Dec. 3, 1968 J. SPITERI 3,413,736

BOOT CONSTRUCTION

Filed July 5, 1967

FIG. 1

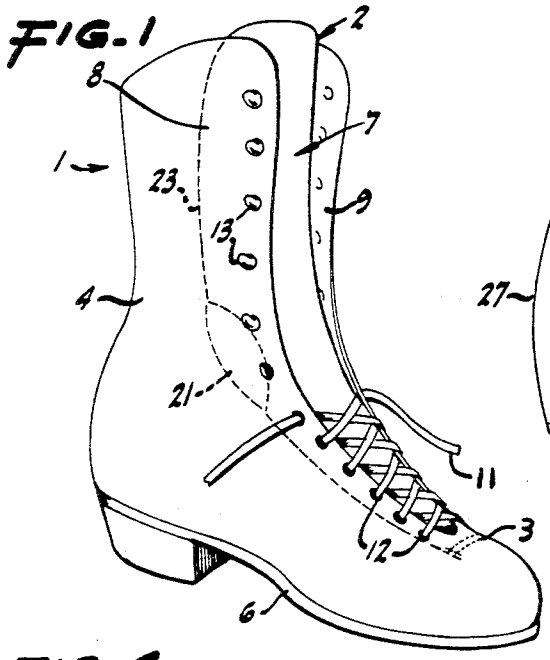


FIG. 2

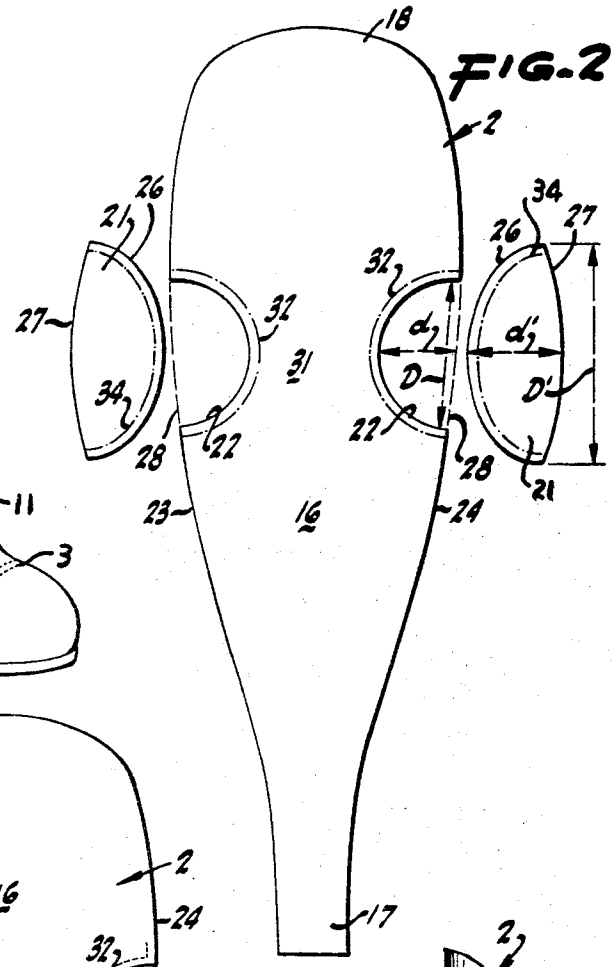
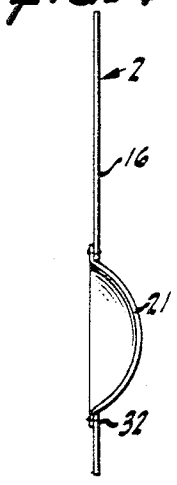


FIG. 4



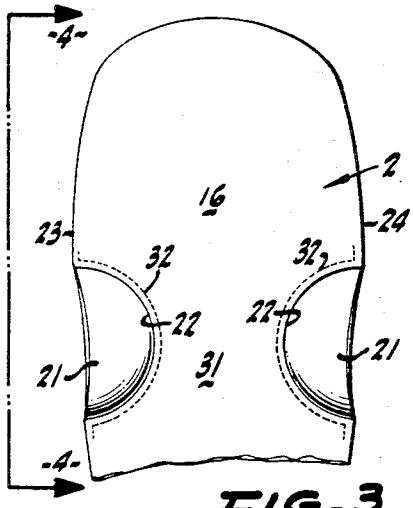
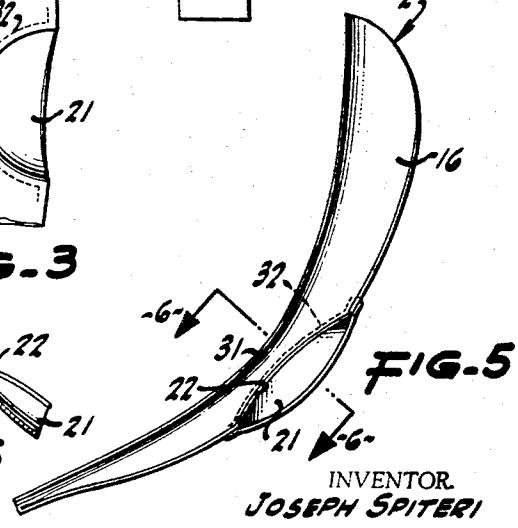


