

BOOT OR SHOE.

APPLIOATION FILED MAY 10, 1909.

966,340.

Patented Aug. 2, 1910.

2 SHEETS--SHEET 1.

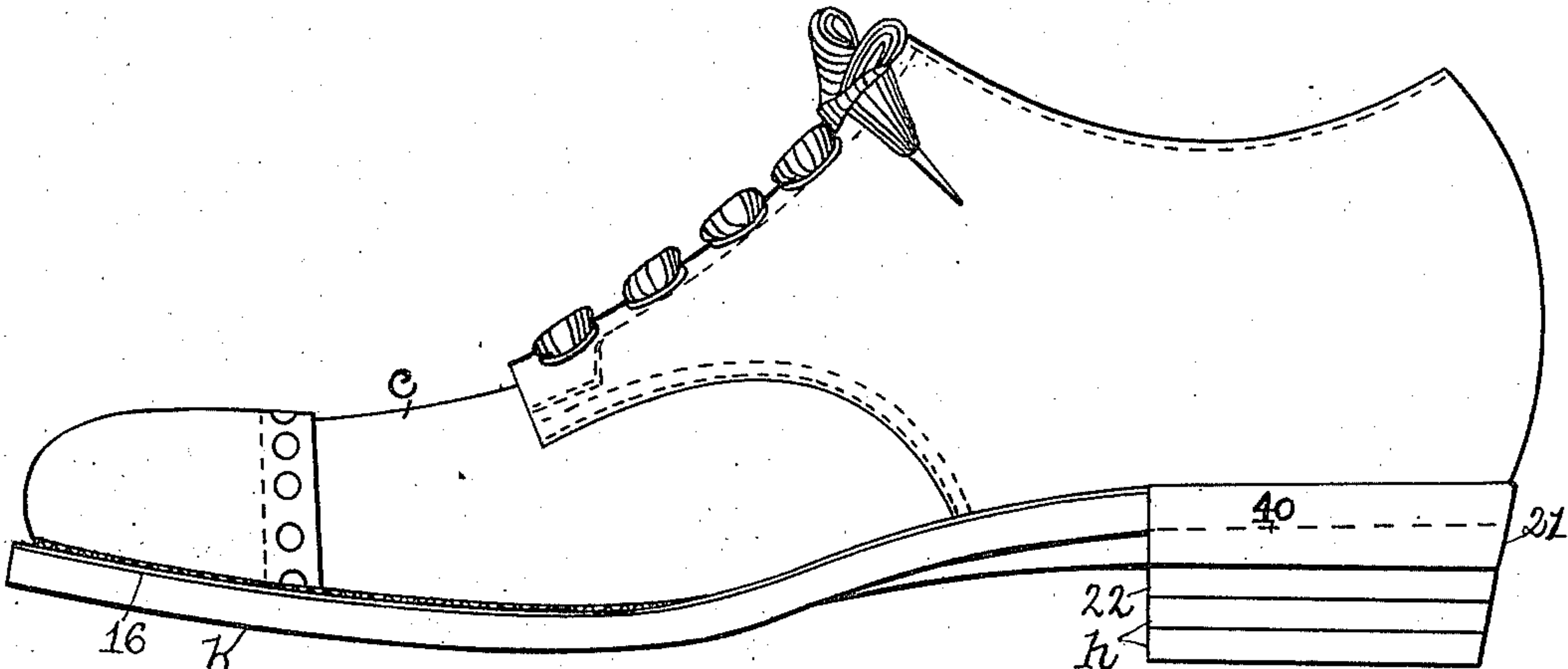


Fig. 1.

