

A. Harvey,

Wooden Boot and Shoe Sole.

N^o 28,077.

Patented May 1, 1860.

Fig. 1

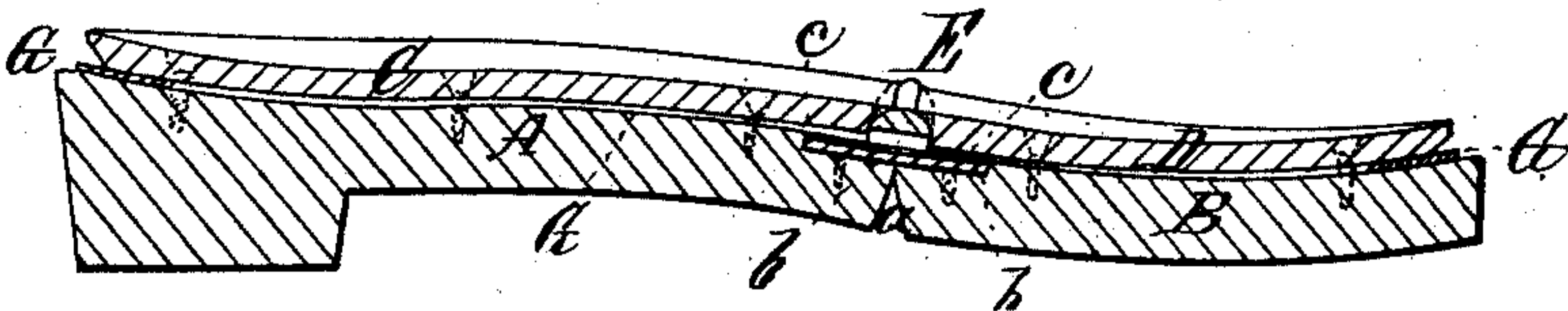
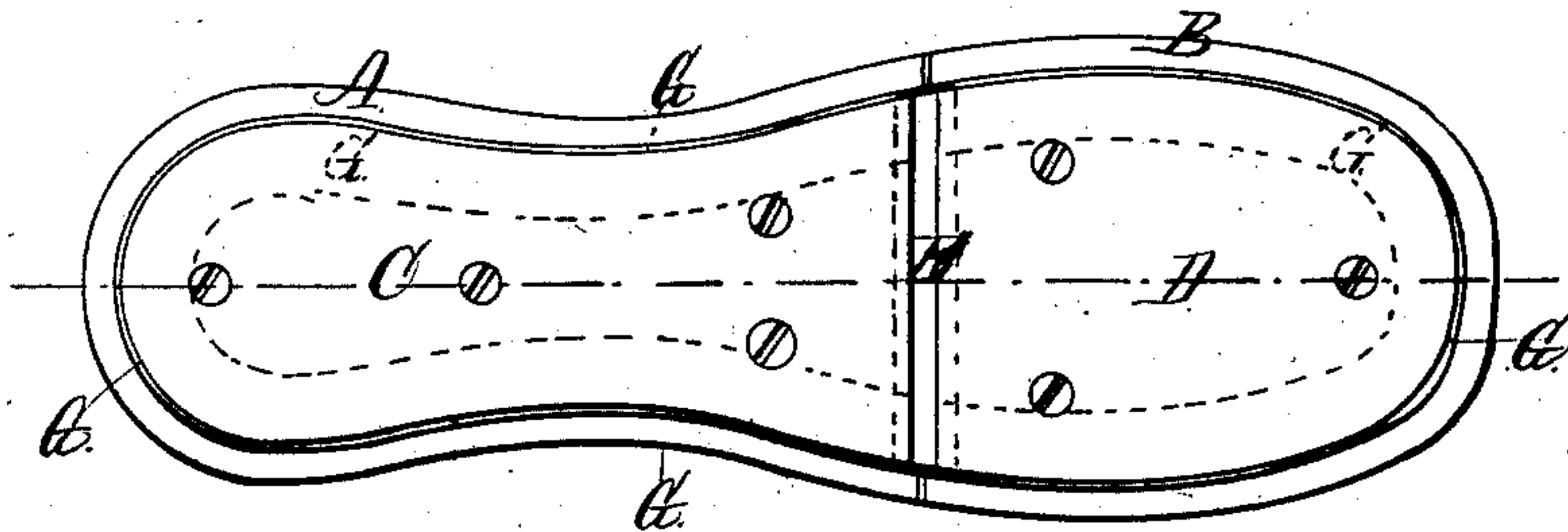


Fig. 2



Witnesses:

J. M. Couch,

R. S. Spence

Inventor:

Alex^r Harvey

per Munnell & Co.
attorneys

UNITED STATES PATENT OFFICE.

ALEX. HANVEY, OF STEUBENVILLE, OHIO.

WOODEN SOLE FOR BOOTS AND SHOES.

Specification of Letters Patent No. 28,077, dated May 1, 1860.

