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(54) Sports shoe, particularly for skiing, and method for producing it

(57) A sports shoe (1), particularly for skiing, and a method for producing it, the shoe being composed of a shell (2) with overlapping flaps to which a quarter (3) is articulated and with which an innerboot (4) is associated; the shell (2) has an inner flap (7) which is elongated so as to wrap around almost all of the outer side of the innerboot.

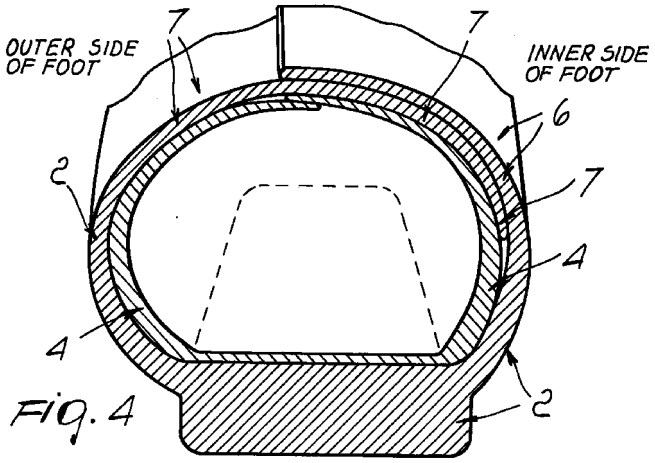

Fig. 4

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Description

[0001] The present invention relates to a sports shoe, particularly for skiing, and to the method for producing it.

[0002] Ski boots made of plastics and generally composed of a shell, a quarter and an innerboot are currently in use.

[0003] Such conventional ski boots are provided with a system for fastening the boot around the foot and the lower part of the leg, by means of a certain number, usually three or four, of adjustable closure levers.

[0004] The shell and the quarter are shaped like a longitudinally open tube and are closed by the action of the levers, so that the two resulting flaps can overlap and slide on each other, as shown in Figure 1.

[0005] This is the commercially most widespread manufacturing method, for providing ski boots because it ensures good watertightness and good adaptability to the shape of the foot, since often also the innerboots are manufactured by using the same production method.

[0006] However, the two overlapping flaps have a limited length, because the considerable thickness of the walls, which must ensure the necessary resistance, and the manufacturing method, which uses injection molds, make it rather complicated to produce very long flaps.

[0007] The main drawback of this conventional type of ski boots consists of the limited adaptability and wraparound fit of the boot, with respect to the different shapes that a foot may have, given the same length and therefore the same shoe size.

[0008] This is partially also due to the fact that excessively tight fastening of the closure levers can lead to painful pressure points on the foot.

[0009] The aim of the present invention is to solve the above problems, eliminating the drawbacks of the prior art, by providing a device which allows to obtain a sports shoe for skiing whose shell adapts to, and wraps around in an optimum manner, a larger number of possible shapes of the user's foot.

[0010] Within the scope of this aim, an important object is to provide a sports shoe which allows to adequately close the levers without producing forcing which may generate pressure points on the foot.

[0011] Another object is to provide a sports shoe which is structurally simple and has low manufacturing costs.

[0012] These and other objects which will become better apparent hereinafter are achieved by a sports shoe, particularly for skiing, comprising a shell with overlapping flaps and an innerboot associated with said shell, characterized in that said shell has an inner flap which is elongated so as to wrap around almost all of the side of the outer surface of said innerboot that lies on the inner side of the foot.

[0013] Further characteristics and advantages of the invention will become better apparent from the detailed description of a particular embodiment, illustrated only by way of non-limitative example in the accompanying drawings, wherein:

Figure 1 is a front view of a conventional ski boot, shown in cross-section in its front part;

Figure 2 is a front view of the invention, shown in cross-section in its front part;

Figures 3 and 4 are front views of a detail of, respectively, a conventional ski boot and of the invention, shown in cross-section in their front part;

Figures 5 and 6 are front views of a detail of the invention respectively after molding and after assembly, shown in cross-section in its front part.

[0014] With reference to Figure 2, a sports shoe 1, particularly for skiing, and commonly termed ski boot, comprises a shell 2, a quarter 3 which is articulated thereto, and an innerboot 4, in which the foot of the user is placed.

[0015] Shell 2 and quarter 3 are fastened respectively to the foot and to the lower part of the leg by means of adapted closure levers, designated by the reference numerals 5a and 5b, respectively.

