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(54) **CURVED TOE CAP SAFETY BOOT**

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(57) **ABSTRACT**

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A curved toe cap safety boot for comfortably protecting all five toes includes a boot having a toe, a heel, a top, a bottom, an instep side, an outstep side, and a foot cavity extending between the toe, the heel, the top, the bottom, the instep side, and the outstep side. The top has an ankle aperture extending through to the foot cavity. A layered sole is disposed on the bottom of the boot. A toe cap disposed within the toe of the boot has a front portion, a medial portion, and a lateral portion. The medial portion extends a first length from the front portion to cover a hallux of a wearer. The lateral portion extends a second length from the front portion to cover a fifth phalange of the wearer. The first length is less than the second length.

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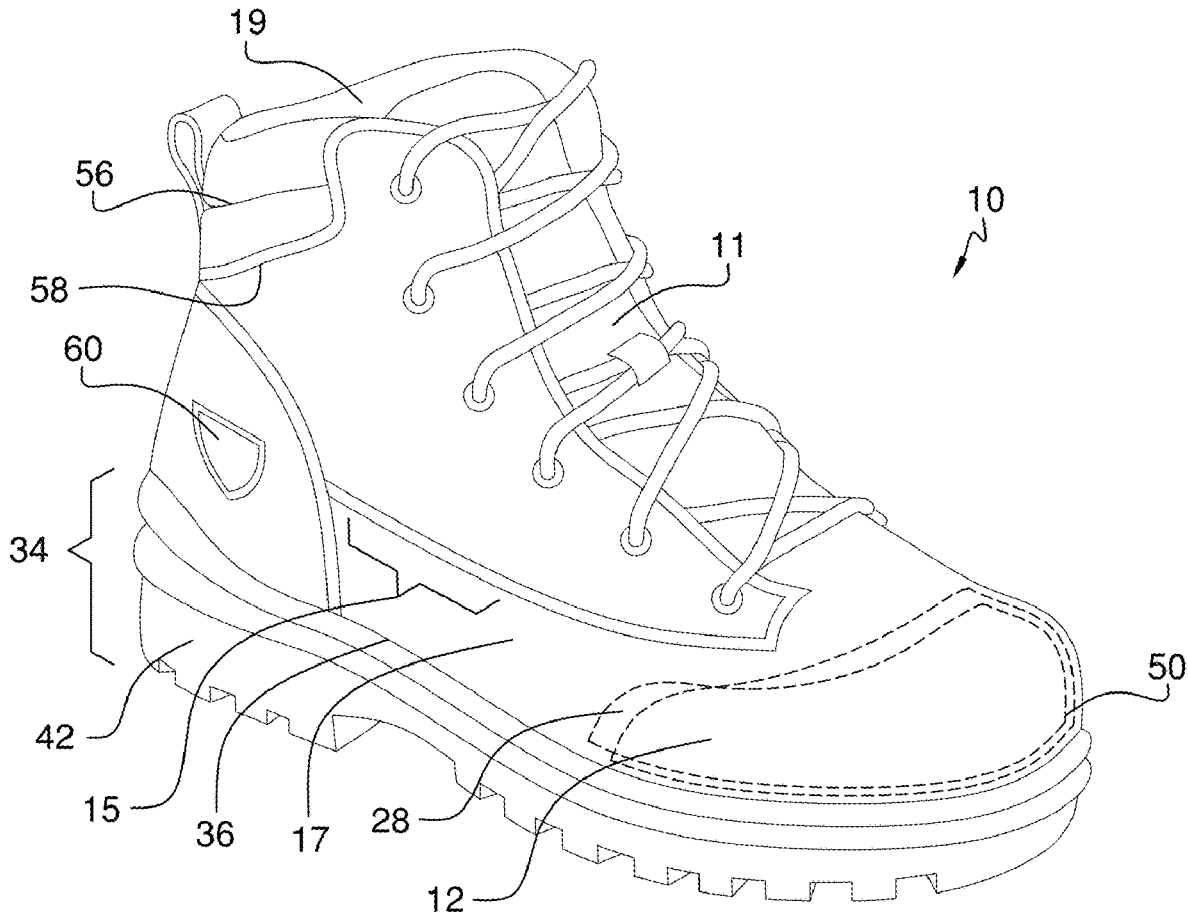
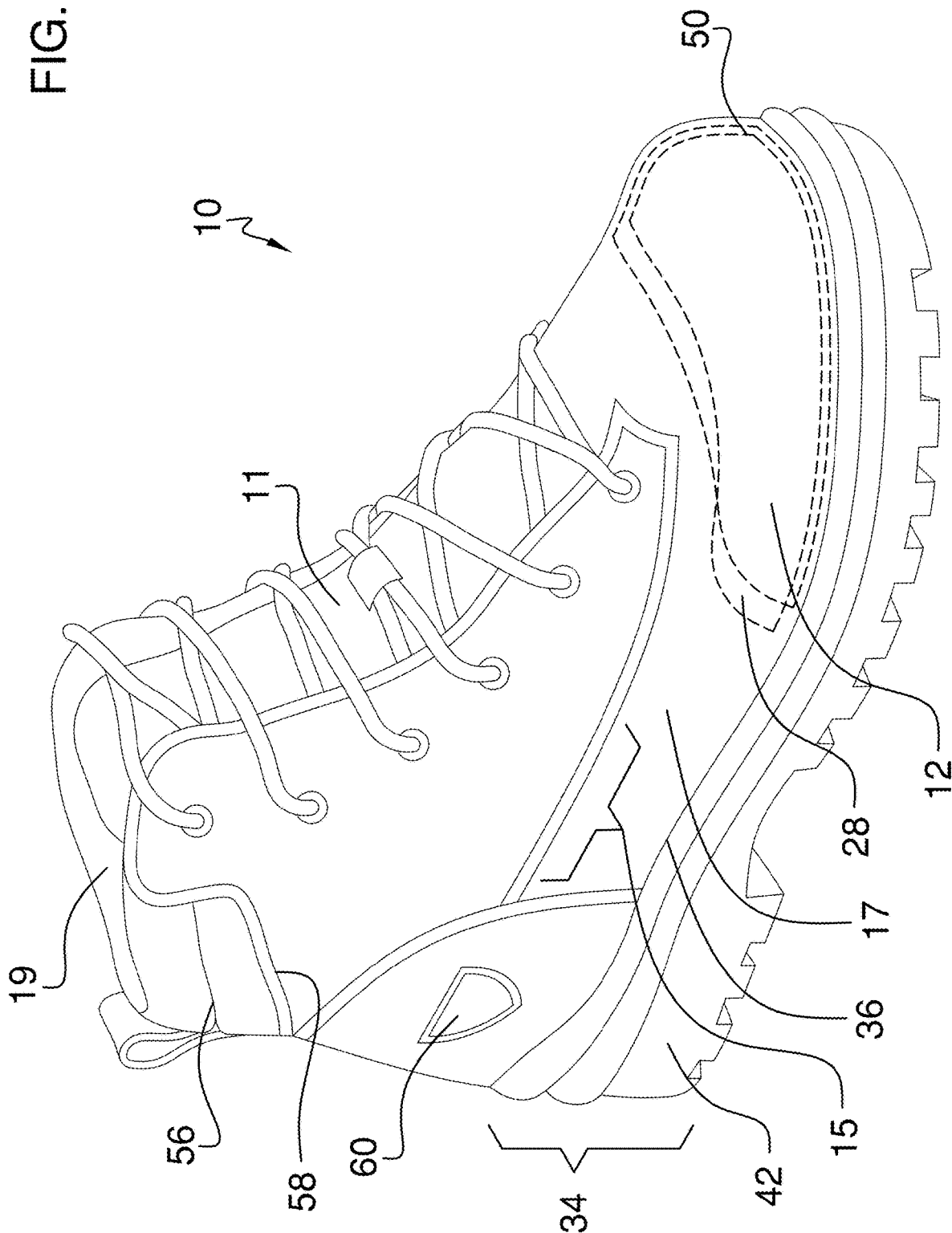


