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(72) Inventors:
• **Dolce, Domenico**
20122 Milan (IT)
• **Gabbana, Stefano**
20122 Milan (IT)

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(74) Representative: **Locatelli, Massimo et al**
Barzanò & Zanardo Milano S.p.A.
Via Borgonuovo 10
20121 Milano (IT)

(71) Applicant: **Dolce & Gabbana S.r.l.**
20129 Milan (IT)

(54) **A method for realizing shoes and a shoe obtained with such a method**

(57) A method for realizing shoes comprises the steps of:

- providing an upper (11), a heel (15) and a sole element (12) provided with at least one sole portion (13) and a shank portion (14);
- removing part of the material of the sole (12) from its lower face at the shank region (14);
- tightening the sole element (12) along its side edge at the shank region (14);
- providing a coating element (17) for the shank;
- gluing the coating element (17) to the lower face of the sole (12) at a seat defined by the removal of the material from the shank region (14), wrapping the coating element (17) to the sole with two laps (19, 20) brought onto the upper face of the sole destined to be covered by the upper;
- completing the assembly of the shoe by mounting the upper (11) and the heel (15).

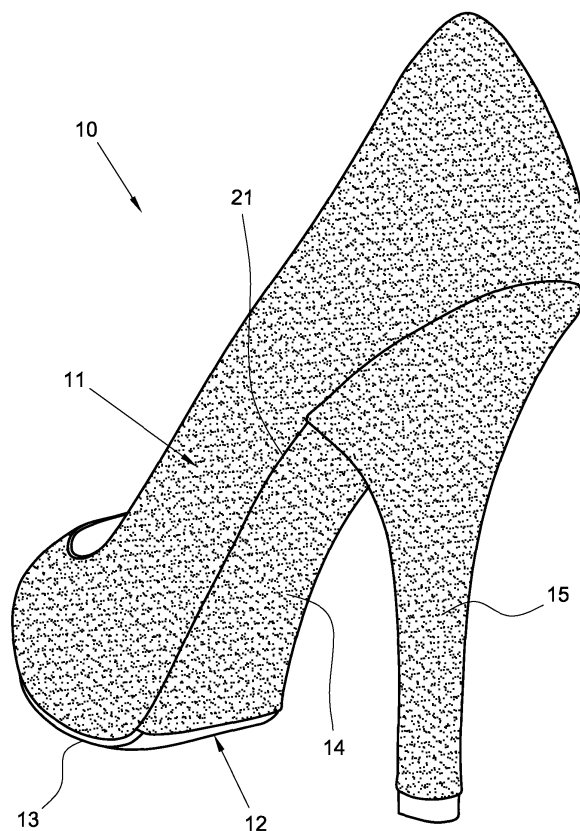


Fig. 1

Description

[0001] The present invention refers to a shoe, in particular a shoe for women, in which the part of the sole comprised between the sole portion and the heel, which normally remains more or less raised from the ground according to the height of the heel and that is called with the technical term "shank", is coated with the same material that constitutes or coats the upper or with a material adapted to match with the material of the upper.

[0002] In the prior art, shoes have been made in which the coating of the shank was obtained by cutting the upper so as to leave it with a portion projecting out from the side and wrapping such a portion, after the upper has been applied to the sole, around the shank.

[0003] This solution used in the prior art however has some drawbacks due to the need of appropriately shaping the upper so as to provide the projecting portion to be wrapped around the shank and due to the high amount of off-cuts which are produced in this step of the shoe manufacturing.

[0004] Moreover, the result in terms of aesthetical appearance and quality that is obtained is not always satisfactory, since it is difficult to obtain an appreciable visual contrast between the sole (in particular the shank region) and the upper.

[0005] The general purpose of the present invention is to avoid the aforementioned drawbacks by providing a method for realizing shoes with a shank that is coated with the same material as the upper or with a material adapted to match with the material of the upper, which makes it possible to obtain an optimal result in terms of appearance and that does not lead to a large waste of material.

[0006] The purpose of the present invention is also to provide a shoe with a shank that is coated with the same material as the upper or with a material adapted to match with the material of the upper, in which there is an appreciable visual contrast between the upper and the shank.

