Feb. 4, 1941. E. G. SALIN 2,230,469

SHOE TREE

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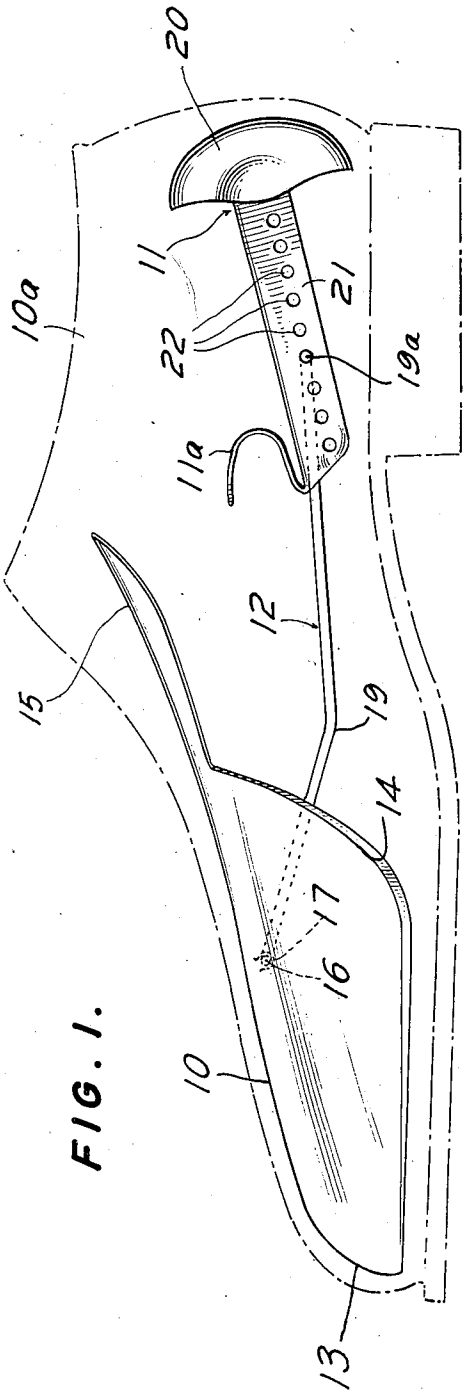


FIG. 1.

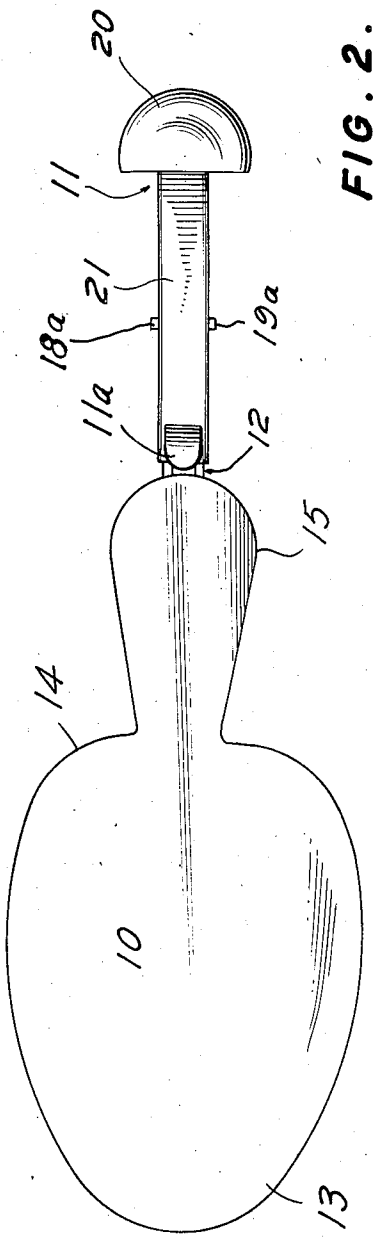


FIG. 2.

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FIG. 3.