FIG. 1





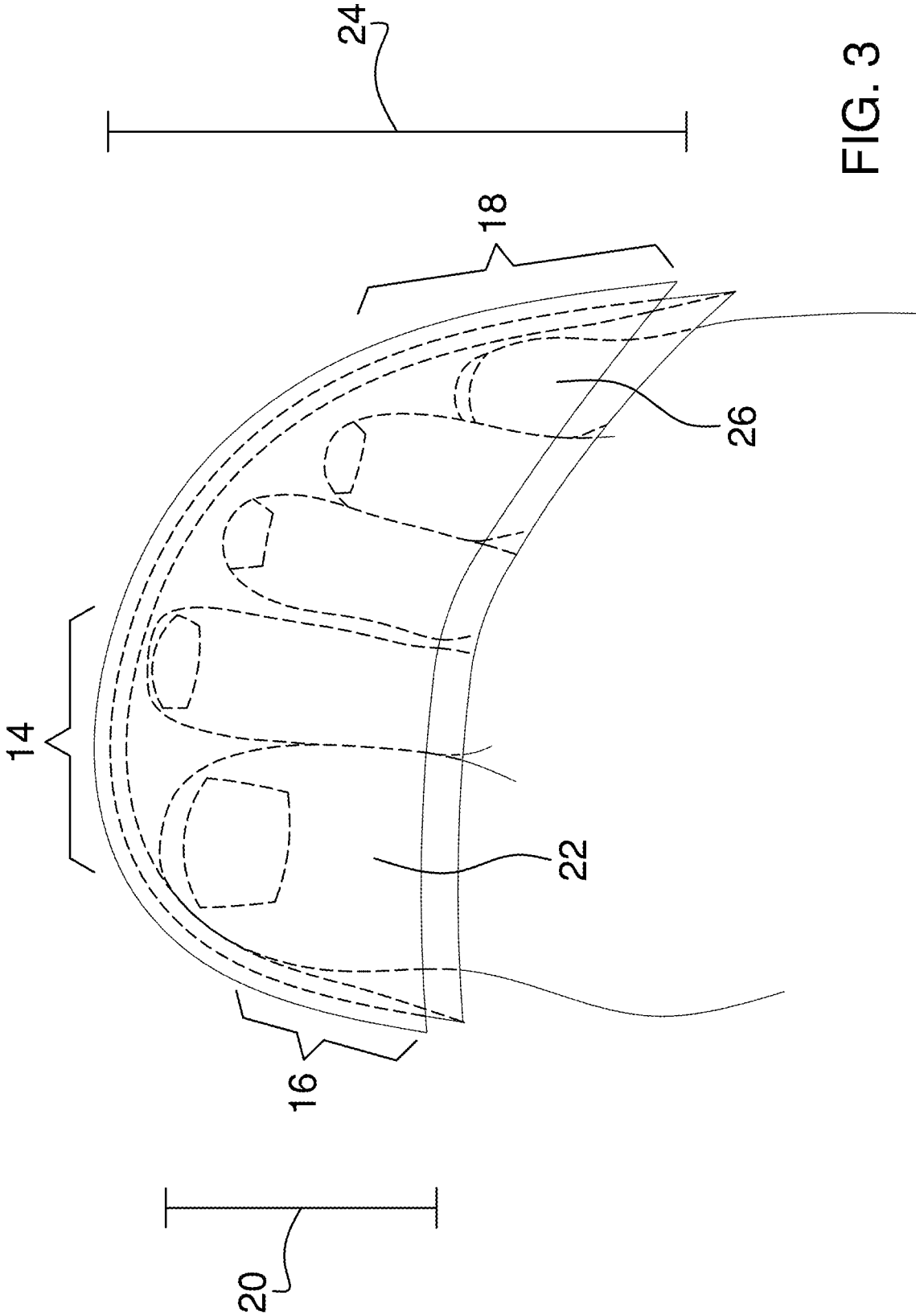


FIG. 3

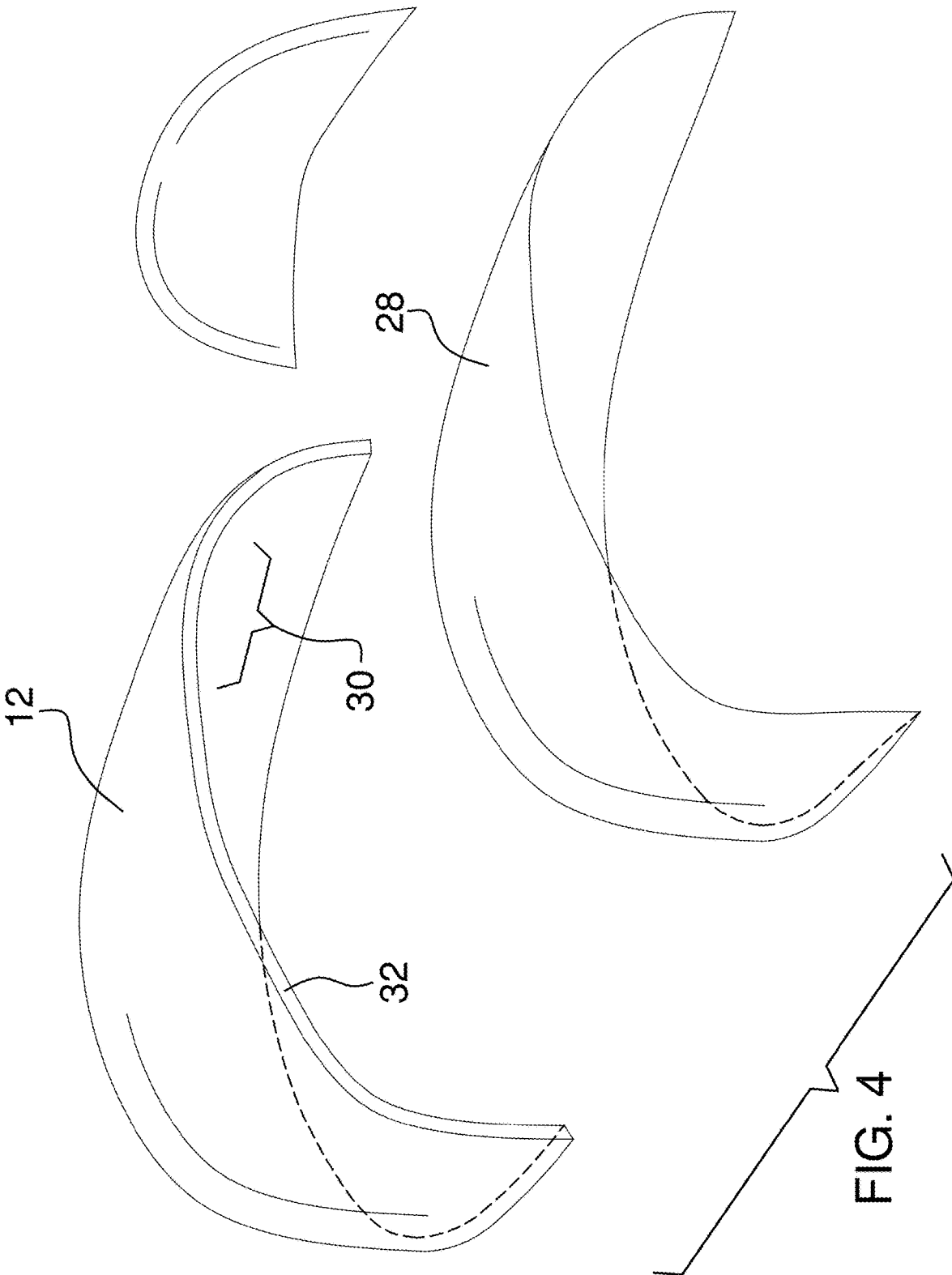


FIG. 4

**CURVED TOE CAP SAFETY BOOT**

## CROSS-REFERENCE TO RELATED APPLICATIONS

**[0001]** Not Applicable

## STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

**[0002]** Not Applicable

## THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT

**[0003]** Not Applicable

## INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC OR AS A TEXT FILE VIA THE OFFICE ELECTRONIC FILING SYSTEM

**[0004]** Not Applicable

## STATEMENT REGARDING PRIOR DISCLOSURES BY THE INVENTOR OR JOINT INVENTOR

**[0005]** Not Applicable

## BACKGROUND OF THE INVENTION

## (1) Field of the Invention

## (2) Description of Related Art Including Information Disclosed Under 37 CFR 1.97 and 1.98

**[0006]** The disclosure and prior art relates to safety boots and more particularly pertains to a new safety boot for comfortably protecting all five toes.

