is an outer sole with the ball and the heel portions removed, so as to show the end portions of the shank-stiffener and its lateral holding-piece.

*c* is a shank-stiffener nailed to the inner sole with the heel end tapering, as seen in Fig. 2.

*d d* are keepers or holding-pieces of leather nailed to the inner sole.

*e* is the welt.

*g g*, Figs. 1 and 3, represent the upper of the boot or shoe, and *h*, Fig. 2, is a stay-piece across the under side of the outer sole.

*f* is the forward line of the heel, as shown in dotted line, Fig. 1.

I prefer to make my improved shank-stiffener of one piece of Malacca wood, as its fibers are usually straighter and parallel to a greater length than most woods or canes of

that species, and they combine great strength and toughness with lightness and elasticity. Other woods, canes, or palms having similar characteristics can be used, however, without changing the character of my invention.

In applying my improved shank-stiffener to the sole of a boot or shoe I cut the wooden piece of which the stiffener is made into the usual length of the shank and then split it into pieces about one inch in width and one-eighth of an inch in thickness. By splitting the piece I avoid breaking the fibers of the wood. I then nail or peg one of these split pieces onto the insole in the center, as seen in Fig. 1, and along the edges of this stiffener I fasten keepers or holders to the insole to prevent lateral movement of the stiffener. The heel ends of the stiffener and holders or keepers are beveled or tapered and extend under the heel, as shown in Fig. 1, and across the under side of the outer sole. At a point where the ball end of the stiffener rests, I secure a strip of leather, as *h*, Fig. 2, to prevent the stiffener from moving forward or toward the ball of the sole. I have shown this cross-piece *h* as attached to the under side of the outer sole, but it may be secured to the inner sole, if preferred.

By the use of my improved stiffener a great saving is effected in the cost of manufacture, as, owing to the thickness of the stiffener, there is not so much leather required for filling the space formed by the welt. The shank is made more elastic than steel and stronger than the leather, and shoes fitted with these stiffeners are more comfortable to the wearer than when the old form of stiffener is used.

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

The combination, with a boot or shoe sole, of a shank-stiffener formed of one piece of Malacca wood secured to said sole, longitudinal holding-pieces secured to the inner sole for holding said shank-stiffener laterally, and a cross-piece attached to the sole for holding said stiffener longitudinally, substantially as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of June, 1888.

CHARLES COOPER.

Witnesses:

OLIVER DRAKE,  
E. L. SHERMAN.