

J. M. Wimley,

Shoe Sole,

Nº 14,216.

Patented Feb. 5, 1856.

Fig. 1.

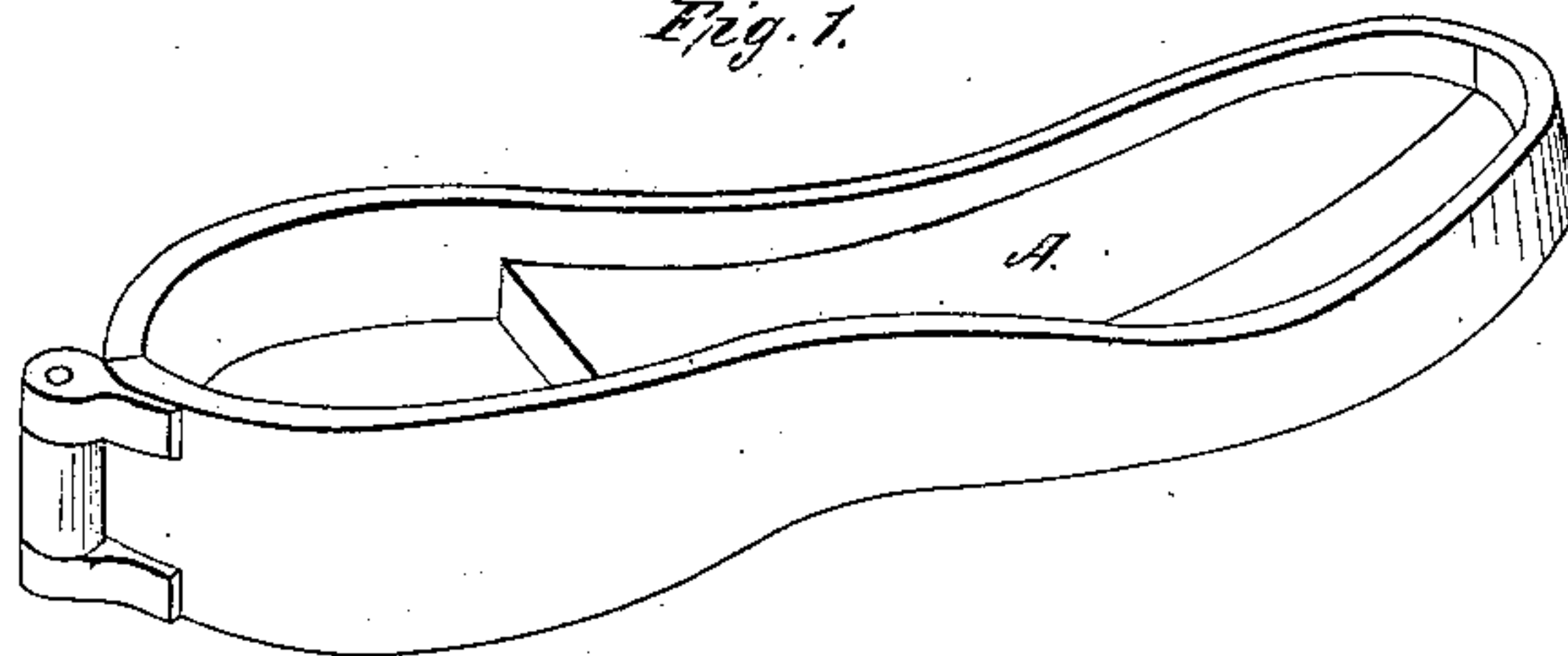


Fig. 2.

