

B. DELANEY.
 ARCH AND HEEL SUPPORT AND INSOLE.
 APPLICATION FILED MAY 5, 1913.

1,093,608.

Patented Apr. 21, 1914.

Fig. 1.

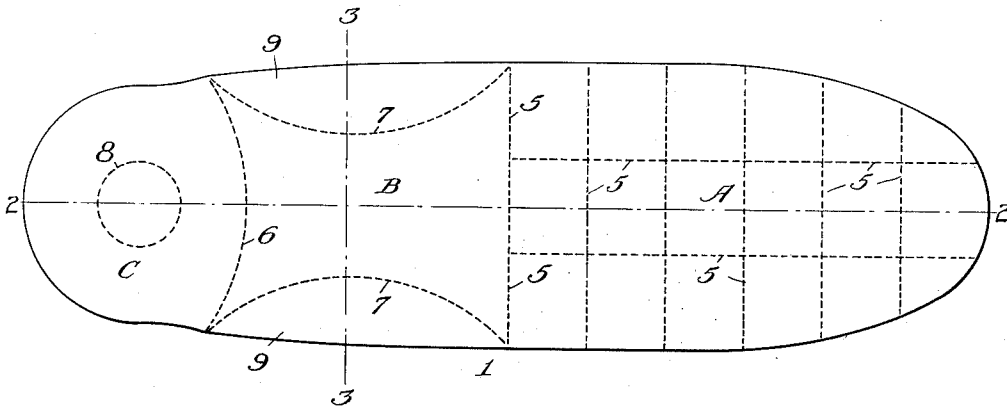


Fig. 2.

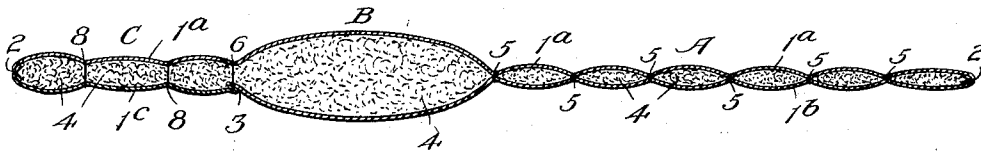


Fig. 3.

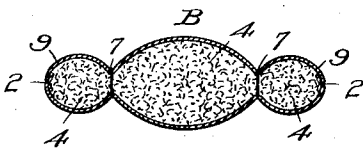
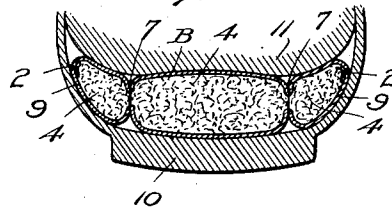


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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ARCH AND HEEL SUPPORT AND INSOLE.

1,093,608.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, BERNARD DELANEY, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Arch and Heel Supports and Insoles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a heel and arch support and insole for boots and shoes, and consists more particularly stated, in an envelop of soft flexible material stuffed or padded with a suitable filler such as curled hair previously cleansed, purified, and retained in position by means of stitches connecting both sides of said envelop in a manner to positively retain such filler in predetermined positions with relation to the interior of a boot or shoe.

Among other objects my invention contemplates and provides for cushioning and supporting the arch of a human foot, the heel and other portions thereof, according to requirements made necessary by physical infirmities or deformities of the foot, such as the falling of the arch, rheumatic conditions, and other well recognized ailments.

As a further object this invention is designed and adapted to provide a yielding and therefore comfortable resting place for the sole or bottom of a foot, a relatively soft surface in which protuberances, tender spots or callous portions upon heel or ball of the foot may embed themselves; also means for preventing uneven pressure upon the interior of a boot or shoe, and a consequent uneven wear upon the exterior thereof or shoe-sole and heel; and also the production of a device of the character stated, which is at once inexpensive; light in weight, washable, sanitary, and a ready absorbent of perspiration thereby insuring at all times dryness of the foot.

The invention will be hereinafter particularly described and pointed out in the claims following.

In the accompanying drawings which form part of this application for Letters Patent, and whereon like numerals indicate corresponding parts in the several views: Figure 1 is a plan view of my invention, and illustrates either surface of a complete heel and arch support and insole. Fig. 2 is a

longitudinal central section of the invention taken on the line 2—2 of Fig. 1. Fig. 3 is a transverse sectional view of the device taken on the line 3—3 of Fig. 1, and Fig. 4 is also a transverse section similar to Fig. 3, but showing the invention in operative position within a boot or shoe under pressure of a foot immediately below the arch thereof.

