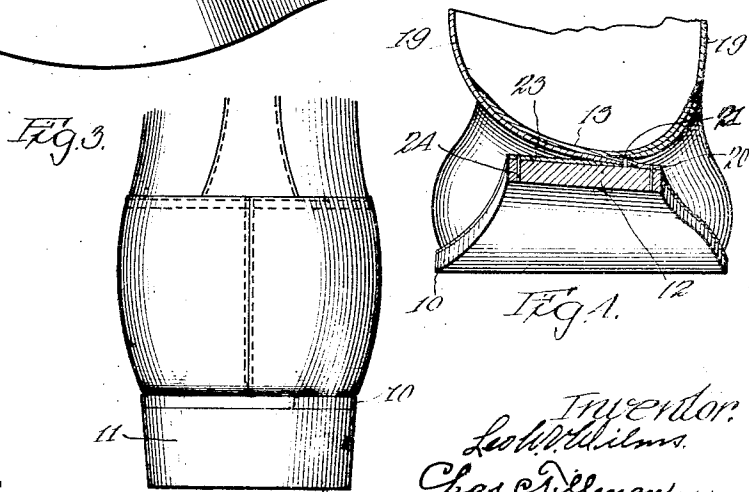
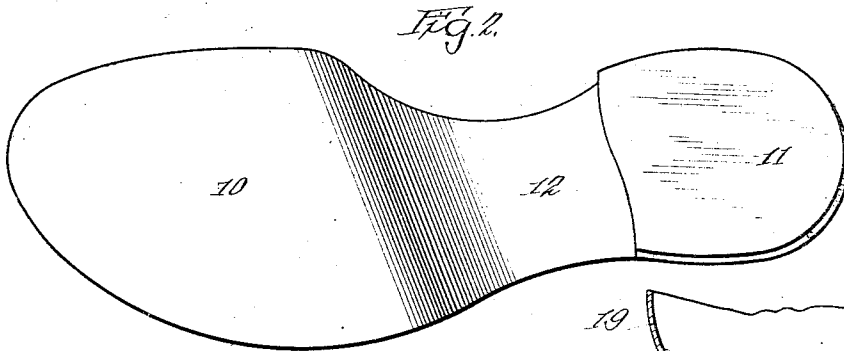
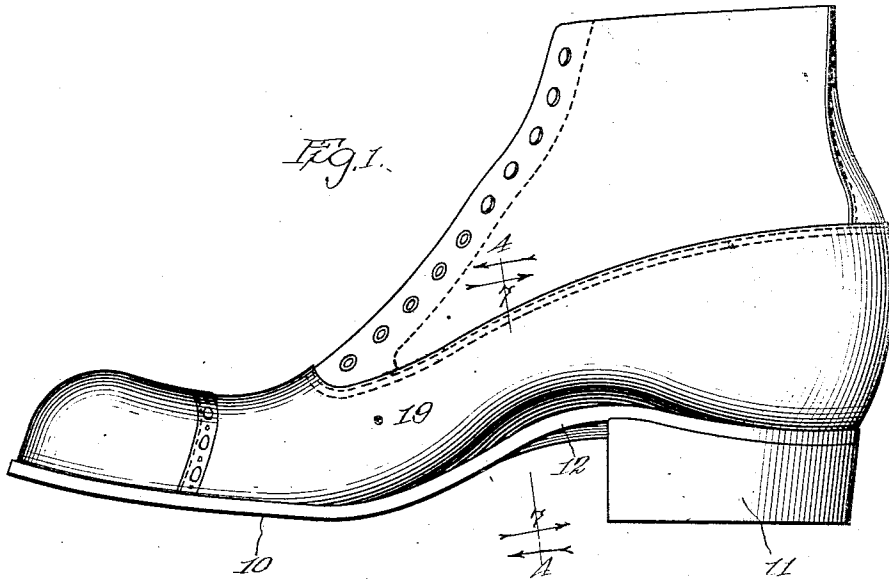


1,276,603.

L. W. V. WILMS.
SHOE.
APPLICATION FILED AUG. 9, 1915.

Patented Aug. 20, 1918.
2 SHEETS—SHEET 1.



witness:
Loj. R. Harris.

Inventor:
L. W. V. Wilms.
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Att'y.

