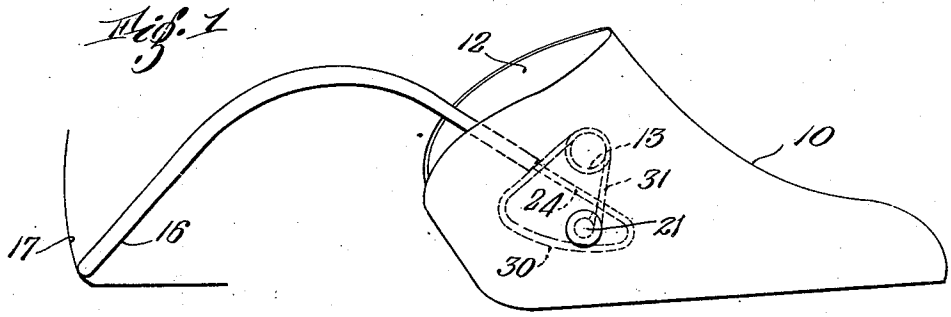
April 12, 1932. W. J. DE WITT 1,853,801

SHOE FORM

Filed Jan. 19, 1931

Fig. 1



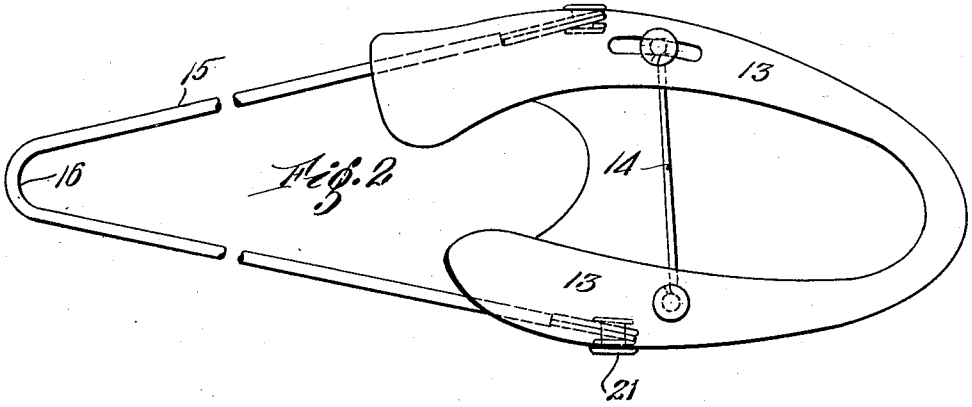
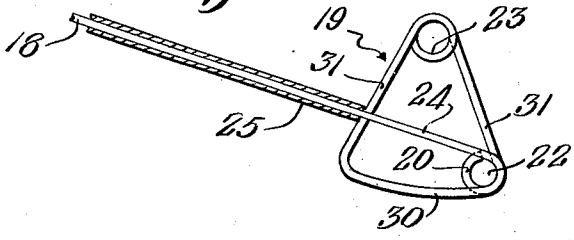


Fig. 2

Fig. 3



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UNITED STATES PATENT OFFICE

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SHOE FORM

Application filed January 19, 1931. Serial No. 509,837.

This invention relates to an improvement in a shoe form, and more particularly in a shoe form comprising a toe form which enters the toe of a shoe and a back-part member which engages the heel counter of the shoe.

The primary object of this invention is to provide in a shoe form of this type means for pivotally connecting the back-part member to the toe form and means for so shaping the back-part member that it is yieldable longitudinally relative to the toe form and may be flexed transversely in order to hold the toe form in the toe of the shoe under yielding pressure. A further object of this invention is to provide in a shoe form of this type a back-part member of wire or similar material transversely bent or curved at its center and having forwardly extending lengths which terminate in integral closed loops, the ends of which loops are secured to the walls of the toe form.

Other objects of the invention reside in the form and construction of the shoe form, as will be apparent from a consideration of the following specification taken in connection with the drawings which form a part thereof, and in which

Fig. 1 is a side elevation of a shoe form embodying this invention, the shoe form being shown in the position it would occupy under tension in a shoe;

Fig. 2 is a bottom plan view of the shoe form in its normal non-tensioned condition; and

Fig. 3 is a side elevation of a part of a portion of the back-part wire.

In the embodiment illustrated in the drawings, the shoe form comprises a toe form 10 preferably of yieldable resilient material as, for example, celluloid. In accordance with the usual practice the toe form comprises side walls 11 and 12 which terminate in flanges 13 which are here shown as connected by a pivotally mounted brace bar 14. The back-part member 15 is preferably of wire or other flexible material and has a curved or bent center portion 16 which, as shown in Fig. 1, engages the heel counter of a shoe, the heel being here indicated by the line 17.

Extending forwardly from the curved portion 16 are two lengths 18 which terminate in closed loops 19, the ends 20 of the loops being secured to the walls 11 and 12 by any suitable means, such as rivets 21. The ends of the loops preferably are bent back on themselves, as indicated in Fig. 3, to form an aperture 22 through which the shank of the rivet 21 passes so that the back-part member is pivoted upon the toe form. The material of the back-part member forming the loop may also provide a coil 23 therein. When secured to the walls of the toe form the forward portion 24 of each length 18 passes between its loop 19 and the wall of the toe form to which it is secured. It has been found advantageous to surround a portion of the wire forming the back-part member with a tube 25, preferably of celluloid. The tube 25 terminates at the closed loops 19 and, as indicated in Fig. 3, may bear against the rearward portions of the loops.

