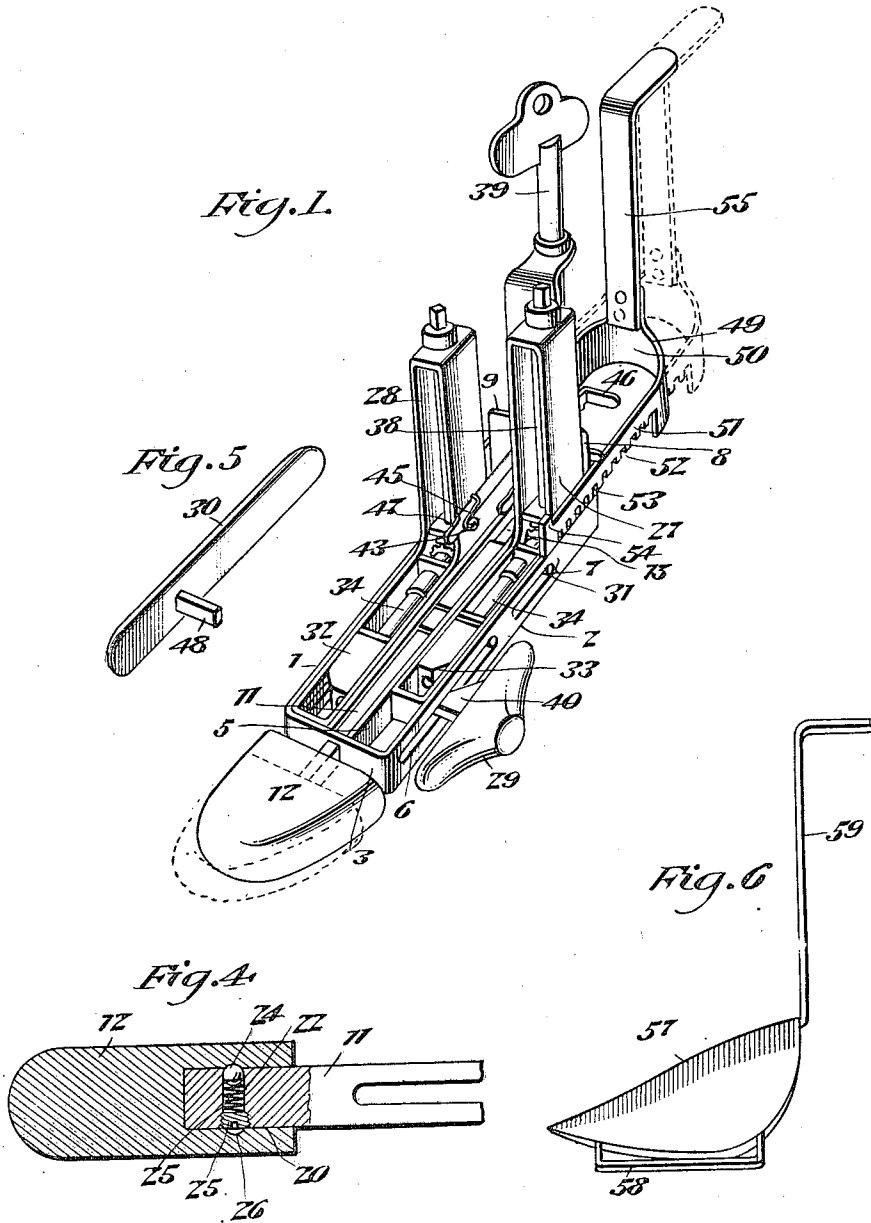


C. SCHEVITZ.
EXPANSIBLE SHOE LAST.
APPLICATION FILED DEC. 29, 1917.

Patented Dec. 31, 1918.
2 SHEETS—SHEET 1.

1,289,927.



WITNESSES

M. H. [Signature]

INVENTOR

Carl Schevitz

BY

Victor J. Evans

ATTORNEY

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Fig. 2.

