

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



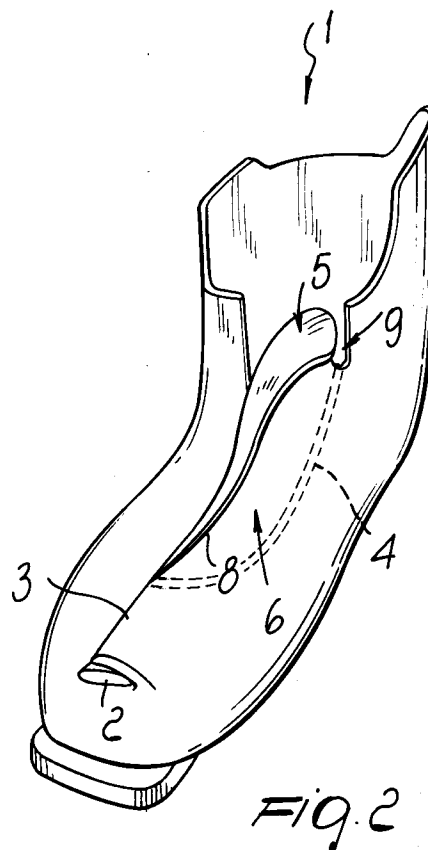
(11) Publication number:

0 659 358 A1

(12)

EUROPEAN PATENT APPLICATION(21) Application number: **94119500.0**(51) Int. Cl.⁶: **A43B 5/04**(22) Date of filing: **09.12.94**(30) Priority: **24.12.93 IT TV930062 U**(43) Date of publication of application:
28.06.95 Bulletin 95/26(84) Designated Contracting States:
AT CH DE FR IT LI(71) Applicant: **NORDICA S.p.A.**
Via Montebelluna 5/7
I-31040 Trevignano (Treviso) (IT)(72) Inventor: **Gorza, Roberto**
Via C. Rizzarda, 15
I-32032 Feltre (Prov. Belluno) (IT)(74) Representative: **Modiano, Guido, Dr.-Ing. et al**
Modiano & Associati S.r.l.
Via Meravigli, 16
I-20123 Milano (IT)(54) **Overlap-style shell particularly for sports shoes.**

(57) The overlap-style shell (1), particularly for sports shoes such as ski boots, ice skates, or roller skates, has, at least on its outer flap (3), at least one recess (4) that connects two separate regions (7,8) of the perimetric edge of the flap. The recess is furthermore formed along a direction that affects the lateral metatarsal region of the foot. It is thus possible to achieve optimum and easy opening of the flaps in order to insert the foot and to maintain adequate tightness against water or snow at the overlapping regions of the flaps (2,3).

**EP 0 659 358 A1**

The present invention relates to an overlap-style shell particularly for sports shoes such as ski boots, ice skates, or roller skates.

It is currently known to manufacture shells having two mutually overlapping flaps that can be secured by virtue of conventional means such as levers.

One of the problems observed in the prior art essentially resides in the fact that since said shells are made of plastics, they have a given degree of rigidity that makes it difficult for the user to insert his foot, since he must force said flaps apart.

Any use of a soft plastics would also entail problems, because shell rigidity is required in order to allow good transmission of efforts applied by the user and because there is a strongly felt need to limit, during sports practice, the infiltration of water inside the shell in the flap overlap region.

Said flaps in fact tend to slide with respect to one another during use, forming small openings especially along their edges; such openings would become very large if the flaps were not very rigid, but this is in contrast with the need for easy foot insertion mentioned above.

Italian utility model patent no. 162434 discloses a shoe, particularly for skiing, which comprises a shell or tongue that extends upward from the front part to the vicinity of the instep region and an intermediate collar-like element which surrounds the median region of the sole of the shell; a longitudinal opening is present on said shell at said tongue, and there is also a cuff which is articulated to the intermediate element or to the shell.

Even this solution, however, has drawbacks: first of all it substantially tends to solve the problem linked to the watertightness of the shell which, however, on one hand is not of the overlap-style type and on the other hand still requires the manufacture of additional parts that must be pre-assembled to said shell.

Moreover, a longitudinal opening is still formed on the intermediate element; said opening is connected to multiple transverse notches which increase the possibility of water infiltration and in any case considerably weaken the structure.

In any case, in order to achieve adequately easy foot insertion it is still necessary to allow the longitudinal opening formed on the intermediate element to open out and thus act on the securing systems and in any case force a deformation of the ends of the intermediate element which form the longitudinal opening by forcing the tongue forward.

All this ultimately leads to difficult foot insertion and to structural complexity for the boot, which is nonetheless subject to water infiltrations.

