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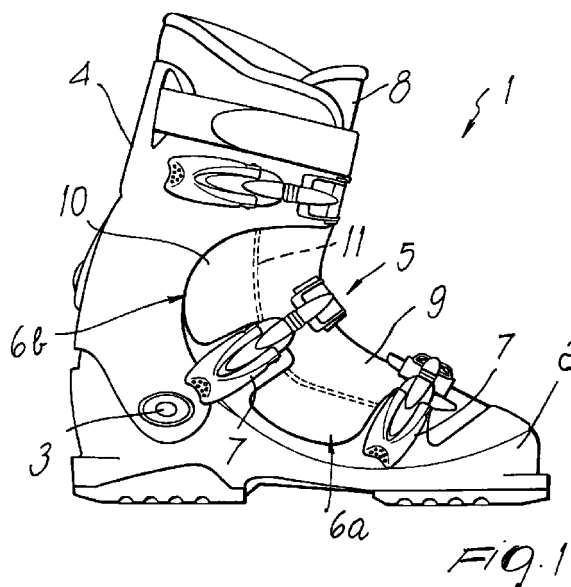
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(54) **Sports shoe**

(57) A sports shoe, such as a ski boot, of the type that includes a soft innerboot (8) and a rigid quarter (4) articulated to a rigid shell (2), a fastening means being associated with the shell and the quarter. A three-dimensionally shaped waterproof and elastic soft overshoe (9) is externally associated with the soft innerboot. The overshoe has a semirigid insole and has one or more regions in contact with the outside. The overshoe can be removed from the shoe in order to walk. It is thus possible to provide, for example, a ski boot in which the shell and the quarter have large cutouts preventing water from entering the soft innerboot and at the same time allowing the use of the overshoe alone for walking.



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Description

[0001] The present invention relates to a sports shoe, such as an ice skate, a ski boot, or a shoe for walking or climbing on dry or wet terrain.

[0002] Conventional shoes or boots of the above type generally comprise a soft innerboot inserted in a rigid shell and into a likewise rigid quarter articulated to the shell.

[0003] Conventional sports shoes of the above type have the drawback of being heavy because of the materials used to make the shell and the quarter.

[0004] It is not feasible to provide cutouts at the shell or at the quarter, because the soft innerboot would be directly in contact with snow, ice or water which would be transmitted immediately to the foot of the user.

[0005] The aim of the present invention is therefore to provide an improved sports shoe, which is comfortable and lightweight, particularly for use on wet terrain.

[0006] Within the scope of this aim, an object of the invention is to provide a shoe which allows the skier to protect the user against possible contact with snow or ice or water.

[0007] Another important object of the present invention is to provide a shoe which also has low manufacturing costs.

[0008] Another object of the present invention is to provide a shoe which improves the flexing of the quarter while allowing optimum transmission of the forces applied by the foot.

[0009] Another object of the present invention is to provide a shoe which allows to both walk and perform sports activity in an optimum manner.

[0010] This aim, these objects and others which will become apparent hereinafter from the description that follows are achieved by a sports shoe, comprising a substantially rigid quarter articulated to a substantially rigid shell and a soft innerboot inserted in said quarter and shell, said shell and said quarter being provided with a fastening means, characterized in that a three-dimensionally shaped relatively soft overshoe is externally associated with said soft innerboot, said overshoe being waterproof and elastic, having one or more regions in contact with the outside, and being removably associated with said shoe.

[0011] Conveniently, the overshoe is provided with a semirigid insole and can be removed from the shoe for walking.

[0012] Further characteristics and advantages of the invention will become apparent from the description that follows, which is to be considered together with the accompanying drawings, which illustrate only by way of non-limitative example a particular embodiment thereof and wherein:

Figure 1 is a side view of a sports shoe according to the invention, constituting a ski boot;

Figure 2 is a view, similar to Figure 1, of the shell

and of the quarter of the shoe, without the innerboot;

Figure 3 is a side view of the innerboot;

Figure 4 is a side view of the soft overshoe;

Figure 5 is a side view of the soft overshoe superimposed on the innerboot;

Figure 6 is a sectional view, taken along the plane VI-VI of Figure 4;

Figure 7 is a view of an overshoe, according to a further aspect of the invention;

Figure 8 is a view of a shoe, according to the invention, with the overshoe of Figure 7 applied thereto.

