

(No Model.)

W. B. ARNOLD.

BOOT OR SHOE.

No. 335,555.

Patented Feb. 9, 1886.

Fig. 1.

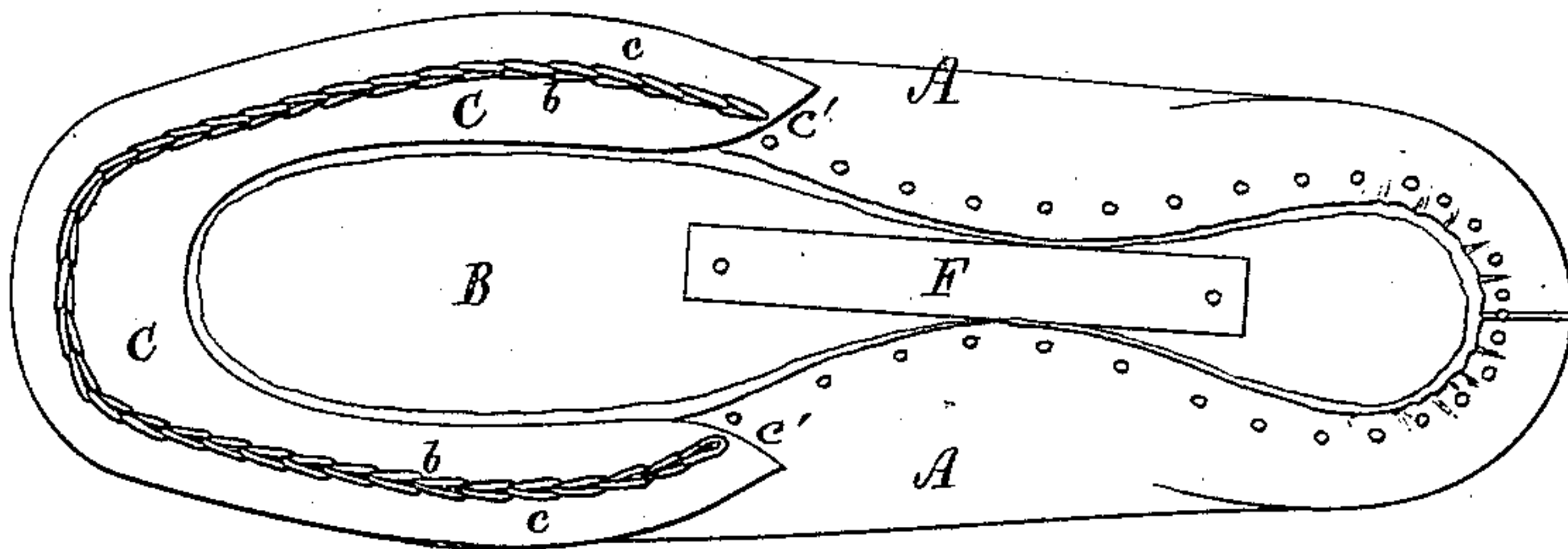


Fig. 2.