A principal aim of the present invention is therefore to eliminate the described technical problems and thus solve the drawbacks described

above in the mentioned prior art by providing a shell that allows both optimum insertion of the user's foot and optimum tightness against water infiltrations at the overlapping flaps.

Within the scope of this aim, an important object is to provide a shell that nonetheless maintains the structural rigidity required for optimum ski control.

Another important object is to provide a shell that is structurally simple and easy to industrialize.

Another important object is to provide a shell that is reliable and safe in use.

Another object is to provide a shell that has low manufacturing costs and can be obtained with conventional and known equipment or machines.

This aim, these objects, and others which will become apparent hereinafter are therefore achieved by an overlap-style shell, particularly for sports shoes such as ski boots, ice skates, or roller skates, which is characterized in that it has, at least on its outer flap, at least one recess that connects two separate regions of the perimetric edge of said outer flap, said at least one recess being formed along a direction that affects the lateral metatarsal region of the foot.

The characteristics and advantages of the invention will become apparent from the following detailed description of a particular but not exclusive embodiment thereof, illustrated only by way of non-limitative example in the accompanying drawings, wherein:

figure 1 is a perspective view of the shell with the flaps in overlapped condition;

figure 2 is a view, similar to the preceding one, of the shell with the flaps opened out to allow foot insertion;

figure 3 is a sectional view, taken along the plane III-III of figure 1.

With reference to the above figures, the reference numeral 1 designates a shell of the semirigid overlap-style type, particularly for shoes such as for example ski boots, ice skates, or roller skates.

Said shell 1 thus comprises an inner flap 2 and an outer flap 3 which is folded on the inner flap and is formed approximately at the front median region of said shell 1.

At least one recess 4 is formed, for example during molding, at the outer flap 3; said recess affects the inner lateral surface 5 or the outer lateral surface 6 of the outer flap 3.

Said at least one recess 4 connects two separate regions of the perimetric edge of the outer flap 3, such as for example the upper edge 7 and the longitudinal perimetric edge 8 of said outer flap.

Said at least one recess 4 is therefore formed with an orientation that affects the lateral metatarsal region of the foot starting from the upper perimetric edge 7, as shown in the accompanying figures.

The recess 4 can preferably be connected, proximate to the upper perimetric edge 7, to a notch 9 formed longitudinally with respect to the outer flap 3.

The shell thus obtained can be made of a plastics that is rigid enough to allow optimum transmission of efforts from the foot to the sports implement, such as for example the ski or the wheels of a skate or an ice-skating blade, and which allows to achieve optimum foot insertion.

This is allowed by the fact that by gripping the outer flap 3 the user can easily open it out, as shown in figure 2; this opening is facilitated by the presence of the notch 9 and especially of the recess 4.

Said recess in fact allows to fold the flap 3 outwardly and consequently to insert and remove the foot.

It has thus been observed that the invention has allowed to achieve the intended aim and objects, a shell having been provided which allows to provide both optimum insertion for the user's foot and optimum tightness against water infiltrations at the overlapping flaps.

Said shell can furthermore be obtained very simply and is easy to industrialize.

The invention is naturally susceptible of numerous modifications and variations, all of which are within the scope of the same inventive concept.

The materials and the dimensions that constitute the individual components of the device may of course also be the most pertinent according to the specific requirements.

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 scope of each element identified by way of example by such reference signs.

Claims

1. Overlap-style shell (1), particularly for sports shoes such as ski boots, ice skates, or roller skates, characterized in that it has, at least on its outer flap (3), at least one recess (4) that connects two separate regions of the perimetric edge (7,8) of said outer flap, said at least one recess being formed along a direction that affects the lateral metatarsal region of the foot.
2. Shell according to claim 1, characterized in that said at least one recess (4) is formed on the inner (5) or outer (6) surface of said outer flap (3).
3. Shell according to one or more of the preceding claims, characterized in that it has a notch (9) starting from the upper perimetric edge (7) of said outer flap (3), said notch being connected to said recess (4).
4. Shell according to claim 3, characterized in that said at least one notch (9) is formed longitudinally with respect to said outer flap (3) starting from said upper perimetric edge (7).
5. Shell according to one or more of the preceding claims, characterized in that said at least one recess (4) has a curved configuration that connects said upper perimetric edge (7) and said longitudinal perimetric edge (8) of said outer flap.
6. Shell, comprising one or more of the technical features described and/or illustrated herein.

