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M. P. JANIC

2,303,469

SHOE TREE

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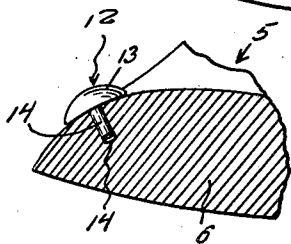
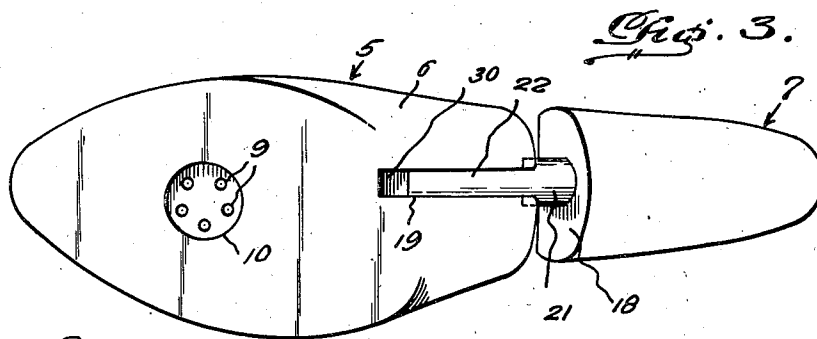
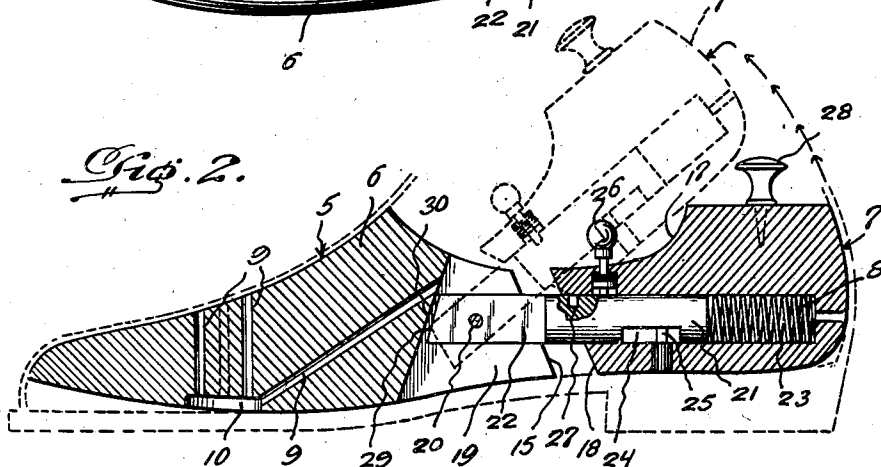
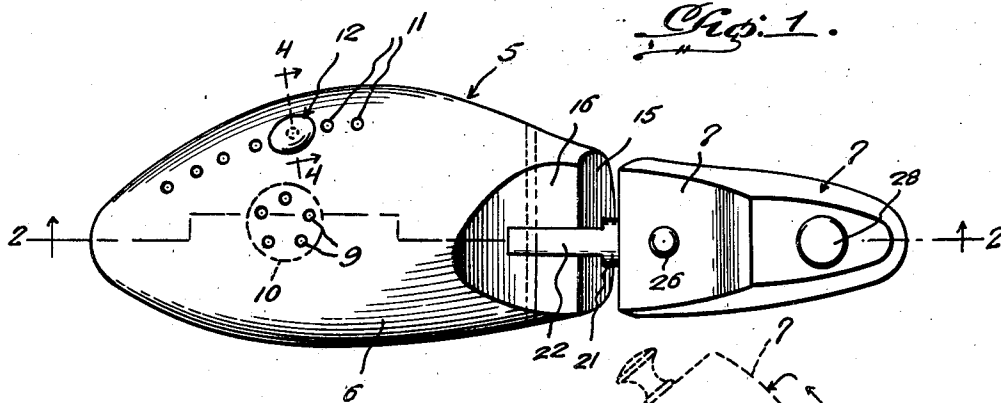