[0007] In view of such a purpose it has been thought to make, according to the invention, a method for realizing shoes, comprising the steps of:

- providing an upper, a heel and a sole element provided with at least one sole portion and one shank portion;
- removing part of the material of the sole from its lower face at the shank region;
- tightening the sole element along its side edge at the shank region;
- providing a coating element for the shank;
- gluing the coating element to the lower face of the sole at a seat defined by the removal of material from the shank region, wrapping the coating element to the sole with two laps brought onto the upper face of the sole destined to be covered by the upper;
- completing the assembly of the shoe by mounting

the upper and the heel.

[0008] According to the invention a shoe has moreover been made comprising an upper, a heel and a sole provided with a sole portion and a coated shank portion, **characterised in that** the shank portion is coated by a coating element that is physically separated from the upper, the separation between the upper and the coating element defining a visual separating line along the lower edge of the upper at the shank.

[0009] In order to clarify the explanation of the innovative principles of the present invention and its advantages with respect to the prior art we shall describe in the rest of the description, with the aid of the attached drawings, a possible embodiment in which such principles have been applied. In the drawings:

- figure 1 represents a perspective view of a shoe made with the method according to the present invention;
- figure 2 represents another view of the shoe of figure 1, showing the sole portion in greater detail;
- figure 3 schematically represents a side elevational view of a sole element to be used for making the shoe, shown before beginning the working steps according to the invention;
- figure 4 represents a similar view to that of figure 3, showing the sole element after the removal of material at the shank;
- figure 5 represents a plan view, from below, of the sole element of figure 4;
- figure 6 represents a schematic view of an element made of the same material as the upper, which is used according to the invention to coat the shank.

[0010] With reference to the figures, figures 1 and 2 show a shoe 10, comprising an upper 11, a sole 12 (in turn comprising one sole portion 13 and a shank portion 14) and a heel 15.

[0011] As indicated above, the shank 14 is defined as the recessed sole portion which is comprised between the sole 13 and the heel 15 and that normally remains raised from the ground.

[0012] According to the invention, the shoe is realized starting from a normal sole element 12, schematically shown in a side elevational view in figure 3. Advantageously, the sole can be of the type known on the market as "bally", which extends to the region destined to the application of the heel.

[0013] Such a sole is supplied suitably cut, thickened and milled according to methods that are well known in the shoemaking industry. For example, the thickness of the initial sole element can be of 3.4 mm.

[0014] The sole as initially provided is machined, according to the invention, by removing material from the lower face at the shank region 14. The removal of the material (advantageously equal to around 0.5 mm) is clearly visible in figure 4, in which the initial profile of the

sole 12 in the shank region 14 is shown in a broken line and the profile with reduced thickness after this machining step, which is thus brought to about 2.9 mm, is shown by a continuous line.

[0015] In the lower plan view of figure 5 the sole can be seen after the aforementioned machining step, in which the front portion of sole 13 is substantially unvaried, whereas the thinned portion of shank 14 is joined to the sole 13 by means of a sort of "step" 16.

[0016] At this stage, the profile of the sole 12 is narrowed in width along its side edge. Preferably this removal of material involves a thickness of about 0.5 mm and it is advantageously made by means of laser equipment.

[0017] Figure 5 shows, in a broken line, the initial profile of the sole 12 in the shank region 14 and, in a continuous line, the profile with smaller width after this working step.

[0018] Figures 4 and 5 show a removal of the material from the sole 12 (from the lower face and from the side edge) which extends to the end of the sole destined to the application of the heel (the end on the right in the figures). This is advantageous in terms of machining simplicity, however it is not essential and the removal of material could also involve only the shank region 14 leaving the sole at the heel unaltered.

[0019] The removal of leather from the lower face and from the side edge of the sole at the shank region 14 substantially defines a seat for housing the material for coating the shank.

[0020] The element for coating the shank is made up of a portion 17 of a generally rectangular shape, schematically represented in figure 6, and made from the same material as the upper, so as to provide uniformity, in terms of aesthetical appearance, to both parts of the shoe (shank and upper).

[0021] The subsequent working step consists in spreading glue on the lower face of the sole in the shank region 14 and on the face of the coating portion 17 destined to come into contact with the sole itself (indicated with reference numeral 18 in figure 6).

[0022] Once the solvent of the glue has evaporated, the coating element 17 is applied to the sole wrapping around it with the two laps 19, 20 which are brought to be at the upper face of the sole destined to be covered by the upper.

