

July 13, 1937.

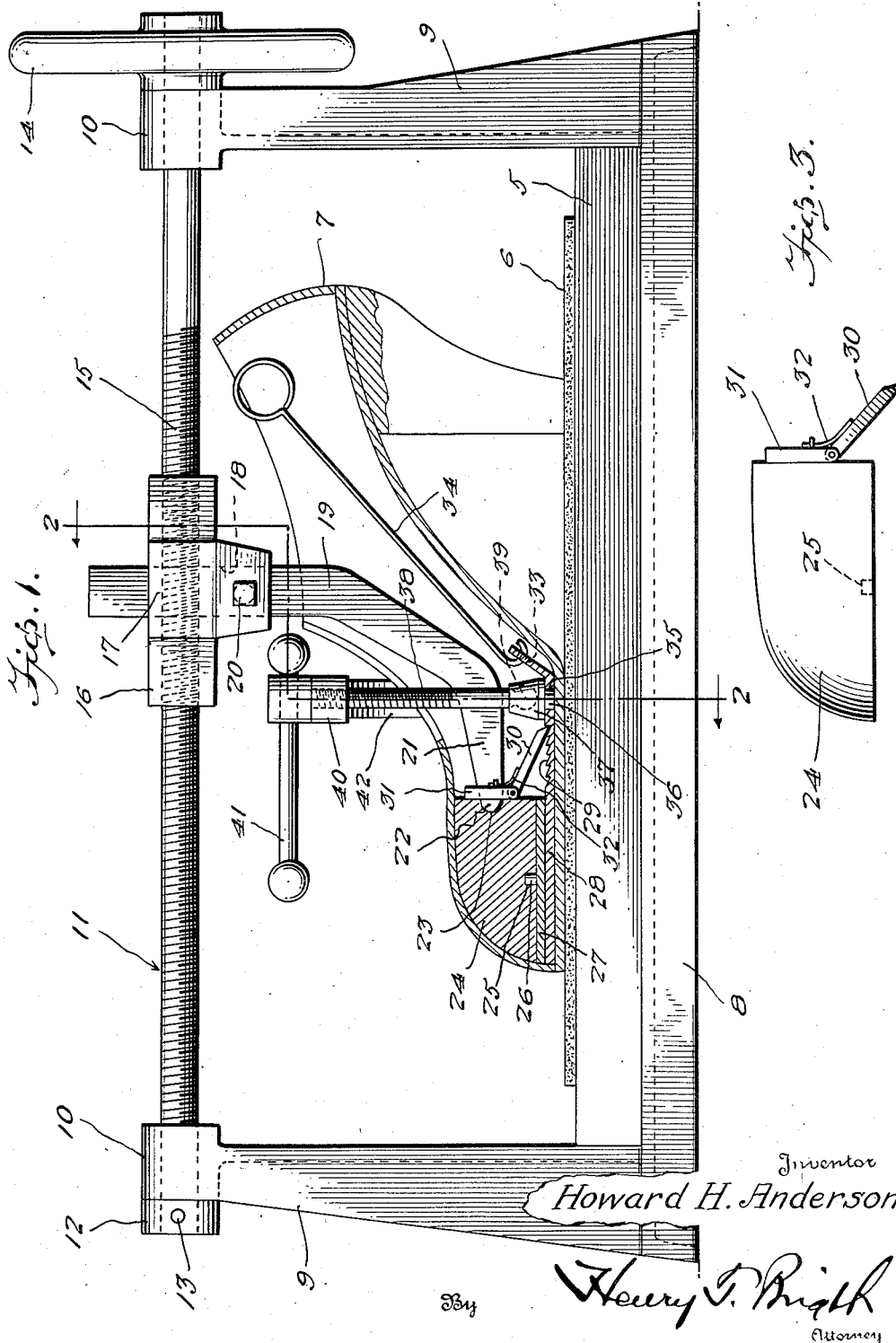
H. H. ANDERSON

2,086,836

SHOE TIP STRETCHER

Filed Jan. 6, 1937

2 Sheets-Sheet 1



July 13, 1937.