FIG. 3

FIG. 5



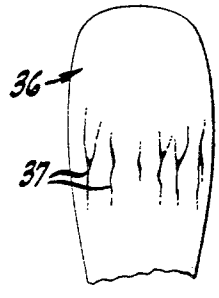


FIG. 7

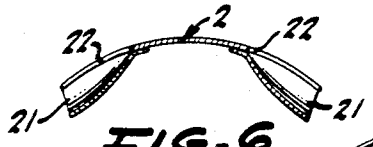


FIG. 6

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BOOT CONSTRUCTION

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ABSTRACT OF THE DISCLOSURE

A boot construction including a special tongue structure developed to minimize or preclude bunching or bulging of the tongue in the area overlying the ankle of the wearer to provide a more comfortable fit. The tongue is provided with flexible bulbous projections, formed by fill-in panels secured in portions cut out from opposite longitudinal edge margins of the tongue, which increase the longitudinal dimension of the tongue along such margins.

BACKGROUND OF THE INVENTION

Field of the invention

This invention relates to human footwear, more particularly boot constructions in which the body extends upwardly from the sole of the boot a distance sufficient to surround the ankle of the wearer. Still more particularly, this invention relates to an improved tongue structure for a boot specifically designed to insure a more comfortable fit by minimizing or precluding bunching, bulging, or wrinkling of the tongue in the area overlying the front and side portions of the ankle of the wearer.

This invention has particular utility when employed in conjunction with ice skating or roller skating boots, but its applicability and desirability extends to and is utilizable in any footwear in which the body thereof extends upwardly to surround the ankle of the wearer.

Description of the prior art

Heretofore, tongue structures for boots have been formed from generally flat panels. Accordingly, when the body of the boot employing a conventional tongue is secured around the ankle of the wearer, the tongue of the boot usually bulges or bunches or wrinkles a substantial amount adjacent the front and side portions of the ankle, thereby creating a discomfort problem for the wearer, and a sightliness problem as well. Attempts heretofore to minimize such discomfort and sightliness problems have centered around covering the inner surface of the tongue with a layer of foam rubber or like cushioning material. However, such attempts have not satisfactorily solved the problems to which they were directed.

With the improved tongue structure of this invention, the flexible localized bulbous enlargements specifically provided on the tongue in the area overlying the front and side portions of the ankle of the wearer impart added length to the tongue in the problem areas. Such additional length has been found to rectify the fit and appearance problems heretofore encountered with conventional tongues in that substantially all tongue bunching or wrinkling is obviated thereby.

So far as is known, the basic concept of this invention has not been known in the footwear art heretofore, and no prior art patents or other disclosures relating to this invention are within applicant's knowledge.

SUMMARY OF THE INVENTION

The present invention relates to footwear for humans in which the body of the footwear extends upwardly around and surrounds the ankle of the wearer. More particularly, this invention relates to an improved boot construction in which the boot body snugly surrounds the ankle of the wearer, with highly improved fit over known constructions, in the area overlying the front and side portions of the ankle of the wearer. Still more particularly, this invention relates to a boot construction in which an improved tongue structure is provided which minimizes or substantially eliminates bunching or bulging or wrinkling of the tongue in the area overlying the front of the ankle of the wearer, and in which an improved appearance is imparted to the boot due to the general absence of such bunching, bulging, or wrinkling.

In accordance with the improved features of this invention, the tongue structure of the subject boot is provided with enlarged flexible projections which extend out of the plane of the otherwise generally flat panel from which the tongue is formed. In the embodiment disclosed herein, such bulbous enlargements are defined by panels secured in place to fill in tongue openings provided when cut out portions are formed in the tongue panel at opposite locations along the longitudinal edge margins of the panel. Such cut outs and their associated fill-in panels are located in accordance with the size of the particular boot in which the improved tongue is positioned so that such fill-in panels generally lie adjacent the bendable portion of the ankle located in alignment with the ankle bone of the wearer. It is in such location in which conventional tongues heretofore have been known to appreciably bulge or bunch to create the fit and appearance problems noted.