[0016] In particular, the closure levers 5a fasten the shoe to the foot, making the lower surfaces of a first outer flap, designated by the reference numeral 6, of the shell 2, slide on the upper surface of a second inner flap, designated by the reference numeral 7, of said shell 2, and thus reducing the internal free cross-section.

[0017] Likewise, said closure levers 5b guide the sliding of a third outer flap 8 of said quarter 3 on a fourth inner flap, designated by the reference numeral 9.

[0018] Said second inner flap 7 of the shell 2 is distinctly longer than the equivalent flap of a prior art boot, shown in Figure 1, so as to wrap around almost all of the outer side of the innerboot 4 on the inner side of the foot.

[0019] The shell 2 can be manufactured by the following method: during molding, the second inner flap 7 is arranged in the mold above the first outer flap 6, as shown in Figure 5; in this manner it is possible to obtain the flap 7 having the desired increased extension.

[0020] Then, during assembly, the flap 7 is forced below the flap 6, as shown in Figure 6, obtaining the shell according to the invention.

[0021] Use is therefore as follows: with reference to Figure 2, when the closure levers are fully open the foot is inserted in the innerboot.

[0022] Then the closure levers are gradually fastened, and it is in this step that the second inner flap of the shell slides, proportionally to the dimensions of the foot, between the first outer flap 6 and the outer surface of the innerboot 4, reducing the empty spaces inside the ski boot.

[0023] It has thus been observed that the invention has achieved the intended aim and objects, a sports shoe for skiing having been devised which is adapted to

provide the user with greater comfort during use and accordingly greater confidence in skiing.

[0024] The sports shoe according to the invention is susceptible of numerous modifications and variations, within the scope of the appended claims.

[0025] The materials used, as well as the dimensions that constitute the individual components of the invention, may of course be the most pertinent according to specific requirements.

[0026] The disclosures in Italian Patent Application No. TV99A000098 from which this application claims priority are incorporated herein by reference.

[0027] Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

Claims

1. A sports shoe, particularly for skiing, comprising a shell with overlapping flaps and an innerboot associated with said shell, characterized in that said shell has an inner flap which is elongated so as to wrap around almost all of the side of the outer surface of said innerboot that lies on the inner side of the foot.

2. The shoe according to claim 1, characterized in that said shell has a first outer flap and a second inner flap which mutually overlap, said second inner flap extending beyond the central region of said innerboot so as to wrap around almost all of the side of the outer surface that lies on the inner side of the foot.

3. A method for obtaining a shell of a sports shoe having a first and a second flaps which mutually overlap, characterized in that it comprises the following steps:

   -- molding a first flap and a second flap which have different dimensions, said second flap being more elongated, so as to affect and wrap around almost all of the side that lies on the inner side of the foot, said second flap being molded externally with respect to said first flap;
   -- positioning said second flap inside said first flap after the extraction of said shell from the mold.

