Jan. 25, 1944. J. B. MUTCH 2,340,202

SHOE TREE

Filed April 3, 1943

FIG. 1.

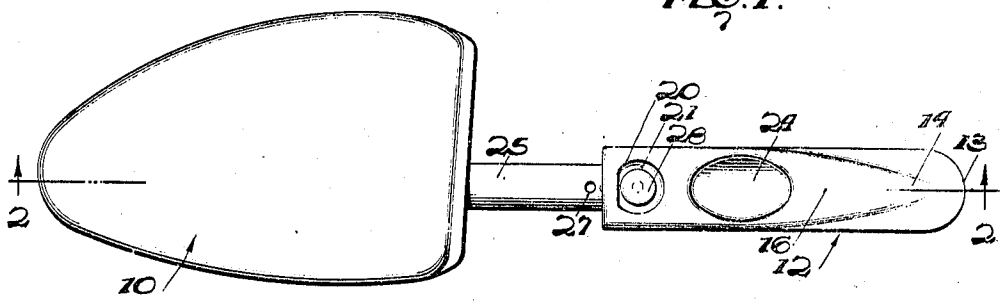



FIG. 2.

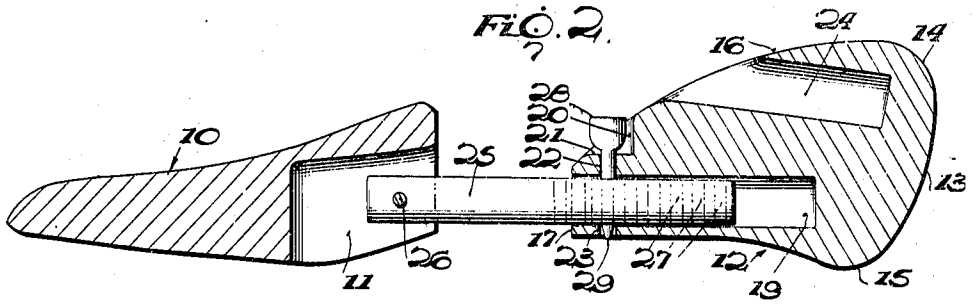



FIG. 3.

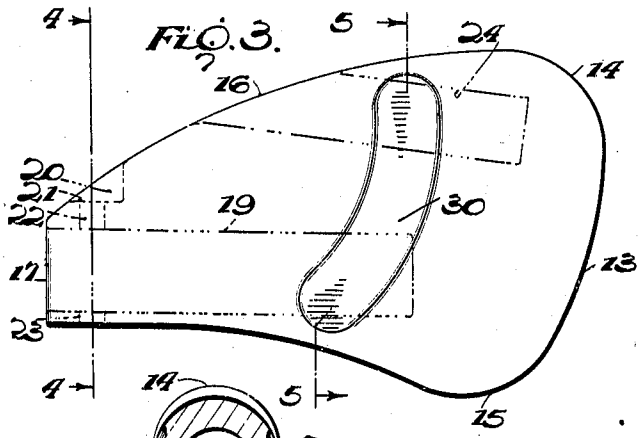



FIG. 4.

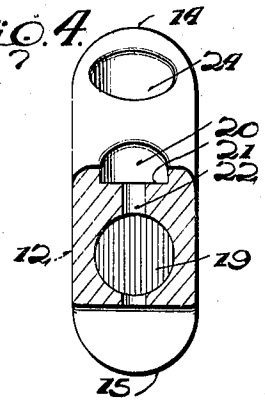
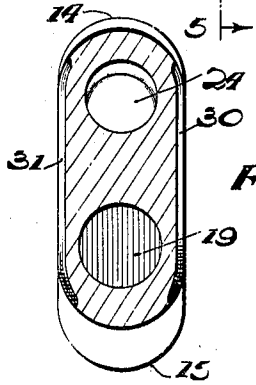



FIG. 5.




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# UNITED STATES PATENT OFFICE

2,340,202

## SHOE TREE

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Application April 3, 1943, Serial No. 481,749

4 Claims. (Cl. 12—128.1)

This invention relates to shoe trees.

One object of the invention is to provide a shoe treee of the type embodying a toe and a heel piece pivotally and adjustably connected together and in which the heel piece is of peculiar ornamental shape provided with a socket to receive one's index or other finger to effect ready and easy lifting or removal of the heel piece from a shoe so as to remove the shoe tree from the shoe.

Another object of the invention is to provide a shoe tree of the nature stated embodying, among other characteristics, a new and novel heel piece of a shape or configuration to provide for easy insertion of the heel piece into a shoe and having a finger receiving socket therein to facilitate removal of the tree from the shoe.

A still further object of the invention resides in the provision of a new and novel heel piece for association in a shoe tree assembly and which is provided with a longitudinally disposed finger receiving opening entering the heel piece through the top thereof whereby the heel piece may be readily lifted out of a shoe.

With these and other objects in view, the invention consists in the novel construction, combination and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawing and pointed out in the claims hereto appended, it being understood that various changes in the form, proportions and minor details of construction, within the scope of the appended claims, may be resorted to without departing from the spirit or sacrificing any advantages of the invention.

In the drawing:

Fig. 1 is a plan view of the invention;

Fig. 2 is a longitudinal sectional view on the line 2—2 of Fig. 1;

Fig. 3 is a side elevation of the heel piece.

Fig. 4 is a transverse sectional view of the heel piece taken on the line 4—4 of Fig. 3.

Fig. 5 is a transverse sectional view taken on the line 5—5 of Fig. 3.

Referring now more particularly to the accompanying drawing, the reference numeral 10 indicates a toe piece of any suitable form or shape provided in its lower face with a slot 11 which leads through the rear end of the toe piece.

