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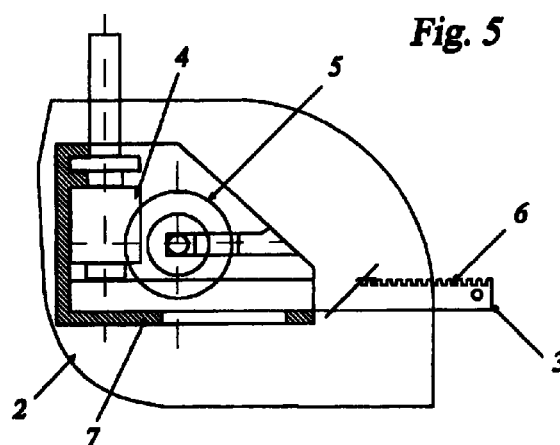
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(54) **Shoe stretcher**

(57) The present invention refers to a shoe stretcher comprising a toe piece (1) and a heel piece (2) pivoting with respect to each other and set at an adjustable distance, characterized in that the adjustment of their reciprocal distance is achieved by a small sliding board (3) tied to the heel piece (2) and hinged to the toe piece; and in that said small sliding board (3) is actuated by a combination of worm screw and wheel (4, 5) engaging a rack (6) firmly attached to the small sliding board (3), where said worm screw (4) is controlled from the top of the heel piece (2).



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Description

[0001] The object of this utility model is a shoe-stretching device.

[0002] In order to maintain shoes in their original form it is customary to resort to appropriate shaping devices, also known as shoe stretchers.

[0003] Such devices basically comprise a toe piece and a heel piece pivoting with respect to each other (so as to ease its introduction into the shoe) and set at any adjustable distance between them.

[0004] These devices, while in widespread use for many years, suffer from a few annoying drawbacks, which are still unresolved.

[0005] In particular, the shoe stretchers known to this date present considerable constructive difficulties which notably affect their processing time and therefore production cost.

[0006] Moreover, the known shoe stretchers are somewhat discomforting to use, mainly because of the need to introduce the fingers of one hand into the shoe, so as to later adjust the stretcher's extension.

[0007] The main purpose of this invention is to solve at least part of the mentioned drawbacks.

[0008] In particular, one of the purposes of this invention is to propose a shoe stretcher that may be inexpensive to produce and comfortable to use.

[0009] Said objective and purposes are achieved by a shoe stretcher comprising a toe piece and a heel piece pivoting one with respect to the other and set at any adjustable distance between them, characterized in that the adjustment of the distance between them is obtained by means of a small sliding board fastened to the heel piece and hinged to the toe piece and in that said sliding board is actuated by a combination of worm screw and wheel engaging with a rack firmly fastened to the sliding board, where the worm screw is controlled from the top of the heel piece.

[0010] In an advantageous manner, the sliding board of the shoe stretcher may be fastened to the heel piece by a flat or swallow-tailed guide.

[0011] The shoe stretcher object of this invention will now be described, for purely exemplifying and non-limiting purposes, based on an embodiment in accordance with the enclosed drawings, in which:

- Figure 1 is a side view of the shoe stretcher object of the invention,
- Figure 2 is a top view of the same shoe stretcher,
- Figure 3 is a rear view of the same shoe stretcher,
- Figure 4 is an enlarged view of a detail of Figure 2, and
- Figure 5 is a partially sectionalized side view of a detail of the shoe stretcher object of the invention.

[0012] With reference to the mentioned drawings, the shoe stretcher object of this invention comprises a toe piece 1 and a heel piece 2 pivoting with respect to

each other and set at an adjustable distance between them.

[0013] The characteristic of the invention is that the distance between the toe piece 1 and the heel piece 2 is obtained by a small sliding board 3, tied to the heel piece 2, to which the toe piece is connected by hinges or technically equivalent devices.

[0014] Another characteristic of the invention is that the small sliding board 3 is actuated by a combination of worm screw and wheel 4, 5 which engages a rack 6 firmly attached to the small sliding board 3.

[0015] Alternatively the rack may even be created directly on the small board 3.

[0016] The control rod of the worm screw 4 projects from the top of the heel piece, so as to allow it to be actuated from the top of the heel piece itself.

[0017] For this purpose the head of the control rod of the worm screw 4 may be shaped as, or connected to a handwheel (not shown) or other technically equivalent device.

[0018] The small sliding board 3 is preferably tied to the heel piece 2 by a support such as a flat guide or a swallow-tailed guide, or by opposed rails 7.

[0019] It is evident that the particular configuration of the moving mechanism between the toe piece 1 and the heel piece 2 confers a particular usage efficiency.

[0020] The reader expert in the trade will in particular appreciate the constructive simplicity of the shoe stretcher and the opportunity it affords to effect the adjustment from the top of the heel piece, without having to introduce the hand inside the shoe.

[0021] The person expert in the trade may of course provide for a number of other modifications of the invention described above, all of which falling within the scope of protection defined by the independent claim.

[0022] In particular, the complex of worm screw, wheel, and rack can be substituted by other technically equivalent devices.

[0023] Moreover, the shapes, dimensions, layouts and materials used may vary depending on the requirements.

Claims

1. A shoe stretcher comprising a toe piece (1) and a heel piece (2) pivoting with respect to each other and set at an adjustable distance, characterized in that the adjustment of their reciprocal distance is achieved by a small sliding board (3) tied to the heel piece (2) and hinged to the toe piece; and in that said small sliding board (3) is actuated by a combination of worm screw and wheel (4, 5) engaging a rack (6) firmly attached to the small sliding board (3), where said worm screw (4) is controlled from the top of the heel piece (2).
2. A shoe stretcher according to claim 2, in which the small sliding board (3) is tied to the heel piece (2) by

a flat guide or a swallow-tailed guide.

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