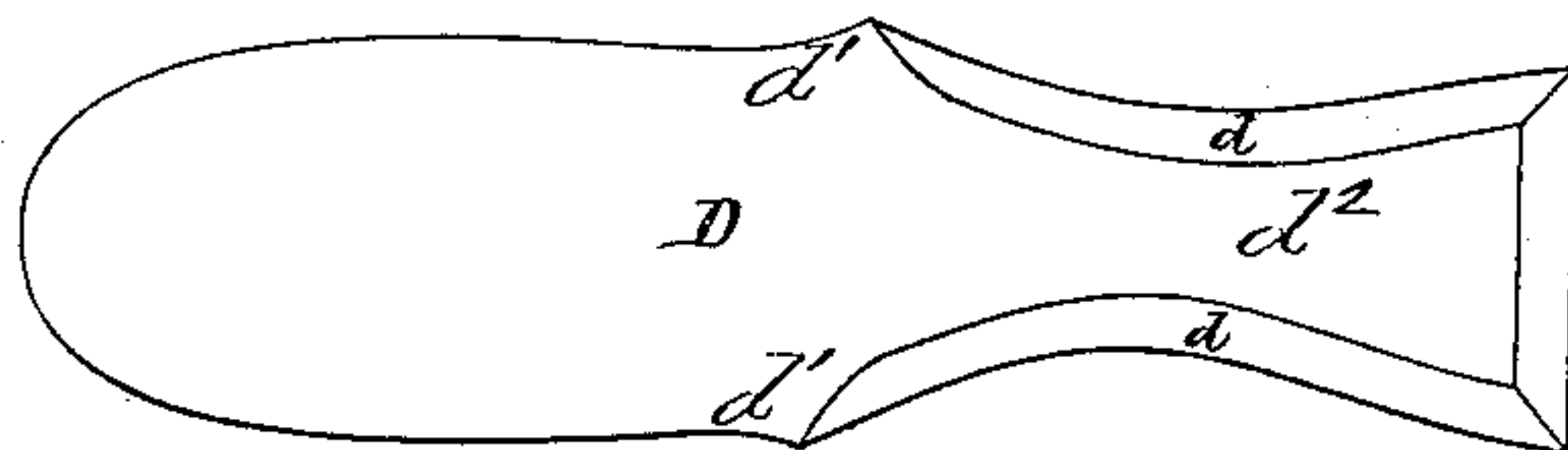


Fig. 3.

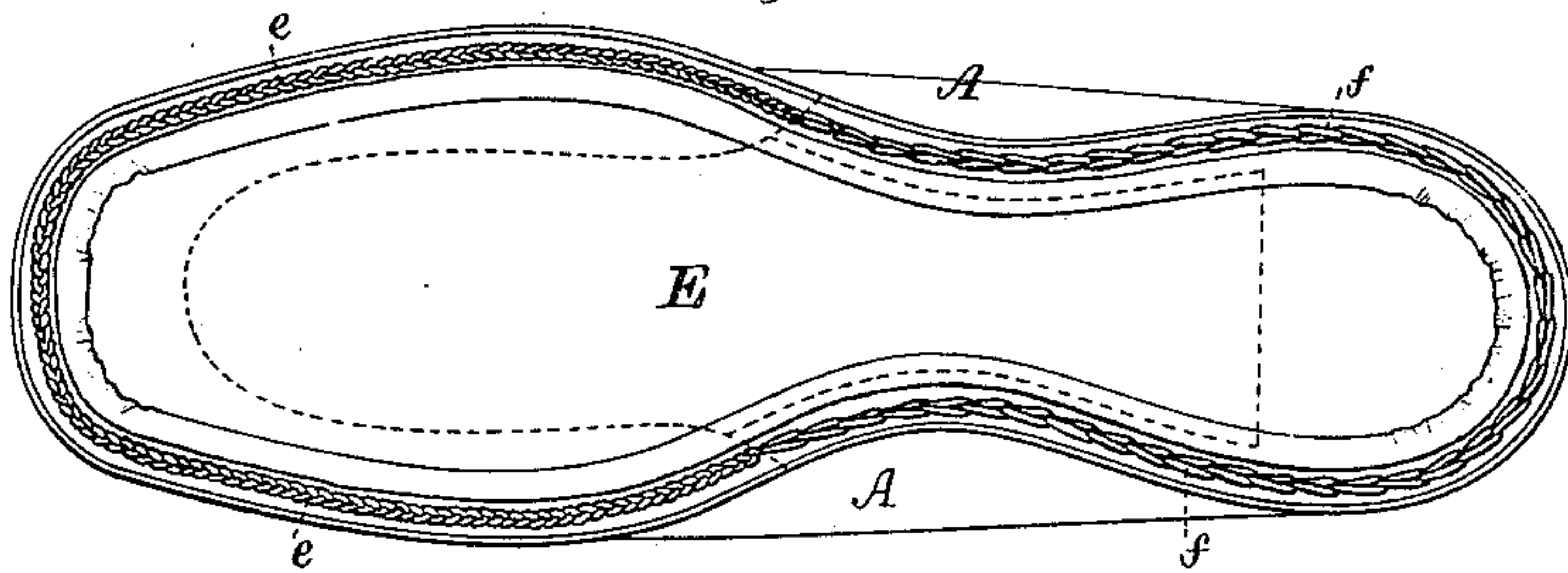


Fig. 4.