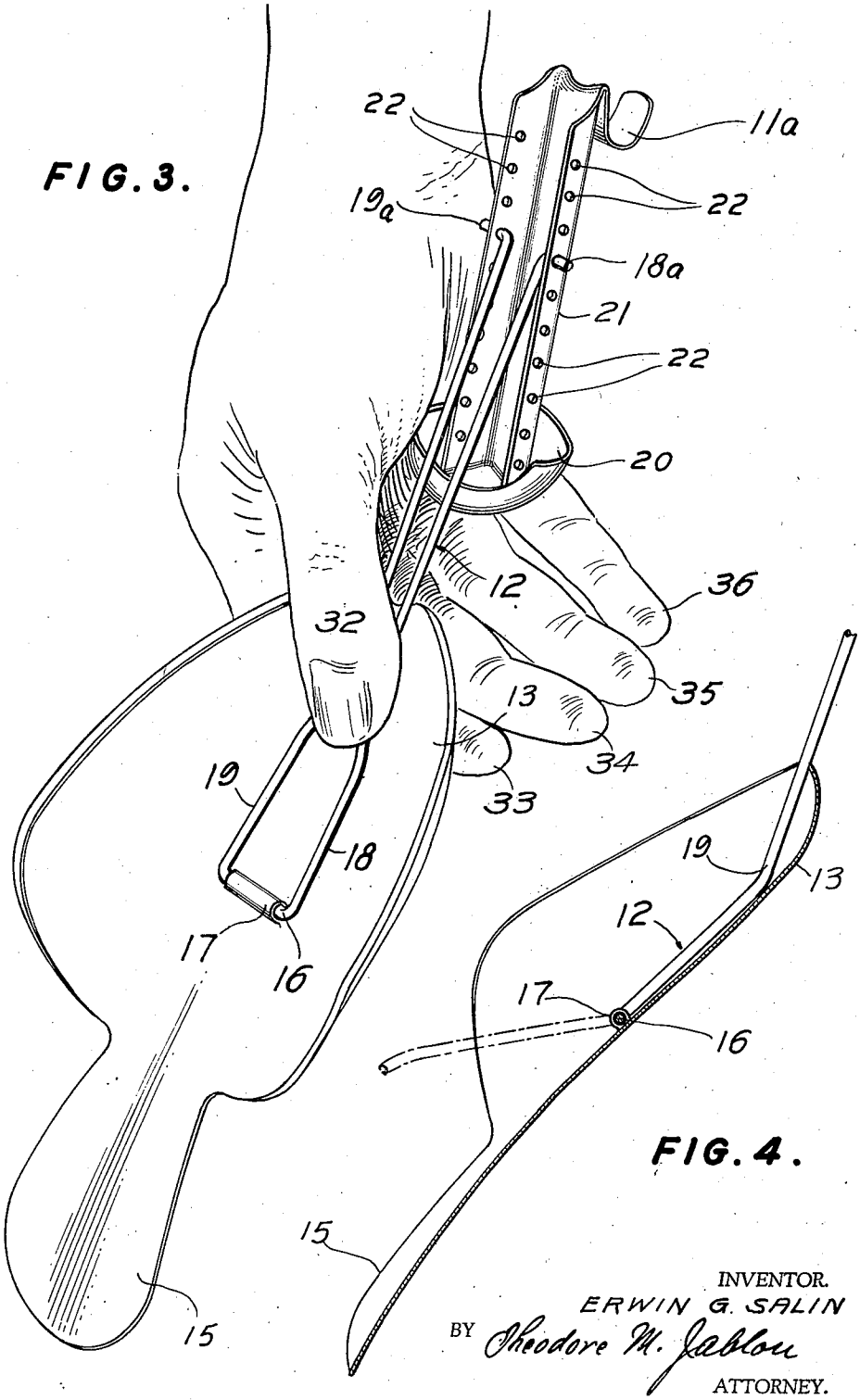


FIG. 4.