## BRIEF SUMMARY OF THE INVENTION

**[0007]** An embodiment of the disclosure meets the needs presented above by generally comprising a boot having a toe, a heel, a top, a bottom, an instep side, an outstep side, and a foot cavity extending between the toe, the heel, the top, the bottom, the instep side, and the outstep side. The top of the boot has an ankle aperture extending through to the foot cavity. A layered sole is disposed on the bottom of the boot. A toe cap disposed within the toe of the boot has a front portion, a medial portion, and a lateral portion. The medial portion extends a first length from the front portion to cover a hallux of a wearer. The lateral portion extends a second length from the front portion to cover a fifth phalange of the wearer. The first length is less than the second length.

**[0008]** There has thus been outlined, rather broadly, the more important features of the disclosure in order that the detailed description thereof that follows may be better understood, and in order that the present contribution to the art may be better appreciated. There are additional features of the disclosure that will be described hereinafter and which will form the subject matter of the claims appended hereto.

**[0009]** The objects of the disclosure, along with the various features of novelty which characterize the disclosure, are pointed out with particularity in the claims annexed to and forming a part of this disclosure.

## BRIEF DESCRIPTION OF SEVERAL VIEWS OF THE DRAWING(S)

**[0010]** The disclosure will be better understood and objects other than those set forth above will become apparent when consideration is given to the following detailed description thereof. Such description makes reference to the annexed drawings wherein:

**[0011]** FIG. 1 is an isometric view of a curved toe cap safety boot according to an embodiment of the disclosure.

**[0012]** FIG. 2 is a side elevation view of an embodiment of the disclosure.

**[0013]** FIG. 3 is a top plan view of a toe cap of an embodiment of the disclosure.

**[0014]** FIG. 4 is an isometric view of the toe cap and a cap liner of an embodiment of the disclosure.

## DETAILED DESCRIPTION OF THE INVENTION

**[0015]** With reference now to the drawings, and in particular to FIGS. 1 through 4 thereof, a new safety boot embodying the principles and concepts of an embodiment of the disclosure and generally designated by the reference numeral 10 will be described.

**[0016]** As best illustrated in FIGS. 1 through 4, the curved toe cap safety boot 10 generally comprises a boot 11 having a toe 50, a heel 46, a top, a bottom 36, an instep side 13, an outstep side 15, and a foot cavity 17 extending between the toe, the heel, the top, the bottom, the instep side, and the outstep side. The top of the boot has an ankle aperture 19 extending through to the foot cavity. A layered sole 34 is disposed on the bottom 36 of the boot 11. There is a toe cap 12 disposed within the toe 50 of the boot having a front portion 14, a medial portion 16, and a lateral portion 18. The toe cap may be steel. The medial portion 16 extends a first length 20 from the front portion 14 to cover a hallux 22 of a wearer. The lateral portion 18 extends a second length 24 from the front portion 14 to cover a fifth phalange 26 of the wearer. The first length 20 is less than the second length 24.

**[0017]** A cap liner 28 is removably disposed on an interior surface 30 of the toe cap. The cap liner 28 continuously extends from the front portion 14 to beyond a rear edge 32 of the toe cap and from the medial portion 16 to the lateral portion 18 in order to ensure that the wearer's phalanges do not come into direct contact with the toe cap 12. The layered sole 34 comprises an insole 38, a midsole 40, and an outsole 42. The insole and the midsole each have a thick portion 44 adjacent the heel 46 of the boot and a tapered portion 48 extending from the thick portion to the toe 50 of the boot. A plurality of X-shaped protrusions 52 is distributed across an underside 54 of the outsole 42. The outsole may be an oil-resistant material. An ankle cushion 56 is continuously disposed on a perimeter 58 of the ankle aperture 19 to provide added comfort and flexibility around the wearer's ankle. A logo crest 60 may be attached to an outer rear panel 62 of the boot.