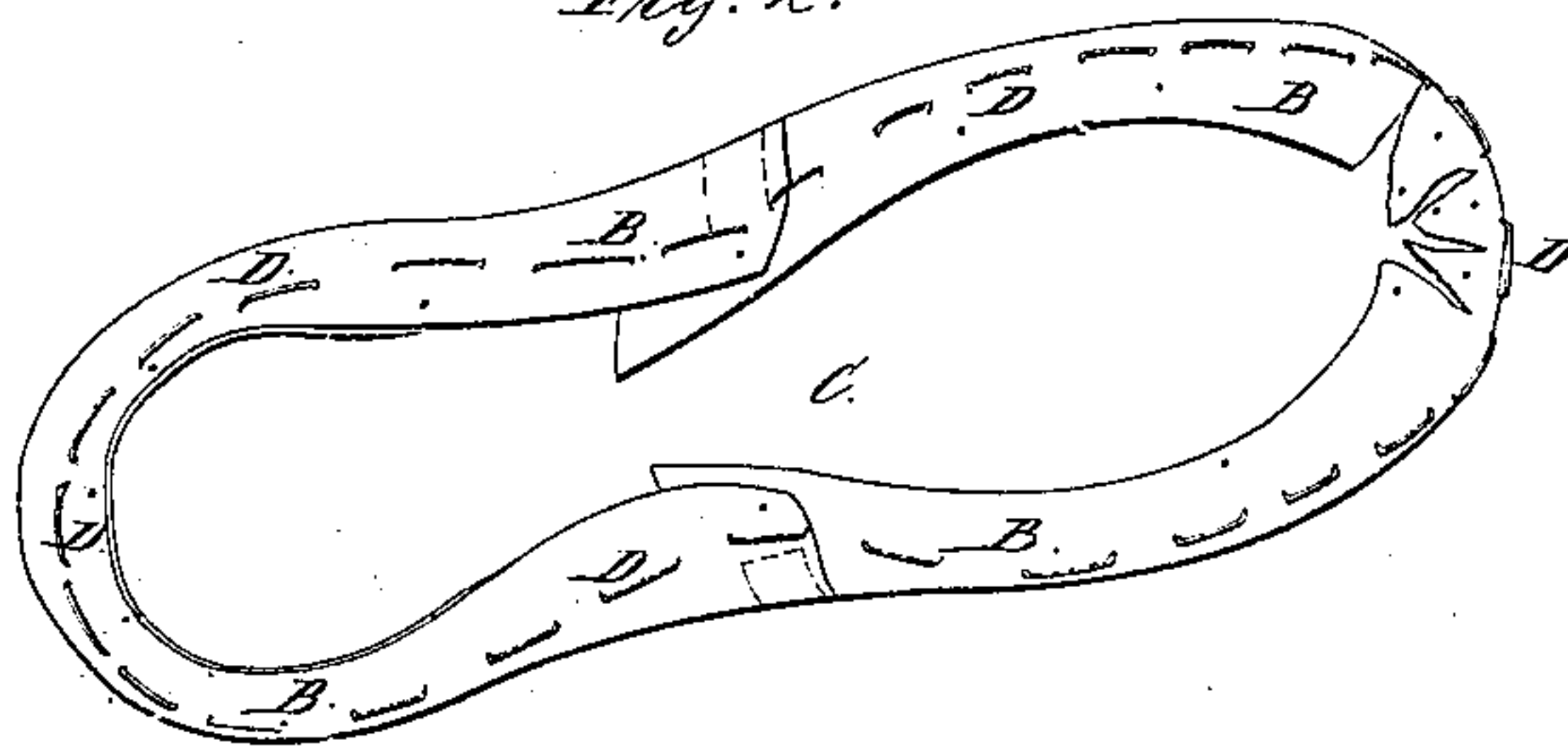


Fig. 5.

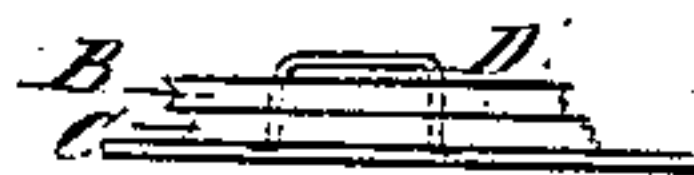


Fig. 3.

