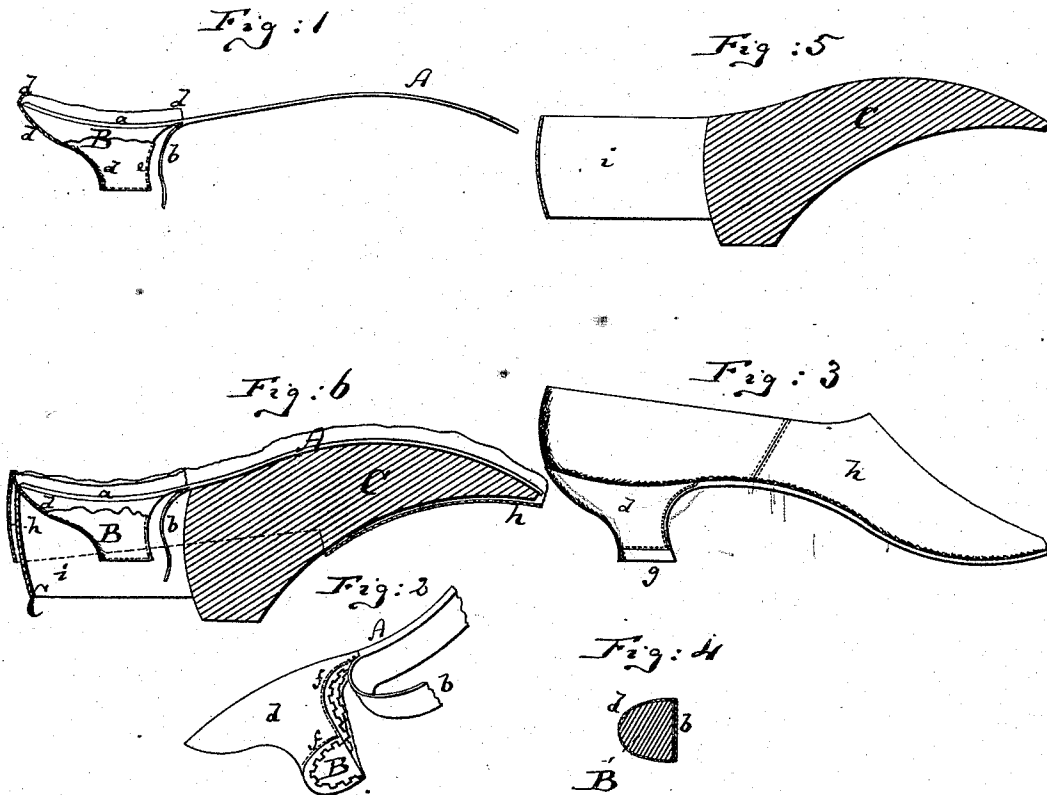


W. FROEHLICH.  
Manufacture of Shoes.

No. 160,583.

Patented March 9, 1875.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

WILLIAM FROEHLICH, OF NEW YORK, N. Y.

## IMPROVEMENT IN THE MANUFACTURE OF SHOES.

Specification forming part of Letters Patent No. **160,583**, dated March 9, 1875; application filed December 9, 1874.

*To all whom it may concern:*

Be it known that I, WILLIAM FROEHLICH, of the city of New York, in the county and State of New York, have invented a new and useful Improvement in the Art of Manufacturing Shoes, of which the following is a specification:

This invention has for its object to improve the manner or method of making shoes, slippers, &c; and consists in a novel method of applying the leather covering to the wooden heel without separately stitching it to the sole.

In Figure 1 of the drawing is shown, in side view, a sole, A, to which a wooden heel, B, is attached according to my invention. The sole A is, as usual in such cases, split at its rear part, so that one branch, *a*, will cover the heel, while the other branch, *b*, may extend along the front of the heel.

Now, when it was, as heretofore, the custom first to stitch the sole to the upper, and then to fasten the heel to the sole, it was necessary also to apply the leather covering *d* to the heel in such way that it might be stitched by hand to the branch *b* of the sole, and there was, therefore, a seam along both sides of the heel, in front, for connecting its leather covering *d*, at *e*, with the branch *b* of the sole. This stitching was the only means of connecting the covering *d* with the sole.

My invention consists in first lapping the heel-covering *d* over the branch *a* of the sole, and then applying the upper to the sole. By this arrangement I am enabled to apply the leather covering *d* to the heel B after said heel is connected with the sole; and I am thereby also enabled to fasten the leather covering *d* over the top of the sole, where it is first glued or otherwise secured, and finally securely attached by the application of the upper. The covering *d* is also glued along the front, and under the bottom of the heel, as indicated by perspective view in Fig. 2. The leather *d* is for this purpose first blocked into shape, and then stitched with a suitable imitation seam, *f*, on a stitching or sewing machine, and then put over and attached to the wooden heel and to the sole, being drawn over the part *a* of the sole, as in Fig. 1, and there fastened by glue, or otherwise, and drawn over the front and bottom of the heel, as in Fig. 2. Thus the covering is attached to heel and sole without stitching, which could

not be done if the heel were only fastened to the sole after the latter had been secured to the upper.

The front branch *b* of the sole is afterward fastened to the front of the heel, extending, in most cases, even under the same, its end being finally concealed by the leather plate *g*, which is usually fastened to the bottom of such heel, as indicated in Fig. 3, which is a side view of a complete shoe.

Fig. 4 is a horizontal section of the heel, showing how the leather *d* is lapped around the front of the heel.

When the sole has thus become connected with the heel it will not be convenient to apply the upper to the same on one of the ordinary lasts; but it will be convenient to use a last, C, having its back portion hollow, to receive and conceal the heel, as shown in Figs. 5 and 6, which are longitudinal sections of said last. The sole A is placed over the bottom of this last, so that the heel may enter the hollow back portion *i* of such last, and then the upper *h* is stitched to the sole in an inverted position—inverted because the heel enters into the shoe, as shown in Fig. 6; and when the process of stitching has been completed the upper is turned around to bring the heel to the outside, and the shoe is then completed, as in Fig. 3.

It will be observed that my invention differs from the method heretofore in use in the applying of the leather covering *d* to the wooden heel after said heel is attached to the sole, thereby allowing the upper to finally secure the covering *d*, and dispensing with the separate stitching of the covering *d* to the sole, which was heretofore invariably required.

I claim as my invention and desire to secure by Letters Patent—

1. In the art of manufacturing shoes having wooden heels, the application of the wooden heel to the sole previous to the application of the leather covering *d* to the heel, to allow said covering to lap around the sole, substantially as specified.

2. A shoe, made with a wooden heel, B, whose leather covering *d* laps around the branch *a* of the sole, substantially as and for the purpose specified.

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Witnesses:

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