Reference being had to the drawings and numerals thereon, 1 represents the outer envelop or casing of my invention preferably of light, durable flexible fabric which for convenience of manufacture, though not necessarily, is made up of three sections 1^a, 1^b and 1^c, cut and combined to form the general outline of a shoe-sole as indicated by Fig. 1. stitched together by lap-seams 2 at their surrounding edges, turned inside out in the process of making as shown by Fig. 2, and left with one open edge 3 running transversely across the structure at the intersection of its heel and arch portions for the introduction of filling material such as 4 after said envelop has been turned. A suitable filler such as relatively stiff curled hair 4 having been introduced through opening 3, is next distributed in appropriate quantities throughout the insole section A of the structure, as indicated by Fig. 2 of the drawings, whereupon it is secured in place by transverse and longitudinal lines of stitching 5 crossing from side to side, and from toe end to the beginning of the adjacent arch section or portion B, serving to practically draw the opposite surfaces of envelop 1^a, 1^b together, thus producing substantially a quilted effect. Filler material 4 is next introduced through opening 3 to the arch and heel supporting sections B, C respectively, in increased quantities as indicated by Fig. 2. the opening 3 is closed by a curved line of stitching 6 extending from side to side of the structure, serving also as a line of demarcation between arch section B and heel section C, while, as plainly indicated by Figs. 1 and 3, said arch supporting section, or intermediate body portion B of convex form, is further characterized by oppositely disposed inwardly curved lines of stitches 7, 7, extending forward in a longitudinal direction from the line 6 aforesaid to the first of the transverse lines 5; the rearwardly extending heel section C being finished, and to some extent flattened, by a circular line of stitches 8 at its approximate center as shown by Figs. 1 and 2. Thus it will be seen that the arch

supporting section or body portion B, is divided by the lines 7, 7 into an intermediate body portion and auxiliary side supports 9, 9, which body portion and side supports are correspondingly padded, the latter, by virtue of their flexible connections, being in effect hinged to opposite sides of said body portion.

In Fig. 4 of the drawings 10 represents a shoe sole upon which rests the intermediate padded body portion of arch support B, and 11 represents the bottom of a human foot resting upon said arch support.

When properly assembled it will be noted that the envelop 1 serves to flexibly connect the convex intermediate padded body portion B, and the correspondingly-padded side supports 9, 9, by which said intermediate portion is flanked, and moreover, serves as a unitary covering for the entire structure.

The use and operation of my improved heel and arch support and insole is quite obvious and need hardly be dwelt upon at length, it might, however, be added that because of its peculiar structural arrangement, and distribution of supporting pads and padded surfaces, it is peculiarly well suited for the performance of its intended functions, and when in service, as indicated by Fig. 4, not only does the intermediate body or central portion B admirably uphold the arch of a foot as shown at 11, but the auxiliary side supports 9, 9 naturally adjust themselves to the curvature of the foot upon either side, thereby affording a restful and effective additional support at these points.

This being a description of my invention in its best form of construction at present known to me, it should be understood that I do not confine myself to the exact form and arrangement shown, as same may be variously modified without materially departing from the spirit thereof, and to such differences as fall within the scope of my invention I lay claim the same as though specified. For example, the general outline may conform more or less accurately to that of any

particular style, size, or shape of a shoe with which my improvements are to be used, the arrangement of stitching specified may be variously changed, and likewise the materials employed including that serving as a filler; and while the present illustrations disclose heel, arch and insole portions or sections A, B and C, respectively, my present invention contemplates the manufacture, use and sale of either of these sections individually, or any two of them combined according to requirements.

Having thus described my invention what I now claim and desire to secure by Letters Patent is:

1. As an article of manufacture an arch-support comprising a convex intermediate padded body portion, in combination with individual correspondingly-padded side supports of segmental form flanking said intermediate portion, and an inclosing envelop flexibly connecting said body portion and side supports.

2. As an article of manufacture an arch-support comprising a convex intermediate padded body portion, in combination with individual correspondingly padded duplicate side supports of segmental form flanking said intermediate portion, and an inclosing envelop flexibly connecting said body portion and side supports.

3. As an article of manufacture an arch-support comprising a double convex intermediate padded body portion, in combination with individual correspondingly padded side supports of segmental form flanking said intermediate portion, and an inclosing envelop connecting said body portion and side supports throughout the inner curved edges thereof.

In testimony whereof I affix my signature, in presence of two subscribing witnesses.

BERNARD DELANEY.

Witnesses:

HENRY W. MARTENS,
GEORGE E. WARNER.