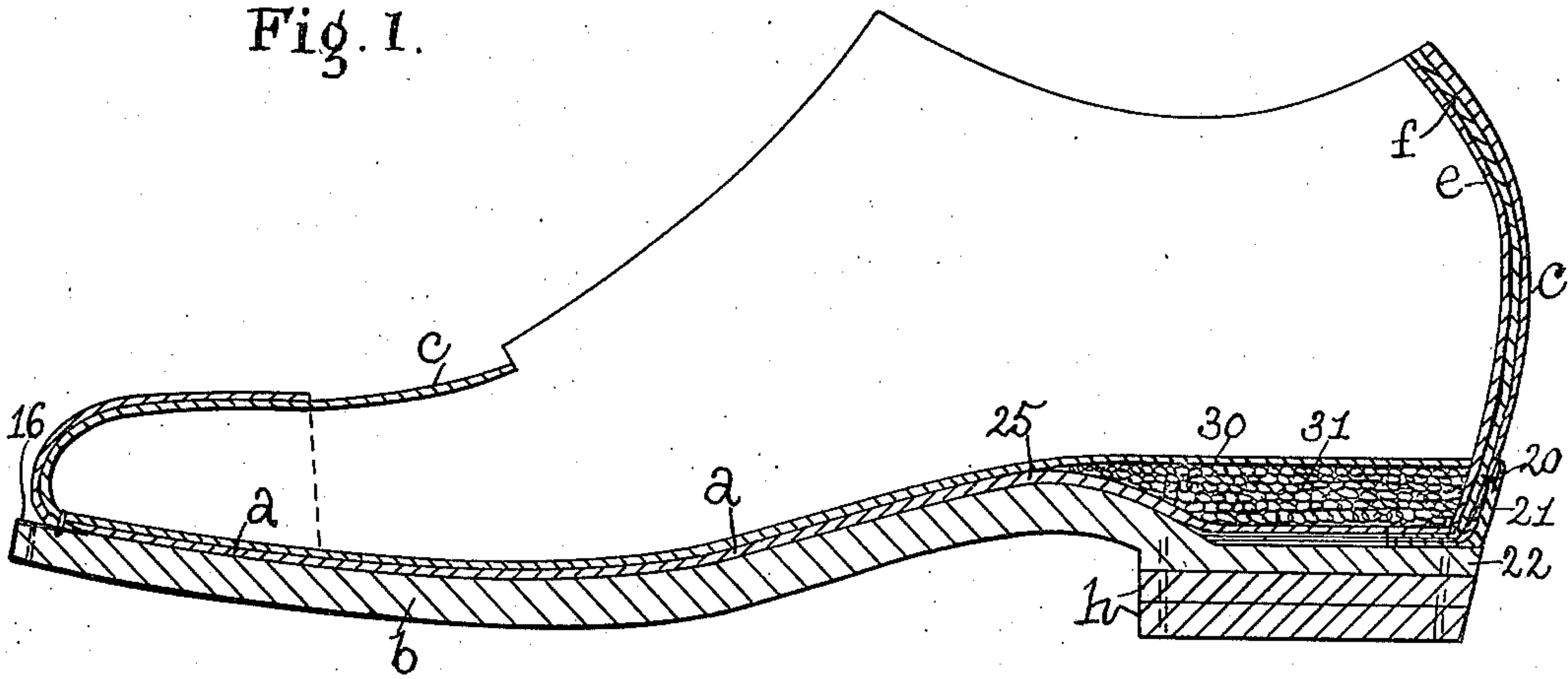


Fig. 2.

