April 8, 1930. E. GALTERIO ET AL 1,753,857

SHOE STRETCHING LAST

Filed Aug. 10, 1928

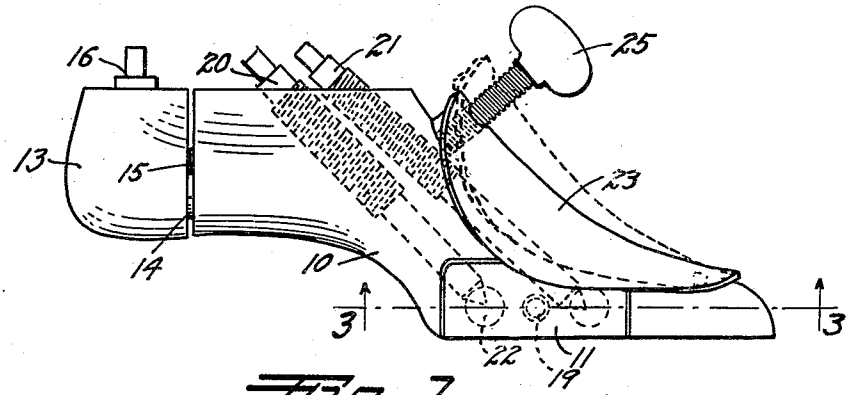


Fig 1

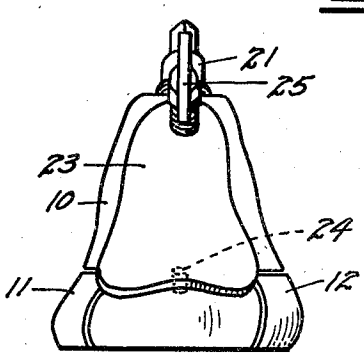


Fig 2

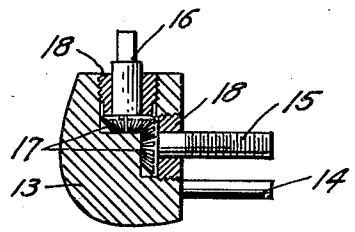


Fig 4

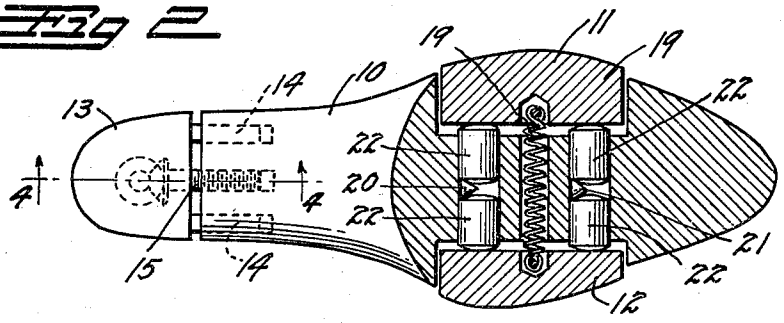


Fig 3

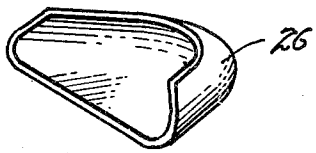


Fig 5

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UNITED STATES PATENT OFFICE

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SHOE-STRETCHING LAST

Application filed August 10, 1928. Serial No. 298,807.

This invention relates to a shoe stretching last and is more particularly designed as an improvement over the last illustrated in the patent of one of the applicants, filed in the U. S. Patent Office July 25, 1927, patented November 13, 1928, and bearing Patent No. 1,691,054.

The principal object of the invention is to provide a simplified last construction which can be used to stretch a shoe at any one point independently or at all points simultaneously.

Another object of the invention is to provide a last which can be employed for widening or stretching the ball portion of the shoe at any desired point along the shoe.

Still another object is to provide means, detachable from the last proper, which can be employed to raise or stretch the vamp of the shoe.

A further object is to provide a detachable toe plate for stretching the extreme point of the shoe toe.

A still further object is to provide an efficiently operating device for lengthening the last so as to stretch the shoe length or force the last into the shoe toe.

Other objects and advantages reside in the detail construction of the invention, which is designed for simplicity, economy, and efficiency. These will become more apparent from the following description.

In the following detailed description of the invention reference is had to the accompanying drawing which forms a part hereof. Like numerals refer to like parts in all views of the drawing and throughout the description.

In the drawing:

Fig. 1 is a side elevation of the improved shoe stretching last.

Fig. 2 is a front elevation thereof.

Fig. 3 is a horizontal section taken on the line 3—3, Fig. 1, looking upwardly.

Fig. 4 is a vertical section through the heel portion of the last taken on the line 4—4, Fig. 3.

Fig. 5 is a detail perspective view of the toe cap to be later described.

The last is designed to the shape of a typical shoe interior and comprises a body portion 10, provided with width stretching blocks 11 and 12 and a heel block 13.