[0013] With reference to the above figures, and bearing in mind that they exemplify particular embodiments, are in variable scale and that individual reference numerals designate identical or equivalent elements therein, the numeral 1 designates a sports shoe such as, for example, a ski boot.

[0014] The shoe comprises a substantially rigid quarter 4 articulated to a substantially rigid shell 2, by means of studs 3, at the malleolar region.

[0015] Conveniently, both the quarter 4 and the shell 2 have a cutout 6a, 6b, at the foot instep region 5. The cutout 6a, 6b also partially affects the lateral sides of the quarter and shell.

[0016] A fastening means for fastening the shell and the quarter is provided and is optionally associated, at its ends, at tabs 7 provided at the cutout.

[0017] The sports shoe also comprises a soft innerboot 8 which can be inserted in the quarter and the shell.

[0018] An overshoe 9 made of waterproof material is associated externally with respect to the soft innerboot.

[0019] For example, the overshoe is provided by using various pieces 10 of waterproof material which are mutually associated by virtue of a stitched seam 11 which is rendered waterproof by using waterproof strips 12 which are rigidly coupled internally to the overshoe.

[0020] The overshoe has one or more regions in contact with the outside.

[0021] The overshoe has a three-dimensional shape so as to follow the shape of the internally accommodated soft innerboot, and in addition to being waterproof it is elastic and thus allows the articulated motion of the foot and of the leg.

[0022] In a lower region, the overshoe has a semirigid insole 15 which allows walking once it has been uncoupled from the shoe.

[0023] The illustrated embodiment achieves all of its intended aim and objects, providing a sports shoe, such as a ski boot, which first has a low weight by virtue of the presence of the cutouts 6a and 6b, which can even be very large. Moreover, the presence of the cutouts does not detract from user comfort, since the presence of the waterproof soft overshoe in any case allows to use a soft innerboot without allowing water to enter

the innerboot.

[0024] Furthermore, the presence of the cutouts and of the overshoe allows to increase comfort for the skier, since flexing of the quarter is facilitated while allowing optimum transmission of forces, for example in a lateral direction, of the foot at the quarter and at the shell and therefore at the sports implement.

[0025] The shoe according to the invention can be subjected to numerous variations, within the scope of the appended claims.

[0026] For example, Figures 7 and 8 illustrate a sports shoe in which through openings are formed at the overshoe, at one or more regions 13; inserts 14 made of vapor-permeable material are rigidly coupled at the through openings, for example by virtue of stitched seams 11 which are rendered waterproof for example by using waterproof internal strips: this solution therefore allows to keep the innerboot impermeable yet allows the foot to breathe.

[0027] Finally, the user can both perform sports practice in an optimum manner and, once the practice has ended, walk after removing the soft innerboot with the overshoe from the shoe.

[0028] The materials and the dimensions that constitute the individual components of the shoe may of course be the most pertinent according to the specific requirements.

Claims

1. A sports shoe, comprising a substantially rigid quarter articulated to a substantially rigid shell and a soft innerboot inserted in said quarter and shell, said shell and said quarter being provided with a fastening means, characterized in that a three-dimensionally shaped relatively soft overshoe is externally associated with said soft innerboot, said overshoe being waterproof and elastic, having one or more regions in contact with the outside, and being removably associated with said shoe.
2. The sports shoe according to claim 1, characterized in that said soft overshoe is provided with a semirigid insole and can be removed from said shoe for walking.
3. The sports shoe according to claim 1, characterized in that said soft overshoe is waterproof and has one or more vapor-permeable regions.
4. The sports shoe according to claim 1, characterized in that said shell and/or quarter have one or more cutouts at the foot instep region.
5. The sports shoe according to claim 4, characterized in that said one or more cutouts at least partially affect the lateral sides of said shell and quarter.
6. The sports shoe according to claim 5, characterized in that said overshoe is detachably associated externally with respect to said soft innerboot.
7. The sports shoe according to claim 6, characterized in that said overshoe is provided by using various pieces of waterproof material which are mutually associated by means of a stitched seam which is rendered waterproof by using waterproof strips which are rigidly coupled inside said overshoe.
8. The sports shoe according to one or more of the preceding claims, characterized in that through openings are provided in one or more regions at said overshoe and inserts made of vapor-permeable material are rigidly coupled thereat.
9. The sports shoe according to one or more of the preceding claims, characterized in that said overshoe is three-dimensionally shaped so as to follow the shape of said internally accommodated soft innerboot.
10. The sports shoe according to one or more of the preceding claims, characterized in that said overshoe is elastic and thus allows the articulated motion of the foot and of the leg.
11. The sports shoe according to one or more of the preceding claims, characterized in that said overshoe has a semirigid insole, in a lower region, said semirigid insole allowing walking once it has been uncoupled from said shoe.