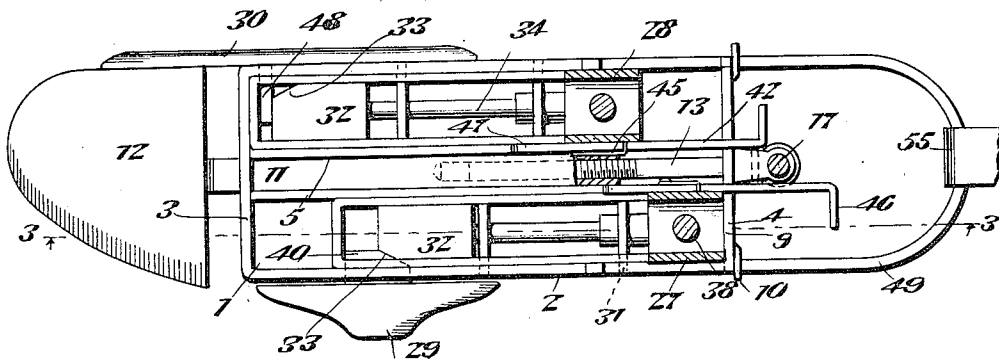
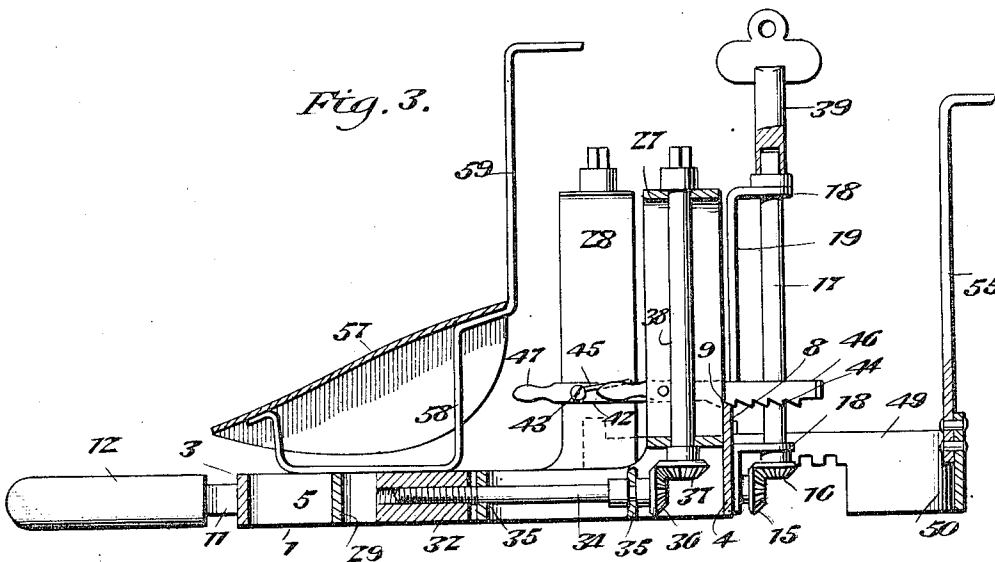


Fig. 3.



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CARL SCHEVITZ, OF JACKSONVILLE, FLORIDA.

EXPANSIBLE SHOE-LAST.

1,289,927.

Specification of Letters Patent.

Patented Dec. 31, 1918.

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To all whom it may concern:

Be it known that I, CARL SCHEVITZ, a citizen of the United States, residing at Jacksonville, in the county of Duval and State of Florida, have invented new and useful Improvements in Expansible Shoe-Lasts, of which the following is a specification.

This invention relates to an expansible shoe last, the object of the invention being to provide an improved last of this class embodying in connection with a plurality of shoe stretching members movable and operable in different planes, novel means whereby each of said stretching members may be operated independently of the other, thereby enabling any desired portion of the upper of the shoe to be stretched to the degree necessary to render the shoe comfortable to the wearer.

Another object of the invention is to provide an improved last of this character which is reversible and which may be used either in a right or left shoe.

The present invention is an improvement on the expansible shoe last described and claimed in Letters-Patent of the United States, No. 1,184,577, granted to me May 23, 1916, and is also an improvement on the expansible shoe last for which Letters-Patent of the United States No. 1,223,206 were granted to me April 17, 1917.

The invention consists in the construction, combination and arrangement of devices hereinafter described and claimed.

In the accompanying drawing:—

Figure 1 is a perspective view of an expansible shoe last constructed and arranged in accordance with my invention, and with the instep support removed.

Fig. 2 is a plan of the same, partly in section and with the instep support removed.

Fig. 3 is a longitudinal sectional view of the same taken on the plane indicated by the line 3—3 of Fig. 2, and with the instep support in place.

Fig. 4 is a detailed sectional view of the reversible toe stretching member and associated parts.

Fig. 5 is a detailed sectional perspective view of the last centering member.

Fig. 6 is a detailed perspective view of the instep support.

The main frame 1 of my improved expansible shoe last is of oblong rectangular form and is here shown as comprising a pair

of side bars 2, a front cross bar 3, a rear cross bar 4, and a pair of intermediate bars 5 which are arranged longitudinally and which are suitably spaced apart and are also spaced from the side bars 2. The bars 2 are provided with longitudinal slots 6 which extend nearly to their front ends and are also provided with shorter longitudinal slots 7 near their rear ends. The rear cross bar 4 extends above the main frame as at 8 and has a beveled upper edge 9. Said extension 8 is also provided, at the sides thereof with outwardly projecting stop lugs 10.

