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(54) **Anatomical arch support made entirely of leather**

(57) The present description relates to an anatomical arch support formed of a leather insole provided with a space that is basically shaped as a half moon on the internal longitudinal border at the height of the arch, in which a leather cushion padded with elastically-molded soft materials is exactly contained and fixed.

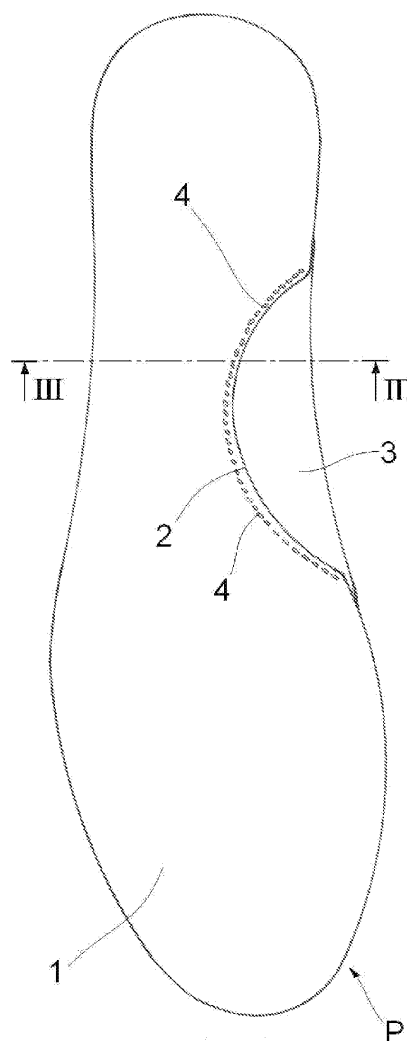


FIG. 1

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Description

[0001] The present patent application for utility model relates to an anatomical arch support made entirely of leather to be fitted on shoes.

[0002] As it is known, anatomical arch supports are largely used to improve comfort and ergonomics of shoes.

[0003] In particular, similar arch supports are characterized in that they are provided with a soft cushion on the inside of the foot, basically at the height of the arch, which is suitable to offer soft support to the plantar arch and more generally, guarantee that the shoe can be worn more comfortably and more correctly from the physiological viewpoint.

[0004] Arch supports of this type are commonly obtained by molding plastic materials.

[0005] Such a production technology has been considered so far as the most practical and most convenient technique in order to obtain an arch support provided on the upper side with shaped profile able to perfectly "match" with the anatomical shapes of the sole of the human foot.

[0006] According to such a traditional technology, such an arch support made of synthetic materials is coated on the upper side with a leather or cork insole.

[0007] Such coating made of natural materials allows for improving sanitization and comfort of such an arch support, since it prevents direct contact between the user's foot and the plastic materials used to make the arch support.

[0008] Although the aforementioned arch supports have had a large diffusion, they are impaired by some drawbacks.

[0009] The main drawback consists in the complexity and cost of the production process, which requires the use of a machine to mold plastic materials and of a suitable mold.

[0010] Moreover, the arch support obtained from molding must be manually worked in order to apply said insole made of natural materials on it.

[0011] Manufacturers of said objects, and in general manufacturers of shoes, are certainly aware of the critical aspects related with anatomical arch supports made of plastic materials and of the fact that it would be preferable to make them using more hygienic materials, such as leather or similar materials.

[0012] Nevertheless, no alternative solutions have been found so far, mainly because of the impossibility of modelling (that is to say giving a basically three-dimensional profile) arch supports that are directly made of leather.

[0013] The specific purpose of the present invention is to remedy such a technical-functional drawback and, more precisely, make an anatomical arch support that is made entirely of a perfectly hygienic material, such as leather.

[0014] According to the present inventive idea, the bearing structure of the arch support of the invention is

composed of a leather insole on which a cushion is mounted on the internal side of the foot and basically at the height of the arch, being provided with elastically-molded soft padding made of thin leather that is easy to mold.

[0015] Obviously, within the arch support of the invention, the padded cushion is characterized by the highest anatomical value, in view of its capacity to adapt to the shape of the foot and provide excellent support in the most critical area, that is to say the arch.