In a general sense, the bulbous projections provided increase the longitudinal dimension of the tongue panel along the opposite longitudinal margins thereof. Thereby, additional material in such locations is provided which compensates for and overcomes the tendency of the tongue to bunch or bulge when the tongue is positioned in engagement with the ankle of the wearer when the body of the boot is tightened in place during use.

From the foregoing, it should be understood that objects of this invention include: the provision of an improved article of footwear in which improved fit and comfort are provided; the provision of a boot construction which includes therein an improved tongue structure designed to minimize bunching or bulging in the area overlying the front and side portions of the ankle of the wearer; the provision of an improved tongue structure in a boot which includes bulbous enlargements therein along opposite longitudinal edge margins thereof; the provision of an improved tongue structure in a boot in which bulbous enlargements are provided therein by fill-in panels secured in cut out portions of the tongue; and the provision in a boot of an improved tongue structure having bulbous enlargements thereon defined by fill-in panels which have a substantially greater longitudinal dimension than the corresponding dimension of the cut out portions in which such fill-in panels are secured.

These and other objects of this invention will become apparent from a study of the following detailed disclosure in which reference is directed to the appended drawings.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is an isometric view of a boot construction embodying therein the improved tongue structure of this invention;

FIG. 2 is a plan view of a panel from which the tongue structure of this invention is formed which shows the cut out portions and the fill-in panels to be positioned therein to define marginal enlargements;

FIG. 3 is a partial plan view corresponding generally to FIG. 2 showing the fill-in panels secured in place in the cut out portions provided in the tongue panel;

FIG. 4 is a side elevational view of the completed tongue looking generally in the direction of line 4—4 of FIG. 3;

FIG. 5 is a side elevational view of the tongue showing the general configuration and contour such tongue takes when it is engaged with the ankle of the wearer of the boot in which the tongue is positioned;

FIG. 6 is a sectional view through the tongue taken in the plane of line 6—6 of FIG. 5;

FIG. 7 is a partial plan view on a reduced scale of a conventional tongue which illustrates the bunching and wrinkling problems generally encountered therewith during use.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring first to FIG. 1, a boot construction, generally designated **1**, is shown into which the improved tongue structure **2** of this invention is incorporated. Such tongue structure is secured in known fashion by its lower end adjacent the toe of the boot by stitching **3**, or other equivalent securing means.

The main body **4** of the boot projects upwardly from the sole and heel structure **6** thereof and is secured thereto in any suitable fashion, such as by stitching (not shown). The tongue **2** is positioned to close off the elongated opening **7** at the front of the boot which permits insertion of the foot of the wearer thereinto. The tongue **2** straddles and closes off the opening formed between the opposed generally upright body portions **8** and **9** which define the opening.

Means is provided to secure the boot body around the foot and ankle of the wearer. In the embodiment shown, such means comprises a cord **11** which passes through openings **12** provided in the opposed portions **8** and **9** of the body adjacent the toe of the boot and hooks **13** provided on such portions at the upper ankle surrounding portion thereof.

The boot construction shown in FIG. 1 is generally of the type employed for ice skates or roller skates, and this invention has particular utility when incorporated into such a boot because of the comfortable fit provided thereby. However, it should be understood that this invention is utilizable in any article of footwear employing an elongated tongue and a body which extends upwardly to surround the ankle of the wearer.

Referring now to FIG. 2, the tongue is formed from a generally flat panel **16** of any suitable material, such as flexible leather, having generally the outline shown which imparts its name to the tongue. Panel **16** has a lower end **17** to be attached by the aforementioned stitching **3** to the body of the boot adjacent the toe thereof as seen in FIG. 1. At its upper end **18**, the tongue is enlarged to fit around and cover a substantial portion of the front and side portions of the ankle of the wearer when the boot body is tightened in place by the cord **11**.

The improvement to the tongue of this invention resides in the provision of selective flexible enlargements or projections at opposite positions on the tongue. Such enlargements are formed at locations along the length of the tongue which overlie the bendable front of the ankle of the person wearing the boot. In the illustrated embodiment, such bulbous enlargements are defined by a pair

of flexible fill-in panels, each designated **21**, which are secured in cut out portions **22** formed in the tongue panel **16** to extend inwardly a predetermined distance from the opposite longitudinal edge margins **23** and **24** thereof.