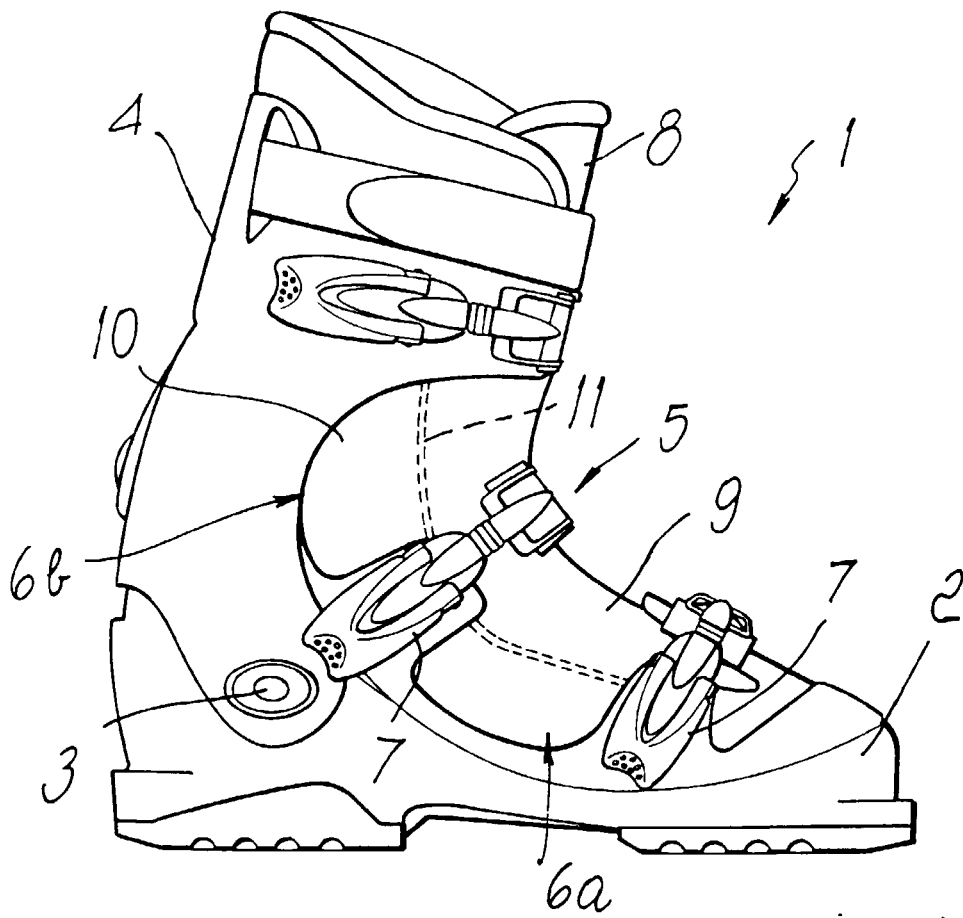


FIG. 1

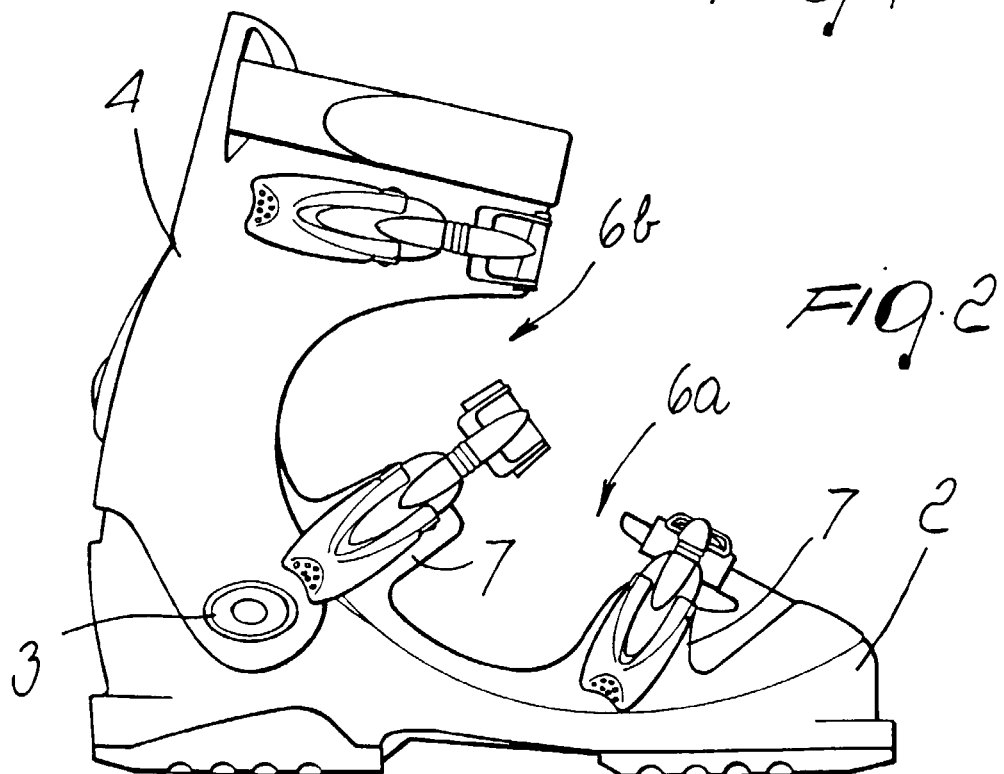


FIG. 2

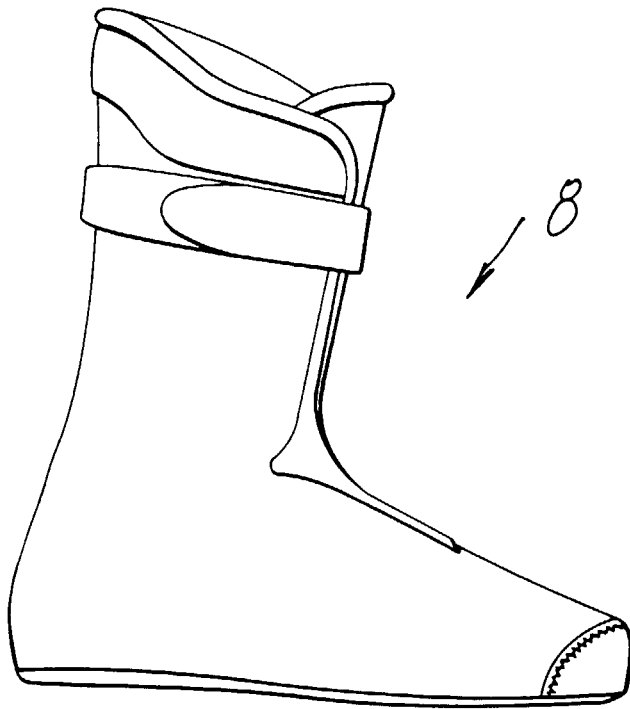


Fig. 3