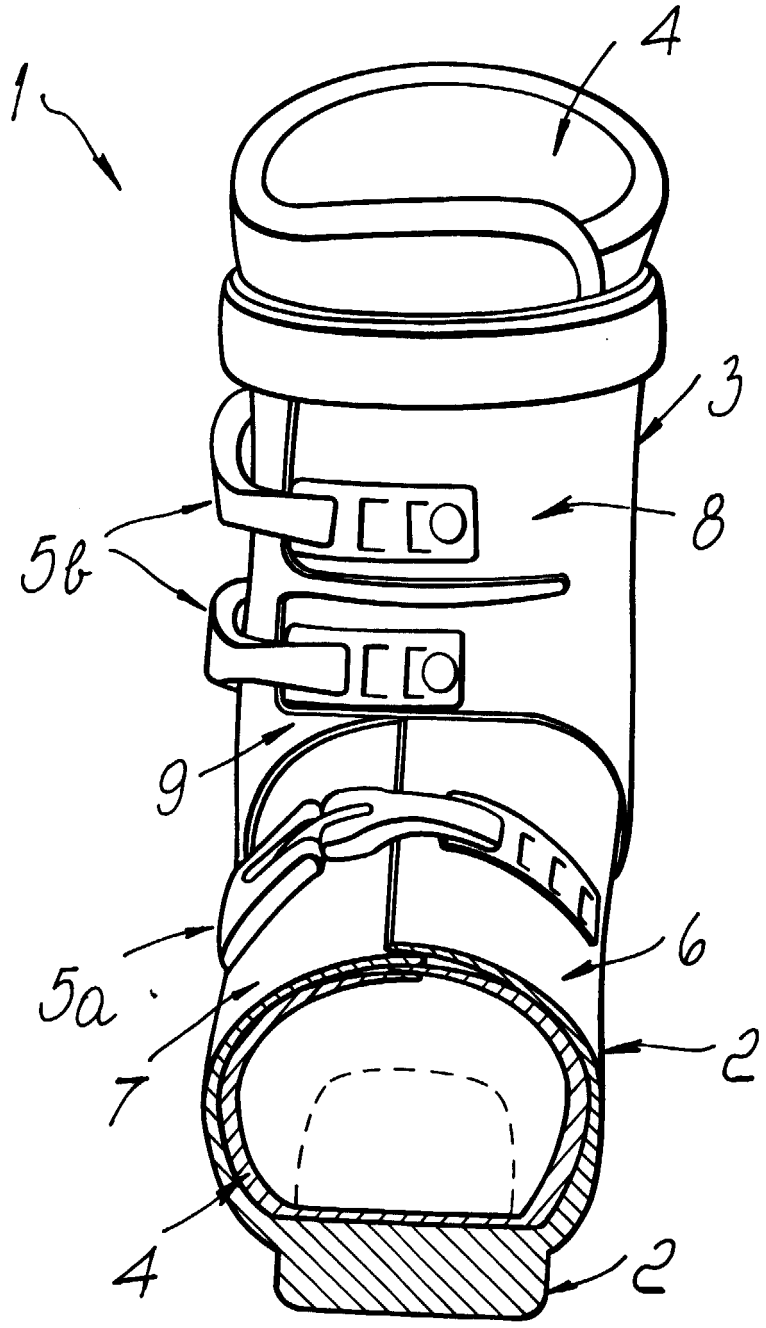

FIG. 1
PRIOR ART

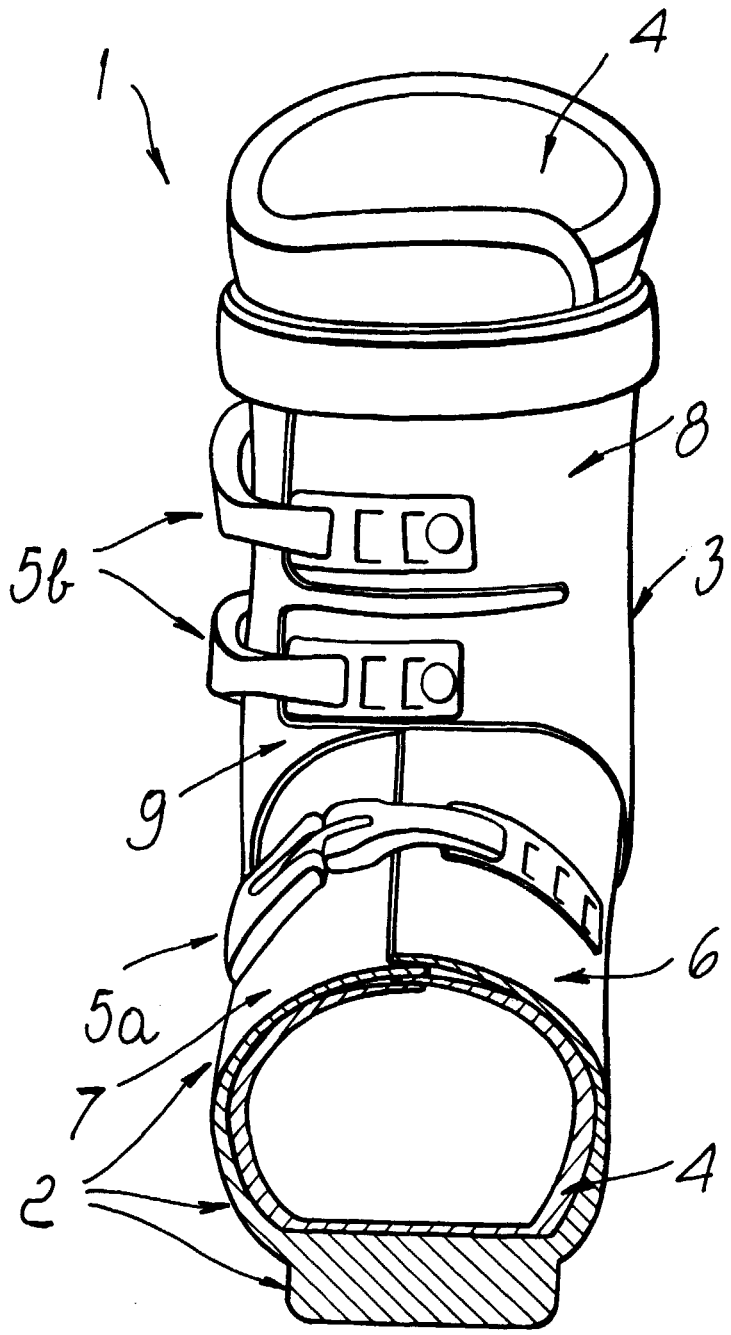