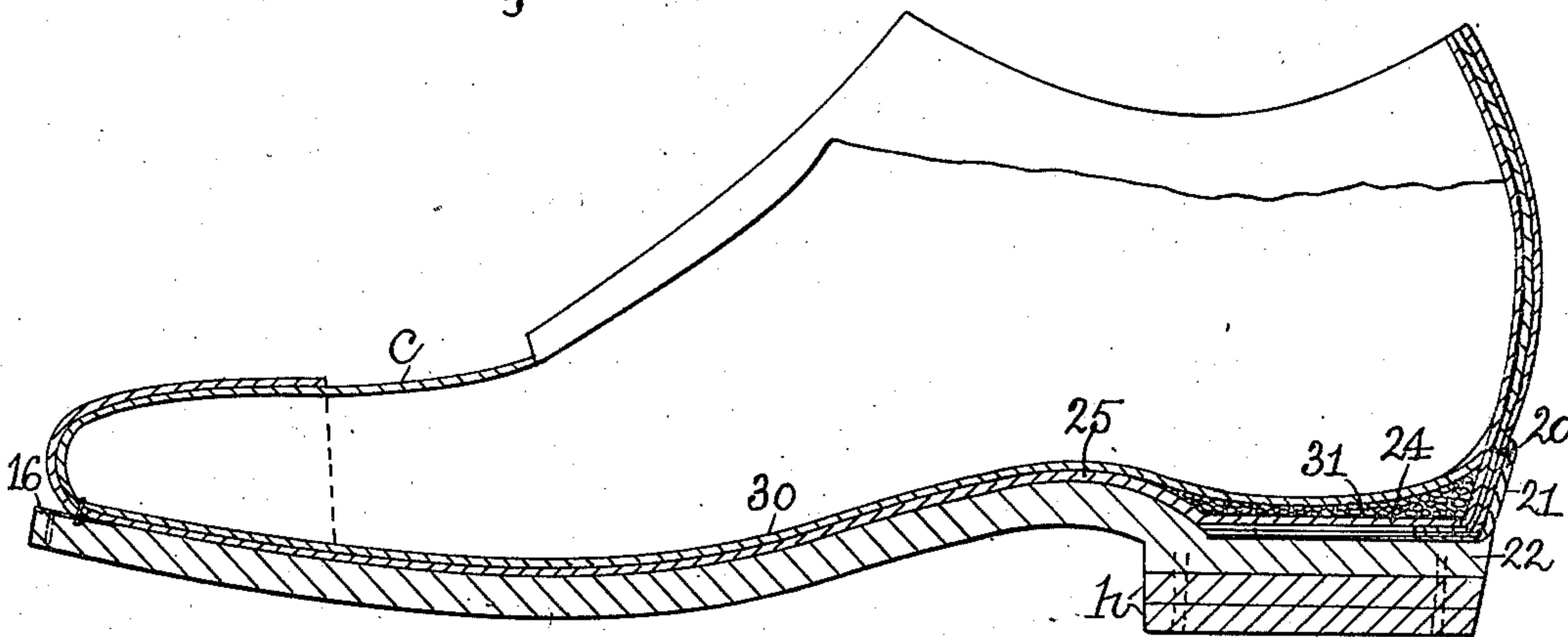


Fig. 3.

Witnesses:

C. B. Gamett
J. Murphy

Inventor.

Damon Ellsworth Little
by Jas. H. Churchill
Atty.

966,340.

D. E. LITTLE.
BOOT OR SHOE.
APPLICATION FILED MAY 10, 1909.

Patented Aug. 2, 1910.