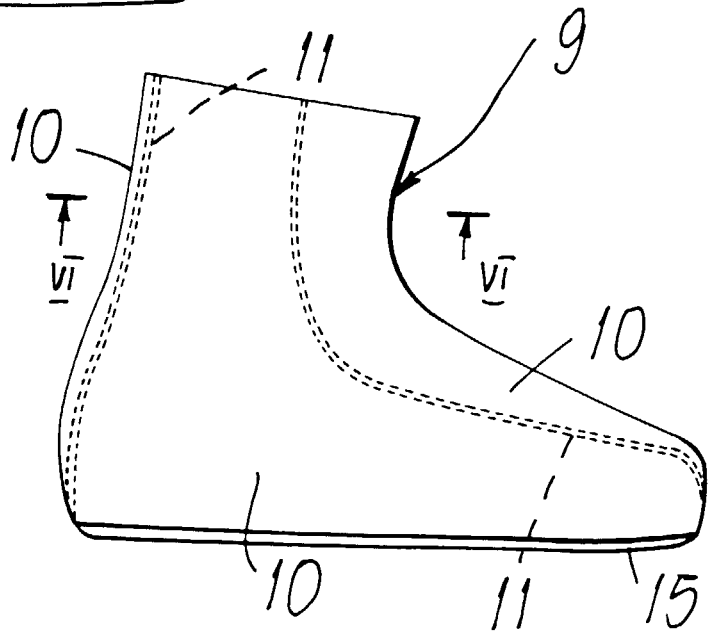


Fig. 4

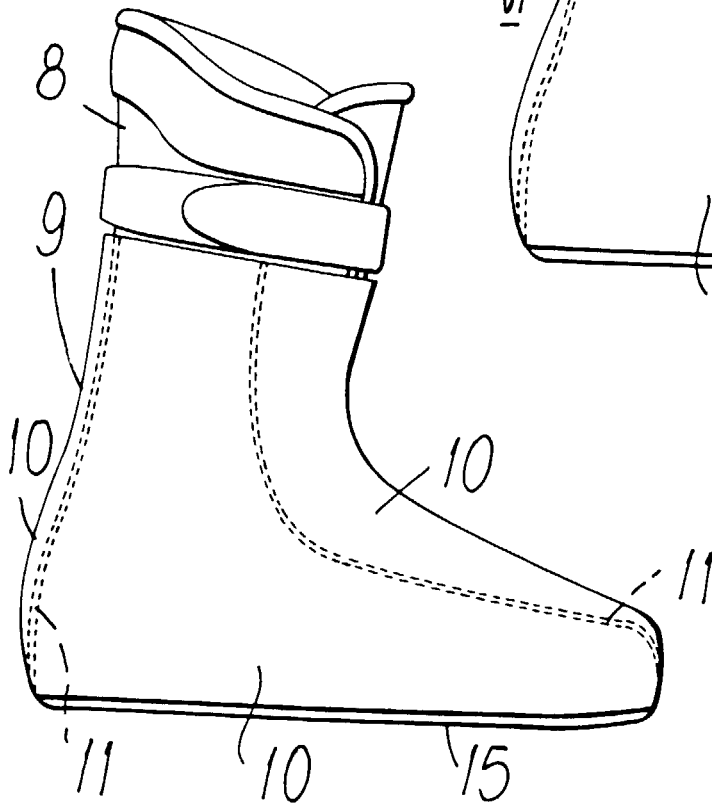
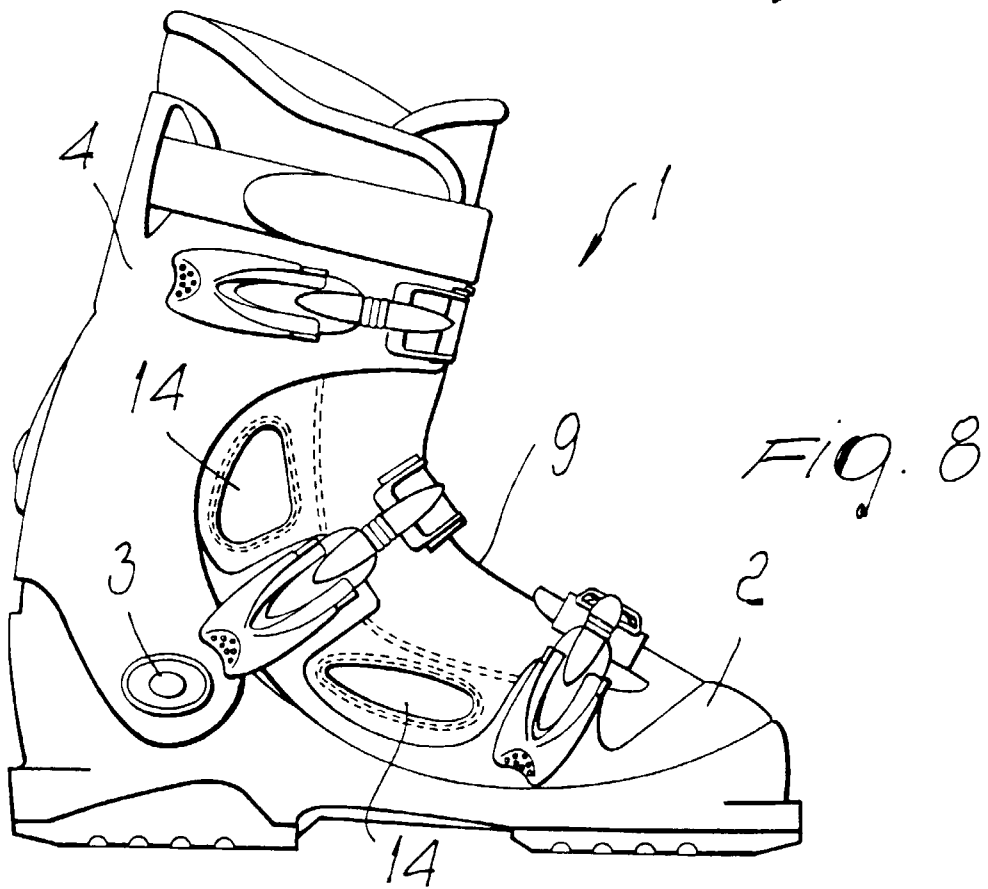
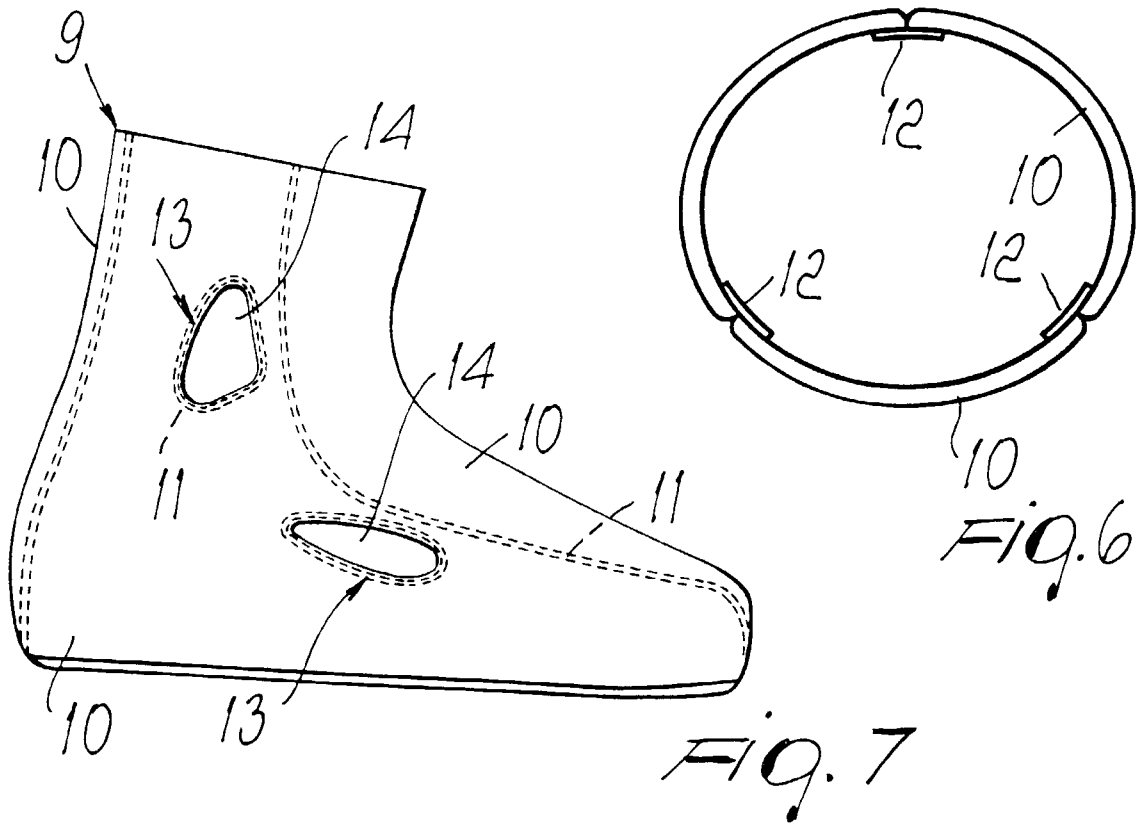


Fig. 5





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EUROPEAN SEARCH REPORT

Application Number
EP 00 10 3035

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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 16 June 2000	Examiner Claude1, B
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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