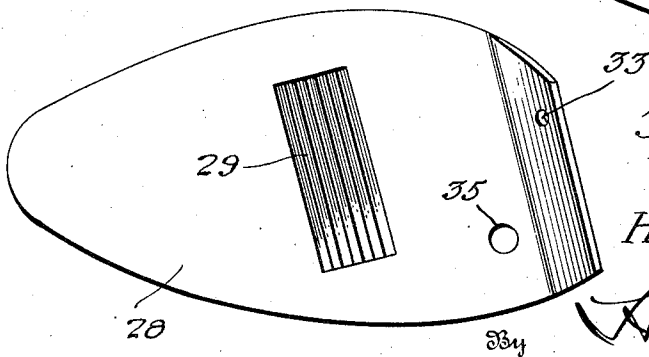
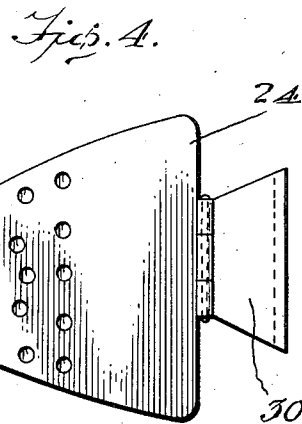
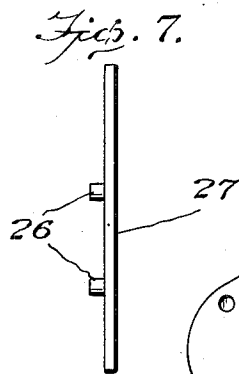
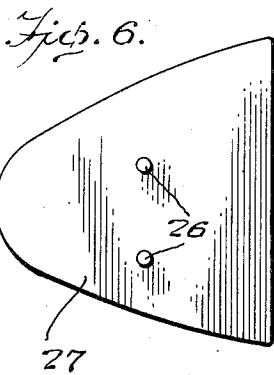
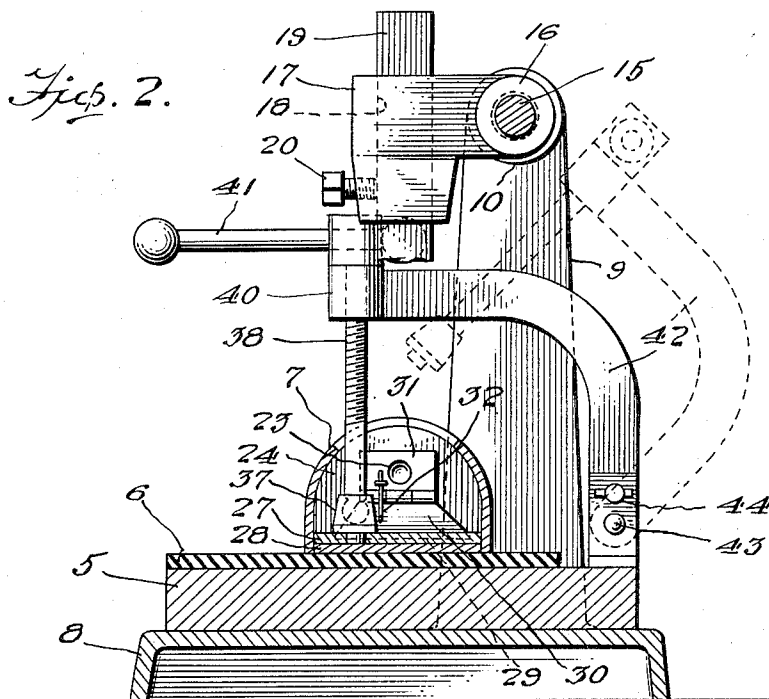
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2 Sheets-Sheet 2



Figs. 5.

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2,086,836

SHOE TIP STRETCHER

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Application January 6, 1937, Serial No. 119,335

14 Claims. (Cl. 12—128.1)

The present invention relates to shoe tip stretching machines designed to stretch the shoe tip only of the shoe and embodies a shoe tip stretching last having actuating means associated therewith for forcing the last into the tip of the shoe into stretching position, said actuating means being detachable from the last and removable from the shoe in order that the last may remain within the shoe a predetermined length of time until the tip becomes set in its stretched position, the last actuating means in the meantime, being utilized for stretching other shoes.

An object of the invention is to provide a device of this character of simple and practical construction, which is adjustable to accommodate shoes within a wide range of sizes, which will not mar or injure the shoe, and which is otherwise well adapted for the purposes intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout and in which:

Fig. 1 is a side elevational view with parts shown in section.

Fig. 2 is a vertical transverse sectional view taken substantially on a line 2—2 of Fig. 1.

Fig. 3 is a side elevational view of the last.

Fig. 4 is a bottom plan view thereof.

Fig. 5 is a top plan view of the anchor plate.

Fig. 6 is a top plan view of the filler plate, and Fig. 7 is an edge view thereof.