2 SHEETS—SHEET 2.

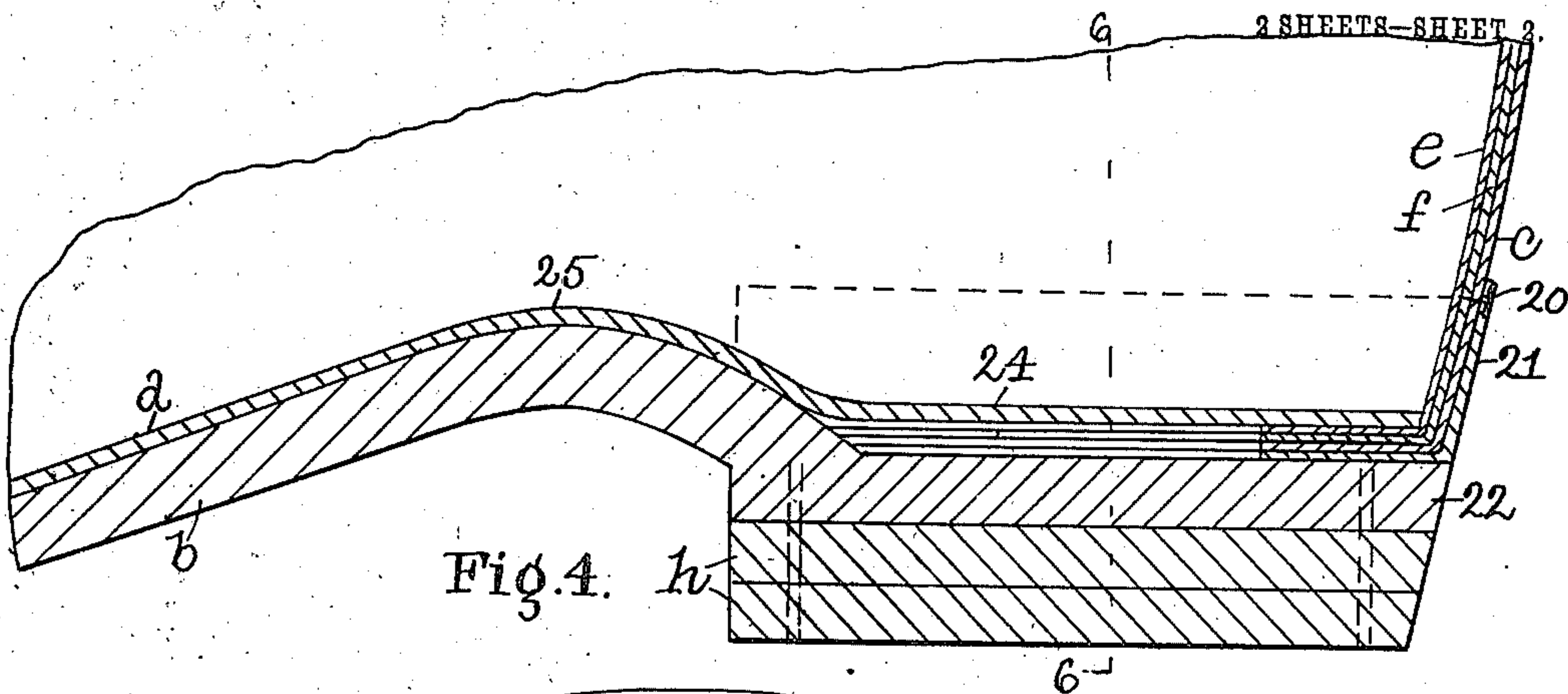


Fig. 4.