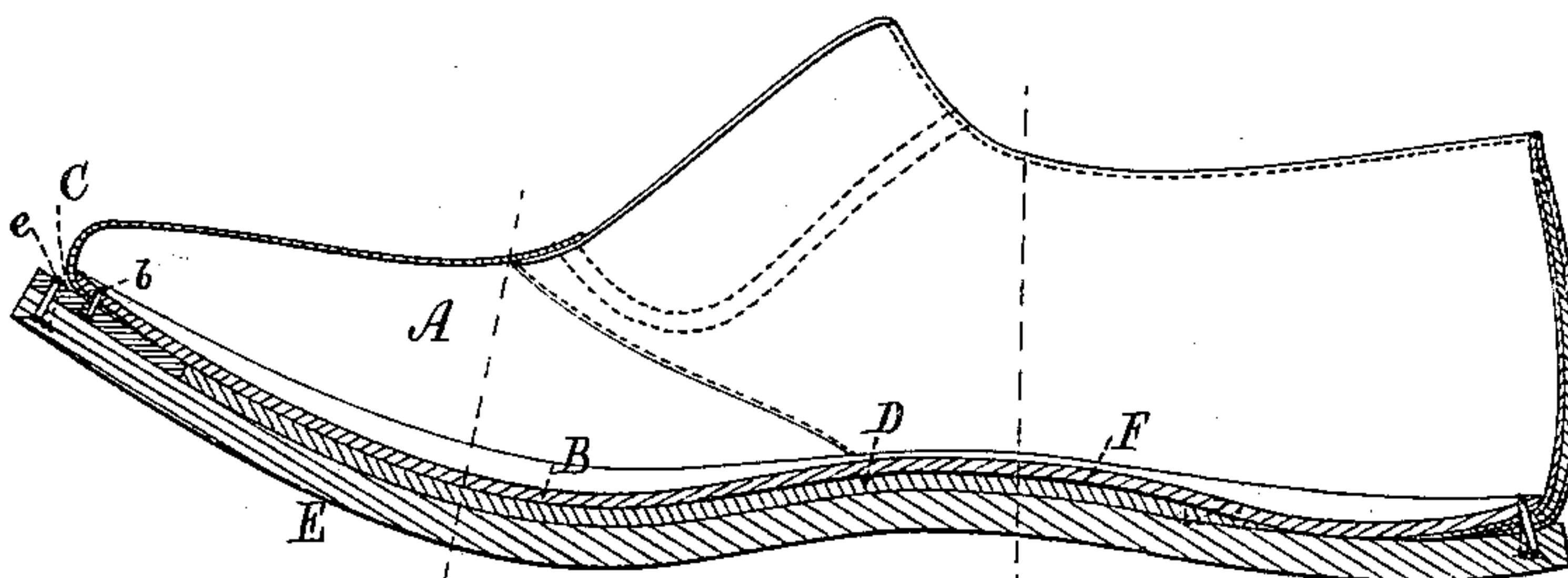
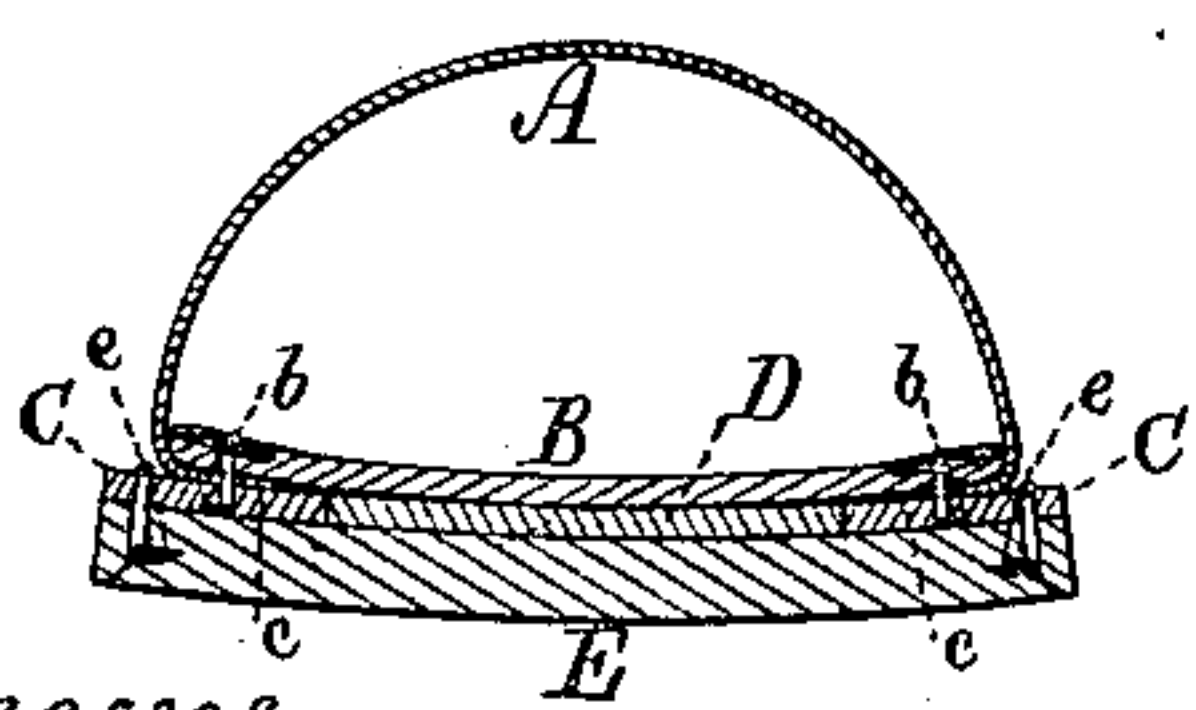