[0023] Subsequently, the assembly of the shoe is completed by applying the upper and the heel to the sole according to methods that are well known by a man skilled in the art of shoemaking.

[0024] The shoe made with the method according to the present invention has the upper 11 and the shank 14 both made of the same coating material. However, differently from shoes with a coated shank, but made according to the prior art, according to the present invention the upper and the coating of the shank are made up of two elements that are physically separated: thanks to this special feature, the upper and the shank are visually separated along the line indicated with reference numeral 21 in figures 1 and 2, which substantially represents the

borderline between the upper (along its lower edge) and the sole and heel assembly.

[0025] Of course, the description above of an embodiment applying the innovative principles of the present invention is given as an example of such innovative principles and must not therefore be intended to limit the scope of protection claimed here.

[0026] For example, in figures 1 and 2 also the heel is represented coated by the same material as the upper and shank. This, in any case, is not essential for the purposes of the present invention. Whether the coating of the heel is present or not depends exclusively upon the overall visual effect which is desired to be obtained for the specific shoe model.

[0027] In the present description, for the sake of simplicity, we have used the expression "same material as the upper" to define the material which the coating 17 of the shank is made of. Of course, it is obvious for a man skilled in the art that this expression should be considered as the definition of a material which can be strictly the same as that of the upper or even simply adapted to match with the material of the upper. For example, for the need of resistance of the materials, a first material could be used for the upper and a second material could be used for the coating of the shank, wherein, in any case, the two materials are suitable for being combined with one another (for example according to the colour and/or overall visual appearance).

Claims

1. A method for realizing shoes, comprising the following working steps:

- providing an upper (11), a heel (15) and a sole element (12) provided with at least one sole portion (13) and a shank portion (14);
- removing part of the material of the sole (12) from its lower face at the shank region (14);
- tightening the sole element (12) along its side edge at the shank region (14);
- providing a coating element (17) for the shank;
- gluing the coating element (17) to the lower face of the sole (12) at a seat defined by the removal of the material from the shank region (14), wrapping the coating element (17) to the sole with two laps (19, 20) brought onto the upper face of the sole destined to be covered by the upper;
- completing the assembly of the shoe by mounting the upper (11) and the heel (15).

2. The method according to claim 1, **characterized in that** the removal of material from the lower face of the sole in the shank region (14) involves a thickness of about 0,5 mm.

3. The method according to claim 1, **characterized in that** the removal of material from the side edge of the sole in the shank region (14) involves a thickness of about 0,5 mm. 5
4. The method according to claim 1, **characterized in that** the sole element (12) is provided by including also a portion destined to the application of the heel, and the removal of material from the sole is made also at such portion. 10
5. The method according to claim 1, **characterized in that** the coating element (17) of the shank is provided in a generally rectangular shape. 15
6. The method according to claim 1, **characterized in that** the coating element (17) of the shank is provided with the same material of the upper. 20
7. A shoe comprising an upper (11), a heel (15) and a sole (12) provided with a sole portion (13) and a coated shank portion (14), **characterized in that** the shank portion (14) is coated by a coating element (17) that is physically separated from the upper (11), the separation between the upper (11) and coating element (17) defining a visual separating line (21) along the lower edge of the upper, at the shank. 25
8. The shoe according to claim 7, **characterized in that** the coating element (17) of the shank (14) is constituted with the same material of the upper. 30
9. The shoe according to claim 7, **characterized in that** the coating element (17) of the shank (14) is applied on the lower face of the sole (12) and is wrapped around the sole with two laps (19, 20) at the upper face of the sole covered by the upper (11). 35
10. The shoe according to claim 9, **characterized in that** the coating element (17) of the shank (14) is applied in a seat defined by the removal of the material of the sole, at the shank region (14). 40