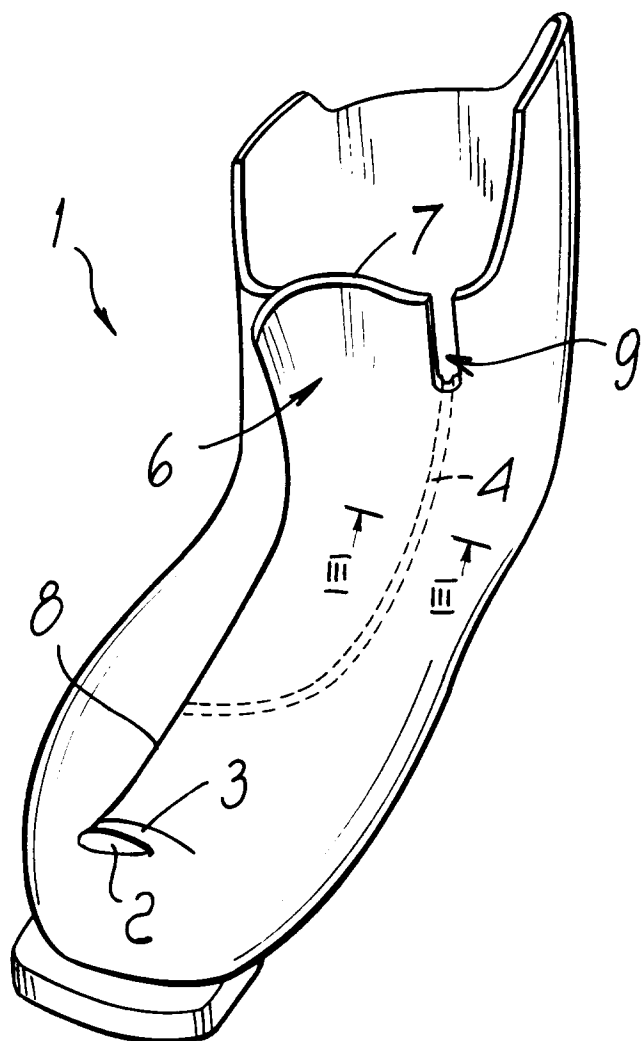


Fig. 1

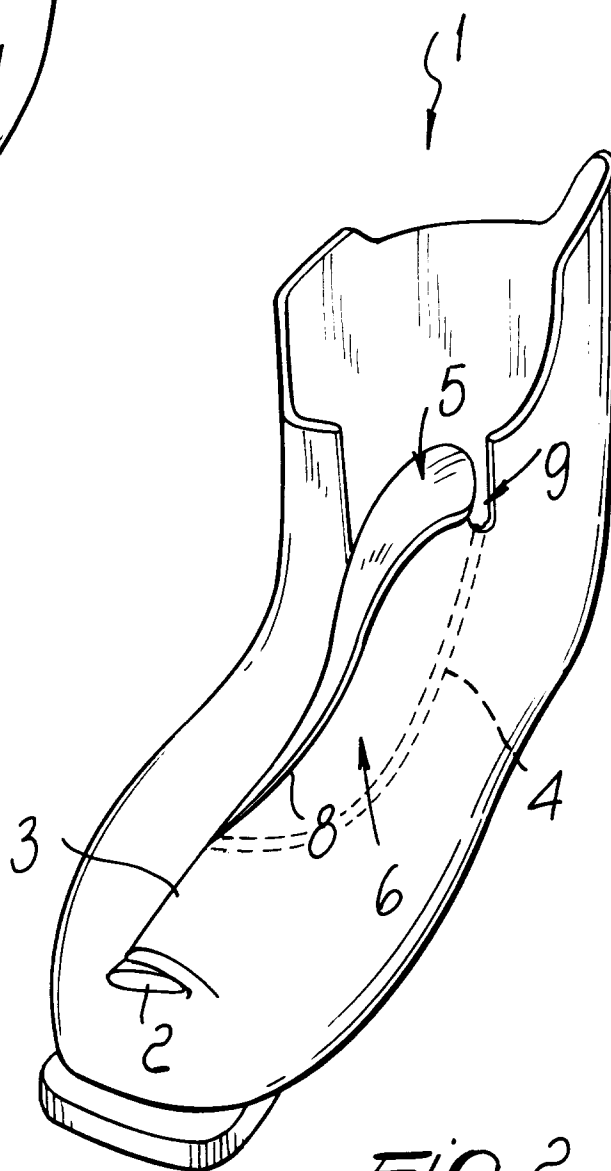


Fig. 2

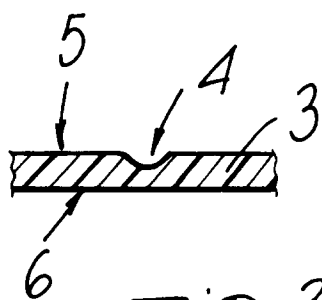


Fig. 3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 94 11 9500

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.6)
A	EP-A-0 353 532 (NORDICA) * the whole document * ---	1	A43B5/04
A	FR-A-2 691 333 (SKIS ROSSIGNOL) * the whole document * -----	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			A43B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 27 March 1995	Examiner Declerck, J
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			