A longitudinally movable bar 11, which carries the toe stretching member 12 at its front end, is arranged for longitudinal movement between the intermediate bar 5 of the main frame and passes through a central opening in the front cross bar 3 of the main frame. The said bar 11 has a threaded bore extending to its rear end and which threaded bore is engaged by the threaded portion of a screw shaft 13. Said screw shaft has a bearing in the rear cross bar 4 of the main frame, is provided with annular flange or stop collars 14 which prevent longitudinal movement thereof, and said screw shaft is provided with a mitered gear 15 at its rear end. The said mitered gear is engaged by a similar gear 16 at the lower end of a vertical adjusting shaft 17. Said shaft 17 is mounted in bearings 18 at the upper and lower ends of a vertical arm 19, which vertical arm is secured to the rear end of the main frame, at the center thereof, and extends upwardly above the same as shown.

By turning the shaft 17 the gears 15, 16 and the screw shaft 13 cause the bar 11 to be adjusted longitudinally and the toe stretching member 12 to be correspondingly adjusted, as will be understood. The said bar 11 is rectangular in cross section. The toe stretching member 12 has a correspondingly shaped socket 20 to receive the front end of the bar 11 and enable the said member 12 to be attached to the said bar 11 and to be arranged or reversed as may be required to fit in a right or left shoe. The bar 11 is provided near its front end with a vertical opening 22. A plug 23 is screwed in the lower end of said opening. A ball 24 is arranged in the upper portion of said opening and is engaged by a spring 25 which bears on the screw plug. The toe stretching member 12 has arcuate recesses 26 in the

upper and lower sides of its socket, either of which may be engaged by the ball 24. The spring pressed ball acts to securely press the stretcher member 12 on the front end of the bar 11 and to permit said stretcher member to be readily withdrawn from the bar and replaced thereon in a reverse position, as will be understood. A pair of substantially L-shaped yoke frames 27, 28 are provided, which are manually adjustable, and each of which has means for adjusting or clamping a side stretching member 29 or a last centering member 30 as the case may be. The said yokes are of open construction and the horizontal arm of each of said yokes is arranged for longitudinal movement in the guideway formed in the main frame, between one of its side bars 2 and one of its intermediate bars 5 as shown. Each yoke frame has a guide lug 31 which operates in one of the slots 7. A nut 32 is arranged for longitudinal movement in the guideway formed in the horizontal arm of each yoke and the said nut is provided at the front end, on one side, with a cam surface 33. A screw shaft 34 is mounted in bearings 35 in the horizontal arm of each yoke frame and has its threaded portion engaged in a threaded bore of one of the nuts, as shown in Fig. 3. At the rear end of each screw shaft 34 is the mitered gear 36 which is engaged by a similar gear 37 at the lower end of an adjusting shaft 38, the said adjusting shaft being arranged in the vertical arm of the yoke frame and being mounted in bearings therein as shown. The upper end of the adjusting shafts 17 and 38 are squared and the squared upper end of each of the said shafts may be engaged by a key 39, so that the said key may be used for turning either of said shafts, according to whether it is desired to adjust the toe stretching member 12, the side stretching member 29 or to secure the last centering member 30. The side stretching member 29 has a shank 40 which operates in one of the slots 6 and which shank is provided at the inner end with a cam surface 41 for engagement and to coact with the cam surface 33 of one of the nuts 32. The member 29 is adjusted longitudinally with respect to the shaft by correspondingly manually moving the yoke which carries said member. To adjust said member 29 transversely with respect to the last the nut must be operated by means of the shaft 34.

To secure the yoke frame in any desired adjusted position I provide each yoke frame with a ratchet link 42, each link being pivotally mounted on the inner side of the vertical arm of each yoke as at 43 and being held with one of its ratchet teeth 44 engaged with the beveled upper edge 9 of the vertical extension of the cross bar 4 by means of a spring 45. It will be observed that the

teeth 44 enable the yoke frame to be readily moved forwardly and that they serve to lock the yoke frame in adjusted position. Each ratchet link has a finger piece 46 at its rear end and also has a finger piece 47 at its front end. By raising the rear end of the ratchet link or by depressing the front end thereof the ratchet link may be disengaged from the cross bar 4 to enable the yoke frame to be moved rearwardly or as may be required.

The side stretcher member 29 may be used on either side of the last, according to whether the last is to be used in a right or left shoe. The member 30 is used on the side of the last opposite the member 29 and serves to center the last in the shoe as will be understood. Said member 30 has a shank 48 which extends through one of the slots 6 and may be engaged by one of the nuts, so that the nuts may be used to firmly clamp the said member 30 in place.