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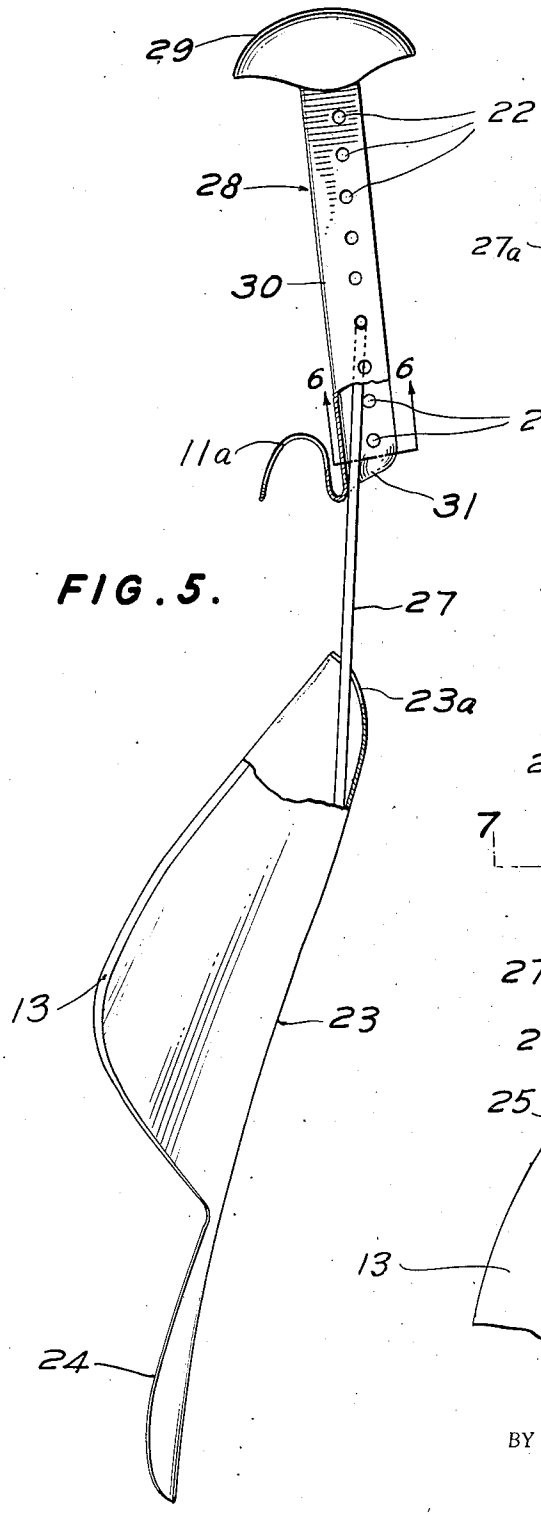


FIG. 5.

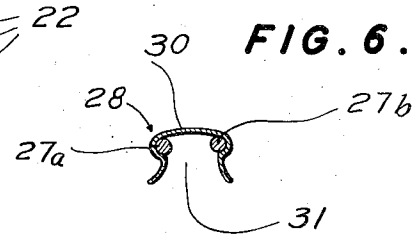


FIG. 6.

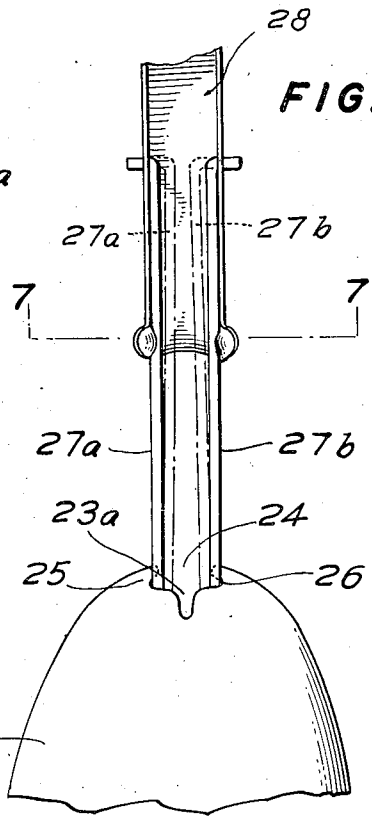


FIG. 7.

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2,230,469

SHOE TREE

Erwin Georg Salin, New York, N. Y.

Application July 12, 1939, Serial No. 284,031

7 Claims. (Cl. 12—128.1)

This invention relates to a shoe tree, and more in particular to a structural combination of a shoe tree with a shoe horn.

One of the objects is to have the shoe horn combined with or embodied in a shoe tree in a structural relationship whereby the one benefits through the other with regard to function and manipulation.

Another object is to provide a structural combination of shoe tree and shoe horn which is simple, practical, and inexpensive.

The type of device or shoe tree herein more specifically considered although in no restrictive sense for an embodiment of the invention comprises a hollow shell-like toe portion with which is operatively connected or to which is linked a heel brace portion. Further particularized, a toggle effect is set up by way of suitable connecting elements between the toe portion and the heel brace portion whenever the shoe tree is operative as such.