Fig. 2

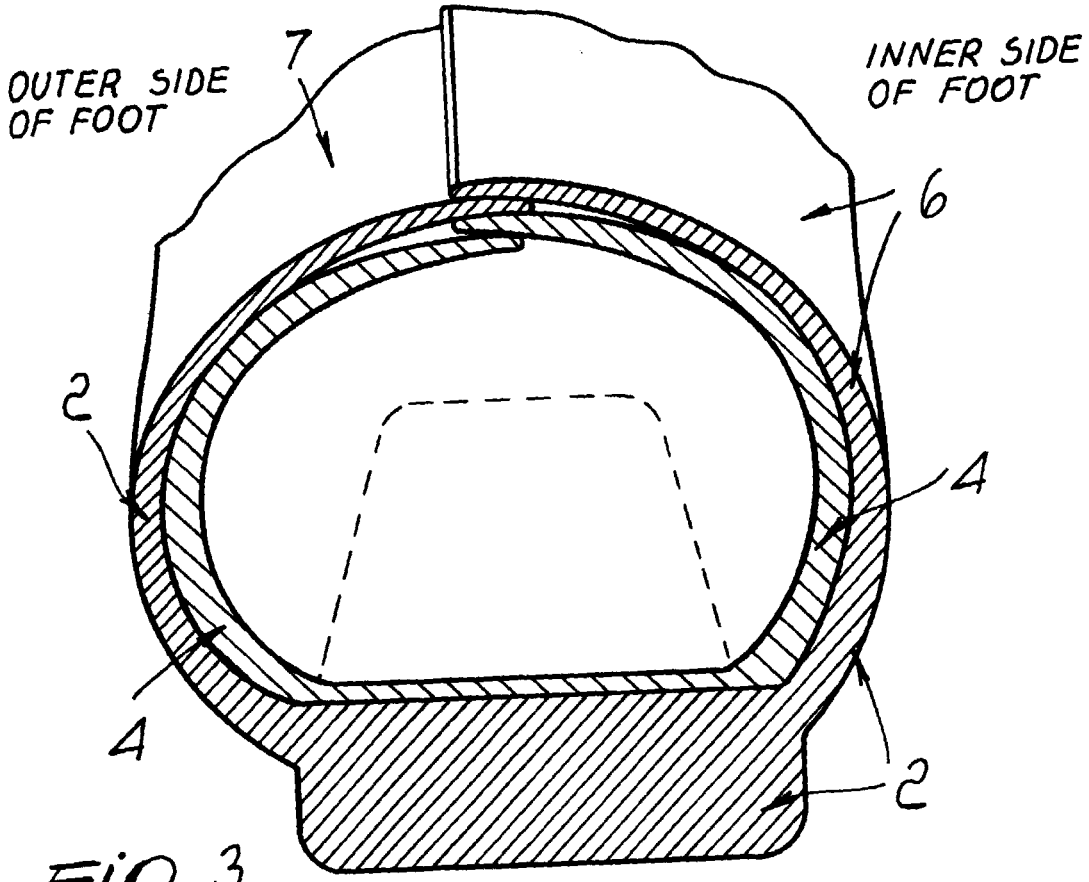
OUTER SIDE OF FOOT
7
INNER SIDE OF FOOT
6
2
4
4
2