Fig. 4. Matthew Pol Janic, Inventor

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UNITED STATES PATENT OFFICE

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SHOE TREE

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1 Claim. (Cl. 12—128.1)

This invention relates to shoe trees and the primary object thereof is to permit shoes when not in use to be kept in their original shape and size, thereby rendering the shoes comfortable to the wearer and materially prolonging the life of the shoes by preventing said shoes from shrinking and becoming out of shape when drying after being removed from the feet of the person.

Another object of this invention is the provision of a device which may be easily placed in a shoe and will be self-adjusting thereto and place the shoe under sufficient pressure to maintain it in its original size and shape during the period of non-use, so that when again worn the shoe will properly fit the foot as originally intended.

With these and other objects in view as will become more apparent as the description proceeds, the invention consists in certain novel features of construction, combination and arrangement of parts as will be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawing, in which

Figure 1 is a top plan view illustrating a shoe tree constructed in accordance with my invention.

Figure 2 is a sectional view taken on the line 2—2 of Figure 1.

Figure 3 is a bottom plan view illustrating the shoe tree.

Figure 4 is a detail sectional view taken on the line 4—4 of Figure 1.

Referring in detail to the drawing, the numeral 5 indicates in entirety a shoe tree, consisting of a toe section 6 and a heel section 7. The section 6 is made to a selected size and of a shape to fit in the toe and instep portion of a shoe of a determined size. This also applies to the section 7, that is, said section 7 is of a shape and size to fit in the heel counter of said shoe.

The sections 6 and 7 are pivotally and slidably connected, the detail of this connection will be hereinafter described specifically. The heel section 7 is urged away from the toe section 6 for a limited distance by the action of a coil spring 8, the purpose of which is to place the shoe under pressure sufficient to maintain the shoe in proper shape and size during the period of non-use of the shoe. It is a well known fact that a shoe when removed from the foot after a period of use is damp or moist and during the period of non-use of the shoe, the latter will dry and during this drying period will shrink to some extent and also become out of shape. Through the use of the shoe tree 5 the shrinking of the shoe and

the possibility of its becoming out of shape will be eliminated.

Also, the toe section is provided with ventilating passages 9 therethrough to allow a circulation of air from the top to the bottom of the toe portion of the shoe assisting in the drying out of the shoe.

The passages 9 open outwardly through the top surface of the section 6 and connect with a recess 10 in the bottom of said section. The section 6 is further provided with a series of sockets 11 adjacent one edge thereof. The purpose of the sockets 11 is to receive a member 12 for the purpose of stretching a selected portion of the shoe to eliminate pressure upon corns or the like which may be on the toes of the wearer. By providing a series of sockets 11 will permit the member 12 to be placed at different points on the section 6 adjacent one edge of said section. The member 12 is in the form of a mushroom head 13 and a shank or pin 14 insertible in any one of the sockets 11 to permit the head 13 to rest against the section 6.

The rear end portion of the section 6 is beveled, as shown at 15 and 16. The bevels 15 and 16 are angularly related to each other. The forward end of the section 7 is beveled, as shown at 17 and 18. The bevel 18 of the section 7 corresponds to the bevel 15 of the section 6. The bevels 17 and 16 cooperate in forming a substantially arcuate cut-out portion in the top face of the shoe tree.

The rear end portion of the section 6 is provided with a slot 19 opening through the top and bottom faces of said section as well as the rear end thereof. The notch or slot 19 is arranged in alignment with the longitudinal axis of the section 6.

A pivot pin 20 is mounted in the section 6 and traverses the slot 19 and has pivoted thereon a connecting member 21.