It is one of the features of this invention to provide for convenient and expeditious manipulation of the shoe horn connected with this device, by connecting the shoe horn directly with the toe portion of the device. This allows the toe portion to serve as a substantial and convenient handle for the shoe horn and facilitate the manipulation thereof.

Another feature is inherent to an article of manufacture as represented by the combination per se of toe portion and shoe horn in the device.

Still another feature provides means whereby the movable component elements of the shoe tree can be held in position relative to one another, in which they are adapted to help the manipulation of the shoe horn.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be set forth in the following description. In the following description and in the claims, parts will be identified by specific names for convenience, but they are intended to be as generic in their application to similar parts as the art will permit. In the accompanying drawings there has been illustrated the best embodiment of the invention known to me, but such embodiment is to be regarded as typical only of many possible embodiments, and the invention is not to be limited thereto.

The novel features considered characteristic of my invention are set forth with particularity in the appended claims. The invention itself, however, both as to its organization and its method of operation, together with additional objects and advantages thereof, will best be understood from the following description of a specific embodiment when read in connection with the accompanying drawings.

More specifically it should be understood that the scope of the invention is intended to include various types or modifications of shoe trees aside from the one illustrated, providing they comprise the hollow toe portion unitary with a portion that is serviceable as a shoe horn in spirit and sense of this invention.

In the drawings:

Fig. 1 is a side view showing the shoe tree with the parts assuming their intended position in a shoe.

Fig. 2 is a plan view of the device shown in Fig. 1.

Fig. 3 is a perspective view of the device with parts in position to serve in the manipulation of the shoe horn.

Fig. 4 is a longitudinal section upon the line 4—4 through the toe portion of the device shown in Figs. 1 to 3.

Fig. 5 is a side view of the device with parts positioned to serve in the manipulation of the shoe horn, with the addition of detent means for maintaining the position of the parts relative to one another.

Fig. 6 is a cross-section taken upon the line 6—6 in Fig. 5, to show certain detent means.

Fig. 7 is a partial plan view of Fig. 5 showing the detent means.

The device according to an embodiment shown in Fig. 1 comprises a toe portion 10, a heel brace portion 11, and a link member 12 operatively interconnecting them. The shoe tree shown in Fig. 1 is shown to function as such in a shoe 10a. The toe portion 10 is in the nature of a hollow shell-like body having a narrowing front end portion 13 and a widening rear portion 14. A tongue-like portion 15 adapted to serve as a shoe horn extends from, and is herein shown to constitute a partial continuation of the rear portion 14 of the toe portion or shell 10. In the specific instance herein illustrated the tongue-like portion 15 is shown to be integral with the toe portion 10, and in this embodiment it is considered to be a stamped metal article, although it may be of some other material, and be produced in some other way. The particular shape of the portion 15 to serve as a shoe horn may be modified within the scope of this invention, and it is herein also briefly called the shoe horn portion.

In this embodiment the link member 12 is

shown to be in the nature of a U-shaped wire member or loop element hinged to the toe portion 10. This wire member 12 has a transverse portion 16 whereby it is hinged to the inside of the toe member 10 at a suitable point intermediate the ends thereof by means of a loop or eye element 17 fastened to the toe member 10 in some suitable manner.

The wire member or loop element 12 has shank portions 18 and 19 which have some tendency to flex outward on their own accord, but are sufficiently resilient to permit their being brought close together by reasonable pressure. The end of each of the shank portions 18 and 19 is formed with a laterally outwardly turned projection 18a and 19a respectively, which projections enter into disconnectible pivotal engagement with the heel brace portion 11.

The heel brace portion 11 according to the embodiment shown, comprises a head 20, incidentally resembling the head of a mushroom, from the concave side of which extends a rigid stem 21 having the form of a channel each side of which is provided with a series of holes 22, the holes of the one side to register with those of the other, each pair of opposed holes being selectively adapted to receive the projections 18a and 19a respectively of the wire element 12 for pivotal connection therewith. A finger piece provided at the free end of the stem 21 of heel brace portion 11 comprises a hook-shaped tab portion 11a extending from the end of the stem 21 and doubled over backwardly along the stem.

The parts shown in Figs. 5 to 7 are substantially similar to those shown and described in connection with Figs. 1 to 4, except for additional means designed to enable the parts to maintain themselves in certain positions relative to one another, for the sake of convenient manipulation of the shoe horn.

