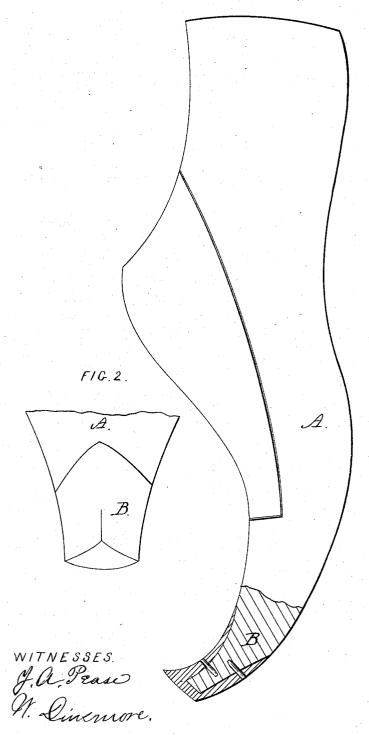
## P. MORRISON.

## Modes of Shaping Boot and Shoe Lasts.

No.157,412.

Patented Dec. 1, 1874.





INVENTOR.

Peter Mourison Pu Brown Brother Attorneys

## UNITED STATES PATENT OFFICE.

PETER MORRISON, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN MODES OF SHAPING BOOT AND SHOE LASTS.

Specification forming part of Letters Patent No. 157,412, dated December 1, 1874; application filed August 5, 1874.

To all whom it may concern:

Be it known that I, Peter Morrison, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Mode of Shaping Boot and Shoe Lasts, of which the following is a specification:

This invention relates to the shaping of boot and shoe lasts—that is, to the adapting of a last to the particular requirements in any special case or instance. It consists in the application of gutta-percha to those parts of the last which are to be specially shaped, and in then heating the same and molding it into the particular shape required.

In the accompanying plate of drawings is illustrated a shoe-last which has its toe shaped according to this invention, and Figure 1 is a side view of the last with the toe in section; Fig. 2, a plan view of the toe portion of the last.

In the drawings, A represents a shoe-last, of any of the ordinary constructions. This last A has its toe B shaped according to this invention—that is, by first applying guttapercha thereto, and then shaping it to the particular form of toe desired.

To apply the gutta-percha, first soften it in hot water, and then, expressing the water, heat it and apply it to the part of the last—in the present case the toe—which it is desired

to specially shape. After the gutta-percha is thus secured to the last, it is then perfectly shaped by heating it and rubbing it until the shape desired is obtained. Before applying the gutta-percha it is molded to almost the shape desired, and, although not necessary, pegs or staples may be used to more securely hold the gutta-percha in its position on the last.

Heretofore lasts have been shaped by building them up at the desired parts with layers of leather; but this mode requires time and occasions much trouble, and oftentimes injures the last; and by this invention all these difficulties are obviated, and a most ready, simple, and easy means of shaping a last obtained.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The mode of adapting lasts to special forms, consisting in the application and shaping of gutta-percha, substantially as described.

The above specification of my invention signed by me this 29th day of June, A. D. 1874.

PETER MORRISON.

Witnesses:
EDWIN W. BROWN,
GEO. H. EARL.