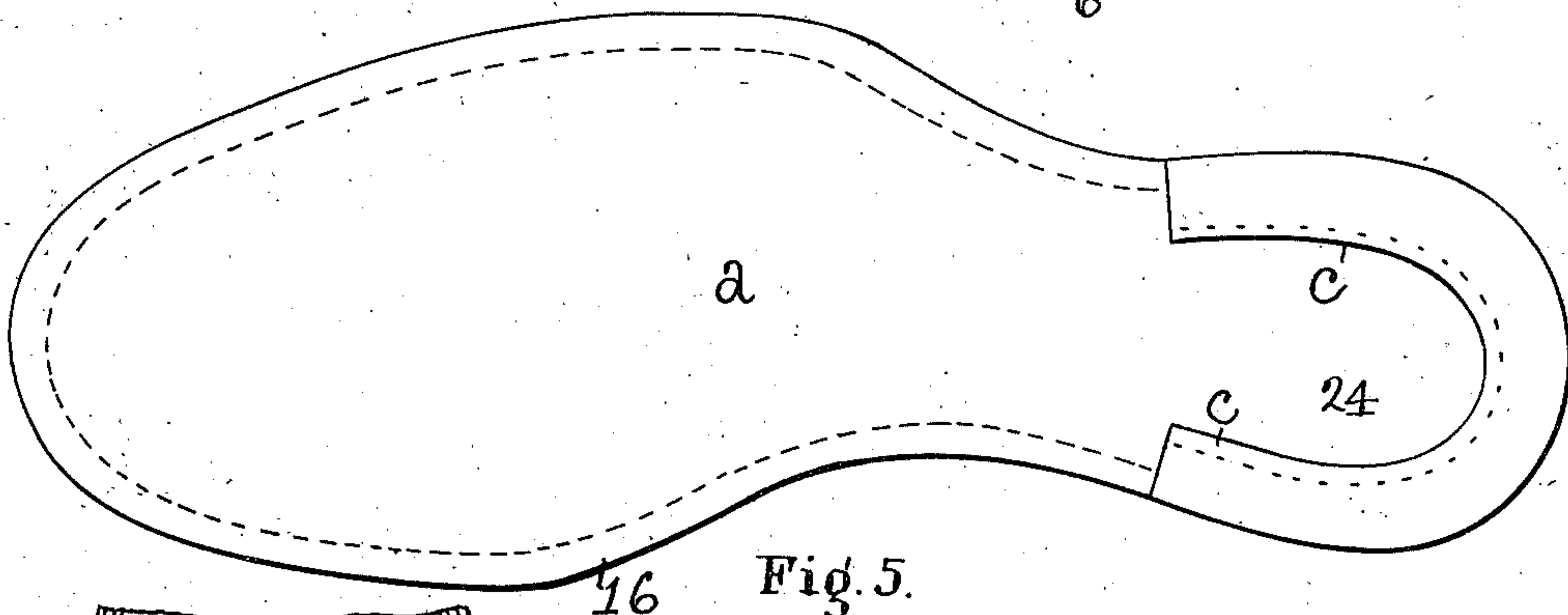


Fig. 5.

