G. L. PIERCE.

SHOE.

APPLICATION FILED MAY 31, 1913.

1,181,683.

Patented May 2, 1916.

2 SHEETS—SHEET 1.

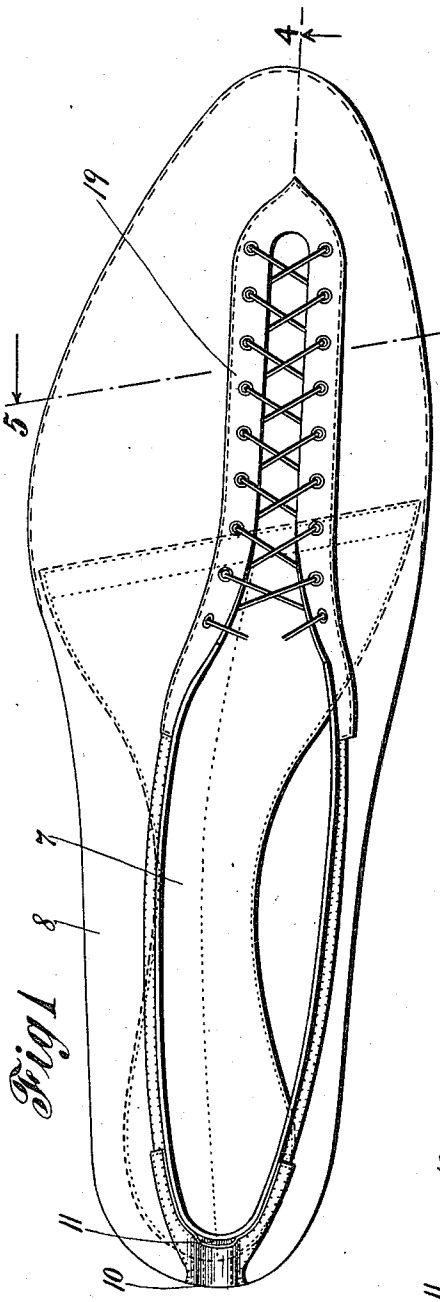


Fig 1

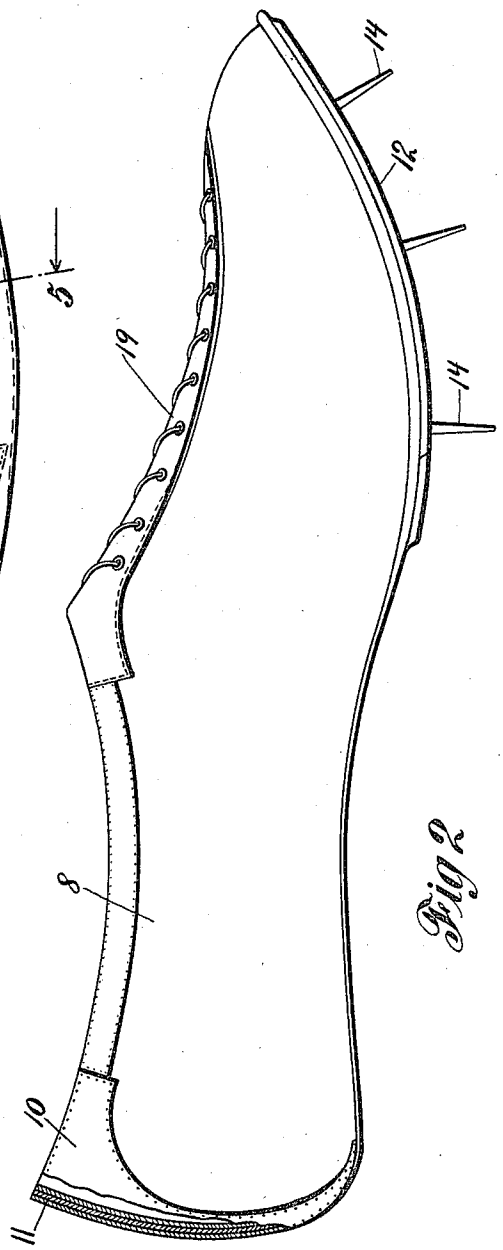


Fig 2

WITNESSES

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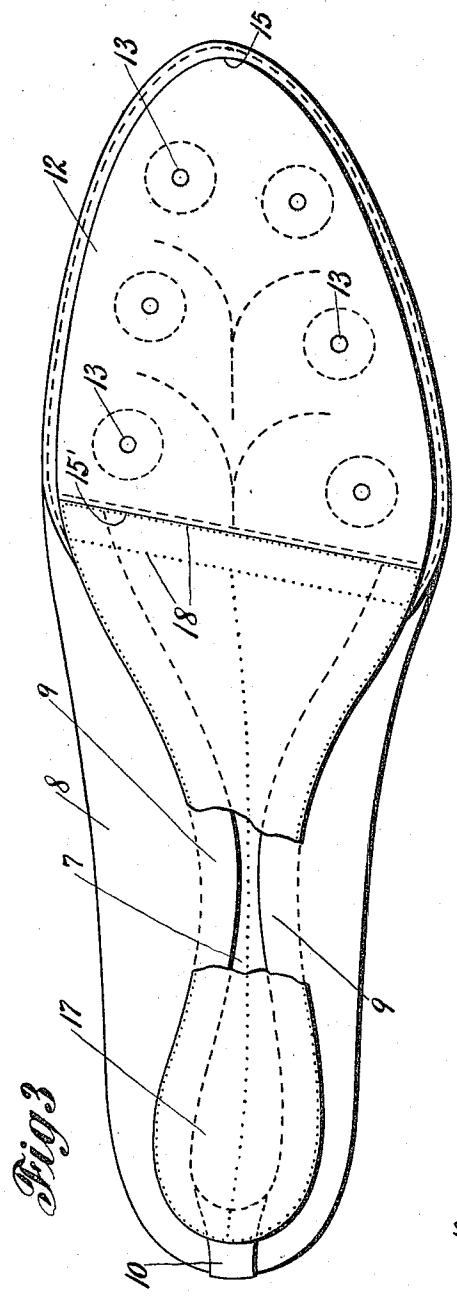


