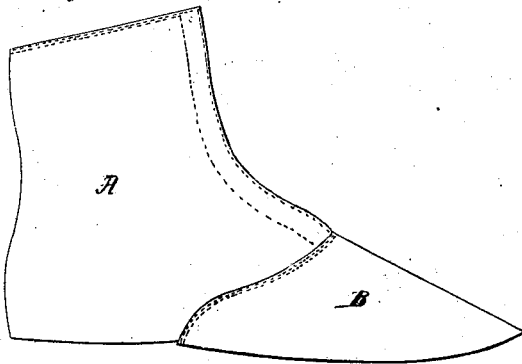


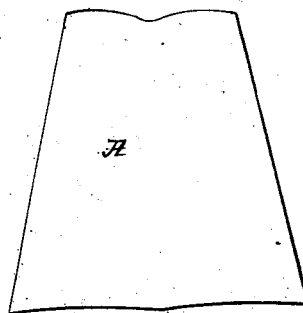
*F. Mertle,  
Shoe Vyner,*

*Nº 52,732.  
Fig. 1.*

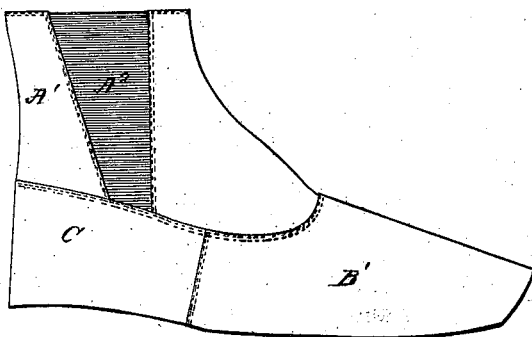


*Patented Feb. 20, 1866.*

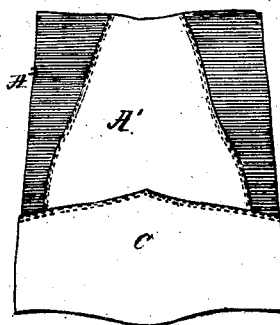
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



*Witnesses*

*Charles Sped  
Am. Ag. Mc Intire*

*Inventor*

*Friedrich Mertle*

*By his atty*

*J. A. Mc Intire*

# UNITED STATES PATENT OFFICE.

FREDRICK MERKLE, OF NEW YORK, N. Y.

## IMPROVEMENT IN SHOES.

Specification forming part of Letters Patent No. 52,732, dated February 20, 1866.

*To all whom it may concern:*

Be it known that I, FREDRICK MERKLE, of New York, of New York county, in the State of New York, have invented certain new and useful Improvements in Shoes for Gentlemen's and Ladies' Wear; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

My invention relates to a new method of making shoes, and is applicable to almost every variety of shoes for both ladies and gentlemen.

Previous to my invention it has been customary to make the hind part of the upper or ankle part of the shoe in two parts sewed together at the back or in a vertical line over the center of the back of the heel.

This method of forming the back part of the upper of shoes has been universally followed to best of my knowledge, because it has been simpler to cut out two pieces, which could be sewed together, so as to conform to the back part and sides of the ankle of the foot than to shape a single piece to it; but experience has taught that this back seam, being subjected to great strain, is generally the first part of the shoe to give way or burst out, and this objection has heretofore existed to a very great extent in all classes of shoes.

I have found that a piece of leather can be readily crimped and shaped to correspond to the back part and sides of the ankle; and my invention consists in making the back part of the upper in one single piece, crimped or shaped (either by machinery or hand-tools) to correspond to the shape of the back portion of the heel and ankle of the foot, as will be hereinafter more fully explained.

To enable those skilled in the art to make and use my invention, I will proceed to describe my improved shoe, referring by letters to the accompanying drawings, in which—

Figures 1 and 2 are side elevation and back view of a shoe-upper made after my invention, and Figs. 3 and 4 similar views of another pattern of shoe embracing my improvement.

In Figs. 1 and 2, A represents the hind and

side portion of the upper of a gentleman's laced shoe, and B the front and toe portion of same.

In Figs. 3 and 4 A' is the back portion of the ankle part, C heel-piece, and B' toe-piece, of an upper of a gent's congress-gaiter. A<sup>2</sup> is the ordinary elastic.

The piece A in Figs. 1 and 2 and the piece A' in Figs. 3 and 4 are each formed as in one single piece of leather, molded, crimped, or shaped up to correspond to the form of the ankle and heel portion of the foot before put into the shoe.

I am aware that the portion C has been made in one piece; but this part of the shoe is always of a regular form, so that a single piece will form it without any previous preparation, and by being simply bent round; but I am not aware that the back portion of the upper part of the upper, which involves a combination of irregular curves, and requires, therefore, to be molded or crimped, has ever been made in one piece as described.

I am also aware that shoes have been made of different kinds of soft and pliable material which readily admitted of being bent round in one piece and conforming itself sufficiently to the foot and ankle of the wearer, but I have not known any instance where an attempt has been made previous to my invention to mold and crimp a piece of leather or other similarly-stiff material into the proper shape to constitute the entire back portion of the shoe-upper.

I do not wish to be understood as claiming, broadly, the formation of a shoe with the back part of the upper in one piece; but,

Having fully explained my invention, what I claim as a new article of manufacture, and desire to secure by Letters Patent, is—

A leather shoe having its upper crimped and formed of a single piece at the rear, as hereinbefore specified.

In testimony whereof I have hereunto set my hand this 16th day of December, 1865.

FREDRICK MERKLE.

In presence of—

ANDREW I. TODD,  
J. MCINTIRE.