[0016] In any case, in view of the above, it is well understood that the arch support of the invention completely renounces the use of plastic parts and, consequently, the foot is in contact only with materials that are completely natural and hygienic, such as leather of bearing structure and leather of padded cushion.

[0017] For purposes of clarity, the description of the invention continues with reference to the enclosed drawing, which is intended for purposes of illustration only and not in a limiting sense, wherein:

- figure 1 is an axonometric top view of the arch support of the invention;
- figure 2 is an axonometric bottom view of the arch support of the invention;
- figure 3 is a cross-sectional view of fig. 1 with plane III-III;

[0018] Referring to the figures, the arch support of the invention (P) is composed of an insole made of semi-rigid leather (1) provided with a space (2), basically shaped as a half moon, obtained on its internal longitudinal border at the height of the arch.

[0019] The cavity of said space (2) is adapted to exactly house a leather cushion (3) padded with soft expanded rubber and therefore designed to act as support for the arch area of the foot.

[0020] In particular, as shown in fig. 1, said padded cushion (3) is irreversibly fixed to said insole (1) by means of a seam (4) made along the concave border of said space (2).

[0021] In order to further stiffen the structure of the arch support (P) and stabilize the position of said padded cushion (3), a heel-piece (5) made of texon or other suitable materials is provided on the lower side of said insole (1).

[0022] In particular, the stiffening heel-piece (5) is preferably fitted by means of traditional gluing.

Claims

1. Anatomical arch support **characterized in that** it is composed of the following parts:

- a leather insole (1) provided with a space (2) basically shaped as a half moon, on the internal longitudinal border at the height of the arch;

- a leather cushion (3), padded with elastically-molded soft materials, exactly inserted and fixed in the space (2) of the insole (1).

2. Arch support as claimed in claim 1, **characterized in that** said elastically-molded soft padding of the leather cushion (3) is made of expanded rubber. 5
3. Arch support as claimed in claim 1, **characterized in that** said leather cushion (3) is irreversibly fixed to said insole (1) by means of a seam (4) made along the concave border of said space (2). 10
4. Arch support as claimed in one or more of the preceding claims, **characterized in that** it is permanently provided on the lower side with a stiffening heel-piece (5) made of texon or other equivalent materials. 15
5. Arch support as claimed in claim 4, **characterized in that** said heel-piece (5) is fitted to the insole (1) by means of an intermediate layer of glue. 20