In the illustrated embodiment, such cut out portions are generally semi-circular in outline and the fill-in panels are generally semi-elliptical in outline, but it should be understood that such cut out portions and fill-in panels may take other configurations also if preferred. While rounded or arcuate cut out outlines are considered most suitable, it should be noted, of course, that rounded or arcuate outlines are not necessary to insure effective results.

The fill-in panels **21** preferably are formed from the same type and color of material as is tongue panel **16**. As seen in FIG. 2, the fill-in panels correspond generally in basic outline to the outline of the cut out portions of the tongue in which such panels are to be secured. That is, if the cut out portions are arcuate or curved in configuration, each fill-in panel is provided with an arcuate or curved edge **26** which approximates the contour of the border of the cut out portion. The outer edge **27** of the fill-in panel is provided with some slight curvature so that the same may serve as a substantial continuation of an associated edge margin **23** or **24** of the tongue when viewed in plan, as designated by the dotted lines **28** in FIG. 2. In comparison to its edge **26**, each fill-in panel edge **27** is substantially straight.

Still referring to FIG. 2, the cut out portions **22** together cooperate to define a central tongue portion **31** therebetween. In the absence of the improved tongue structure of this invention, considerable bulging or bunching during use could be expected across the tongue in the area of the central portion **31**.

While the extent of the cut out portions may and will vary, in accordance with the particular size of the boot in which the tongue is to be positioned, it has been found that such cut out portions together should not constitute more than two-thirds of the total transverse width of the tongue panel in the area described. That is, it has been found preferable that the central tongue portion **31** should constitute one-third to one-half of the total width of the tongue in that area. Good results are obtained when the central tongue portion constitutes slightly less than one-half of the total tongue width.

By thus controlling the extent of the cut out portions within predetermined limits, the desirable reduction in tongue bunching, accompanied by improved fit, is insured without adversely affecting the appearance of the boot when the same is in use. In this latter regard, by referring to FIG. 1, it will be noted that the fill-in panels **21** are generally completely hidden from view behind the opposed body portions **8** and **9** of the boot when the boot is in use.

Again referring to FIG. 2, the cut out portions shown are formed with a maximum transverse dimension *d* and a maximum longitudinal dimension D. The respective fill-in panels are formed with a maximum transverse dimension *d'* and a maximum longitudinal dimension D'. In this regard, the transverse dimension *d'* of the fill-in panels is only slightly greater than the transverse dimension *d* of the cut out portion of the tongue. Such transverse dimensional difference is provided to an extent sufficient only to insure that the fill-in panel will underlie the tongue panel an amount adequate to permit the same to be secured in place by a line of stitching **32**. However, the longitudinal dimension D' of the fill-in panels is substantially greater than the corresponding longitudinal dimension D of the cut out portions. It is such difference in longitudinal dimensions which permits the fill-in panels to provide the bulbous enlargements described when the fill-in panels are secured in place by the lines of stitching **32**. Such enlargements are shown in FIGS. 4 and 5, with the FIG. 4 showing being exaggerated somewhat for purposes of illustration.

As noted above, the dimensions of the cut out portions **22** and the fill-in panels **21** are proportioned in accordance with the size of the boot in which a given tongue is to be secured. By way of specific example, in a woman's ice skating boot, size 6½A, acceptable relative dimensions for the tongue are generally as follows: overall tongue width, 3⅞ inches; width of tongue center portion at its narrowest point, 1⅝ inches; cut out portion dimension *d*, 1⅛ inches; cut out portion dimension D, 2⅝ inches; fill-in panel dimension *d'*, 1⅜ inches; fill-in panel dimension D', 3¼ inches. The dotted line **34** seen in FIG. 2 on each of the fill-in panels indicates the line on which such panels are secured by the stitching **32** to the tongue panel **16**. Such line **34**, while of different contour when viewed in plan from the line of stitching **32**, is essentially of the same length as such line of stitching **32**. When the fill-in panels are stitched in place along line **34**, the bulbous enlargements result as described. The fill-in panels may be secured in place other than by stitching, but such means is preferred. A manual or mechanical operation may be employed.

Referring to FIG. 5 and FIG. 6, the contour which the tongue takes when it is positioned in a boot and the boot is secured around the foot and ankle of the wearer is shown. It should be noted that the central tongue portion **31** when the tongue is thus positioned is generally free of wrinkles or other unsightly and uncomfortable bunching. This condition should be contrasted with the exemplary view shown in FIG. 7 of a conventional tongue **36** which does not include the improved structure of this invention. The bunching and wrinkling, designated **37**, characteristic of prior conventional tongues is shown therein.