Associated with the main frame is the heel member 49 to hold the main frame in the desired position in the shoe and to prevent the main frame from being forced back when the last is in use in the shoe. The said heel member is of substantially U-shaped formation, thus providing the curved rear portion 50 to fit directly in the heel of the shoe and a pair of arms 51 which are arranged on the outer side of the vertical arm of the yoke frame and bear and are slidable on the upper edges of the rear portion of the side bar of the main frame. The arms 51 are provided at their lower edges with rack teeth 52 to engage stop plugs 53 with which the rear cross bar of the main frame is provided and thus secure the heel member at any desired longitudinal adjustment with respect to the main frame. The lugs 10 coact with stop lugs 54 which are provided on the upper side and at the front end of the arms 52 to limit the extent of the adjustment of the heel member rearwardly from the main frame. The heel member is manually adjustable and is provided with a handle 55 for this purpose, the said handle extending upwardly above the top of the shoe and being readily accessible. The upper end of the adjusting shafts 17, 38 also are arranged above the top of the shoe so that all the adjustments may be effected exteriorly of the shoe.

I also provide a support 57 to bear under the instep and hold the instep of the shoe in shape and in place while the shoe is being stretched by the last. The said instep support 57 may be of any suitable size and shape and is secured on a bracket 58, which bracket is detachably mounted on the intermediate bars 5 of the main frame. The bracket 58 is provided at its rear end with an upwardly extending handle 59 to enable the instep support to be manually operated

and shifted on or removed from the last and withdrawn from the shoe as may be required in the operation of the last and in the process of stretching the shoe thereby.

5 The side stretching member 29 and the last centering member 30, as well as the toe stretching member 12 may be of any suitable size and shape. In practice, I provide a series of side and toe members of different
10 sizes and shapes for use interchangeably in connection with the last.

While I have herein shown and described a preferred form of my invention I would have it understood that such changes may
15 be made in the form, proportion and construction of the several parts without departing from the spirit and within the scope of the appended claims.

Having thus described my invention I
20 claim:

1. In an expansible shoe last, a main frame, a longitudinally movable toe stretching member, a longitudinally adjustable heel member, a centering member on one side of
25 the main frame, a side stretching member on the opposite side of the main frame, said toe, heel, centering and side stretching members being each adjustable with respect to the main frame independently of the others and
30 means operable from the exterior of a shoe for independently adjusting said members.

2. In an expansible shoe last, a main frame, a longitudinally movable toe stretching member, a longitudinally adjustable heel
35 member, a centering member on one side of the main frame, a side stretching member on the opposite side of the main frame, said toe, heel, centering and side stretching members being each adjustable with respect to
40 the main frame independently of the others, and the same centering member and the said side stretching member being each shiftable to either side of the main frame, and said centering member being of greater length
45 than said stretching member.

3. In an expansible shoe last, a main frame, a centering member and a side stretching member on opposite sides of the main frame, a longitudinally stretching toe
50 member and a longitudinally heel stretching member, said toe stretching member and said heel stretching member being longitudinally adjustable with respect to the frame and independently of each other and while
55 the last is in a shoe.

4. In a shoe last of the class described, a

main frame, a side member and a centering member on opposite sides of the main frame, said side member and said centering member being each shiftable to either side of the
60 main frame, and said centering member being of greater length than said side member.

5. In a shoe last of the class described, a main frame, a side member, a centering member, said members being each shiftable
65 to either side of the main frame, and means to shift the side member to any desired adjusted position and to secure the centering member in place.

6. In an expansible shoe last, the combination of a main frame, a yoke frame mounted for longitudinal adjustment in the main
70 frame, a side stretching member adjustable longitudinally and also laterally, adjusting means for said member carried by said yoke,
75 and means to secure the yoke in adjusted position in the main frame.

7. In an expansible shoe last, the combination of a main frame, a yoke frame mounted for longitudinal adjustment in the main
80 frame, a side stretching member adjustable longitudinally and also laterally, adjusting means for said member carried by said yoke, and means to secure the yoke in adjusted position in the main frame, said adjusted means
85 comprising a ratchet bar connected to the yoke and provided with ratchet teeth severally engageable with a member of the main frame.

8. In an expansible shoe last, the combination of a main frame, a yoke frame mounted for longitudinal adjustment in the main
90 frame, a side stretching member adjustable longitudinally and also laterally, adjusting means for said member carried by said yoke,
95 and means to secure the yoke in adjusted position in the main frame, said adjusted means comprising a ratchet bar connected to the yoke and provided with ratchet teeth severally engageable with a member of the
100 main frame, said ratchet link being pivotally mounted on the yoke and being provided at each end with a finger piece.

9. In an expansible shoe last, a main frame, toe and side stretching members carried by the main frame, a heel member, and
105 an instep support, the said instep support being mounted on and detachable from the main frame.

In testimony whereof I affix my signature. 110

CARL SCHEVITZ.