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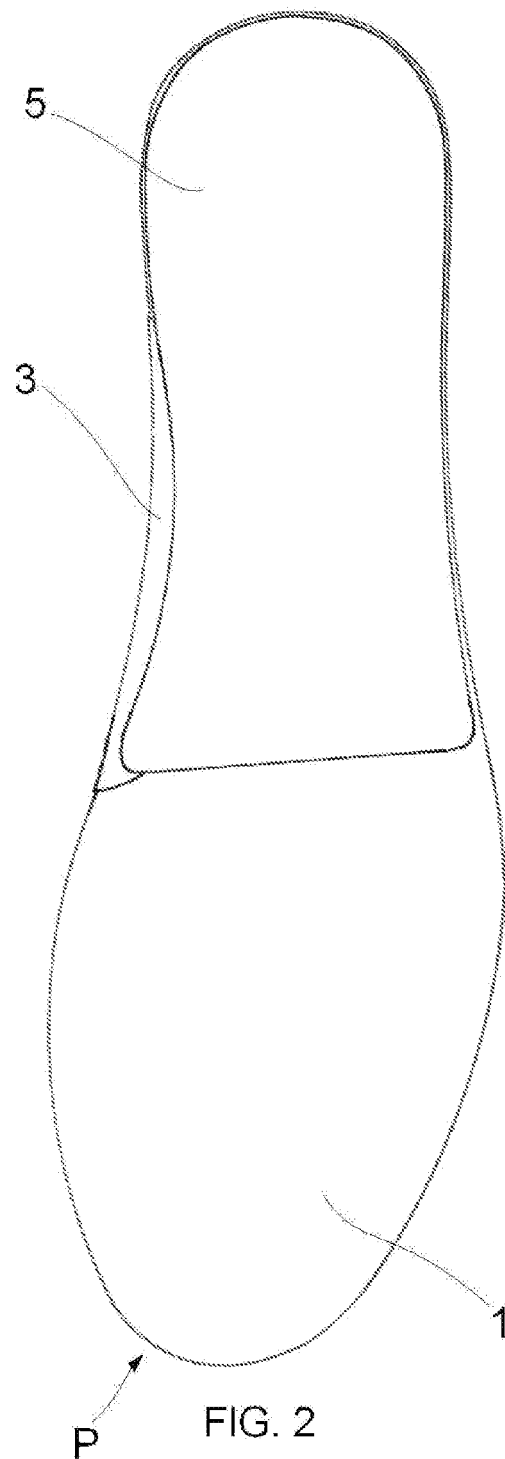
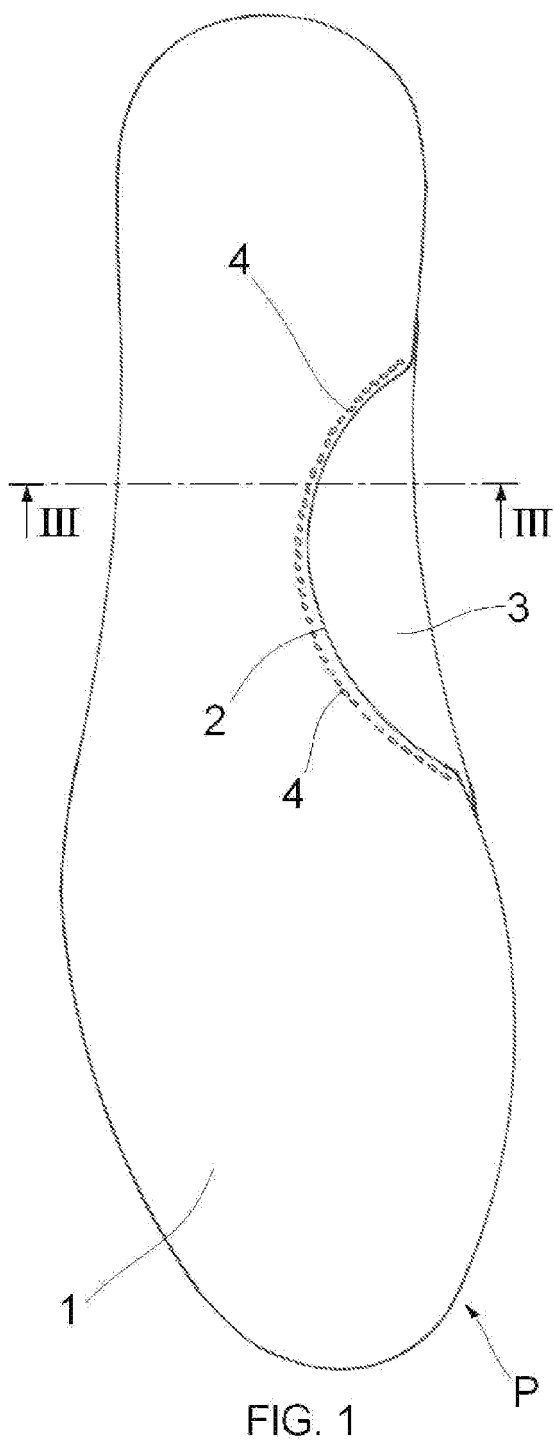
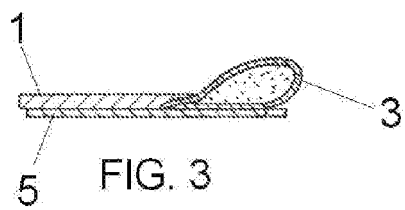
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EUROPEAN SEARCH REPORT

Application Number
EP 10 17 4761

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
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Place of search		Date of completion of the search	Examiner
The Hague		15 February 2011	Claudel, Benoît
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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**ANNEX TO THE EUROPEAN SEARCH REPORT
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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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