**[0018]** In use, the wearer has all five toes of each foot comfortably protected within the toe cap 12. The insole 38 provides cushion for the wearer's foot while the midsole 40 provides durability and impact absorption for standing, walking, and hiking. The plurality of X-shaped protrusions 52 creates longitudinal and lateral traction to prevent the wearer from slipping. The ankle cushion 56 provides support and comfort to the wearer's ankle when moving.

[0019] With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of an embodiment enabled by the disclosure, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by an embodiment of the disclosure.

[0020] Therefore, the foregoing is considered as illustrative only of the principles of the disclosure. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the disclosure to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the disclosure. In this patent document, the word “comprising” is used in its non-limiting sense to mean that items following the word are included, but items not specifically mentioned are not excluded. A reference to an element by the indefinite article “a” does not exclude the possibility that more than one of the element is present, unless the context clearly requires that there be only one of the elements.

I claim:

1. A curved toe cap safety boot comprising:
  - a boot having a toe, a heel, a top, a bottom, an instep side, an outstep side, and a foot cavity extending between the toe, the heel, the top, the bottom, the instep side, and the outstep side, the top having an ankle aperture extending through to the foot cavity;
  - a layered sole disposed on the bottom of the boot;
  - a toe cap having a front portion, a medial portion, and a lateral portion, the toe cap being disposed within the toe of the boot, the medial portion extending a first length from the front portion, wherein said first length is configured to cover a hallux of a wearer, the lateral portion extending a second length from the front portion, wherein said second length is configured to cover a fifth phalange of the wearer, the first length being less than the second length.
2. The curved toe cap safety boot of claim 1 further comprising a cap liner, said cap liner being removably disposed on an interior surface of the toe cap, the cap liner continuously extending from the front portion to beyond a rear edge of the toe cap and from the medial portion to the lateral portion of the toe cap.
3. The curved toe cap safety boot of claim 2, wherein the layered sole comprises an insole, a midsole, and an outsole,

each of the insole and the midsole having a thick portion adjacent the heel of the boot and a tapered portion extending from the thick portion to the toe of the boot.

4. The curved toe cap safety boot of claim 3, wherein the outsole has a plurality of protrusions, each of the plurality of protrusions being X-shaped, wherein the plurality of protrusions is configured to provide longitudinal and lateral traction.

5. The curved toe cap safety boot of claim 2 further comprising an ankle cushion, said ankle cushion being continuously disposed on a perimeter of the ankle aperture of the boot.

6. A curved toe cap safety boot comprising:

- a boot having a toe, a heel, a top, a bottom, an instep side, an outstep side, and a foot cavity extending between the toe, the heel, the top, the bottom, the instep side, and the outstep side, the top having an ankle aperture extending through to the foot cavity;
- a toe cap having a front portion, a medial portion, and a lateral portion, the toe cap being disposed within the toe of the boot, the medial portion extending a first length from the front portion, wherein said first length is configured to cover a hallux of a wearer, the lateral portion extending a second length from the front portion, wherein said second length is configured to cover a fifth phalange of the wearer, the first length being less than the second length;
- a cap liner, said cap liner being removably disposed on an interior surface of the toe cap, the cap liner continuously extending from the front portion to beyond a rear edge of the toe cap and from the medial portion to the lateral portion of the toe cap;
- a layered sole, said layered sole being disposed on the bottom of the boot, the layered sole comprising an insole, a midsole, and an outsole, each of the insole and the midsole having a thick portion adjacent the heel of the boot and a tapered portion extending from the thick portion to the toe of the boot, the outsole having a plurality of protrusions, each of the plurality of protrusions being X-shaped, wherein the plurality of protrusions is configured to provide longitudinal and lateral traction; and
- an ankle cushion, said ankle cushion being continuously disposed on a perimeter of the ankle aperture of the boot.

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