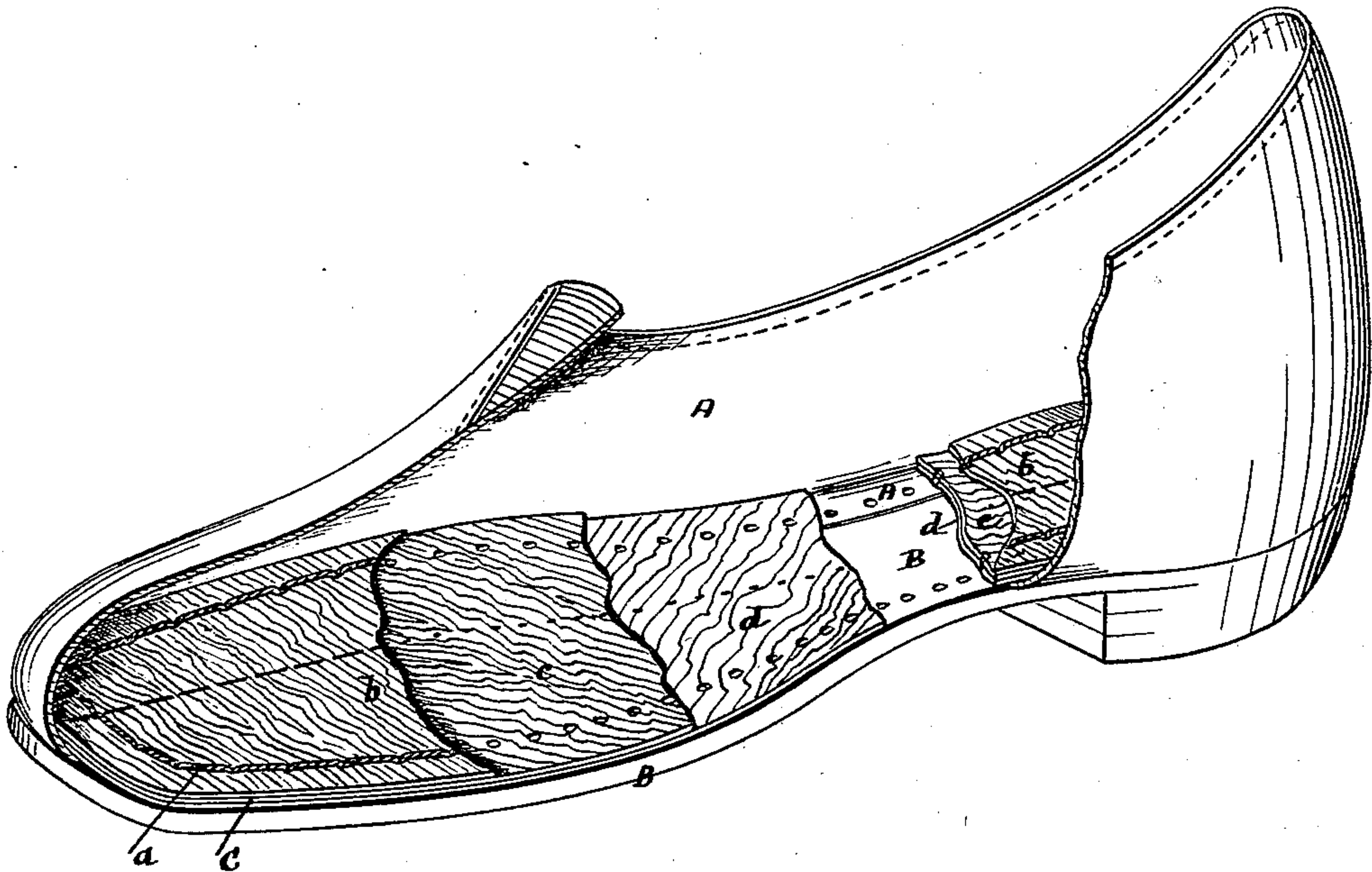


S. S. HALL.

Manufacture of Boots and Shoes.

No. 148,948.

Patented March 24, 1874.



Witnesses  
Ewell Dick  
Elihu Bunker

Inventor.  
Samuel S. Hall  
by atty. A. H. H. H.

# UNITED STATES PATENT OFFICE.

SAMUEL S. HALL, OF WATERLOO, CANADA.

## IMPROVEMENT IN THE MANUFACTURE OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. **148,948**, dated March 24, 1874; application filed February 16, 1874.

*To all whom it may concern:*

Be it known that I, SAMUEL S. HALL, of the village of Waterloo, in the county of Shefford, Province of Quebec and Dominion of Canada, have invented certain new and useful Improvements in the Manufacture of Boots and Shoes, of which the following is a specification:

This invention consists of a new manufacture of boots and shoes, by combining with the outsole and the upper, composed of leather or other suitable material, an insole of wood, united with the outsole and upper during the process of manufacture of the boot or shoe. This wooden insole takes the place of the ordinary leather insole, and is used in the same way, either in a sewed or pegged shoe, or shoe in which screws are used for the sole.

The accompanying drawing represents, in perspective, a shoe made in accordance with my invention, the upper and the wooden insole being partly broken away in order to represent the relation that the insole bears to the upper and outsole, and also to show the several superposed layers or veneers of which the insole is preferably composed.

A is the upper. B is the outsole. C is the wooden insole.

The shoe represented in the drawing is a sewed shoe, and the upper, outsole, and wood insole are put together in the ordinary way, with the edges of the upper inserted between the outsole and insole, the whole being united by sewing, as indicated by the line of stitches *a*.

The insole may be made of a single piece of wood; but I prefer to make it of two or more superposed veneers or layers, with the grain of the one veneer running in a direction different from that of the other. This arrangement insures flexibility and durability as well.

The insole represented in the drawing is composed of three layers or veneers, *b c d*, the grain of each running in a direction different

from those of the others, as indicated by the waving lines on their surfaces. These layers are, if desired, held together by some adhesive substance, or may be united in any suitable way.

The wood insole is cheap. Its employment reduces materially the cost of the shoe. It is very durable, and affords an excellent means for holding together the outsole and the upper. It is, however, unnecessary here to detail the advantages resulting from its use, inasmuch as the same will at once be recognized and appreciated by boot and shoe manufacturers.

As above stated, I prefer decidedly to employ an insole made of several layers of wood.

I do not claim, broadly, a wooden inner sole, whether made of one or several layers of wood, for I am aware that what are known as "inner soles," designed to be placed loosely inside finished boots and shoes, have been so made; but

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

1. A boot or shoe in which the outsole and upper are combined with a wooden insole, which takes the place of the ordinary leather insole, and, like the latter, is united with the outsole and upper during the process of manufacture of the boot or shoe, substantially as set forth.

2. In a boot or shoe, a wooden insole composed of two or more layers or veneers, with the grains running in different directions, united, as specified, with the upper and outsole by a line of fastening common to all, and forming an integral part of the boot or shoe, substantially as shown and set forth.

In testimony whereof I have hereunto signed my name this 9th day of February, A. D. 1874.

SAML. S. HALL.

Witnesses:

JOHN FITCH,  
HENRY ATTWATER.