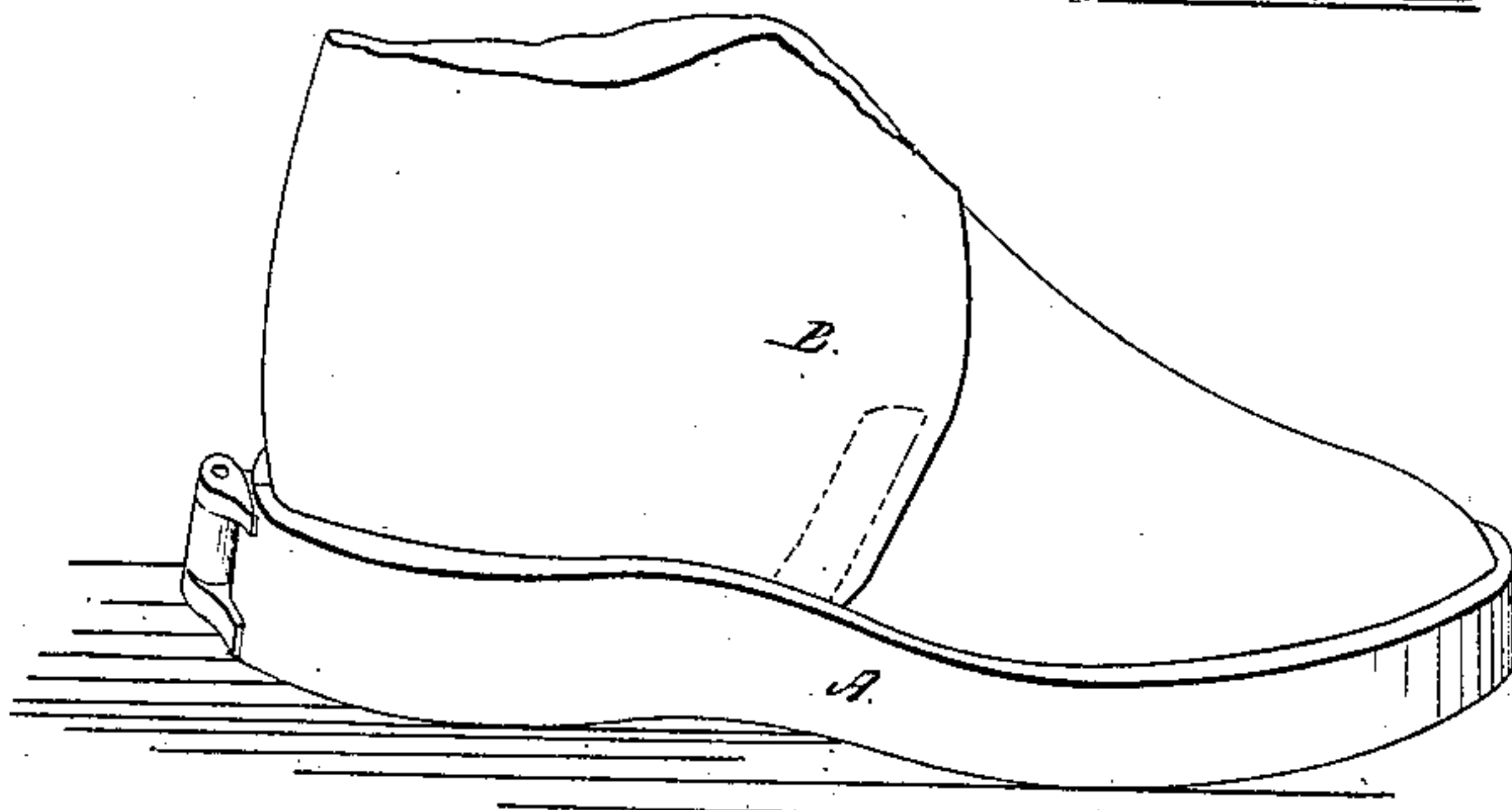
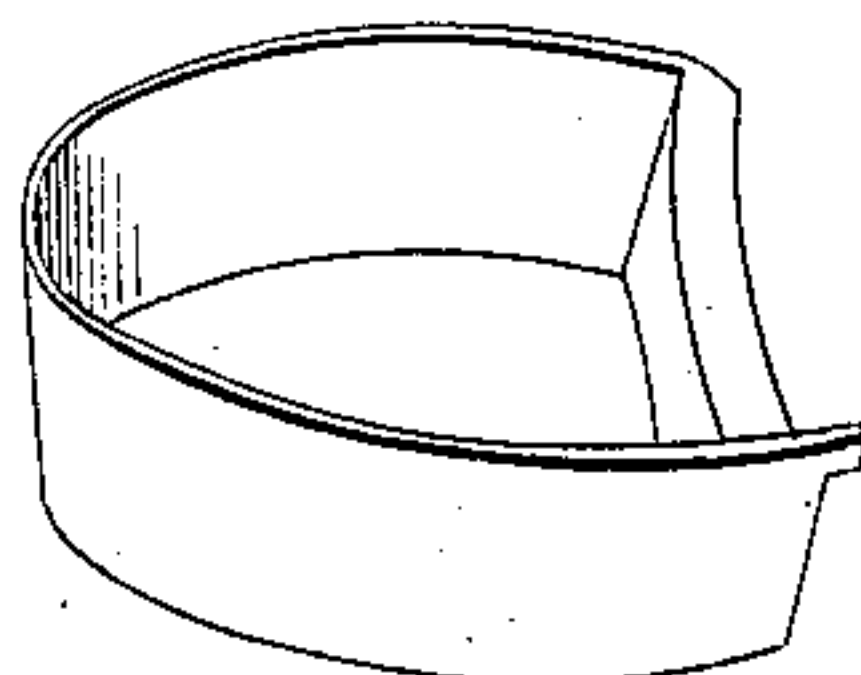


Fig. 4.