FIG. 3

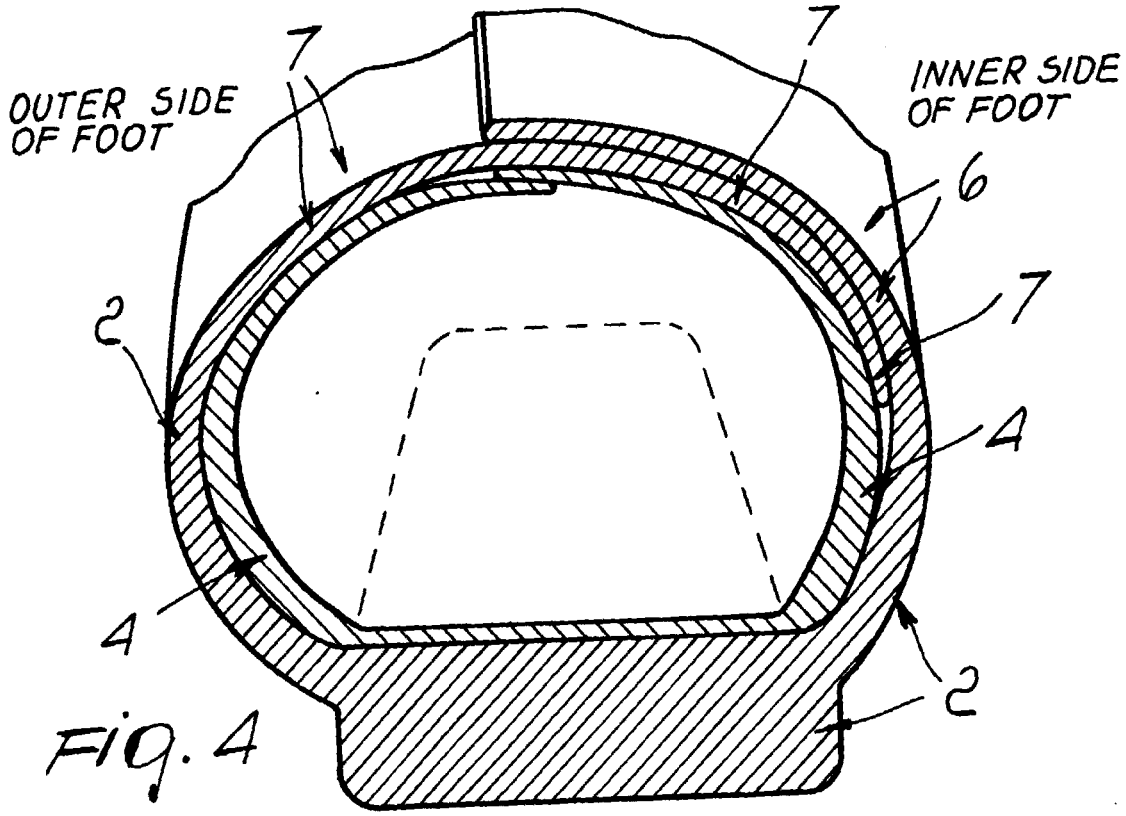
OUTER SIDE OF FOOT
7
7
INNER SIDE OF FOOT
6
7
2
4
4
2

FIG. 4

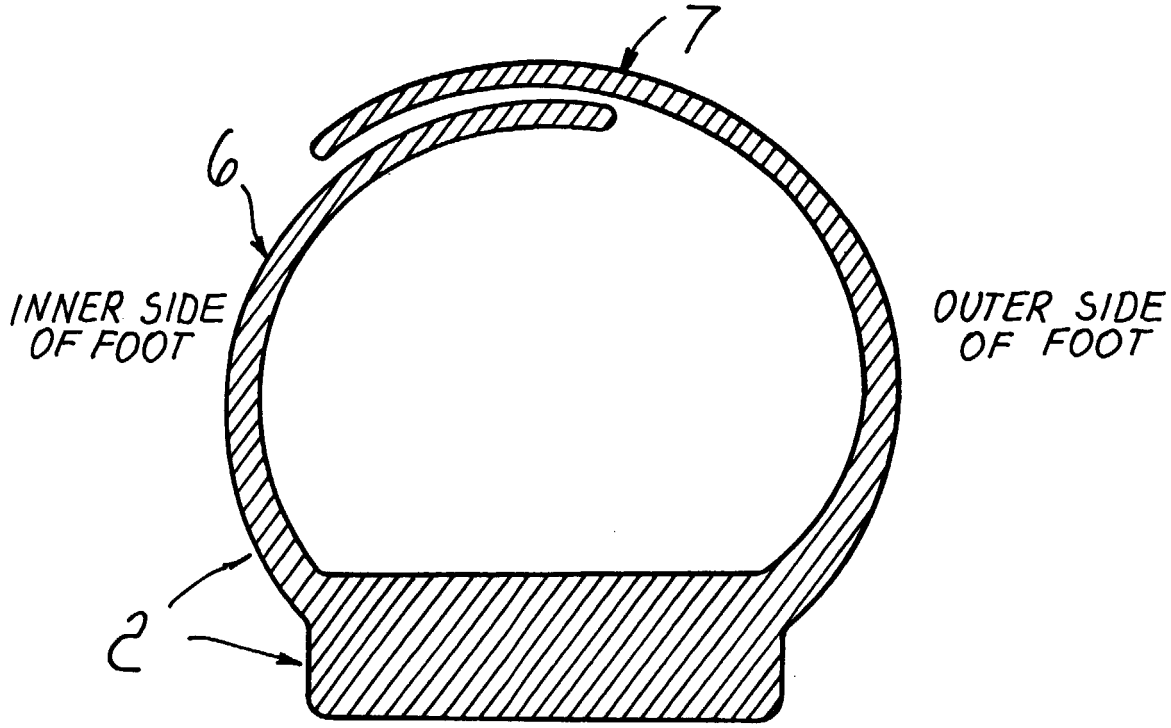
7
6
INNER SIDE OF FOOT
OUTER SIDE OF FOOT
2

