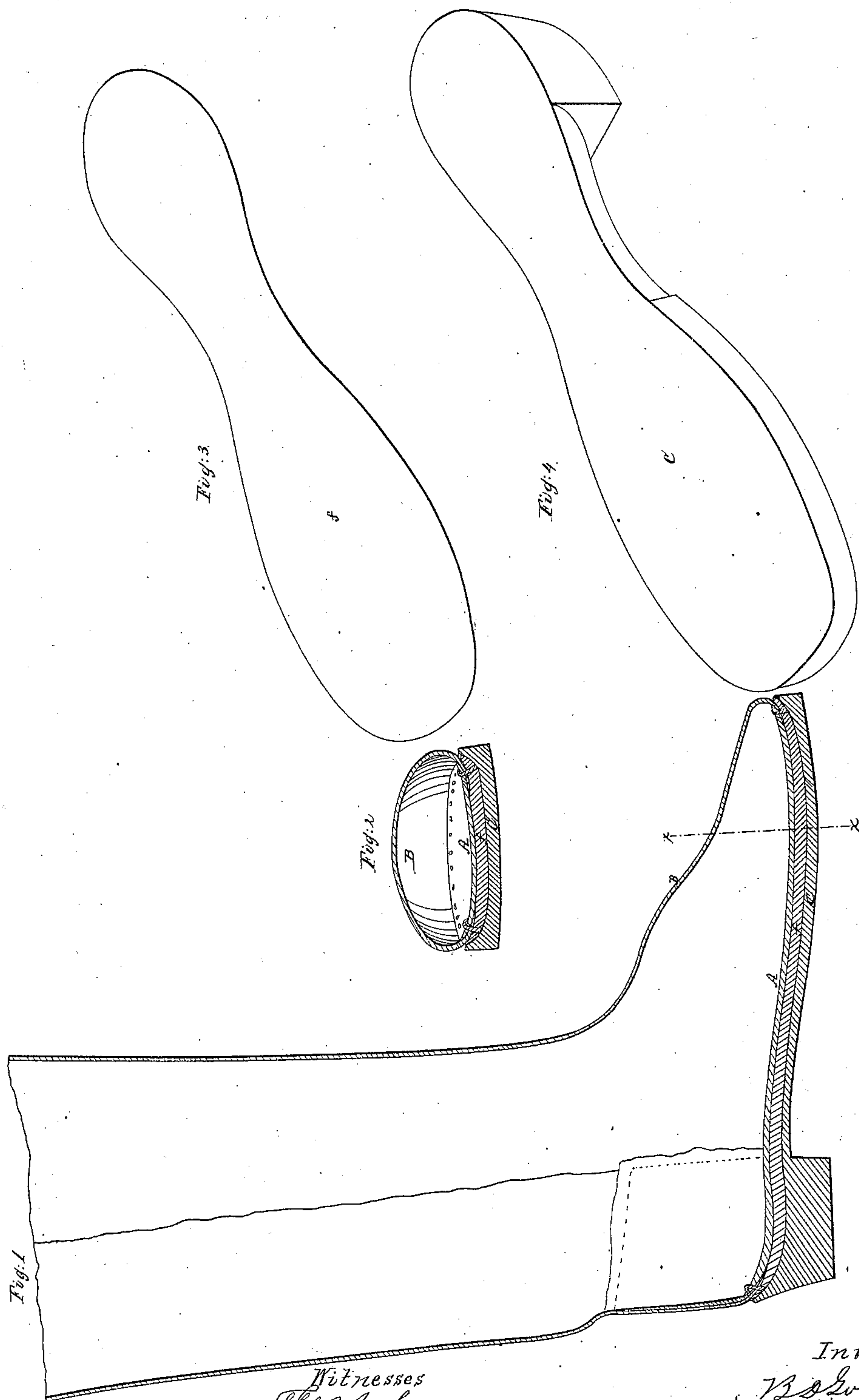


B. D. Godfrey,
Rubber Shoe Sole,

N^o 34,682.

Patented Mar. 18, 1862.



Witnesses
Chas. R. Roach
J. C. Schumacher

Inventor
B. D. Godfrey

UNITED STATES PATENT OFFICE.

BENJAMIN D. GODFREY, OF MILFORD, MASSACHUSETTS.

IMPROVEMENT IN INDIA-RUBBER BOOTS AND SHOES.

Specification forming part of Letters Patent No. 34,682, dated March 18, 1862.

To all whom it may concern:

Be it known that I, BENJAMIN D. GODFREY, of Milford, in the county of Worcester and State of Massachusetts, have invented an Improved Double India-Rubber Sole for Boots and Shoes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a section through a boot having my improved sole; Fig. 2, a transverse section of the same on the line *x x* of Fig. 1; Fig. 3, a view of the middle sole; Fig. 4, a view of the outer sole.

My improvement is upon that class of boots and shoes in which a middle sole of india-rubber is secured to the upper leather and inner sole by means of nails or rivets, and an outer sole is cemented to the middle sole. In the attempts heretofore made to apply soles of this description it has not been found practicable to obtain a good and perfect joint between the two soles owing to a want of correspondence between their two surfaces which come in contact and which causes them to spring apart from each other before the cement is sufficiently dried to hold them together. I am aware that it has been proposed to remedy the difficulty by placing the sole in a press and keeping the two soles thus in contact until the cement has hardened sufficiently to hold them together; but this method could not be adopted upon a large scale or where a large order was to be filled upon short notice.

My present invention has for its object to remedy this inconvenience; and it consists in vulcanizing the two soles in molds so formed that the adjoining surfaces of the soles shall fit the one upon the other while the upper surface of the middle sole is so curved that it shall adapt itself to the last upon which the boot is made without being drawn out of shape when it is nailed on. The two soles

when thus put together with the proper cement immediately adhere together without requiring to be held in contact with each other by a press or otherwise. The bottom surface of the outer sole is made flat to furnish the proper tread for the boot.

In the accompanying drawings, A is the inner sole, B the upper leather, the middle sole *f* being united with them by nails or rivets driven upon an iron-plated last. The sole *f* is of india-rubber and is vulcanized in a mold, its lower surface being curved, as seen in the drawings. The outer sole C, which is also of india-rubber, is secured to the former by suitable india-rubber cement and is vulcanized in a mold with its upper surface so curved as to correspond to the lower surface of the middle sole. The two when thus formed and united by cement will adhere together without any tendency to spring apart, and the soles may consequently be made without the use of a press and much more rapidly than by the process heretofore adopted. It will be observed that the edges of the inner and outer soles are so formed that the middle sole is entirely concealed from view, the edge of the outer sole being so formed as to cover it up.

I do not, however, lay claim to this feature; but

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

A double india-rubber sole for boots and shoes, the two portions being each vulcanized in a mold and so formed that their surfaces of contact shall be exactly adapted, the one to the other, and will adhere to each other when the cement is applied without being held pressed together, for the purpose specified.

B. D. GODFREY.

Witnesses:

THOS. R. ROACH,

P. E. TESCHEMACHER.