The heel piece 12 is of peculiar shape, being of a solid piece of cedar or other wood or any suitable material. This heel piece is flat and narrow and taller at its rear end that at its forward end and has its rear end 13 rounded at the top and bottom corners, as at 14 and 15, respectively, with the rounded corner 14 merging gracefully into a relatively long forwardly and rather sharply downwardly curved top portion 16, said curvature extending entirely to the front end 17 of the heel piece. The lower corner 15 of the heel piece merges gracefully into an upwardly forwardly curved bottom portion 18, extending to the front end 17 of the heel piece.

The heel piece is provided with a relatively long socket 19 extending substantially horizontally thereinto through the reduced front end 17 thereof at the lower portion of the same. Formed in the top curved surface 16 of the heel piece is a notch 20, forming a seat 21, which latter has a perforation 22 leading into said socket 19 and in alignment with a perforation 23 leading into said socket through the lower face of the heel piece.

The heel piece is provided with a finger receiving socket 24 disposed longitudinally of the tree and above and spaced from the aforesaid socket 19. This finger receiving socket leads into the heel piece through the curved top 16 of the heel piece and substantially intermediate the ends of the heel piece and in the rear of the aforesaid seat 21. This finger receiving socket is preferably of a length to accommodate one's index or other finger up to or substantially up to the second joint of the finger.

The toe and heel pieces may be pivotally and adjustably connected together in any suitable manner. One method is to provide a connecting rod 25 pivoted at 26 to the toe piece in the aforesaid slot 11 and provided at its other end with spaced perforations 27. This perforated end of the rod 25 is disposed in said socket 19 of the heel piece and with the perforations 27 interchangeably positionable with relation to alignment with said perforations 22 and 23.

To fasten the connecting rod in the said socket 19 of the heel piece, I employ a pin including a head 28 and a tapering shank 29. The shank 28 tapers slightly so that when the shank of the pin is inserted in the aforesaid registering or aligning perforations 22, 23 and 27, the shank adjacent the head wedges tightly in the perforation 22 of the seat 21 of the heel piece to effect a tight mounting of the pin to secure the heel piece and connecting rod firmly but detachably together with the head 28 of the securing pin seated effectively on said seat 21. It will be seen that said fastening or securing pin lies between the forward end of the heel piece and the said finger receiving

socket and that the head of the pin projects upwardly from the seat 21.

Thus it will be understood that by insertion of one's finger into the socket 24 of the heel piece 12 that the latter may be readily lifted or pulled out of a shoe and by a then further pull on the heel piece the tree may be readily withdrawn from the shoe. Before or after the heel piece is lifted or pulled out of the shoe one's index finger can be inserted in said finger receiving socket 24 and the thumb placed against one side of the heel piece and a finger or fingers next to the index finger placed against the other side of the heel piece to facilitate removal of the tree from the shoe. If desired, the sides of the heel piece may be provided with the grooves 30 and 31 to receive, one groove the operator's thumb and the other groove receive a finger whereby to readily withdraw the tree from the shoe and without inserting a finger in the socket 24. When the operator inserts the index finger in socket 24 to withdraw the tree from the shoe he may or may not place the thumb and fingers in the grooves 30 and 31 as may be desired.

It will further be understood that the character of toe piece is immaterial and that my invention goes mainly to a new and novel heel piece constructed for association with a suitable toe piece having suitable operable connecting means for pivotally and adjustably connecting the toe and heel pieces together.

What is claimed is:

1. A shoe tree comprising a toe piece having a slot in its under side at and leading through the rear thereof, a heel piece having a forwardly and downwardly curved upper face and also having a socket therein leading thereinto at the front thereof below the curved upper face, a connecting rod pivoted at one end in the slot of the toe piece and having its other end mounted in the said socket of the heel piece, means for securing said rod adjustably in the socket of the heel piece, the heel piece having a finger receiving socket extending substantially horizontally therein above and spaced from the aforesaid socket and leading into the heel piece from the curved upper face of the latter to receive a finger of the user, whereby to withdraw said heel piece from the user's shoe and remove the shoe tree from the shoe.

2. A shoe tree comprising a toe piece and a heel piece, the latter having its upper edge curved forwardly and downwardly toward the front end thereof and at its front end below the curvature of the upper edge being provided with a socket, and a connecting rod adjustably mounted in said socket and having its opposite end pivotally connected to the toe piece, the heel piece having a finger receiving socket therein extending substantially horizontally and leading thereinto from the curved upper edge of the heel piece.

3. A shoe tree comprising a toe piece and a heel piece, the heel piece having its bottom curved upwardly and forwardly to the front end thereof and having its top curved forwardly and downwardly to the front end thereof and also having a socket extending substantially horizontally and leading thereinto from the front end, the toe piece having a slot in the bottom leading through the rear end thereof, and a connecting rod having one end adjustably mounted in the socket of the heel piece and pivotally mounted in the slot of the toe piece, said heel piece having a substantially horizontally disposed finger receiving socket therein above and spaced from the aforesaid socket and leading into the heel piece through the curved top thereof to receive a finger of the user whereby to withdraw the heel piece from the shoe and remove the tree from the shoe.

4. A shoe tree comprising a toe piece and a heel piece, means for pivotally and adjustably connecting said pieces together, the heel piece being higher at its rear portion and having its upper face curved forwardly to provide a relatively short front end, the heel piece having a substantially horizontally disposed finger receiving opening leading thereinto intermediate the ends thereof through the curved top face of the same whereby to effect removal of the shoe tree from the shoe.

JAMES B. MUTCH.