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(54) **An anti-ice and anti-snow bottom for application under the shoe sole**

(57) The present invention relates to an anti-ice and anti-snow bottom having a configuration similar to "box-

type" shoe bottoms (1), with anti-slip tread (6) and straps (3,5) for application on the shoe (5).

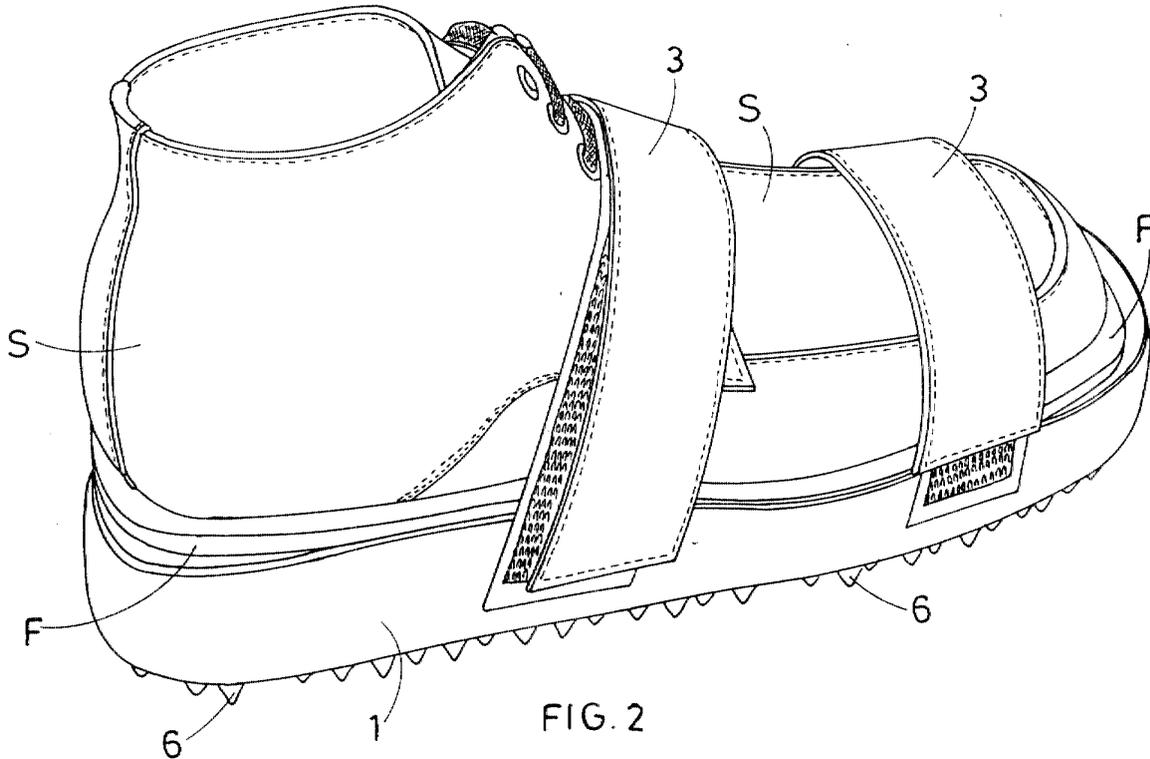


FIG. 2

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Description

[0001] The present patent application for industrial invention refers to an anti-ice and anti-snow bottom for shoes to be temporarily applied under the sole of winter shoes in the presence of ice and snow on the ground.

[0002] The manufacture according to the present invention is an absolute novelty, being the first accessory for standard shoes devised to improve grip on icy and snow-covered ground.

[0003] As regards climbing boots, special crampons that ensure safe, balanced walking and climbing on alpine glaciers have been known on the market for a long time. They consist in metal grids having the same shape as the foot, provided with multiple teeth capable of carving and gripping on icy surfaces. The crampons are provided with straps and clips used to attach them under the sole of climbing boots.

[0004] These hooks are extremely useful to climb mountains, but cannot be used by ordinary pedestrians to improve the anti-slip qualities of their shoes.

[0005] As it is known, winter shoes usually have bottoms made of rubber or similar materials, with engraved tread in order to ensure good anti-slip properties on wet or snow-covered ground. However, they are totally inadequate to provide anti-slip performance on icy surfaces, on which pedestrians find it extremely difficult to keep their balance, with the risk of dangerous falls that may cause serious injuries, especially in the case of elder people.

[0006] In view of the above considerations, a special anti-ice bottom for ordinary winter shoes has been devised, characterised by easy transportation, simple and fast application and low cost.

[0007] The bottom according to the present invention basically consists in an ordinary bottom for shoes, moulded with polyurethane, natural or synthetic rubber or similar materials. It has the so-called "box-type" configuration, characterised by a high perimeter edge that delimits and surrounds a deep central cavity capable of housing the sole of the shoe on which the bottom according to the present invention is applied.