Fig. 5

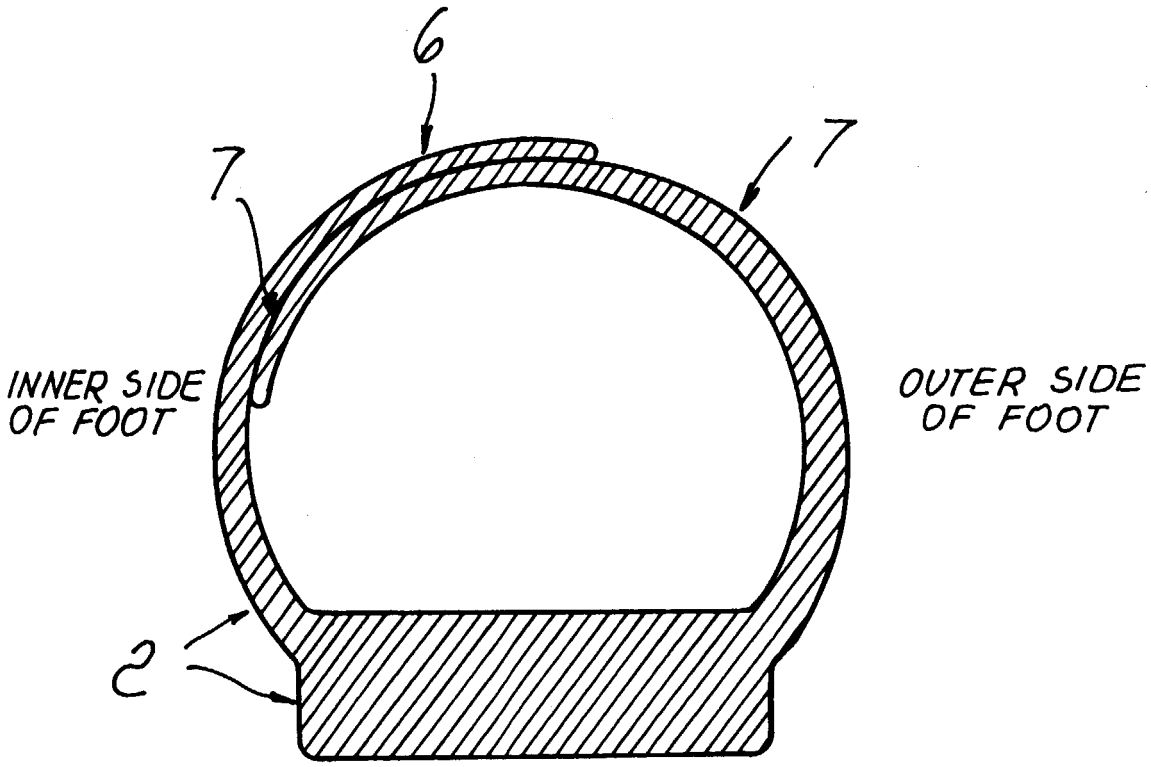
6
7
7
INNER SIDE OF FOOT
OUTER SIDE OF FOOT
2

Fig. 6

European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 00 11 8181

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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A	EP 0 754 412 A (KENTA SPORT AG) 22 January 1997 (1997-01-22) * the whole document *	1,3	
A	US 5 551 174 A (PERRISSOUD CLAUDE) 3 September 1996 (1996-09-03) * the whole document *	1,3	

TECHNICAL FIELDS SEARCHED (Int.Cl.7)

A43B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	1 December 2000	Claudel, B

CATEGORY OF CITED DOCUMENTS

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01-12-2000

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