Fig 3

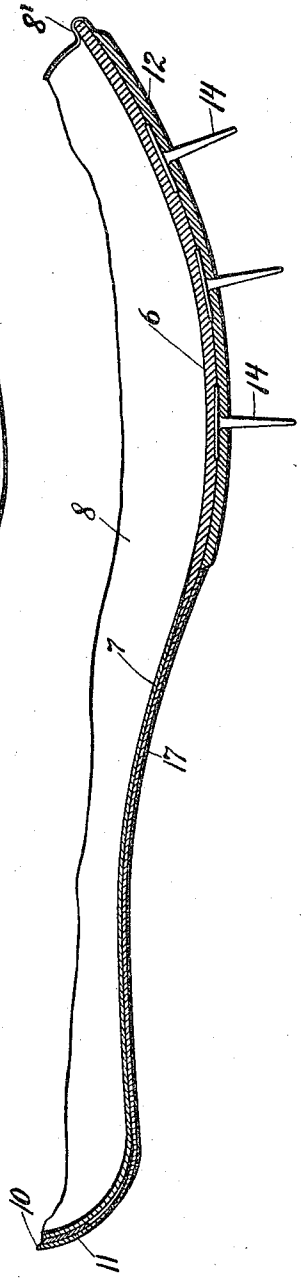


Fig 4

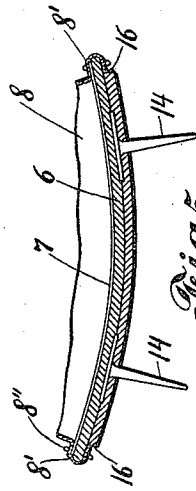


Fig 5

WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE L. PIERCE, OF BROOKLYN, NEW YORK, ASSIGNOR TO A. G. SPALDING & BROS., OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

SHOE.