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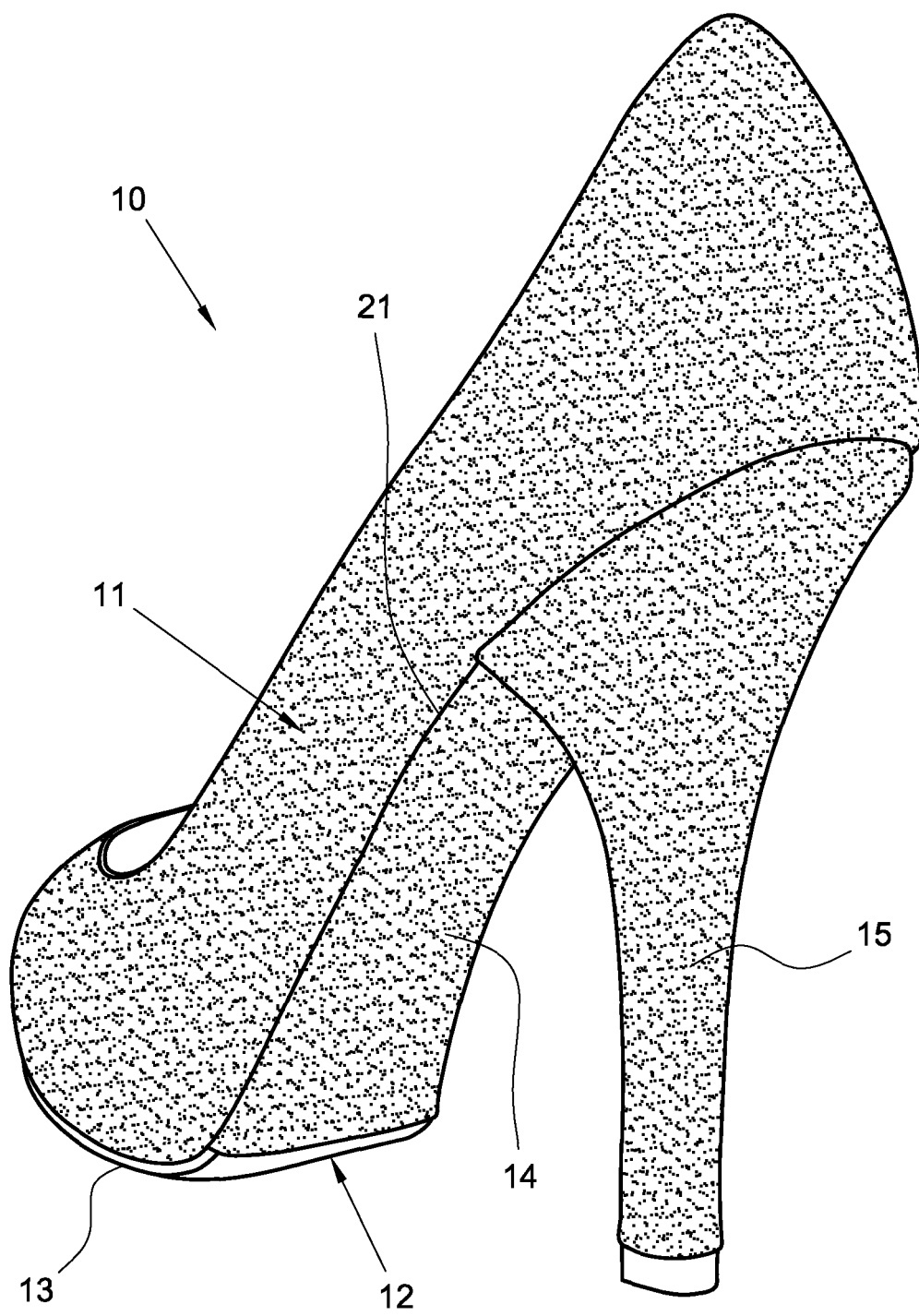


