Feb. 11, 1930. A. SCHOSHUSEN 1,746,610

SHOE TREE

Filed Nov. 8, 1926

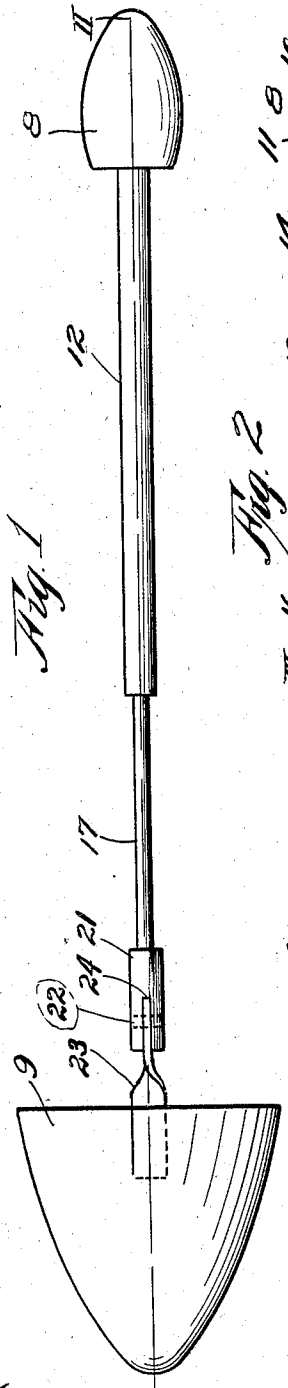


Fig. 1

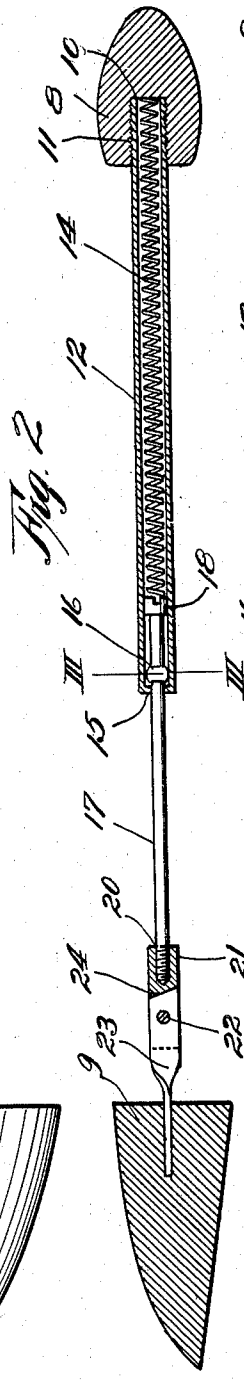


Fig. 2

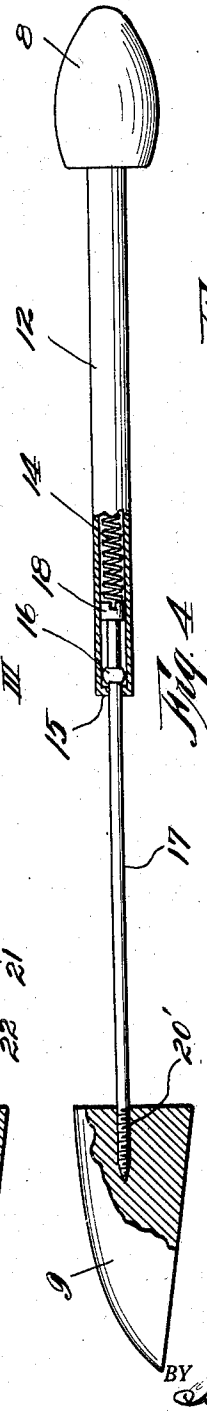


Fig. 4

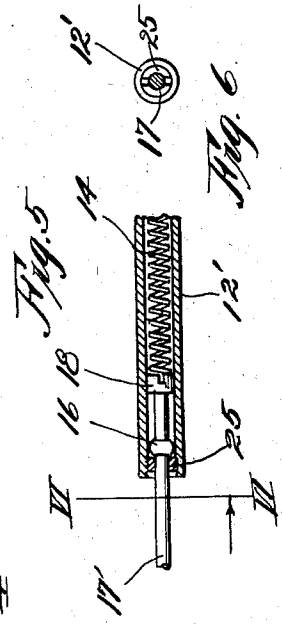


Fig. 5

Fig. 6

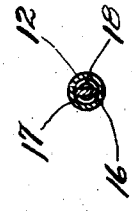


Fig. 3

Witness:
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UNITED STATES PATENT OFFICE

ARTHUR SCHOSHUSEN, OF WEST SOMERVILLE, MASSACHUSETTS

SHOE-TREE

Application filed November 8, 1926. Serial No. 146,981.

The present invention relates to forms or trees for boots or shoes, and aims to provide a neat, compact and improved adjustable construction, which will be conveniently adapted for neat fitting engagement inside the boot or shoe.