1,181,683. Specification of Letters Patent. Patented May 2, 1916.

Application filed May 31, 1913. Serial No. 771,119.

To all whom it may concern:

Be it known that I, GEORGE L. PIERCE, a citizen of the United States of America, and resident of Brooklyn, in the county of Kings and State of New York, whose post-office address is 660 Pacific street, Brooklyn, New York, have invented certain new and useful Improvements in Shoes, of which the following is a specification.

This invention relates to improvements in shoes, and more particularly relates to an improved type of athletic shoe, as well as to the process of constructing the same.

This invention primarily contemplates the provision of a type of shoe construction characterized by the inclusion of a relatively small number of component parts capacitated for economical, speedy and durable assembly.

One of the objects of this invention is to provide a type of shoe adapted to fit with comfortable and reliable snugness the foot of the wearer.

A preferable embodiment of my invention would be provided with certain portions of its tread area sufficiently flexible to admit of the shoe being twisted or folded for more convenient handling when not in use.

Other objects and aims of the invention, more or less broad than those stated above, together with the advantages inherent, will be in part obvious and in part specifically referred to in the course of the following description of the elements, combinations, arrangements of parts, and applications of principles constituting the invention; and the scope of protection contemplated will appear from the claims.

In the accompanying drawings, which are to be taken as a part of this specification, and in which I have shown a form of embodiment of the invention as at present preferred: Figure 1 is a top plan view of such embodiment; Fig. 2 is a side elevation of the same; Fig. 3 is a bottom plan view of said embodiment; Fig. 4 is a vertical sectional view, partly broken away, taken on the line 4—4 of Fig. 1, and looking in the direction of the adjacent arrows; and Fig. 5 is a view similar to the view shown in Fig. 4, but taken on the line 5—5 of Fig. 1, and looking in the direction of the adjacent arrows.

Similar reference characters refer to similar parts throughout the several views of the drawings.

Referring now to the numerals on the drawings, there is shown in the drawings an inner tap 6, to which is suitably attached, preferably by stitching as shown, an inner shank 7. An upper 8 is attached to inner tap 6, preferably as shown in the drawings and most clearly disclosed at 8′ in Figs. 4 and 5, as by means of suitable stitching (which is here shown at 8″ in Fig. 5 as having each stitch pierce twice said upper 8 and once the inner tap 6). Upper 8 is preferably vamped upon said inner tap 6 by means of a suitable form, and as shown best in Fig. 3 the portions 9 of said upper are suitably conformed to the inner shank 7, being preferably temporarily bonded thereto by means of a suitable glue or the like. A back-piece 10 is applied to the upper 8, preferably by means of the stitching disclosed; the rear ends of the upper being as shown (*vide* particularly Fig. 1) preferably seamed before the application of said back-piece 10 whereby there may be preferably nested between the seamed line of the upper and said back-piece a reinforcing element or stiffener 11. This stiffener may be constructed of any material, but it may be stated that it has been found in practice that a stiffener constructed of celluloid or whalebone has given satisfactory results.

The numeral 12 represents an outer tap which is in this embodiment provided with a plurality of apertures 13 (Fig. 3), each for the accommodation of the shank of one of the spikes 14 illustrated in Figs. 2, 4 and 5, in such manner that upon assembling said outer tap upon said inner tap 6, the heads of said spikes may be nested as shown between the inner and outer tap. The outer tap 12, having preferably been trimmed to conform with the lines 15 and 15′ shown in Fig. 3, the line 15 being preferably substantially coincident with the line of trim of the edge 16 (Fig. 5) of upper 8, is now suitably attached to the inner tap 6 preferably by means of the stitching shown. It will