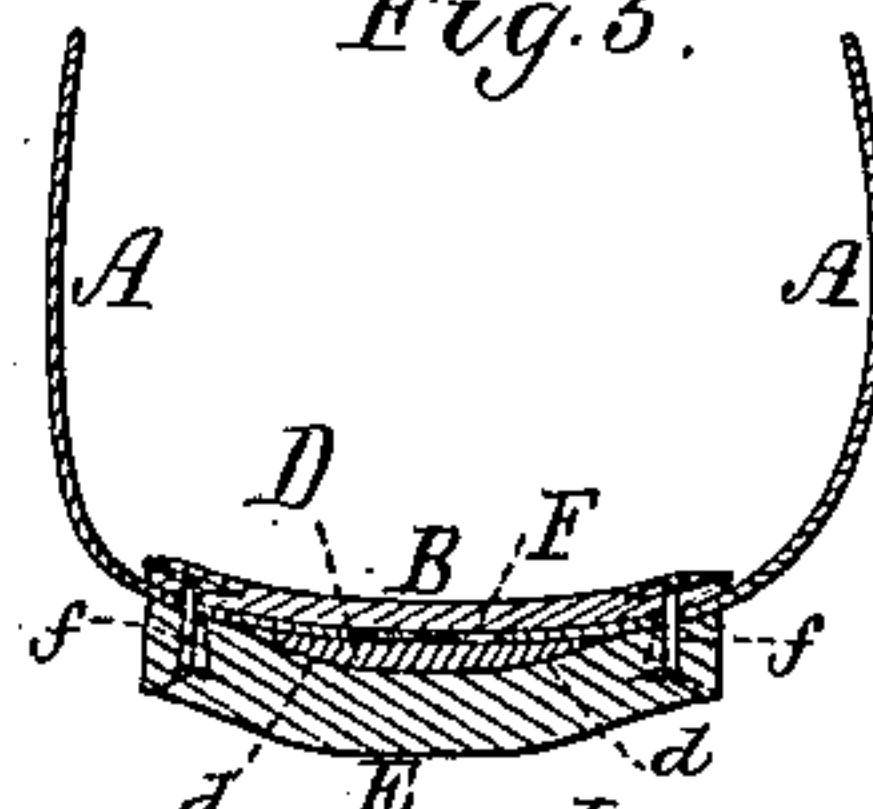
Fig. 6.



Witnesses.

*S. N. Piper.*  
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Fig. 5.



Inventor.

*Wm. B. Arnold.*  
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# UNITED STATES PATENT OFFICE.

WILLIAM BENNETT ARNOLD, OF NORTH ABINGTON, MASSACHUSETTS.

## BOOT OR SHOE.

SPECIFICATION forming part of Letters Patent No. 335,555, dated February 9, 1886.

Application filed May 13, 1885. Serial No. 165,334. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM BENNETT ARNOLD, of North Abington, in the county of Plymouth, of the Commonwealth of Massachusetts, have invented a new and useful Improvement in Boots or Shoes; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

10 Figure 1 is a bottom view of a shoe upper and insole, and a welt-piece sewed to them and extending from the toe to the shank of the shoe. Fig. 2 is a bottom view of the filling-piece that is arranged between the insole and the outer  
15 sole and within the welt-piece. Fig. 3 is a bottom view of the shoe with the outer sole sewed to the welt-piece and to the shank and heel portions of the upper and the insole. Fig. 4 is a longitudinal section of the shoe. Fig. 5 is  
20 a transverse section of it, taken through the shank. Fig. 6 is a transverse section of it, taken through the welt-piece.

The nature of my invention is defined in the claims hereinafter presented.