[0008] The tread of the bottom according to the present invention is covered by a dense series of pointed protuberances, in some of which metal nails are inserted.

[0009] The bottom can be fixed to the shoe using two transversal straps that are inserted in buckles located on the internal side and then folded over. The straps are provided with Velcro sections for fast closure, with the possibility of tightening them as necessary.

[0010] For major clarity the description of the present invention continues with reference to the enclosed drawings, which are intended for purposes of illustration and not in a limiting sense, whereby:

- Fig. 1 is a perspective view of the bottom according to the present invention;

- Fig. 2 is a perspective view of a shoe on which the bottom according to the present invention has been applied.
- Fig. 3 is a cross section of the bottom.

[0011] With reference to the above figures, the bottom (1) according to the present invention is an ordinary bottom for shoes of "box-type" with larger dimensions since it must house the bottom (F) of the shoe (S).

[0012] More precisely, the bottom (1) consists in one moulded piece with high perimeter edge (2) capable of covering and protecting the sides of the bottom (F) of the shoe (S) externally, as shown in Fig. 2.

[0013] Two transversal straps (3) are fixed, with stitches in this specific case, on the external side of the edge (2) that are tightened over the shoe on the toes and the instep.

[0014] The two straps (3) are inserted in buckles (4) located on the internal side of the bottom (1) and then folded over. The same straps (3) are provided with Velcro sections (5) for fast closure, with the possibility of tightening them on the shoe (S) as necessary.

[0015] The tread of the bottom according to the present invention is covered with a dense series of pointed protuberances (6).

[0016] On the bottom (1) are also inserted metal nails (7), emerging on the tread surface.

Claims

1. An anti-ice and anti-snow bottom for application under the shoe sole, **characterised by** the fact that it presents a configuration similar to a "box-type" bottom for shoes, consisting in one moulded piece with high perimeter edge (2), on whose sides two or more transversal straps (3) are fixed with buckles (4), capable of being tightened over the shoe; it being provided that the tread of the bottom (1) is covered with a dense series of anti-slip protuberances (6).
2. An anti-ice and anti-snow bottom for application under the shoe sole according to the previous claim, **characterised by** the fact that the protuberances (6) are of pointed type.
3. An anti-ice and anti-snow bottom for application under the shoe sole according to the previous claims, **characterised by** the fact that on the bottom (1) are also inserted metal nails (7), emerging on the tread surface.
4. An anti-ice and anti-snow bottom for application under the shoe sole according to the previous claims, **characterised by** the fact that the straps (3) are provided with Velcro sections (5) for fast closure, with the possibility of tightening them on the shoe

(S) as necessary.

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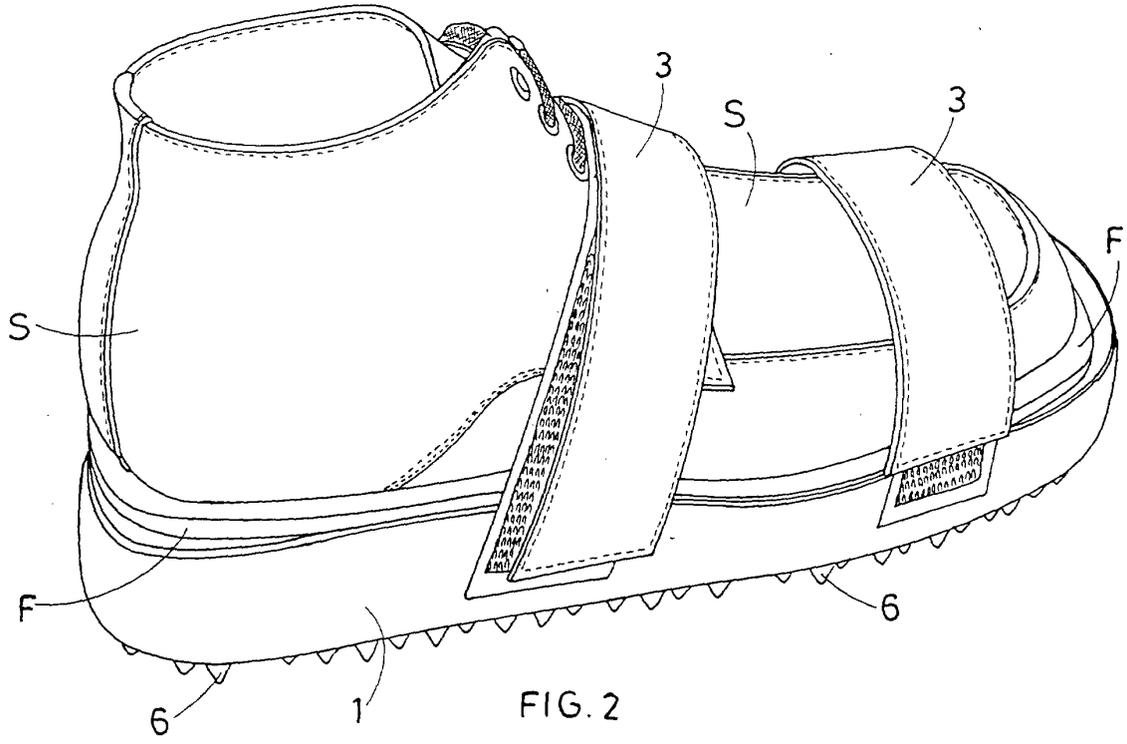