The connecting member 21 is constructed from cylindrical stock and an end portion thereof is cut away on opposite sides to form an elongated flat portion 22 which enters the slot 19 and is apertured to receive the pivot pin 20. The connecting member or the cylindrical portion thereof is slidably received within a socket 23 formed in the heel section 7 in alignment with the longitudinal axis thereof and opening outwardly through the front end of said section 7. The cylindrical portion of the connecting member 21 is cut away to form a notch 24 providing a comparatively broad bearing surface between the end walls of the notch.

A stop pin 25 is mounted in the section 7 and

enters the notch 24 against the broad bearing surface for the purpose of preventing the section 7 from rotating on the connecting member but which will permit a limited sliding movement of the section 7 on the connecting member by the pin 25 operating between the end walls of the notch.

The coil spring 8 is located between the inner end of the socket 23 and one end of the connecting member. The normal action of the spring 8 is to force the heel section 7 away from the toe section 6 of the shoe tree. The pin 25 and notch 24 act to limit the distance in which the heel section 7 may slide toward and from the toe section and also act to prevent the heel section 7 from becoming detached from the connecting member under the action of the spring 8.

The connection described between the toe section 6 and the heel section 7 will permit the overall length of the shoe tree to be manually shortened to facilitate the insertion of the shoe tree in a shoe. In order to accomplish the insertion of the tree in a shoe, pressure is placed against the heel section 7 while the toe section 6 is firmly held. This pressure moves the heel section relative to the toe section until the beveled face 13 abuts the beveled face 15. As the faces 15 and 18 contact, a spring influenced detent 25 carried by the heel section engages in a socket 27 of the connecting member 21 and releasably secures the heel section 7 adjusted to its limit toward the toe section, as shown in dotted lines in Figure 1. The adjustment of the heel section 7 relative to the toe section as described will materially shorten the overall length of the shoe tree, the heel section 7 may then be moved into dotted line position as shown in Figure 2 and the toe section inserted into the shoe as shown in Figure 2. The detent is then manually released from the socket 27 when the heel section has been moved into the heel counter of the shoe. The spring 8 then acts to slide the heel section relative to the toe section and with these sections in engagement with the shoe, places sufficient pressure on the shoe to maintain the same in its proper shape and as to its original size.

A suitable finger piece 28 is secured to the heel section 7 so that the latter may be conveniently swung on its pivot. The forward end of the connecting member 21 is beveled, as shown at 29, and the inner end of the slot 19 is beveled, as

shown at 30. The bevels 29 and 30 coact in limiting the downward pivotal movement of the heel section 7 relative to the toe section. However, the bevels 29 and 30 are such that they will permit the heel section 7 to swing downwardly to a normal position relative to the toe section so as to permit the heel section to fit properly within the heel counter of the shoe when the toe section is arranged within the shoe.

It will be seen from the foregoing description when taken in connection with the accompanying drawing, that the shoe tree may have the major portion thereof constructed from wood or any other material suitable for the purpose, the only metallic construction in the shoe tree being the spring 8 and the spring used in the detent.

While I have shown and described the preferred embodiment of my invention, it will be understood that minor changes in construction, combination and arrangement of parts may be made without departing from the spirit and scope of the invention as claimed.

Having thus described my invention, what is claimed as new is:

In a shoe tree, toe and heel sections, said toe section having a slot with the inner wall thereof beveled, said heel section having a socket, a cylindrical member slidable in said socket and having a portion thereof cut away to provide opposite flattened faces receivable in the slot, and the end thereof adapted to abut the beveled inner wall of the slot for limiting the pivotal movement of the heel section relative to the toe section in one direction, pivot means connecting said member to the toe section, said member having a notch providing end walls and a flattened bearing face, a stop pin carried by the heel section and extending through the notch to engage the bearing surface and the end walls of the notch for limiting the sliding movement of the heel section on said member, a spring in the recess and seating against the connecting member and the heel section for urging the latter away from the toe section, said connecting member having a socket, and a spring influenced detent carried by the heel section to engage the socket for releasably securing the heel section adjusted toward the toe section.

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