25 In the drawings, A denotes the upper, B the insole, C the welt-piece, D the filling-piece, and E the outer sole.

After having lasted the upper on the insole and secured them together by nails or tacks in the usual way, the welt-piece, shaped as represented—viz., somewhat like a horseshoe—is  
30 laid on the laps of the upper on the insole, and so as to extend from the toe to the shank of the shoe, and is fastened to the insole and upper by sewing *b* going through such welt-piece and the insole and the said laps of the upper, such sewing being accomplished by a McKay sewing-machine. Next, a filling-piece, D, shaped  
35 as shown in Fig. 2, is to be inserted in the space between the legs *c c* of the welt-piece, the front end fitting snugly within the welt C, the concave curves *d' d'* resting against the corresponding convex curves, *c' c'*, of the welt, locking the two together, and is to extend length-  
40 wise across the shank to the heel, the shank portion of said filling-piece being beveled or scarfed at its two opposite edges, as shown at *d d*. Next, the outer sole is to be laid on the welt-piece and the filling-piece, and is to project laterally each way beyond the filling-piece  
45 at the shank part thereof. The outer sole is to be grooved in the shank to receive the stitch-

ing by which it is to be connected with the shoe-upper and the insole. The outer sole, where covering the welt-piece, is next to be  
55 sewed to such welt-piece by sewing *e* going through them outside of and parallel with the sewing *b*, by which the welt-piece is connected with the insole and upper. Next, the part of the outer sole that extends in rear of the welt-  
60 piece is to be fastened to the insole and laps of the upper by sewing *f* going through such outer sole, upper, and insole, which sewing is to be performed by a McKay sewing-machine. The shoe may next be heeled and finished. 65

From the above it will be seen that I do not have a welt extending from the heel to the toe of the shoe, but only from the toe to the shank, and that the outer sole projects laterally beyond each edge of the filling-piece at the shank  
70 thereof, the parts so projecting resting directly on the laps of the upper, all of the outer sole that is in advance of its shank being sewed to the welt.

In the drawings a steel spring or shank-stiffener is represented at F as fastened to the in-  
75 sole. The said shank-stiffener goes between the insole and the shank part of the filling-piece D, and in view of the welt being extended only to the shank and not along such, and the filling-piece being usually of "leather-board,"  
80 or leather inferior in strength to that of the welt or the outer sole, the shank-stiffener becomes a useful and valuable auxiliary or necessity to render the shank sufficiently stiff. 85

I would remark that the welt is not a strip of leather bent around at the toe and sides of the upper, and thereby wrinkled, as is the case of necessity with such kinds of welts, but is cut  
90 in the form represented from a piece of leather, and thereby has no wrinkles or cuts to remove them, and as a consequence can not only be stitched to better advantage or stronger to the upper and insole, but also to the outer sole.

A welted shoe made in the above-described  
95 manner can be constructed cheaper than one having a welt extending along the shank, as there is a saving in leather in having no welt in the shank, and the shoe in front of the shank has the usual appearance of a welted or hand-  
100 made shoe. A boot of course can have its upper and insole provided with a welt extending only from the toe to the shank, and provided with a filling reaching over the shank and to

the heel, the outer sole being fastened to the welt and the shank in manner as hereinbefore stated.

I am aware that it is not broadly new to have  
5 a partial welt with a filling-piece within. In my device the filling-piece interlocks with the ends of the welt, and the welt being cut out into shape and not bent, the two form a smooth and continuously firm surface, acting as a third  
10 sole between the other two, and the filling supports the welt and forms in appearance a continuation thereof to the rear.

I am also aware that stiffening-springs have been inserted into shoes; but the filling-piece  
15 extension  $d^2$ , having to sustain the movement under the instep, and made of inferior leather re-enforced by a spring, is novel.

What I claim is—

1. In a boot or shoe, the partial welt C, having the legs  $c$   $c$ , with the convex curves  $c'$   $c'$ , in  
20 combination with the filling-piece D, fitting snugly within the welt and having concave curves  $d'$   $d'$ , corresponding with and resting against curves  $c'$   $c'$ , whereby the welt and filling-piece are firmly held together, as and for the  
25 purpose described.

2. In a boot or shoe, the partial welt C and the filling-piece D, snugly fitting within such welt at the front and extending back of the welt at the instep, in combination with the  
30 stiffener F, located at such instep and at such rear extension of the filling-piece, as set forth.

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Witnesses:

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JOHN F. SNOOK.