Referring now to the drawings in detail wherein for the purpose of illustration I have disclosed a preferred embodiment of the invention, the numeral 5 designates a base board having its upper surface provided with a relatively hard rubber sheet 6 upon which the shoe 7 is positioned, the rubber serving to prevent sliding of the shoe during the stretching action and to prevent marring or scratching of the sole of the shoe.

The base board is removably supported upon a base 8 having upstanding supports 9 at the ends thereof, the upper ends of the supports being formed with bearings 10 within which is journaled the smooth ends of an actuating screw rod 11, one end of the screw being secured against longitudinal movement by a collar 12 and pin 13 while the other end is provided with an actuating wheel 14.

Upon the threaded portion 15 of the screw is mounted a threaded sleeve 16 having a lateral boss 17 formed with a vertical bore 18 within which is adjustably positioned the upper end of

a rod 19 secured in vertically adjusted position by a set screw 20. The lower end of the rod is inclined to extend forwardly into the instep of the shoe and terminates in a horizontal section 21 extending forwardly into the toe of the shoe, said horizontal section having a tapering extremity 22 for fitting into an opening 23 in the rear face of a shoe tip last 24.

The shoe tip last 24 conforms to the inside of the shoe tip and on its under side is provided with a plurality of recesses 25 arranged in spaced pairs to receive the studs 26 formed on a filler plate 27. These filler plates are removably positioned under the last and may be of any desired thickness to stretch the tip to the desired size. The filler plates also may be of different areas and the studs selectively positioned in the recesses of the last to produce an increased stretching action at a desired part of the shoe tip.

Positioned under the last and filler plate is an anchor plate 28 having its rear end extending beyond the last and filler plate and provided on its upper extended surface with transversely extending teeth 29 engageable by a latch member 30 hinged to a plate 31, the latter being secured to the rear face of the last 24. The latch member is provided with a spring 32 to normally urge the latch into engagement with the teeth.

The rear end of the anchor plate 28 is bent upwardly and provided with an opening 33 within which a hook member 34 may be inserted to pull the anchor plate and associated parts from the shoe tip after the stretching has been completed.

The extended end of the anchor plate is also provided with an opening 35 for receiving a lug 36 on the bottom of a foot member 37 swivelly carried at the lower end of a clamping screw 38 by a ball and socket connection 39. The clamping screw extends upwardly through a threaded horizontal arm 40 and is provided at its upper end with a slidable cross handle 41. The arm 40 is carried at the upper end of a bracket 42, the lower end of which is hinged to the base board 5 as at 43 and secured against swinging movement, when desired by a locking pin 44.

It is believed the construction and manner of operation of the tip stretching device will be readily understood from the foregoing without further detailed explanation.

Having thus described the invention, what I claim is:

1. A shoe tip stretcher comprising a fixed base, a removable base board supported thereon and upon which the shoe to be stretched is positioned, a shoe tip last adapted to be removably posi-

tioned in the shoe, a clamping member carried by the base board and operable to releasably secure the shoe to be stretched upon the base board, means for forcing the last forwardly within the tip of the shoe to stretch the latter, and means to hold the last in stretching position independently of the last forcing means.

2. A shoe tip stretcher comprising a fixed base, a removable base board supported thereon and upon which the shoe to be stretched is positioned, a shoe tip last adapted to be removably positioned in the shoe, a clamping member carried by the base board and operable to releasably secure the shoe to be stretched upon the base board, means supported by the fixed base and extended within the shoe for forcing the last forwardly within the toe of the shoe to stretch the latter, and means to hold the last in stretching position independently of last forcing means.

3. A shoe tip stretcher comprising a fixed base, a removable base board supported thereon and upon which the shoe to be stretched is positioned, a shoe tip last adapted to be removably positioned in the shoe, a clamping member carried by the base board and operable to releasably secure the shoe to be stretched upon the base board, and a screw actuated rod having one end positioned within the shoe in contacting engagement with the last for forcing the latter forwardly within the toe of the shoe, and means for holding the last in stretching position independently of the screw actuated rod.

4. A shoe tip stretcher comprising a fixed base, a removable base board supported thereon and upon which the shoe to be stretched is positioned, a shoe tip last adapted to be removably positioned in the shoe, an anchor plate in the shoe beneath the last, a clamping member releasably securing the anchor plate in the shoe, means engaging the last for forcing the same forwardly in the toe of the shoe, and adjustable latching means between the last and anchor plate to secure the last against rearward movement.

5. A shoe tip stretcher comprising a fixed base, a removable base board supported thereon and upon which the shoe to be stretched is positioned, a shoe tip last adapted to be removably positioned in the shoe, an anchor plate in the shoe beneath the last, a clamping member releasably securing the anchor plate in the shoe, means engaging the last for forcing the same forwardly in the toe of the shoe, and automatic adjustable latching means between the last and anchor plate to secure the last against rearward movement.