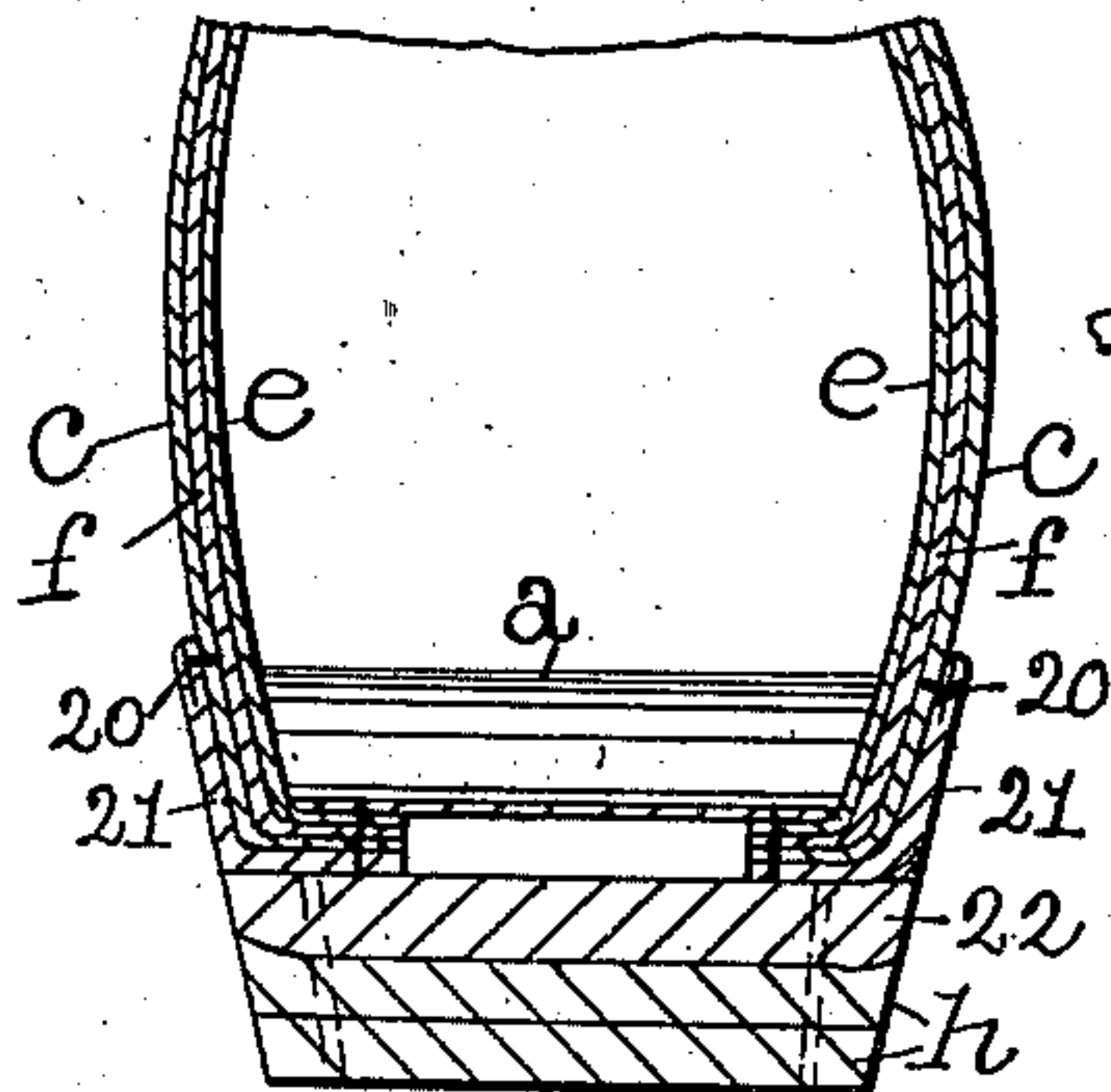


Fig. 6.

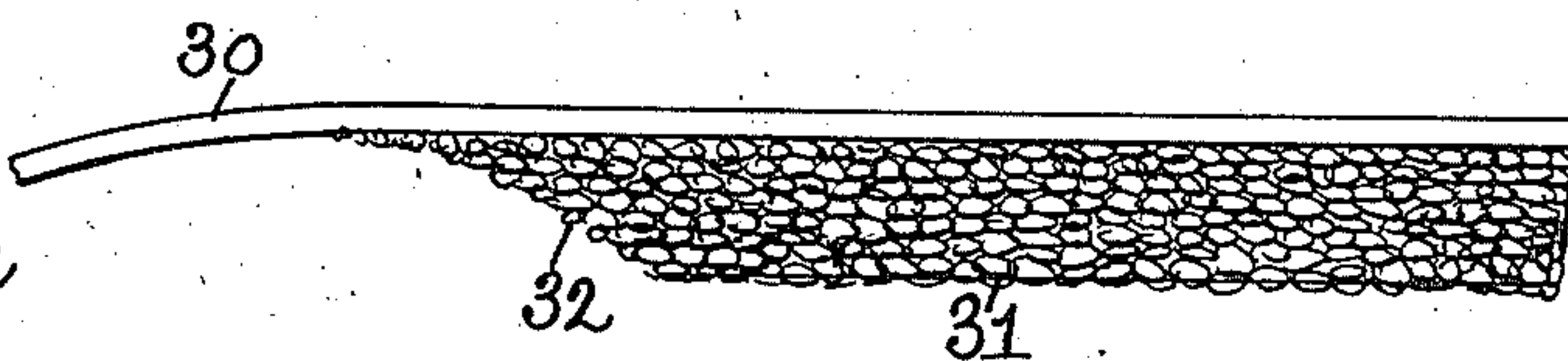


Fig. 7.

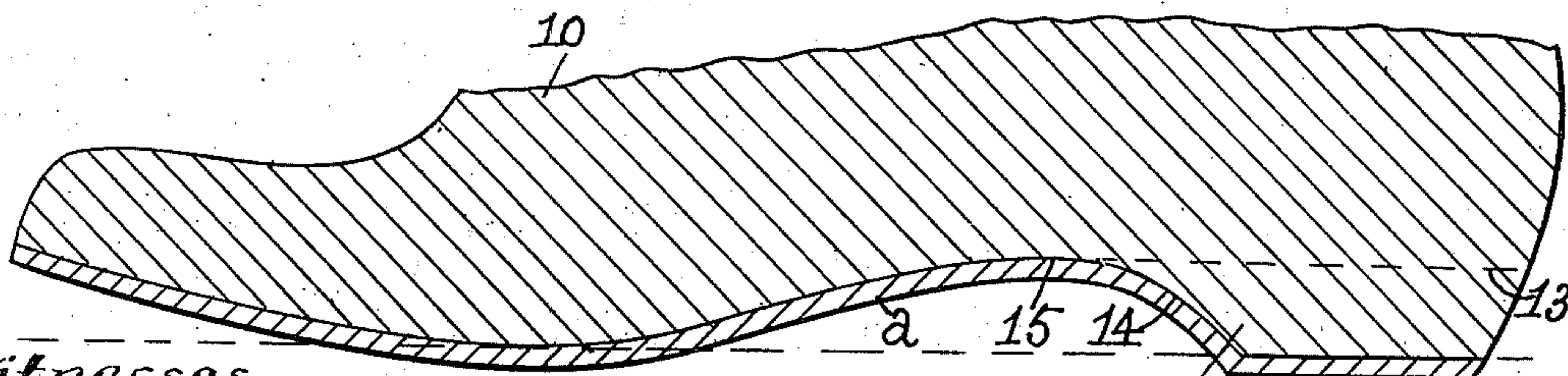


Fig. 8.

