

C. M. LEE.  
Shoes.

No. 217,467.

Patented July 15, 1879.

Fig:1.

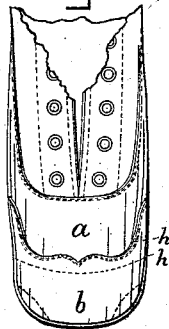


Fig:2.

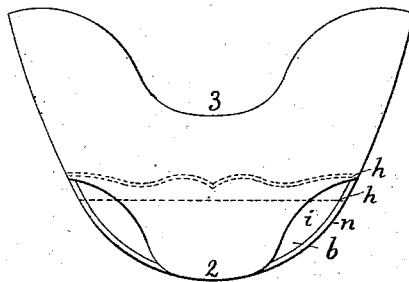


Fig:5.

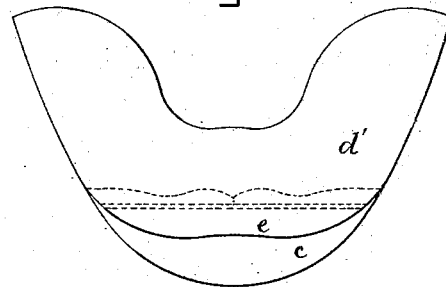


Fig:3.

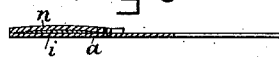
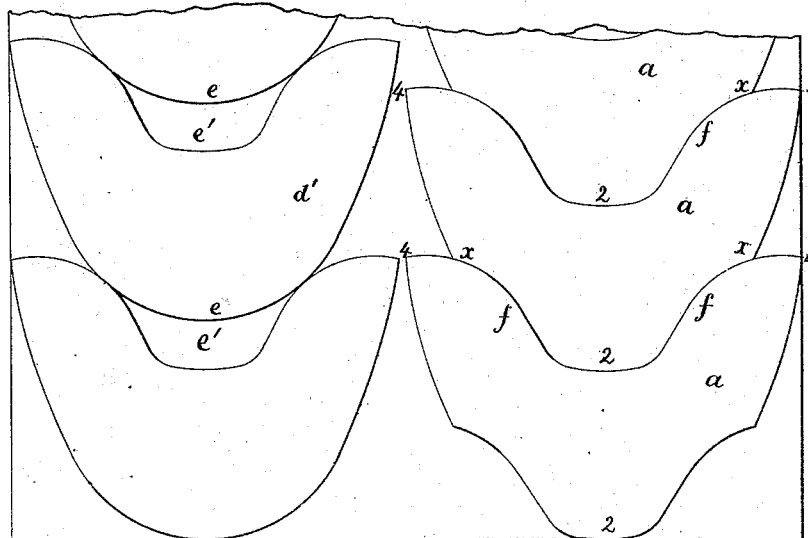


Fig:6.



Fig:4.



Witnesses.

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN SHOES.

Specification forming part of Letters Patent No. 217,467, dated July 15, 1879; application filed May 19, 1879.

### *To all whom it may concern:*

Be it known that I, CHAS. M. LEE, of Athol, county of Worcester, State of Massachusetts, have invented an Improvement in Shoes, of which the following description, in connection with the accompanying drawings, is a specification.

This invention relates to shoes, and has for its object the production of a shoe with a serviceable tip crimped in with the toe of the upper, the extreme toe of the upper and tip being connected between the soles, while at the sides of the extreme toe, or back to a point near where the upper and tip are attached by the seam which extends across the vamp, the upper is cut away, so as to avoid objectionable bunches and wrinkles.

By extending the vamp so far as to last in at the toe with the tip, I am enabled to make a stronger and more durable shoe, and the stitches uniting the tip and vamp across the top of the shoe are subjected to less strain.

The vamp cut to operate with the tip, as herein described, requires less stock than in the old plan, wherein the tip was connected with a shortened vamp.

The tip, instead of being made entirely of sole-leather, is shown composed of layers of leather, preferably united by rubber or gutta-percha, or other water-proof cement.

Figure 1 represents, in front view, part of a shoe with a tip. Fig. 2 represents the inner face of one of my improved vamps and tips connected; Fig. 3, a section thereof. Fig. 4 represents a piece of leather, showing at the right the method of laying out vamps to be used for shoes. Fig. 5 represents the inner face of one of the usual shortened vamps with tip attached, and Fig. 6 a section thereof.

In the manufacture of my improved shoe I desire to economize stock as much as possible, and I therefore lay out and shape the vamps *a a* as shown at the right of Fig. 4, the extreme toe parts 2 of the vamps being so cut from the stock as to form the hollow part 3 of the vamp (see Fig. 2) without waste between them, the lines 4 2 4 showing the line of severance between adjacent vamps. This plan of laying out and cutting the vamps leaves on each vamp a projecting tongue, 2,

long enough to be crimped over the toe of the last with the tip *b* and be, with the tip, secured to the sole by the line of fastenings which secures the sole to the shoe.

In that form of shoe wherein a sole-leather tip, *c*, is connected with a shortened vamp, *d'*, the extreme front end, *e*, of the vamp does not extend to the convexed front part of the tip, so as to be crimped in with the tip when the upper is lasted, but terminates short, as shown in Fig. 5. In cutting out this shortened vamp *d'* there is considerable waste at the point between adjacent vamps.

Cutting the vamps *a* as described makes very considerable saving of leather over the plan commonly practiced for cutting them, as designated by the vamps *d*.

In the vamps *a* spaces are left between the extreme toe ends and the points *x*, by reason of taking the portions *f* for the tops of the vamps from the bottom or toe ends of the vamps, and between the toe-tongue 2 and the points *x* the tip can be lasted in and the shoe made up without the usual objectionable crimps or pleats which occur when the vamp, all about its toe end, is shaped as usual to conform with the shape of the tip.

In my shoe the toe-tongue, lasted in with the tip, acts to make the shoe more serviceable than if the said tongue was omitted.

The foot or toes of the wearer of a shoe with a vamp like *a*, having the part 2 stitched or held by the sole-attaching seam, comes against the part 2 instead of against the tip *e*, as with a vamp such as shown at *d'*, and by allowing the pressure of the toes against the main leather of the vamp, rather than against the tip stitched to the shortened vamp, the seam *h* uniting the vamp and tip is less strained and will last longer without ripping or becoming cut and broken. This is very essential when it is remembered that the thread uniting the vamp and tip is quite fine.

The leather *n* composing the outer face of my compound tip *b* will preferably be the same as that composing the vamp; but it is stiffened by cementing to it a filling-piece, *i*; but the part *n* may be of any usual thin leather.

The two parts *n i*, united by means of india-rubber cement, form a water-proof tip.

The part *i* will be properly skived, preferably, before being united with part *n*.

I claim—

1. A shoe-vamp provided at its toe end with a projecting tongue, 2, and having at each side of the said tongue a concavity extended backward and terminating at the point *x*, all as and for the purpose described.

2. In a shoe, a vamp, *a*, provided with a projecting toe-tongue, 2, crimped upon the bottom of the inner sole or last at its toe end, and with spaces at each side of the said toe end, a tip, *b*, connected with the vamp, as described, by a row of stitches, the end 2 of the said vamp being connected with the sole and tip

by the line of stitches uniting them at the extreme end of the toe part of the sole, the vamp from each side of the toe-tongue 2 to the point where the vamp and tip are united being left unattached to the sole by the line of stitches connecting it and the tip, all substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES M. LEE.

Witnesses:

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JOS. P. LIVERMORE.