FIG. 2

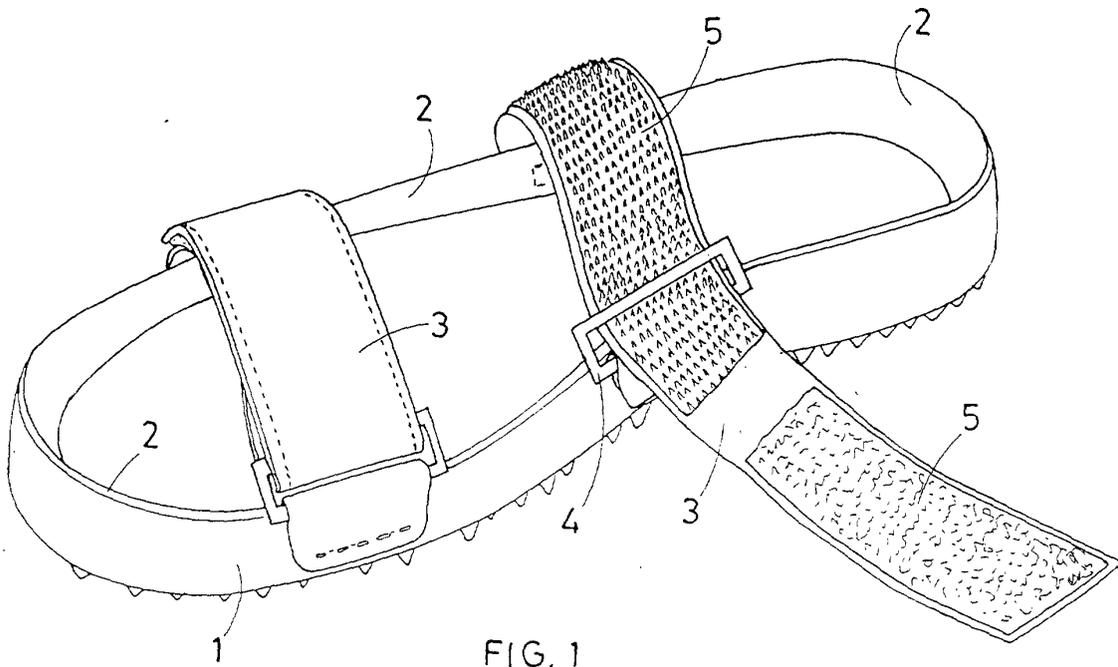


FIG. 1

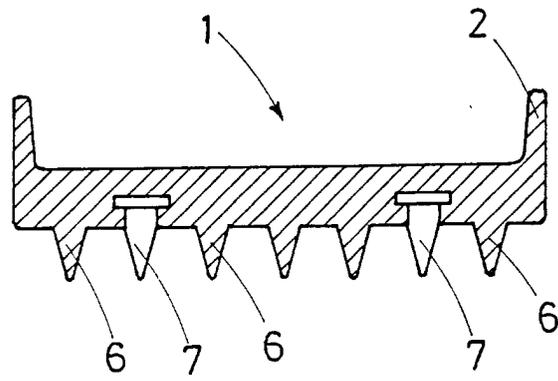


FIG. 3



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EUROPEAN SEARCH REPORT

Application Number
EP 01 83 0202

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)
X	US 5 836 090 A (SMITH DOUGLAS N) 17 November 1998 (1998-11-17) * the whole document * ---	1-3	A43C15/06 A43B3/16
X	FR 2 709 929 A (INOVA FRANCE) 24 March 1995 (1995-03-24) * claims * ---	1,2 3	
A			
Y	FR 2 423 173 A (MICHEL MARTIAL) 16 November 1979 (1979-11-16) * the whole document * ---	1-4	
Y	US 3 913 243 A (ARNOLD JOYCE P ET AL) 21 October 1975 (1975-10-21) * the whole document * ---	1-4	
Y			
A	US 3 009 269 A (JAMES S FOLK) 21 November 1961 (1961-11-21) * the whole document * -----	1,4	
A			
			TECHNICAL FIELDS SEARCHED (Int.CI.7)
			A43C A43B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 6 June 2001	Examiner Claudel, B
CATEGORY OF CITED DOCUMENTS		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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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 01 83 0202

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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06-06-2001

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5836090	A	17-11-1998	NONE	
FR 2709929	A	24-03-1995	NONE	
FR 2423173	A	16-11-1979	NONE	
US 3913243	A	21-10-1975	NONE	
US 3009269	A	21-11-1961	NONE	

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82