Witnesses.

C. B. Bennett

J. Murphy

Inventor.

Damon Ellsworth Little

by Jas. H. Churchill
att'y.

UNITED STATES PATENT OFFICE.

DAMON ELLSWORTH LITTLE, OF BOSTON, MASSACHUSETTS.

BOOT OR SHOE.

966,340.

Specification of Letters Patent.

Patented Aug. 2, 1910.

Application filed May 10, 1909. Serial No. 495,113.

To all whom it may concern:

Be it known that I, DAMON ELLSWORTH LITTLE, a citizen of the United States, residing in Boston, county of Suffolk, and State of Massachusetts, have invented an Improvement in Boots or Shoes, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention relates to boots and shoes and has for its object to provide a boot or shoe which may be worn with comfort and ease by persons having weak, flat or fallen arches, while at the same time the shoe has the external appearance of one having a regulation heel, whereby the desirable external appearance of a boot or shoe having a regulation heel is obtained, with an internal construction which affords a support for the arch of the foot and gives the desired comfort and ease. To this end, the boot or shoe is provided with an internal construction, which enables the heel of the foot to be brought within the shoe nearer to and substantially into the plane of the ball of the foot, and the arch of the foot to be firmly supported above the plane of the heel and ball of the foot.

Another feature of the present invention consists in a novel construction of the shoe, whereby it may be made by the methods now commonly employed in shoe factories. The shoe may and preferably will be provided within it with a cushion for the heel of the foot, as will be described.

These and other features of this invention will be pointed out in the claim at the end of this specification.

Figure 1 is a side elevation of a shoe embodying this invention. Fig. 2, a longitudinal section of the shoe shown in Fig. 1. Fig. 3, a like section showing the shoe on the foot of the wearer. Fig. 4, an enlarged longitudinal sectional detail to show the manner of making the shoe. Fig. 5, a plan of the inner sole inverted, showing the upper lasted over it. Fig. 6, a cross section on the line 6—6, Fig. 4, looking toward the left. Fig. 7, a detail of the cushion preferred by me, and Fig. 8, a detail of the last with the inner sole applied thereto.

Referring to the drawing *a* represents the inner sole; *b* the outer sole; *c* the upper; *e* the lining; *f* the counter, and *h* the heel lifts,

all of which parts are and may be of the construction of boots and shoes as now commonly made except as will be hereinafter described.

The present invention has for its primary object to construct by the methods and machines now in use in factories a boot or shoe, which is provided within it with a natural arch supporter, whereby it is especially adapted for use by persons having weak, fallen or flat arches, and secondarily to impart to such boot or shoe the desirable external appearance of a boot or shoe having a high or substantially high heel. For this purpose, the boot or shoe is provided with a cavity or socket in its heel portion, which is of material depth, so that its bottom may be substantially in the same plane as the ball portion of the inner surface of the shoe or below the same if desired, and the intermediate arch portion of the sole of the shoe is in a materially higher plane at its highest point and inclines or curves downwardly and rearwardly toward said cavity or socket, whereby, when the shoe is on the foot of the wearer, the heel of the foot may be brought substantially into the same plane as the ball of the foot, and the arch portion of the foot not only supported in a natural manner, but also prevented from moving forward toward the toe of the shoe.

In the present instance, I have shown one construction of shoe embodying this invention, but it is not desired to limit the invention to the particular construction shown, although it may be the preferred one.

In order that the boot or shoe may be made in shoe factories by the methods now commonly employed to manufacture the ordinary boot or shoe, the last upon which the shoe is made is provided at its heel portion with a projection 12, which extends below the level of the heel of the ordinary last, which level is indicated by the dotted line 13 in Fig. 8, the said projection having its front surface 14 curved or inclined to meet the arch portion 15 of the last 10 and its bottom surface substantially flat.