When inserted into a shoe, as shown in Fig. 1, the lengths 18 of the back-part member are flexed upwardly and the back-part wire is moved longitudinally relative to the toe form to contract the loop 19, which movement is resisted by the loop and the urge of the coil 23. The location of the forward portions 24 of the lengths 18 prevents any tendency of these lengths to approach independently of the walls of the toe form. It thus will be apparent that the shoe form is under tension when inserted in the shoe and will yieldably hold the shoe in its normal condition, the toe form acting in the well known manner to plump out the toe portion of the shoe. If the wire of the back-part member be surrounded by a tube 25, as indicated in Fig. 3, the loops 19 will be contracted, not only by reason of the connection of the lengths 18 thereto, but also by reason of the contact of the ends of the tube with the loop.

In the illustrated embodiment the loop 19 is triangular in elevation having a base 30 and sides 31. The coil 23 is at the apex angle of the triangle and the aperture 22 which receives the rivet 21 at the forward base angle.

While one embodiment of this invention has been shown and described, I am not limited thereto, since other embodiments might

be made without departing from the spirit and scope of the invention as set forth in the following claims.

I claim:

1. A shoe form comprising a toe form and a back-part member of wire transversely curved at its center to engage the heel counter of a shoe and having lengths projecting forwardly, each length terminating in an integral closed loop, and means securing the ends of the wire to the walls of the toe form with the forward end of each length between its loop and the wall of the toe form whereby, when inserted in a shoe, the lengths of the back-part wire may flex transversely, the forward ends of such lengths being prevented by such loops from approaching independently of the walls of the toe form and the portion of the back-part wire between the loops is yieldably movable longitudinally relative to the toe form to contract the loops.

2. A shoe form comprising a toe form and a back-part member of wire transversely curved at its center to engage the heel counter of a shoe and having lengths projecting forwardly, each length terminating in an integral closed loop including a coil, and means pivotally securing the ends of the wire to the walls of the toe form with the forward ends of each length between its loop and the wall of the toe form whereby, when inserted in a shoe, the lengths of the back-part wire may flex transversely, the forward ends of such lengths being prevented by such loops from approaching independently of the walls of the toe form, and the portion of the back-part wire between the loops is pivotally movable and yieldably movable longitudinally relative to the toe form to contract said loops against the urge of the coils.

3. A shoe form comprising a toe form and a back-part member of wire transversely curved at its center to engage the heel counter of a shoe and having lengths projecting forwardly, each length terminating in an integral closed loop, a tube surrounding a portion of said back-part wire and terminating adjacent said loops, and means securing the ends of the loops to the walls of the toe form whereby, when inserted in a shoe, the lengths of the back-part wire may flex transversely and the portion of the back-part wire between the loops is yieldably movable longitudinally relative to the toe form bringing the ends of the tube into contact with walls of the loops which are contracted both by reason of the contact of the tube end and by reason of the longitudinal movement of the back-part wire.

4. A shoe form comprising a toe form and a back-part member of wire transversely curved at its center to engage the heel counter of a shoe and having lengths projecting forwardly, each length terminating in an integral closed loop, said loops being triangular in elevation, and means for securing the ends of the loops at one angle thereof to the walls of the toe form whereby, when inserted in a shoe, the lengths of the back-part wire may flex transversely and the portion of the back-part wire between the loops is yieldably movable longitudinally of the toe form to contract said loops.

5. A shoe form comprising a toe form and a back-part member of wire transversely curved at its center to engage the heel counter of a shoe and having lengths projecting forwardly, each length terminating in an integral closed loop, said loops being triangular in elevation, a tube surrounding a portion of the wire between the loops, the ends of the tube being adjacent the rear walls of the loops, and means for securing the ends of the loops at one angle thereof to the walls of the toe form whereby, when inserted in a shoe, the lengths of the back-part wire may flex transversely and the portion of the back-part wire between the loops is yieldably movable longitudinally of the toe form to contract said loops, bringing the ends of the tube into contact with the rear walls of the loops to supplement such loop contracting action.

6. A shoe form comprising a toe form and a back-part member of wire transversely curved at its center to engage the heel counter of a shoe and having lengths projecting forwardly, each length terminating in an integral closed loop, said loops being triangular in elevation, a coil at another angle of each loop, and means for pivotally securing the ends of each loop at one angle thereof to the walls of the toe form whereby, when inserted in a shoe, the lengths of the back-part wire may flex transversely and the portion of the back-part wire between the loops is yieldably movable longitudinally of the toe form to contract said loops against the urge of the coils.

7. A shoe form comprising a toe form and a back-part member of wire transversely curved at its center to engage the heel counter of a shoe and having lengths projecting forwardly, each length terminating in an integral closed loop, said loops being triangular in elevation, a coil at one angle of each loop, a tube surrounding a portion of the wire between the loops, the ends of the tube being adjacent the rear walls of the loops, and means for pivotally securing the ends of each loop at another angle thereof to the walls of the toe form whereby, when inserted in a shoe, the lengths of the back-part wire may flex transversely and the portion of the back-part wire between the loops is yieldably movable longitudinally of the toe form to contract said loops against the urge of the coils, bringing the ends of the tube into contact with the rear walls of the loops to supplement such loop contracting action.

8. A shoe form comprising a toe form and a back-part member of wire transversely

curved at its center to engage the heel counter of a shoe and having lengths projecting forwardly, each length terminating an integral closed loop, said loops being triangular in elevation, and means for securing the ends of the loops to the walls of the toe form with the forward end of each length between its loop and the wall of the toe form whereby, when inserted in a shoe, the lengths of the back-part wire may flex transversely, the forward ends of such lengths being prevented from approaching independently of the walls of the toe form, and the portion of the back-part wire between the loops is yieldably movable longitudinally of the toe form to contract the loops.

Signed by me at Boston, Massachusetts, this 15th day of January, 1931.

WILLIAM J. DE WITT.