

W. R. MILLER.  
 Manufacture of Boots and Shoes.

No. 213,231

Patented Mar. 11, 1879.

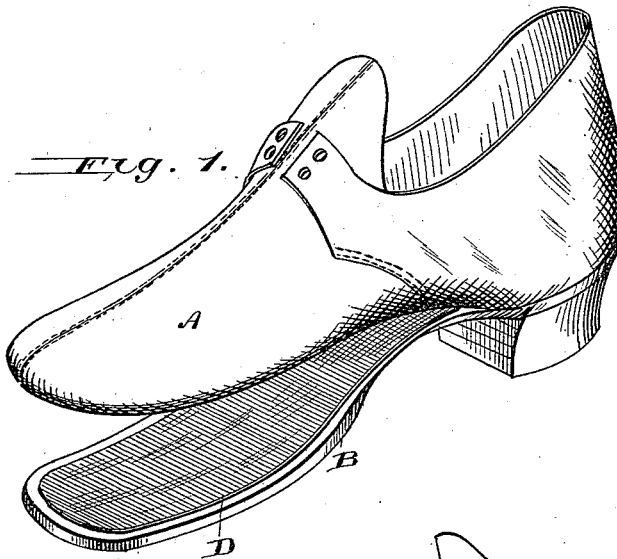


Fig. 3.

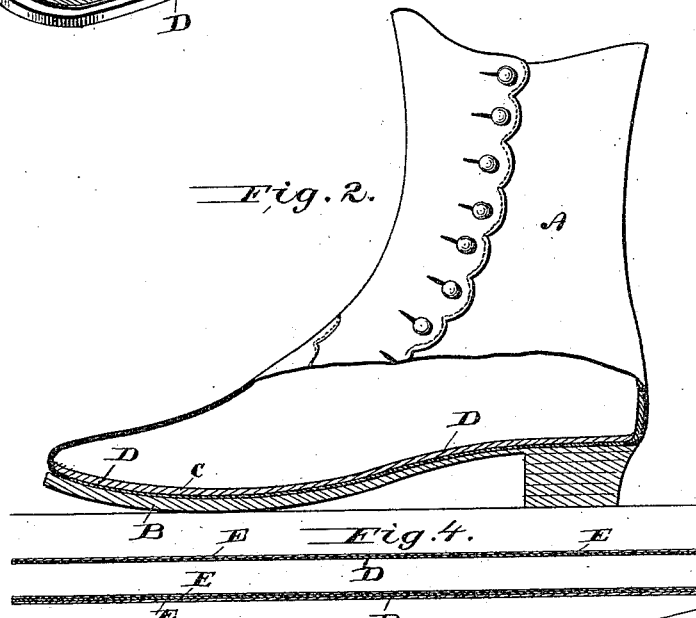
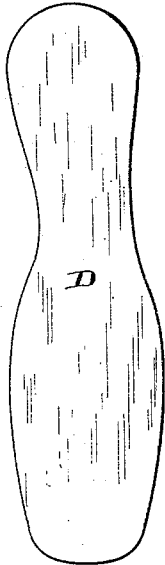


Fig. 2.

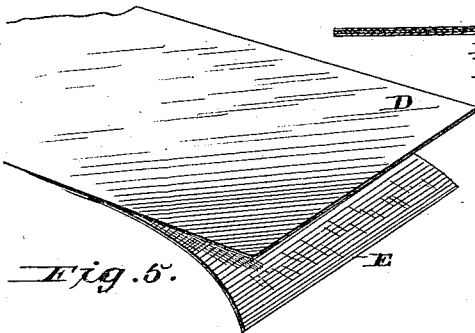


Fig. 5.

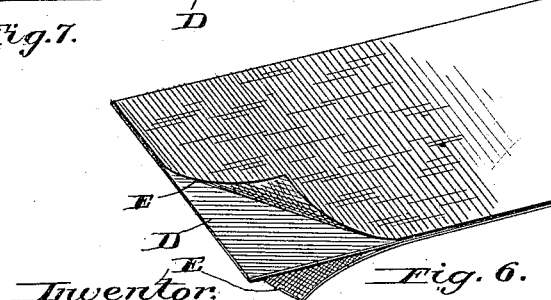


Fig. 6.

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# UNITED STATES PATENT OFFICE.

WILLIAM R. MILLER, OF BALTIMORE, MARYLAND.

## IMPROVEMENT IN MANUFACTURE OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. **213,231**, dated March 11, 1879; application filed May 8, 1878.

*To all whom it may concern:*

Be it known that I, WM. R. MILLER, of Baltimore, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in the Manufacture of Fine Shoes for Ladies' Wear; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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.

Figure 1 is a perspective view of a shoe with the sole partly detached. Fig. 2 is a side elevation of a shoe with the sole in section. Fig. 3 is a top view of the foil, cut ready to be placed on the outsole before securing it to the shoe. Fig. 4 is a section, showing the foil covered on one side. Fig. 5 is a perspective view, showing the foil and covering parted at one end. Fig. 6 is a perspective view, showing the foil covered on both sides, the covering being turned over at one corner; and Fig. 7 is a longitudinal section through the foil covered on both sides.

This invention is in the nature of certain improvements in the manufacture of fine thin-soled shoes for ladies' wear; and has for its object the better protection from moisture or dampness passing up through the sole.

In carrying out my invention, I take foil and arrange a sheet thereof, of about the length and width of the sole, between the insole and the sole.

For the convenience of handling and for

the preservation of the foil, I mount it upon muslin or other suitable material. The article thus produced has the necessary strength and pliability to stand the handling of commerce and manufacture.

In the accompanying drawings, A represents a shoe, constructed in the usual manner, and provided with an outsole, B, and an insole, C, and sheet of foil D, attached to the sole before securing the sole to the shoe.

In Figs. 4 and 5, I have shown the foil mounted upon a single sheet of muslin or other suitable material; but, when desired, the foil may be protected by coverings E E, which inclose the sheet of foil D between them, as shown in Figs. 6 and 7 of drawings.

The foil may be arranged in position in any desired manner. I prefer securing it to the top of the outsole B, so that the shoe can be made in the regular way without stopping to adjust or arrange the foil in proper position.

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

A boot or shoe provided with an intermediate sole-layer of metal foil, protected on one or both sides by a covering of muslin, all substantially as shown and described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WM. R. MILLER.

Witnesses:

CHAS. J. HEDRICK,  
ALBIN M. LONG.