Fig. 1

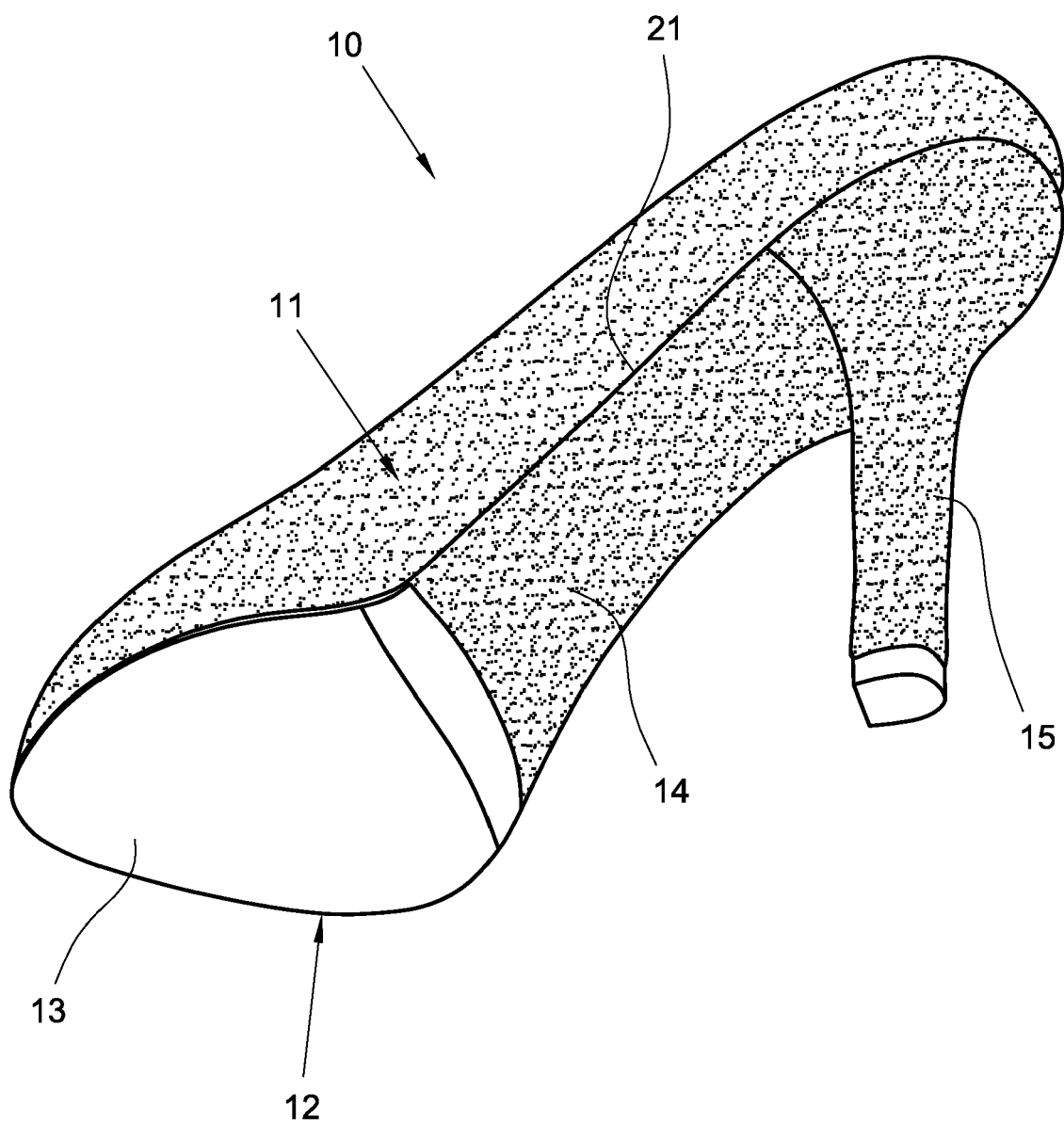