Consequently, Fig. 5 shows a toe portion 23 having a tongue portion or shoe horn 24 connected with the rearward end thereof, and a cutout 23a provided in the forward end portion thereof. The cutout 23a as designed and shaped provides a constricted mouth 24 due to a pair of undercut terminal portions 25 and 26. This cutout 23a acts as a detent means for a link element or wire member here designated by numeral 27 and having wire shank portions 27a and 27b adapted to be caught and held by the cutout as clearly shown in Fig. 7.

The heel brace portion shown in Fig. 5 has the numeral 28 and comprises the head portion 29 and the stem portion 30. It differs from the heel brace portion shown in Figs. 1 to 4 by virtue of a constricted portion 31 formed at the free end of the stem portion 30 by drawing in the sides of the channel shape thereof (see Fig. 6) to provide a detent means for retaining and maintaining the link element or wire member 27 and the heel brace portion 28 in their relative positions shown in Fig. 5.

The operation of the device is, as follows:

When the shoe tree is used as such, its function is substantially evident from Fig. 1. The relative position of the parts then is as shown, with the toe portion 10 and the heel brace portion being forced apart and into engagement with the toe and the heel respectively of the shoe 10a. This is due to the spreading effect of the toggle action set up by virtue of the heel brace portion 11 and the link member 12, when the projections 18a and 19a have been set and function in a suitable pair of the holes 22 in the heel brace portion 11. The toggle effect is broken, when the shoe tree is removed from the shoe, by pulling upon the finger piece 11a of the heel brace portion 11.

Thereafter the shoe tree can at once be made to serve as a shoe horn by positioning the parts of the device as shown in Figs. 3 and 4, and then manipulating the device as illustrated in Fig. 3. That is to say, according to Fig. 4, the toe element 10 is placed in an inverted position, while the link 12 is swung from the dot and dash line position normally occupied when functioning as a shoe tree, into the full line position of Fig. 4.

Then, according to Fig. 3, thumb and forefinger 32 and 33 respectively of the hand grasp the narrow end of the toe portion 10 as well as the associated portion of the link member 12 in the manner shown, while the head 20 of the heel brace portion 11 then tends to fall into the hollow of the hand, permitting the remaining fingers 34, 35, 36 to close over and around the head 20 for a convenient and efficient hold on the device. It will be noted from Fig. 3 that the toe portion 10 constitutes a convenient handle extension when the tongue-like portion 15 thereof is being used as a shoe horn.

The position of parts according to Fig. 5 is substantially the same as that shown in Fig. 3, so far as using the shoe horn is concerned, except that now the head 29 of heel brace portion 28 has been swung outwardly, so as to provide additional handle length for the shoe horn through link element 27 and heel brace portion 28.

In order to maintain the parts in their then relative positions, the wire shank portions 27a and 27b of link element 27 are permitted to be caught in and detained by the undercut terminal portions 25 and 26 of cutout 23a. That is to say, the resilient wire shank portions are momentarily slightly deflected into the dot and dash position indicated in Fig. 7, to permit their entry or resilient snapping into the cutout 23a. Similarly, and if so desired, the wire shank portion 27a and 27b may be caught and detained by the constricted portion 31 of the heel brace member as shown in Fig. 5.

I claim:

1. A shoe tree comprising a hollow toe portion resembling a shell having a narrowing front end portion and a widening rear portion, a tongue-like portion extending rearwardly from the top portion of said shell, which tongue-like portion is adapted to serve as a shoe horn, a heel brace member comprising a head adapted to lodge in the heel portion of the shoe, and a stem extending from said head, and means movably interconnecting said toe portion and said heel brace member, to enable them to be tensioned relative to one another and thereby adapted to cause them to engage the toe portion and the heel portion respectively of the shoe, said interconnecting means comprising a link member movably connecting a point on said stem with a point inside the shell and intermediate the ends thereof, said head serving as a handhold when said link member and said stem are swung into a position whereby said link member and said head point in a direction substantially opposite to one another and toward the front end of the hollow toe portion.