Accordingly, one of the primary objects of the invention is to provide an extremely simple and compact connection between the heel and toe portions of the form or tree, for effecting a yielding self-adjusting action to conform to various lengths of boots and shoes.

In carrying out this object of my invention, I have devised a construction in which the connection between the toe and heel portions of the form comprises a telescoping device including a coil spring enclosed by one of the elements of said connection and seated therewith in a socket or recess provided in the toe or heel portion.

It is also sought to provide a construction of this character in which the connection with the toe member provides for the end breaking function, in addition to the self-adjusting action as regards the length of the connection between said toe and heel members.

With the foregoing general objects in view, the invention will now be described by reference to the accompanying drawing, illustrating one form of construction for embodying the proposed improvements in a manner which has been found to be practical, after which those features and combinations believed to be novel will be particularly set forth and claimed.

In the drawing—

Figure 1 is a plan view illustrating a boot or shoe tree embodying the present features of improvement;

Figure 2 is a longitudinal sectional view, representing a section taken on the line II—II of Figure 1;

Figure 3 is a transverse section taken on the line III—III of Figure 2;

Figure 4 is a side elevation, with portions broken away, and illustrating a modified form of connection with the toe piece;

Figure 5 is a sectional detail view showing a slight modification in the telescoping tube; and

Figure 6 is a transverse section taken on the line VI—VI of Figure 5.

Referring to the drawing in detail, this illustrates the improved form of construction as comprising a heel portion 8 adapted to fit inside the heel or counter portion of the shoe, and a toe piece or portion 9 designed to fit within the toe portion of the boot or shoe.

For providing a yielding expansible connection between these toe and heel pieces, I form the heel piece with a recess 10 in which is screw fitted, as indicated at 11, one end of a tube 12 enclosing a coil expansion spring 14, one end of which is seated within said recess 10 along with the threaded end of the tube 12, as shown in Figure 2.

In the construction illustrated in Figures 1 to 4, the opposite end of the tube 12 is formed with an inturned flange 15 to provide an internal shoulder for limiting engagement with a shoulder 16 formed by flattening an intermediate portion of a rod 17 which operates slidingly within the tube 12, wherein it terminates in a fillister head 18 abutting against the adjacent end of the spring 14. By this means, the telescoping action of the rod and tube is limited, so that the rod is not projected its entire length from the tube, that is up to the head 18, and hence any undue lateral play or wobbling of the parts is prevented.

In the form of construction shown in Figures 1 and 2, the rod 17 is screw threaded, as indicated at 20, into a socket piece 21 provided with a hinge connection 22 with a bracket element 23 attached to the toe piece 9. This form of connection between the rod and toe piece permits of what is known as the end breaking action of the toe end of the form, as required in the operation of inserting or removing the tree from the boot or shoe. The inclined edge and shoulder formation, indicated at 24, between the element 23 and socket piece 21, limits the pivotal action of these elements when the toe piece 9 and the rod 17 are brought into straight line position, which is the proper operative relation of the parts when within the shoe.

In certain uses of the device, where the end breaking of the toe portion of the tree

is not required, I dispense with the pivotal connection between the rod 17 and toe piece 9, and make use of the construction illustrated in Figure 4, showing the rod 17′ as terminating in a screw thread 20′ adapted for attachment directly to the toe piece 9 in a fashion somewhat similar to the mode of connecting the tube 12 to the heel piece 8.

In certain forms of construction, particularly in the heavier type of trees, it may be desired to substitute for the inturned flange 15 a metal bushing 25 adapted to be screwed into the corresponding end of the tube 12 to provide the shoulder for engagement with the shoulder 16 of the rod 17, as has been illustrated in Figures 5 and 6 of the drawing.

It will thus be seen that I have devised a practical and efficient construction for carrying out the desired objects of the invention, and that this construction has the advantage of lightness in weight and facility for inserting it or removing it from a boot or shoe without any intricate parts that are at all likely to get out of order. The construction is extremely inexpensive and of a compact character, with no parts, as in some types of construction, which are adapted for engagement with the upper part of ladies' shoes, which are of such delicate material as to be easily injured. The improved type of shoe tree herein described exerts a direct pressure from the toe to heel, and cannot possibly distort the shape of the shoe. The device is strictly self-adjusting, as regards the length of the boot or shoe, and hence it is apparent that it can be made in just one size for fitting practically all sizes of men's and women's shoes usually carried in stock.

While I have illustrated what I now regard as the most practical and preferred form of construction for embodying my invention, I desire to reserve the right to make all such changes or modifications as may fairly fall within the scope of the appended claim.

What I claim is:

A boot or shoe tree comprising a toe member and a heel member, a telescoping rod and tube connecting said members, and a coil spring enclosed by said tube and abutting one end of said rod, one end of said tube being provided with an internal shoulder and said rod having a shoulder spaced some distance from its end for engagement with said internal shoulder of the tube, the other end of said tube and the corresponding end of said spring being seated together in one of said members.

In witness whereof I hereunto affix my signature.

ARTHUR SCHOSHUSEN.