

F. M. Ernst,

Insole.

No. 103857.

Patented June 7. 1870.

Fig. 1.

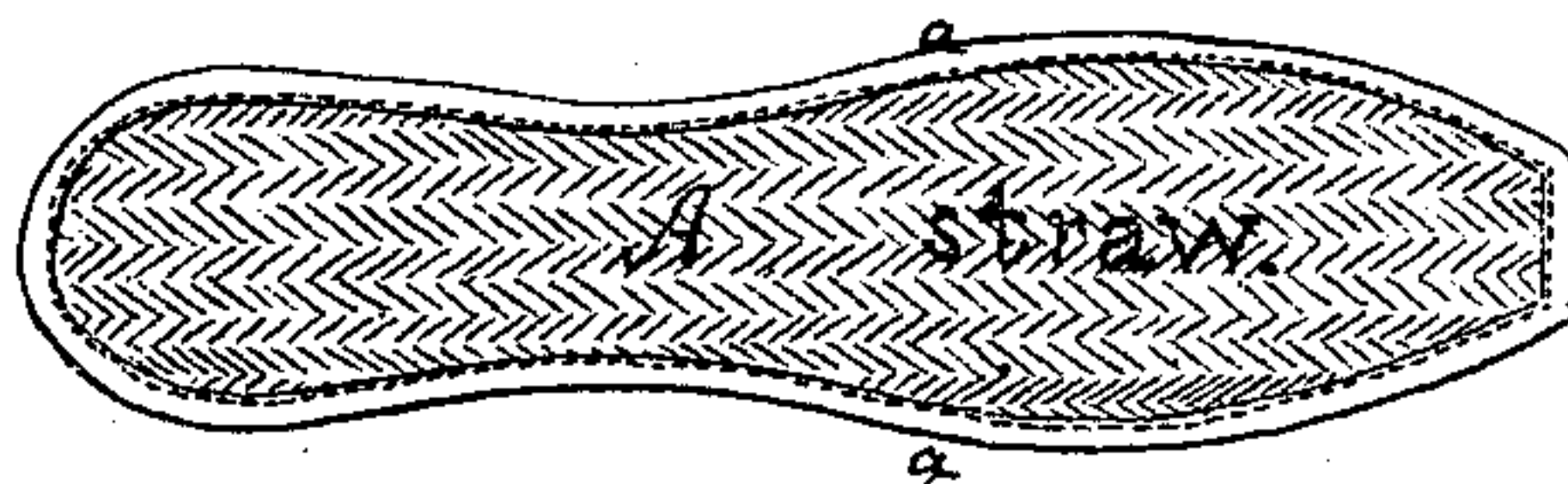


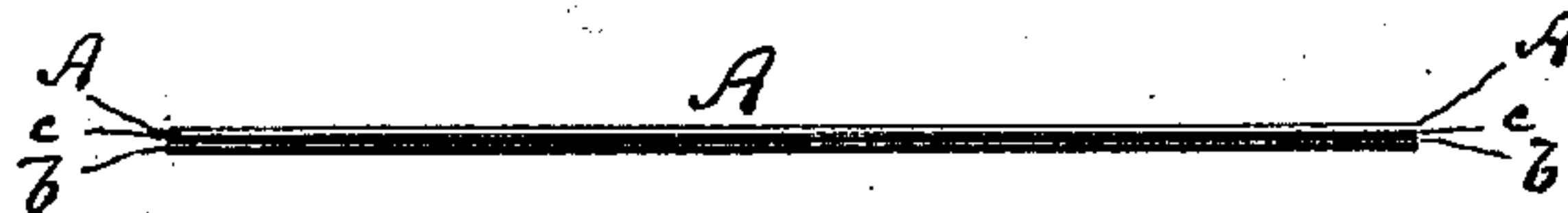
Fig. 2.



Fig. 3.



Fig. 4.



Witnesses:

Gustave Dieterich
Dwight Brooks

Inventor:

F. M. Ernst
PER *Wm. A. [Signature]*
Attorneys.

United States Patent Office.

PHILIPP MARTIN ERNST, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF
AND ERNST SCHMIDT, OF SAME PLACE.

Letters Patent No. 103,857, dated June 7, 1870.

IMPROVED INSOLE FOR BOOTS AND SHOES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, PHILIPP MARTIN ERNST, of the city, county, and State of New York, have invented a new and improved Warming-Insole for Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a face view of my improved warming-insole.

Figures 2, 3, and 4 are longitudinal sections of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new insole for boots and shoes, which, on account of its being a bad conductor of heat, serves to keep the feet warm without preventing their ventilation.

The invention consists in the use of straw for the manufacture of insoles, either in connection with or without other fabric.

The straw is either woven or braided into sheets, A, of the requisite shape, or strips of braided straw are sewed together, and shaped to fit into boots

and shoes. The straw soles are not thick, but keep the feet warm, and their porousness permits proper ventilation.

The soles, if cut from larger sheets of woven or braided straw, are bound at the edges, as at *a* in fig. 1, and will thereby be prevented from being readily torn.

Sheets, *b*, of flannel, may, if desired, be sewed upon the faces of such straw soles, as in fig. 1, and, if desired, sheets *c*, of rubber or other water-proof material, may be interposed between such sheets *b* and the straw soles, or upon the faces of the latter alone. The straw soles may also be used alone, without any covering.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

As a new article of manufacture, a straw insole, made substantially as herein shown and described.

The above specification of my invention signed by me this 27th day of September, 1869.

PHILIPP M. ERNST.

Witnesses:

GEO. W. MABEE,
ALEX. F. ROBERTS.