readily be observed that this embodiment of this invention discloses a new and valuable improvement resident in the just-described arrangement and interrelated construction of upper 8 and the inner and outer taps, whereby the stitching or fastening elements affixing the upper to the inner tap are protected from abrasion by the ground or pavement and consequently from the usual danger of wearing away and rendering ineffective said stitching or fastening elements. An outer shank 17 is now applied, being preferably preliminarily stitched to inner tap 6, and also to upper 8 and inner shank 7 as by means of the stitchings 18, and preferably to said last-mentioned parts also as by means of the remaining stitchings disclosed in Fig. 3. It should be noted and appreciated that a novel and important feature of this invention resides in the manner of attachment and arrangement of the shanks 7 and 17 to inner tap 6 disclosed in this embodiment, a manner of attachment which may be tersely described as a "dovetailing" or "splicing," and one well-adapted to correct the tendency to and danger of wear and tear adjacent the rear portion of the sole heretofore existent in the art. The upper 8 may thereafter be equipped with a laceable portion 19, or otherwise equipped with parts well known in the art.

It should be observed that there is here disclosed a type of athletic shoe, and particularly one adapted for utilization by runners, characterized by various novel advantages, and one adapted to attain the various ends and objects above stated and implied. It should also be observed that this invention discloses a novel process for building up a shoe in a speedy, economical manner, and one wherein each of the various parts in turn supports the next added part; a process, moreover, not necessarily contemplating the utilization of a welt or the like.

Inasmuch as many changes could be made in the above construction, and many apparently widely different embodiments of my invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense. It is also to be understood that the language used in the following claims is intended to cover all the generic and specific features of the invention herein described and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

Having described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In an article of the class described, in combination, an inner tap, an outer tap, said outer tap being substantially similar in outline to said inner tap and being smaller whereby the edge of said inner tap parallels the edge of said outer tap but projects beyond the second-mentioned edge, and an upper having its lower edge portion lapped on both sides and about the edge of the margin of said inner tap, said edge portion of the upper being trimmed substantially to contact the edge of said outer tap and being secured to said margin by stitches passing through said laps.

2. In an article of the class described, in combination, a flexible shank, a relatively rigid tap to which said shank is attached, an upper stitched to the margin of said tap and affixed to said shank, and a second shank affixed to said tap and to said upper.

3. In an article of the class described, in combination, a flexible shank, a relatively rigid inner tap to which said shank is attached, an upper stitched to the margin of said inner tap and affixed to said shank, a second shank affixed to said inner tap and to said upper, and an outer tap mounted upon said inner tap.

4. In an article of the class described, in combination, a flexible shank, a relatively rigid inner tap to which said shank is attached, an upper stitched to the edge of said inner tap and affixed to said shank, a second shank affixed to said inner tap and to said upper, and an outer tap mounted upon said inner tap but having its edge lying within the confines of the space defined by the edge of the stitched portion of said upper.

5. In an article of the class described, in combination, a flexible shank, a relatively rigid inner tap to which said shank is attached, an upper stitched to the margin of said inner tap and affixed to said shank, a second shank affixed to said inner tap and to said upper, and an outer tap secured to said inner tap by means of a plurality of Y-stitchings as shown.

6. In an article of the class described, in combination, an inner tap, an upper affixed to certain edge portions of such inner tap in such manner that a portion of said upper lies against the underside of said inner tap, and an outer tap having its edges lying within the confines of the space defined by the edge of the portion of said upper that lies against the underside of said tap and said tap having a portion of at least as great a thickness as the thickness of the upper.

7. In an article of the class described, in combination, an inner tap, an outer tap, said outer tap being substantially similar in outline to said inner tap and being smaller, whereby the edge of said inner tap parallels the edge of said outer tap but projects beyond the second mentioned edge, and an upper having its lower edge portion lapped on both sides and about the edge of the mar-

gin of said inner tap, said edge portion of the upper being trimmed substantially to contact the edge of said outer tap and being secured to said margin by stitches passing through said laps, said outer tap having a portion of at least as great a thickness as the thickness of the upper.

In witness whereof, I have hereunto signed my name in the presence of two witnesses.

GEORGE L. PIERCE.

Witnesses:
ALDA L. MILLER,
AUG. HENRY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."