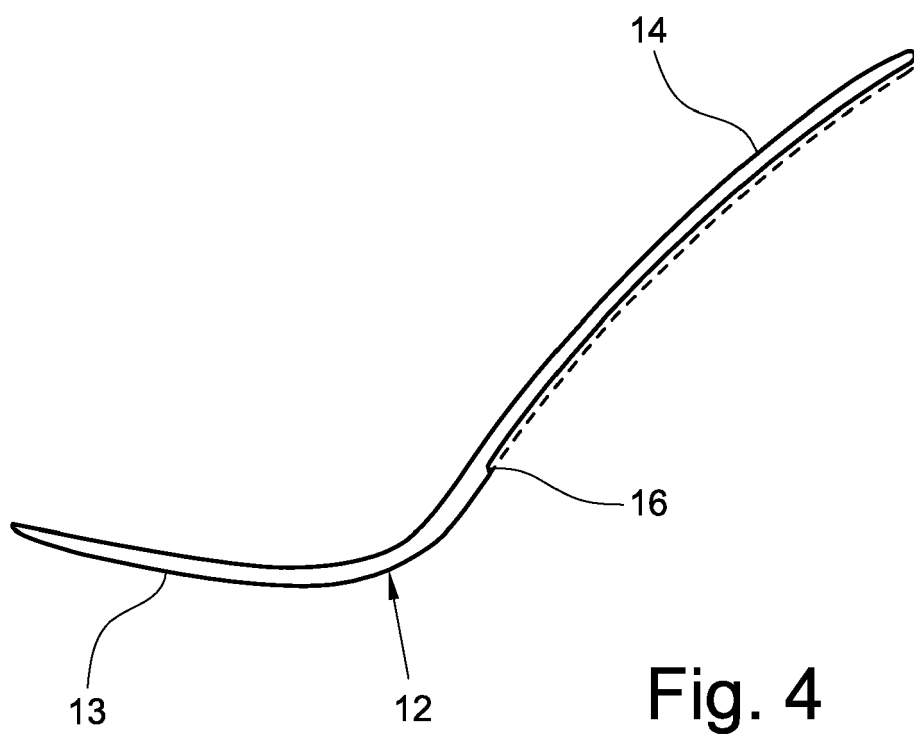
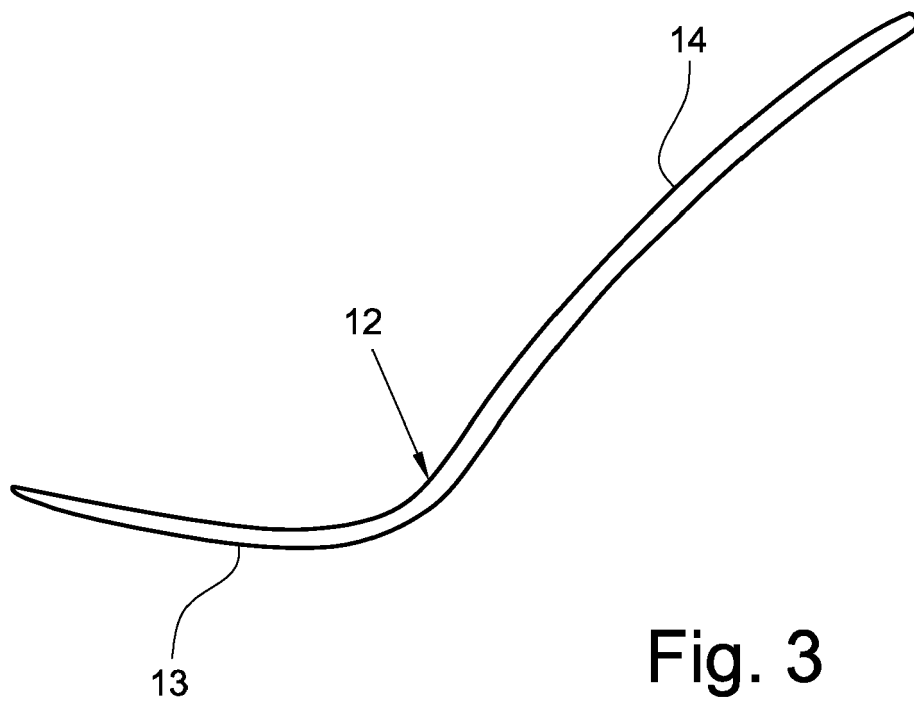