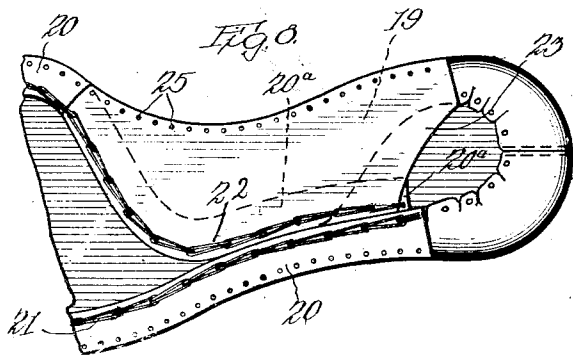
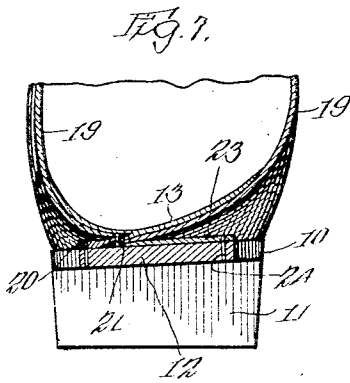
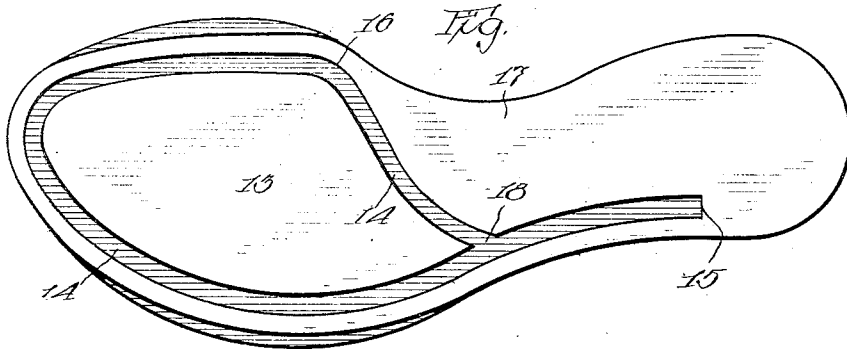
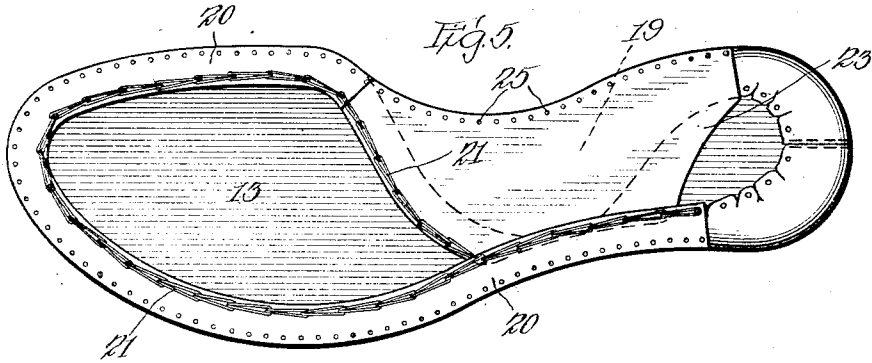
L. W. V. WILMS,
SHOE.

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1,276,603.

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2 SHEETS—SHEET 2.



Witness:
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UNITED STATES PATENT OFFICE.

LEO W. V. WILMS, OF CHICAGO, ILLINOIS.

SHOE.

1,276,603.

Specification of Letters Patent. Patented Aug. 20, 1918.

Application filed August 9, 1915. Serial No. 44,379.

To all whom it may concern:

Be it known that I, LEO W. V. WILMS, a citizen of the United States, and resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Shoes, of which the following is a specification.

This invention relates to certain new and useful improvements in shoes, and it consists in certain peculiarities of the construction, novel arrangement and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The principal object of the invention is to provide a shoe which shall be of such construction and arrangement of its parts that it will support the entire foot, but especially the arch and instep, and thereby prevent and relieve such foot discomfort as bunions, ingrown nails, toe deformity, cramped toes, and will relieve and correct metatarsalgia, "Mortons toe," anterior, transverse, posterior and longitudinal arch, by properly supporting the foot where it should be supported, namely, by holding up and back the tarsal bones and supporting and preventing the spreading of the metatarsal bones. Another object of the invention is to provide a shoe of the above named character, which shall be simple and inexpensive in construction, attractive in appearance, strong, durable, comfortable and efficient in use. Other objects and advantages of the invention will be disclosed in the subjoined description and explanation.

In the accompanying drawings which serve to illustrate an embodiment of the invention—

Figure 1 is a view in side elevation of a shoe embodying the invention, showing the inner side of the shoe and illustrating the relative positions of the vamp and sole with respect to one another.

Fig. 2 is a bottom plan view of the shoe.

Fig. 3 is a rear view.

Fig. 4 is a cross-sectional view taken on line 4—4 of Fig. 1 looking in the direction indicated by the arrows.

Fig. 5 is an inverted or bottom plan view of the shoe with the sole and heel removed.

Fig. 6 is a bottom view of the insole showing it detached.

Fig. 7 is a cross-sectional view taken on line 7—7 of Fig. 1 looking in the direction indicated by the arrows and

Fig. 8 is an inverted or bottom view of a

portion of the shoe with the heel and sole thereof removed, and illustrating a modification in the construction of the parts thereof.

Like numerals of reference refer to corresponding parts throughout the different views of the drawings.