The heel block 13 is slidably mounted upon the body 10 by means of a pair of pins 14 which are carried by the heel block 13 and slide into suitable openings in the body 10. The heel block is caused to separate or approach the body portion 10 by means of a screw 15 actuated from a key shaft 16. The key shaft 16 and the screw 15 are caused to operate together by means of a pair of miter gears 17. Openings sufficiently large to allow the passage of the gears 17 are formed in the heel block 13 and are closed, after the gears are in place, by means of threaded bushings 18 which act as bearings for the screw 15 and the key shaft 16, as illustrated in Fig. 4.

The width blocks 11 and 12 are slidably carried in suitable depressions in the sides of the body 10 and are maintained in their depressions by means of a tension spring 19 which extends through the body 10 between the opposite blocks 11 and 12 and acts to constantly draw the two blocks inwardly toward the body.

The width blocks 11 and 12 are caused to separate from the body by means of two pointed screws 20 and 21 which extend downwardly at an angle through the body 10. The lower extremities of the screws 20 and 21 are pointed and each is arranged to enter between a pair of separating plugs 22 so that, as the screws are threaded inwardly, their points will be forced between the blocks 22. This causes the blocks to separate and force the width blocks 11 and 12 outwardly.

The rearward screw 20 is employed to separate the rearward portions of the width blocks 11 and 12 and the forward screw 21 is employed to separate the forward portions thereof.

For raising or stretching the shoe vamp, a vamp stretching plate 23 is employed. This plate rests upon the vamp of the body portion 10 and is guided into place thereon by means of a pin 24 which extends from the plate into a suitable depression in the top of the toe portion of the body. The upper

or rearward extremity of the plate can be raised by means of a thumb screw 25 which is threaded therethrough into contact with the front of the body 10.

When the last is in place in a shoe the length of the shoe can be stretched or the last can be forced into the toe portion of the shoe by rotating the key 16, thus causing the heel portion 13 to separate from the body 10. The rear portion of the ball can be stretched by rotating the screw 20 and the forward or toe portion of the ball can be stretched by rotating the screw 21 or the entire length of the ball can be widened by rotating both screws 20 and 21.

The vamp of the shoe can be stretched or raised by rotating the thumb screw 25 which causes the rear or upper portion of the vamp stretching plate 23 to rise, as indicated in broken line in Fig. 1.

Should it be desired to stretch the extreme point of the shoe, a toe plate such as illustrated in Fig. 5 is employed. This plate comprises a shell 26 of a contour to receive the toe of the body portion 11, and fits around the forward extremity of the vamp stretching plate 23, and when in place increases the width of the body toe. The last can be forced forwardly into the toe of the shoe by means of the heel block 13, so that the toe plate will be forced into and stretch the extreme point or toe.

While a specific form of the improvement has been described and illustrated herein, it is desired to be understood that the same may be varied, within the scope of the appended claims, without departing from the spirit of the invention.

Having thus described the invention, what we claim and desire secured by Letters Patent is:—

1. A foot stretching last comprising a body portion; width stretching blocks carried in depressions in the sides of said body portion; a spring member connecting said blocks through said body portion; means for separating said blocks from said body portion at either or both their forward and rearward extremities, said means comprising a pair of separating plugs slidably mounted in said body portion and adapted to engage the interior faces of said blocks; and wedging means arranged to be forced between said plugs so as to force them outwardly, there being a similar pair of plugs and wedging means adjacent each extremity of said blocks and each side of said spring means so that said blocks can be separated at either or both their forward or rearward extremities, and so that said blocks will hinge about said spring means.

2. A shoe stretching last comprising: a body portion; a heel block slidably mounted on said body portion; a screw adapted to adjustably secure said heel block to said body portion; means for rotating said screw, said means comprising a key receiving shaft extending from said heel portion; miter gears connecting the heel shaft to said screw; and means for holding said shaft and said screw in place in said heel portion, said means comprising threaded bushings arranged to surround said shaft and said screw and be threaded into said heel portion so as to contact with said gears.

3. Means for adapting a shoe last to stretch the toe of a shoe comprising: a plate conforming to the contour of the toe of said last and arranged to be placed thereover; and means for forcing said last into the toe of a shoe so as to cause said plate to stretch said toe, said plate having a bottom adapted to pass under said last.

4. Means for adapting a shoe last to stretch the toe of a shoe comprising: a plate adapted to pass under the toe of said last; sides in said plate arranged to engage and partially surround the forward extremity and the sides of said last so as to maintain said plate in place.

5. In a shoe stretching last provided with blocks at each side thereof for stretching the width of a shoe, a tension spring connected at its extremities to said blocks and passing through said last; expanding members arranged at each side of said spring adjacent the extremities of said blocks; and means for independently operating said expanding members so as to force either extremity of said blocks outwardly and cause them to lock about the extremities of said spring.

In testimony whereof, we affix our signatures.

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