6. A shoe tip stretcher comprising a fixed base, a removable base board supported thereon and upon which the shoe to be stretched is positioned, a shoe tip last adapted to be removably positioned in the shoe, an anchor plate in the shoe beneath the last, a clamping member releasably securing the anchor plate in the shoe, means engaging the last for forcing the same forwardly in the toe of the shoe, and step-by-step adjustable latching means between the last and anchor plate and operable to secure the last against rearward movement.

7. A shoe tip stretcher comprising a fixed base, a removable base board supported thereon and upon which the shoe to be stretched is positioned, a shoe tip last adapted to be removably positioned in the shoe, an anchor plate in the shoe beneath the last and having a series of transverse teeth on its upper surface rearwardly of the last, a clamping member operable to exert a downward pressure on the plate to removably secure the plate in

the shoe and to releasably secure the shoe to the base board, a pivoted latch carried by the last and engaging the teeth to secure the last against rearward movement, and means engaging the last for forcing the same forwardly.

8. A shoe tip stretcher comprising a fixed base, a removable base board supported thereon and upon which the shoe to be stretched is positioned, a shoe tip last adapted to be removably positioned in the shoe, an anchor plate in the shoe beneath the last and having a series of transverse teeth on its upper surface rearwardly of the last, a clamping member operable to exert a downward pressure on the plate to removably secure the plate in the shoe and to releasably secure the shoe to the base board, a pivoted latch carried by the last and engaging the teeth to secure the last against rearward movement, and means detachably engaging the last for forcing the last forwardly in the shoe.

9. A shoe tip stretcher comprising a fixed base, a removable base board supported thereon and upon which the shoe to be stretched is positioned, a shoe tip last adapted to be removably positioned in the shoe, an anchor plate in the shoe beneath the last, a clamping member releasably securing the anchor plate to the shoe, means engaging the last for forcing the same forwardly in the toe of the shoe, a filler plate between the last and anchor plate and latching means between the last and the anchor plate.

10. A shoe tip stretcher comprising a fixed base, a removable base board supported thereon and upon which the shoe to be stretched is positioned, a shoe tip last adapted to be removably positioned in the shoe, an anchor plate in the shoe beneath the last, a clamping member releasably securing the anchor plate in the shoe, means engaging the last for forcing the same forwardly in the toe of the shoe, a filler plate between the last and anchor plate, means for securing the filler plate in adjusted position relative to the last, and latching means between the last and the anchor plate.

11. A shoe tip stretcher comprising a fixed base, a removable base board supported thereon and upon which the shoe to be stretched is positioned, a shoe tip last adapted to be removably positioned in the shoe, an anchor plate in the shoe beneath the last, a clamping member releasably securing the anchor plate in the shoe, means engaging the last for forcing the same forwardly in the toe of the shoe, a filler plate between the last and anchor plate, means for adjustably securing the filler plate transversely and longitudinally with respect to the last and latching means between the last and the anchor.

12. A shoe tip stretcher comprising a fixed base, a removable base board supported thereon and upon which the shoe to be stretched is positioned, a shoe tip last adapted to be removably positioned in the shoe, an anchor plate in the shoe beneath the last, a clamping member releasably securing the anchor plate in the shoe, means engaging the last for forcing the same forwardly in the toe of the shoe, a filler plate between the last and anchor plate, said last having recesses in its bottom and said filler plate having an upstanding stud selectively for positioning in said recesses to adjust the filler plate transversely and longitudinally with respect to the last and latching means between the last and the anchor plate.

13. A shoe tip stretcher comprising a fixed base, a removable base board supported thereon

and upon which the shoe to be stretched is positioned, a shoe tip last adapted to be removably positioned in the shoe, a clamping member swingably carried by the base board and operable to exert a downward pressure on the shoe to removably secure the shoe to the base board, means for locking the clamping member against swinging movement, and means engaging the last for forcing the same forwardly in the toe of the shoe.

14. A shoe tip stretcher comprising a fixed base, a removable base board supported thereon and upon which the shoe to be stretched is po-

sitioned, a shoe tip last adapted to be removably positioned in the shoe, a clamping member swingably carried by the base board and operable to exert a downward pressure on the shoe to removably secure the shoe to the base board, means for locking the clamping member against swinging movement, means engaging the last for forcing the same forwardly in the toe of the shoe, and means interposed between the sole of the shoe and the base board to prevent relative sliding movement therebetween during the forward movement of the last.

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