The reference numeral 10 designates the outer sole of the shoe, which sole is, by preference, of about the shape shown in Fig. 2 of the drawings, but may be made of the ordinary or any preferred shape or form, and has secured to its rear lower portion the heel 11, which, as shown in Figs. 1 and 7, is slightly thicker or higher at its front inner portion than at its rear and front outer part, and has its upper surface downwardly and rearwardly curved from its front end, to which curve the heel portion of the sole corresponds, thus forming an upwardly arched and slightly outwardly and downwardly inclined shank 12 of the sole. The inner sole 13 is provided on its lower surface with a channel 14, which is mainly located near the border of said sole and extends from the front part of the heel portion of said sole, as at 15, alongside the outer border thereof and around its toe portion and thence alongside the front inner portion of its border to a point, as at 16, near the front inner end of the shank 17 or contracted portion of said inner sole, from which point the groove or channel 14 is extended substantially diagonally across said sole and meets or joins that portion of the channel, as at 18, located near the outer border of the inner sole near the front outer portion of the contracted portion 17 thereof. The edges of the vamp 19, and the inner edges of the welt 20 are secured to the inner sole by means of stitches 21 located along said groove.

The channel follows a circuitous course somewhat resembling the outline of the letter "P" having a curving endless loop like portion which extends fairly close to the marginal border of the toe portion of the sole with the lower part thereof extending diagonally across the contracted portion of the sole and a single stem like channel portion extending rearwardly from the loop and in proximity to one of the side margins of the sole through the intermediate portion of the sole and the forward part of the heel portion.

In Fig. 5 the vamp is shown stitched to the sole on both its front side edge and its

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end edge, the stitches securing the side edge being located in the diagonally extending portion of the channel and the stitches of the end edge being through the single stem like channel portion.

By reference to Figs. 1, 4, 5 and 7, of the drawings, it will be seen and understood that the inner portion of the vamp of the shoe is attached to the inner portion of the outer part of the welt 20, and extends well back and is entirely free from the inner border of the shank of the sole proper of the shoe under the arch of the foot, thus causing this portion of the shoe to fit snugly to the arch of the foot and thereby support the same and prevent any friction or slipping forward of the foot in the shoe.

In Fig. 8 of the drawing I have shown a slight modification in the construction and arrangement of the parts, which consists in providing the inner portion of the welt 20 located under the arch of the foot, with an extension 20^a which is extended in substantial parallelism with the inner edge of the rear part of the welt on the outer portion of the shoe, and in securing the edge of the vamp thereto by means of a separate row of stitches 22, instead of attaching said portion of the vamp to the welt on the outer portion of the shoe as shown in Fig. 5, and above described. In employing this modified form the same result as above set forth will be accomplished as is apparent.

Located on the upper surface of the shank of the outer sole is a finishing-piece of leather 23, which extends under the arched portion of the vamp and is secured to the sole 10, by means of stitches 24 passed through the openings 25 in said piece.

From the foregoing and by reference to the drawings it will be readily understood and clearly seen, that by employing my improvements a shoe will be produced which will not only support and hold back the entire foot by holding back the tarsal bones of the foot, but will also prevent the spreading of the metatarsal bones and the forward movement of the foot within the shoe, thus eliminating friction, and overcoming the discomforts incident to wearing shoes in which such provisions are not made.

What I claim is—

1. In a shoe, an inner sole provided on its lower surface with a channel which is mainly located near the border of said sole and extends forwardly from near the heel portion around the border of the toe portion and then diagonally across the sole to form an endless loop, in combination with a vamp and welt which have their edges bent around the edge of the sole and fastened together by a row of stitches located in and

extending along said groove, the shank portion of the insole being of normal width and the lower portion of the vamp at the inner side of the shank being carried under the shank portion of the inner sole and its edge secured to the inner sole adjacent the outer edge of the shank portion of the inner sole.

2. In an article of foot wear, the combination with an inner sole having a contracted intermediate portion of normal width and provided with an endless loop like channel in its toe portion which generally follows the curved border line of said forward portion and has a part extending diagonally across the forward part of the contracted intermediate portion to the opposite side of the sole where it merges in the loop and a single channel extending rearwardly from the loop at the juncture point of the diagonal part therewith through the contracted portion and a part of the heel portion, a vamp having the lower portion thereof at the inner side of the shank carried under the shank portion of the inner sole and its edge secured to the inner sole adjacent the outer edge of the shank portion of the inner sole, a welt having its edges laid along the edge of the sole and lapping the loop channel, a row of stitches in the channels for securing the welt and vamp together, and an outer sole secured to these parts.

3. In a shoe, the combination with an outer sole, of a heel secured to its rear lower portion, the said heel being slightly thicker or higher at its front inner portion than at its rear and front outer part and having its upper surface downwardly and rearwardly curved from its front end, the upper portion of the outer sole which lies on the heel having a correspondingly shaped cavity, an inner sole provided on its lower surface with a channel which is mainly located near the border of said sole and extends forwardly from near the heel portion around the border of the toe portion and diagonally across the sole to form an endless loop, a vamp and welt which have their edges bent around the edge of the sole and fastened together by a row of stitches located in and extended along said groove, the insole being of normal width and the lower portion of the vamp at the inner side of the shank being carried under the shank portion of the inner sole and its edge secured to the inner sole adjacent the outer edge of the shank portion of the inner sole.

LEO W. V. WILMS

Witnesses:

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A. E. OLSON.