Witnesses:
Sam. Norton

E. M. Norton

Inventor:
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UNITED STATES PATENT OFFICE.

JOHN M. WIMLEY, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO JNO. M. WIMLEY
AND W. H. PENROSE, OF SAME PLACE.

MODE OF ATTACHING COMPOSITION SOLES TO BOOTS AND SHOES.

Specification of Letters Patent No. 14,216, dated February 5, 1856.

To all whom it may concern:

Be it known that I, JOHN M. WIMLEY, of the city of Philadelphia and State of Pennsylvania, have invented a new and Improved Mode of Constructing and Attaching Composition Soles to Boots and Shoes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists in a peculiar mode of attaching a composition of gutta-percha in making heavy boots and shoes so as to form the soles thereof without sewing.

Referring to the drawings, Figure 1, is a perspective view of a cast-iron mold in which the sole is formed; Fig. 2, a like view of a shoe as prepared upon the last for the reception of the sole; Fig. 3, a like view of the shoe upon the mold; Fig. 4, a like view of a cast iron heel which may be applied when required; and Fig. 5, a sectional side view of one of the iron staples inserted through the "upper" and "insole" for securing the outer sole to the boot or shoe.

Like letters indicate the same parts in the different figures.

The mold (A) consists of cast iron formed so as to produce a sole as hereinafter described and is divided longitudinally into two parts which are hinged together at the heel and so as to be readily opened or closed, as occasion may require. The shoe or boot is lasted in the usual manner; the "upper" (B) being held down upon the "insole" (C) by means of temporary "tacks", in the usual manner, preparatory to the insertion of the staples (D, D), by means of which the composition sole is permanently secured thereto. The staples (D) are formed of wire, the two ends being bent down at right angles and driven through the "upper" and "insole" (as shown in Fig. 2) so as to clench on the inner side of the "insole" (as shown in Fig. 5) by coming in contact with the "last," which, at this part must be made of or covered with metal. In order to cause the ends of the staples to clench more read-

ily, I usually reduce them to a flat edge with the hammer before driving them into the leather. In the operation of driving the staples, I use a flat piece of hard wood or metal which is about a sixteenth of an inch thick and about half an inch wide. After the staple is entered, I place this tool between it and the "upper", and then drive the staple down upon it, so that the ends of the staple become clenched, or bent up against the inner side of the "insole" by the resisting last, and the tool being then withdrawn, there is necessarily a space left between the upper and the staple. The staples (D, D,) being thus inserted around near the outer edge of the boot or shoe, as shown in Fig. 2, it is ready for receiving the composition sole. I make the composition for this purpose chiefly of gutta-percha.

The boot or shoe being ready for the "outer sole," as before described, I put enough of the composition to form the said sole, into warm water, which prevents its sticking to the hands in forming and molding. I now form it into near the required shape with the hands, and if a very hard and durable sole is required, I also insert numerous metal "plugs" or short stub nails into the underside. I then place it in the mold (A) and immediately press the boot or shoe down upon it and hold the latter thus for a few minutes, when, the composition having become hard or "set," the mold may be opened and the boot or shoe taken out. The sole being thus perfectly formed is permanently held also to the same by means of the staples D, D. I now blacken and varnish it in the usual manner, and it is ready for use. When an iron heel is required, I construct it of malleable cast iron in the form shown in Fig. 4, and place it in the mold before putting therein the composition. I then proceed as before described. The cast-iron heel being rough on the inner side, or having small projections therein, adheres firmly to the composition, and thus an exceedingly durable and substantial heavy heel is produced. In lighter boots and shoes I make the heels wholly of the composition, and also dispense with the

metal "plugs" in the bottoms of the soles. I sometimes use flat headed nails instead of the staples (D, D,) for the purpose of holding on the soles, but prefer the staples. It
5 will be evident that shoes or boots having soles of this composition and attached in the manner described, must be very durable and impervious to water, and also that they can be made very rapidly, and therefore
10 cheaply, as the cost of the materials does not exceed that of sole leather.

I do not claim the mold; nor do I confine my claim to any particular form of the

staples or nails by which the sole is secured to the boot or shoes. But—

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

The use of the staples (D, D,) in the manner substantially as described, for the purpose of attaching composition soles to
20 boots and shoes.

JOHN M. WIMLEY.

Witnesses:

BEN. MORISON,
E. B. WARREN.