Fig. 2



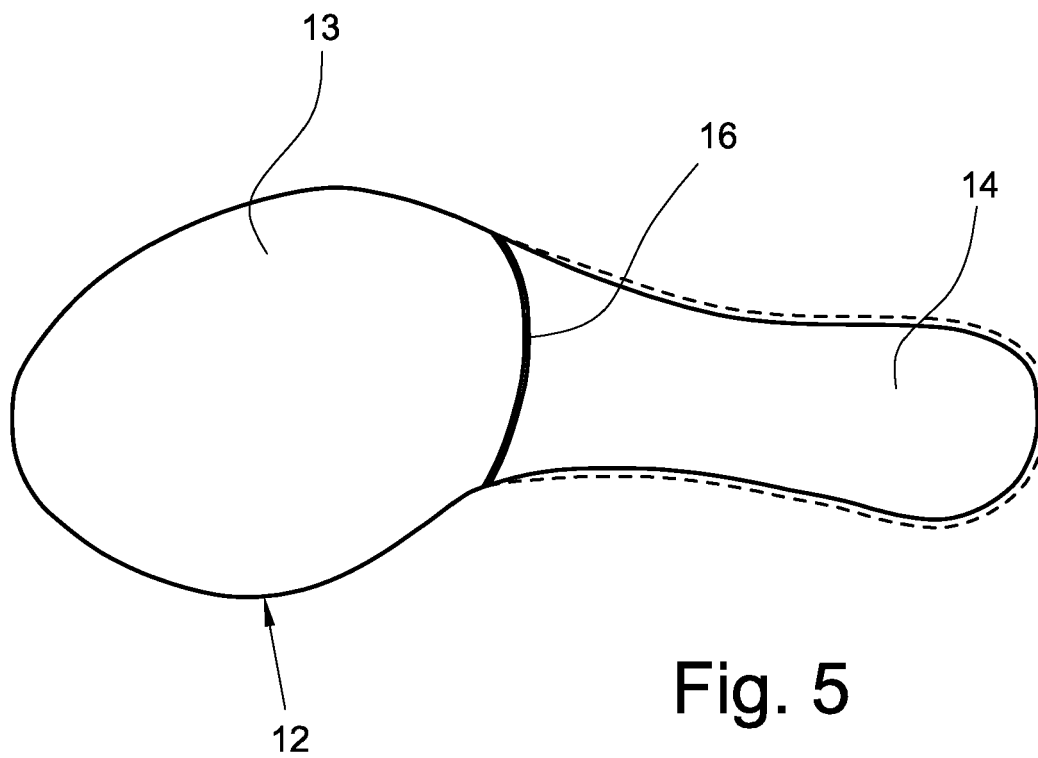


Fig. 5

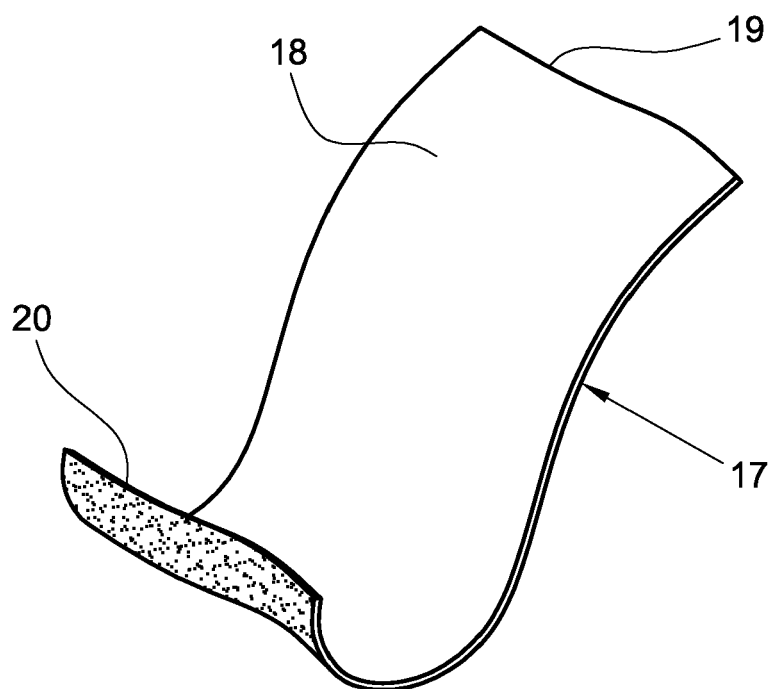


Fig. 6



EUROPEAN SEARCH REPORT

Application Number
EP 12 15 6029

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	FR 624 506 A (HOVHANESEAN & BATCHVAROFF) 20 July 1927 (1927-07-20) * the whole document *	1,7	INV. A43B9/00 A43B23/24
A	US 3 373 510 A (RALPH MEMOLE ET AL) 19 March 1968 (1968-03-19) * column 2, line 24 - column 3, line 54; figures 1-4 *	1,7	
A	GB 1 062 518 A (JACK SOLOMON LIEBMANN; RALPH MEMOLE; HAROLD BARKOWITZ) 22 March 1967 (1967-03-22) * the whole document *	1,7	
			TECHNICAL FIELDS SEARCHED (IPC)
			A43B
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 7 June 2012	Examiner Cianci, Sabino
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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EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 12 15 6029

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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07-06-2012

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