To all whom it may concern:

Be it known that I, ALEXANDER HANVEY, of Steubenville, in the county of Jefferson and State of Ohio, have invented a new and useful Improvement in Wooden Soles for Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1. represents a longitudinal vertical section taken through my improved wooden sole, showing the manner of jointing the sole, and the mode of securing the inner to the outer sole. Fig. 2. is a plan view of the soles, showing the inner sole secured to the outer sole, and the manner of securing the same together, so as to prevent leaking.

Similar letters of reference indicate corresponding parts in both figures.

It is a well known fact that wooden soled boots or shoes are very serviceable and valuable for keeping the feet warm and dry in wet weather, and for this purpose the old fashion clogs were worn, and to some extent are worn yet, but the difficulty of walking in such shoes, limits the use of the wooden soled shoes to a great extent; and in order to give greater ease and comfort in walking with such shoes, the soles have been reduced in thickness, and hinged or jointed with an ordinary hinge, over which was placed an inner covering to prevent water and dirt from entering the sole at the joint. A simple plate of thin steel has been used with the jointed wooden sole to combine elasticity with a sole impervious to water. Still a wooden soled shoe or boot which will answer all objections has not yet been introduced, and the object of this invention is to combine ease and elasticity with a cheap and water tight shoe, of which the sole is to be wood, wood of any suitable character, which may be boiled in oil, to render it impermeable to water.

For this purpose my invention consists in uniting the sole by an india rubber joint, just under the ball of the foot, so that flexibility and elasticity will be combined at the same time the joint can be made water proof; and in the employment of an inner and thinner sole, which shall also be jointed but disconnected; and in giving the requisite strength to the sole at the joint, by inter-

posing a small piece of wood, which will fit down closely on the india-rubber over the joint of the outer sole, and between and under the edges of the inner sole. The inner sole being rendered water proof by the introduction of a strip of india-rubber under its edge. The whole, when properly secured together is to be tacked to the upper of a boot or shoe, in the usual manner of making leather soled boots and shoes, all as will be hereinafter described and represented.

To enable those skilled in the art to fully understand my invention, I will proceed to describe its construction and operation.

In the drawing A, B, represent the heel and toe portion of the outer sole, which is to be cut out of any suitable wood the desired shape and size; with the heel and portion A, in one piece. The top surfaces of these two portions of a sole, are then curved out, or made concave, so as to conform to the roundness of the sole of the foot. The edges of these two portions A and B, are then beveled off as shown at *a*, Fig. 1, so as to admit of the movement of the pieces, or to allow them to roll together in the movement of the foot during walking. The two pieces are then secured closely together by a strip of rubber *b*, of a suitable thickness, which is recessed into the top surface of the outer sole; and when the sole is in its proper position, the piece *b*, is secured on each side of the joint by metal plates *c*, *c*, which extend nearly to either edge of the sole, and embedded in the rubber, and screwed tightly down. These plates perform two offices, they prevent water from permeating between the rubber and the inside of the sole, or parts forming a sole, and they hold the rubber uniformly, and thus prevent it from tearing; they are also secured down, so as to be flush with the upper concave surface of the outer sole.

C, D, E, are three pieces of wood forming the inner sole, these pieces are cut out to the shape of the outer sole, but when put together and secured to the outer sole, leave this sole projecting out from the inner sole, as clearly shown by Fig. 2, which serves a similar purpose to that of the ordinary boots or shoes, viz, to protect the leather. The front portion D, of the inner sole corresponds to B, of the outer sole, and the heel portion C, to A, of the outer sole. Both under and upper surfaces of these pieces of

upper sole are curved out, so that they are concavo convex, the concave surface will thus fit well down on the surface of the outer sole. The third piece E, is a narrow curved
5 strip of wood, covered on its under side with leather to prevent it from injuring the rubber piece b, which is interposed between the edges of the upper or inner sole, and under the edges of these two pieces B, C, D, which
10 are beveled out to receive and retain it down in its place.

Before the three pieces C D and E, are secured in place, a strip G, of india rubber is laid around the surface of the outer sole,
5 and then these pieces are screwed to the outer sole, as shown by Fig. 2, securing between their edges, and the outer sole this strip of rubber G. The parts forming the inner sole, embed themselves in the rubber G, and pre-
10 vent water from getting between the two soles. The piece E, between the two inner parts of the sole, and secured directly over

the joint of the outer sole, serve to give strength and durability to the rubber piece b.

The edge of the inner sole is beveled in- 25 ward and to this edge the leather upper, forming the boot or shoe is tacked in the usual manner of making leather-soled boots or shoes.

In this manner, wooden soled shoes may 30 be made comfortable to the feet, cheap, and at the same time perfectly water proof.

Having thus described my invention, what I claim as new and desire to secure by Let- 35 ters Patent, is—

Constructing wooden soles for boots or shoes, in the manner substantially as herein described and represented, and when parts are united by india rubber, as set forth.

ALEXR. HANVEY.

Witnesses:

W. I. WILLIAMS,
JOHN F. OLIVER.