2. A shoe tree comprising a hollow toe portion resembling a shell having a narrowing front end portion and a widening rear portion, a tongue-like portion extending rearwardly from the top portion of said shell, which tongue-like portion

is adapted to serve as a shoe horn, a heel brace member comprising a head adapted to lodge in the heel portion of the shoe, a hollow channel-shaped stem extending from said head, said stem having a row of holes provided along and in each side of the channel shape, the holes in one side registering with those in the other side, and means movably interconnecting said toe portion and said heel brace member to enable them to be tensioned relative to one another and thereby adapted to cause them to engage the toe portion and the heel portion respectively of the shoe, said interconnecting means comprising a link member one end of which is pivotally connected with said stem by way of a selected pair of opposed holes therein, and the other end of which is pivotally connected with said toe portion at a point at the inside of the shell, said link member being in the form of U-shaped wire member having an intermediate transverse portion constituting that end of the link member which is connected with the toe portion, and having a pair of shank portions of a springy nature and tending to flex outwardly, the end of each of which shank portions has an outward lateral protrusion, which protrusions are adapted to engage in said selected pair of holes in the stem for pivotal connection therewith, said head serving as a handhold when said link member and said stem are swung into a position whereby said link member and said head point in a direction substantially opposite to one another and toward the front end of the hollow toe portion.

3. A shoe tree comprising a hollow toe portion resembling a shell having a narrowing front end portion and a widening rear portion, a tongue-like portion extending reawardly from the top portion of said shell, which tongue-like portion is adapted to serve as a shoe horn, a heel brace member comprising a head adapted to lodge in the heel portion of the shoe, a hollow channel-shaped stem extending from said head, said stem having a row of holes provided along and in each side of the channel shape, the holes in one side registering with those in the other side, and means movably interconnecting said toe portion and said heel brace member to enable them to be tensioned relative to one another and thereby adapted to cause them to engage the toe portion and the heel portion respectively of the shoe, said interconnecting means comprising a link member one end of which is pivotally connected with said stem by way of a selected pair of opposed holes therein, and the other end of which is pivotally connected with said toe portion at a point at the inside of the shell, said link member being in the form of U-shaped wire member having an intermediate transverse portion constituting that end of the link member which is connected with the toe portion, and having a pair of shank portions of a springy nature and tending to flex outwardly, the end of each of which shank portions has an outward lateral protrusion, which protrusions are adapted to engage in said selected pair of holes in the stem for pivotal connection therewith, with the addition that the front end of the toe portion has a cut-out designed and adapted to receive and to have sprung into it the two flexible shank portions of the U-shaped wire member.

4. A shoe tree comprising a hollow toe portion resembling a shell having a narrowing front end portion and a widening rear portion, a tongue-like portion extending rearwardly from the top portion of said shell, which tongue-like portion is adapted to serve as a shoe horn, a heel brace member comprising a head adapted to lodge in the heel portion of the shoe, a hollow channel-shaped stem extending from said head, said stem having a row of holes provided along and in each side of the channel shape, the holes in one side registering with those in the other side, and means movably interconnecting said toe portion and said heel brace member to enable them to be tensioned relative to one another and thereby adapted to cause them to engage the toe portion and the heel portion respectively of the shoe, said interconnecting means comprising a link member one end of which is pivotally connected with said stem by way of a selected pair of opposed holes therein, and the other end of which is pivotally connected with said toe portion at a point at the inside of the shell, said link member being in the form of U-shaped wire member having an intermediate transverse portion constituting that end of the link member which is connected with the toe portion, and having a pair of shank portions of a springy nature and tending to flex outwardly, the end of each of which shank portions has an outward lateral protrusion, which protrusions are adapted to engage in said selected pair of holes in the stem for pivotal connection therewith, with the addition that said channel-shaped stem has a constriction at the end thereof, whereby to hold said U-shaped wire member after the shanks thereof have been sprung into said constricted portion.

5. A shoe tree comprising a toe portion, a shoe horn portion extending rearwardly from the top portion of said toe portion, heel bracing means pivotally connected with said toe portion, said toe portion of the tree adapted to engage the toe portion of a shoe, said heel bracing means designed with respect to the toe portion of the shoe tree, to be swingable into a position away from and out of the way of said shoe horn portion to enable the latter to be used as a shoe horn, and means for temporarily holding said heel bracing means in said last-mentioned position relative to the toe portion of the shoe tree, to facilitate the use of said shoe horn portion as a shoe horn.

6. A shoe tree according to claim 5, in which said holding means are in the nature of snap detent means.

7. A shoe tree according to claim 5, in which the toe portion of the shoe tree is in the nature of a shell the front end portion of which is designed and adapted to retain therein said heel bracing means, to effect said temporary holding thereof.

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