The additional longitudinal extent imparted to the tongue along its opposite edge margins by the flexible fill-in panels provides the extra material required in the critical area overlying the front portion and adjacent side portions of the ankle of the wearer to preclude bunching and wrinkling as described.

While it has not been shown in the attached drawings, it should be understood that the improved tongue structure of this invention may have its inside surface covered with a suitable layer of foam rubber, or other cushioning material, to further enhance the comfort of the wearer of the subject boot in known fashion.

The foregoing disclosure is made by way of illustration rather than limitation, and modifications to the improved boot construction disclosed herein which may suggest themselves to persons skilled in the art after having reviewed the foregoing disclosure are considered within the spirit of this invention. The scope of this invention should be determined in light of the appended claims to which reference is now directed.

I claim:

1. An improved boot construction comprising
(A) a sole and heel structure,
(B) a body projecting upwardly from said sole and heel structure to surround the foot and ankle of the wearer,
  (1) said body having an opening toward the front of the boot to permit insertion of the foot of the wearer thereinto,
(C) means positionable across said body opening to secure said body snugly around the foot and ankle of the wearer, and
(D) an elongated tongue secured to said body extending upwardly thereof to close off said opening, said tongue having
  (1) cut out portions therein along opposite longitudinal edge margins thereof in the area generally in line with the ankle bone of the wearer, and
  (2) flexible fill-in panels secured to said tongue in said cut out portions,
  (3) said fill-in panels being larger in at least one direction than said cut out portions and forming enlargements which project out of the plane of said tongue,
  (4) said fill-in panels adapting said tongue to conform more closely to the contour of the ankle of the wearer in the bendable front portion and adjacent side portions of the ankle when said boot body is secured in place around such ankle, whereby bunching and bulging of said tongue is minimized and a more comfortable fit is insured.

2. The boot construction of claim **1** in which
(E) said tongue has a predetermined transverse width at said area,
(F) each of said cut out portions extending inwardly toward each other from said opposite edge margins,
  (1) each cut out portion having predetermined maximum transverse and longitudinal dimensions,
(G) said fill-in panels having generally the same basic outline as said cut out portions,
  (1) the maximum transverse dimension of each fill-in panel being slightly greater than the corresponding transverse dimension of its associated cut out portion to permit such panel to be secured to said tongue,
  (2) the maximum longitudinal dimension of each fill-in panel being substantially greater than the corresponding longitudinal dimension of its associated cut out portion so that such panel may form said enlargement which adapts said tongue to better conform to the contour of the ankle of the wearer.

3. The boot of claim **1** in which
(E) each of said cut out portions is generally semi-circular in outline,
(F) each of said fill-in panels is generally semi-elliptical in outline having one generally arcuate edge and another edge which is generally straight by way of comparison,
(G) each of said fill-in panels being secured to said tongue so that said other edge thereof defines a substantial continuation of a longitudinal edge margin of said tongue.

4. The boot construction of claim **1** in which
(E) said cut out portions together define a central tongue portion therebetween,
  (1) said central tongue portion constituting approximately one-third to one-half of the total width of said tongue in said area.

5. The boot construction of claim **1** in which
(E) said cut out portions and said fill-in panels secured therein are dimensioned so that said fill-in panels are generally hidden from view by said boot body when said means snugly secure said body around the ankle of a wearer.

6. An improved boot construction which includes
(A) a tongue positionable between opposed portions of a boot body which define an opening therebetween,
(B) said tongue including bulbous enlargements which project out of the plane of the tongue when said boot is positioned to surround the foot and ankle of the wearer,
(C) said enlargements extending inwardly toward each other from opposite longitudinal edge margins of said tongue and enlarging said tongue in the longitudinal direction along said margins, so that said tongue may conform more closely to the contour of the ankle of the wearer when the boot body is positioned therearound whereby bunching and bulging of the tongue is minimized to insure a more comfortable fit.

7. The boot construction of claim **6** in which
(D) said tongue enlargements are defined by
  (1) opposite cut out portions extending into said

tongue from said opposite edge margins, and

(2) flexible fill-in panels of a size larger than said cut out portions secured in such cut out portions,

8. The boot construction of claim **7** in which

(3) said cut out portions are generally semi-circular in outline, and in which

(4) said fill-in panels are generally semi-elliptical in outline, whereby the longitudinal dimension of said fill-in panels is substantially greater than the corresponding longitudinal dimension of said cut out portions.

9. The boot construction of claim **7** in which

(3) said fill-in panels together constitute approximately one-third to one-half of the total width of said tongue in the area in which said panels are secured to said tongue.

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