The inner sole *a* is applied to the last in the usual manner, with its heel portion extended over the projection 12 (see Fig. 8) and the upper *c* and welt 16 are stitched to the inner sole around the fore part of the inner sole in the usual manner.

In order to provide the shoe with the desirable external appearance of a shoe having a regulation heel, the upper *c* at the heel portion has secured to its outside by
 5 stitches 20, a piece 21, which may be designated the false heel lift. The piece 21 of leather or other material, according to the material of which the shoe is made, together with the upper *c*, counter *f* and lining
 10 *e*, are secured to the inner sole (see Figs. 5 and 6) in the usual manner.

The outer sole *b* is secured to the inner sole in the usual manner and the heel portion 22 of the outer sole is extended over the
 15 inturned portion of the false heel lift 21 and nailed or otherwise secured to the heel portion 24 of the inner sole and is provided with a substantially flat, outer surface to which the substantially flat heel lifts *h*, here-
 20 in shown as two in number, are then nailed.

The shoe thus far described is adapted to be worn by persons having a normal or substantially normal arch, and when thus used, the heel of the foot is lowered into substantially the plane of the ball of the foot, while
 25 the arch of the foot is comfortably and naturally supported by the arch portion 25 of the inner sole, which is curved or inclined downwardly from its highest point to the
 30 front end of the heel portion of the inner sole, which is substantially flat.

The shoe thus far described may be made as a standard or stock shoe, and in order to adjust the same to the feet of different persons
 35 having different degrees of variation in the arches of the feet, I have provided a filler for the cavity or socket formed in the heel portion of the shoe, which may and preferably will be made yielding to form a
 40 cushion for the heel of the foot within the shoe. The filler referred to may consist of a piece 30 of leather like the whole or a portion of a removable inner sole, and a piece
 45 31 of rubber or other yielding material, which is cemented or otherwise affixed to the underside of the piece 30. The cushion 31 of the filler may be made of varying thickness and length according to the amount the
 50 arch of the particular foot on which the shoe is to be worn, has fallen, and the front edge or side 32 of each cushion is curved or inclined to conform to the inclined or curved surface of the inner-sole *a*, while the under surface of the cushion is flat or substantially
 55 flat to rest squarely on the flat or substan-

tially flat bottom of the cavity or socket in the heel of the shoe.

The filler in its normal position shown in Fig. 2, imparts to the shoe the finished appearance of an ordinary shoe on its inner
 60 side and conceals the cavity or socket in the heel portion. When the shoe is on the foot and in use, as represented in Fig. 3, the cushion 31 of the filler is compressed and the heel of the foot is allowed to descend toward
 65 the plane of the ball of the foot and below the highest part of the arch portion 25 of the inner sole, with the result that the foot assumes in walking a natural and therefore comfortable position, while its weak part,
 70 namely the arch, is supported for its entire length in a natural and easy manner.

Another advantage possessed by a boot or shoe embodying this invention, is that the arch portion of the inner sole supported as
 75 it is by the outer sole, forms a firm abutment for the rear portion of the arch to press against, with the result that the foot is prevented from slipping forward toward the toe, thereby enabling a better fitting shoe of
 80 smaller size to be worn.

The false heel lift 21 may be provided with a row of indentations represented by the dotted line 40 to impart to it the appearance of two heel lifts.
 85

Claim.

A boot or shoe provided with an inner sole having a substantially flat heel portion in substantially the same plane as the portion which supports the ball of the foot, and an
 90 intermediate arch-supporting portion in a higher plane than said ball-supporting and said heel portions, an upper secured to said inner sole, a false heel lift secured to said upper about the heel portion and above the
 95 level of the heel portion of the inner sole, an outer sole having its heel portion substantially flat, and a substantially flat heel lift secured to the heel portion of the outer sole, said false heel lift being interposed be-
 100 tween the upper surface of the heel portion of the outer sole and said upper, substantially as described.

In testimony whereof, I have signed my name to this specification in the presence of
 105 two subscribing witnesses.

DAMON ELLSWORTH LITTLE.

Witnesses:

JAS. H. CHURCHILL,
 J. MURPHY.