



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
11.08.2010 Bulletin 2010/32

(51) Int Cl.:
A41B 11/02 (2006.01) A41D 13/06 (2006.01)

(21) Application number: **09165261.0**

(22) Date of filing: **10.07.2009**

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL
PT RO SE SI SK SM TR**

(30) Priority: **10.02.2009 US 368769**

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(54) **Garment including ankle cushion and method of making same**

(57) A garment is provided including a main body adapted to enclose at least the foot of a wearer, the main body including an ankle portion and a foot portion, and

a cushion located at the ankle portion of the main body, wherein the cushion is configured to protect an ankle of the wearer from abrasion caused by a heel of a footwear.

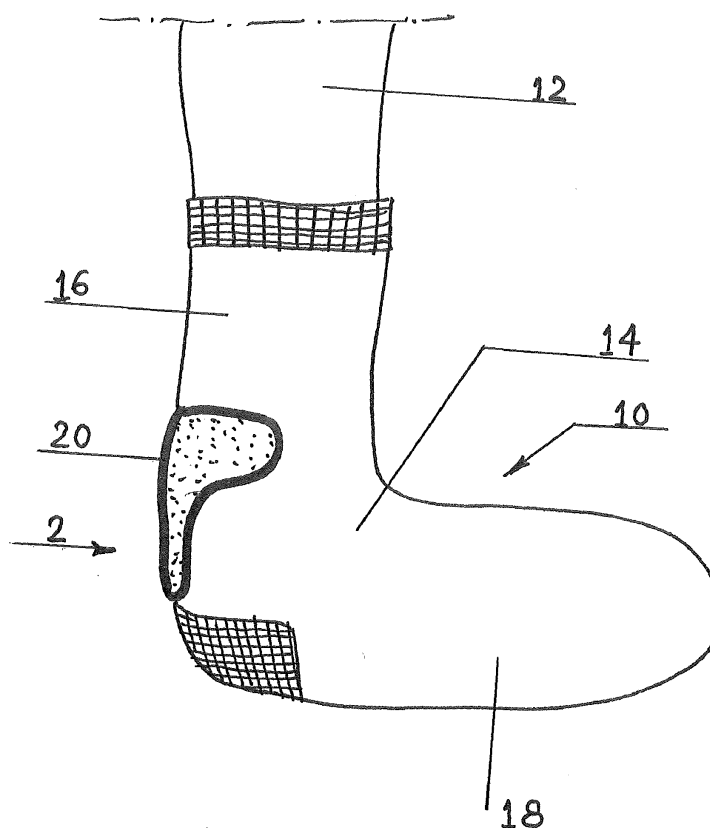


FIG. 1

Description

Technical Field

[0001] The subject matter disclosed herein relates generally to a garment to cover the ankle and a method of making the same. More particularly, the subject matter relates to an ankle comfort pad that is adapted for the protection of the ankle from irritation caused by the heel of a shoe or the like.

Background Art

[0002] Garments covering the legs and feet take various forms such as leggings, socks, stockings and tights and other hosiery. These garments serve several purposes such as keeping the feet warm, providing comfort to the wearer, keeping the feet clean, and providing style or fashion. Additionally, these garments often help to absorb the sweat in the foot and draw it to areas where it can be evaporated. In cold environments, garments such as socks help to retain heat while removing moisture, thereby helping to prevent frostbite. Further-more, hosiery may help to ease chafing and irritation between the foot and footwear. Particular types of footwear such as dress shoes, hockey skates, ski boots, athletic footwear and high heeled shoes often cause irritation to the wearer where the heel of the footwear digs in and rubs against the ankle, despite the use of these garments. This is also a major concern when a wearer uses new footwear that is stiff and yet to be broken in.

[0003] Thus, a garment that reduces the chafing, irritation or cutting of the skin caused by the heel of footwear would be well received in the art.

Disclosure of Invention

[0004] According to one aspect of the invention, a garment comprises a main body adapted to enclose at least the foot of a wearer, the main body including an ankle portion and a foot portion, and a cushion located at the ankle portion of the main body, wherein the cushion is configured to protect an ankle of the wearer from abrasion caused by a heel of a footwear.

[0005] According to another aspect of the invention, a garment adapted to be worn over the foot of a wearer comprises a cushion located above a heel portion of the sock, and extending at least partially about an ankle portion of the sock, the cushion configured to provide protection to the wearer from a heel of a footwear.

[0006] According to yet another aspect of the invention, a method of producing a hosiery garment comprises attaching a cushion to an ankle portion of the hosiery garment, wherein the cushion is configured to protect an ankle of a wearer of the hosiery garment from abrasion caused by a heel of a footwear.

Brief Description of Figures in the Drawings

[0007] The subject matter which is regarded as the invention is particularly pointed out and distinctly claimed in the claims at the conclusion of the specification. The foregoing and other features and advantages of the invention are apparent from the following detailed description taken in conjunction with the accompanying drawings in which:

[0008] Figure 1 depicts a perspective view of a sock being worn by a wearer and having a cushion in accordance with one embodiment of the present invention;

[0009] Figure 2 depicts a perspective view of the sock of Figure 1 being worn by the wearer, taken from arrow 2, in accordance with one embodiment of the present invention;

[0010] Figure 3 depicts an exploded cutaway view the cushion of the sock of Figure 1, being worn by the wearer, in accordance with one embodiment of the present invention;

[0011] Figure 4 depicts a perspective view of the sock of Figure 1, being worn with a dress shoe by the wearer in accordance with one embodiment of the present invention; and

[0012] Figure 5 depicts a perspective view of a stocking utilizing the cushion and being worn with a high heeled shoe on a leg of the wearer in accordance with another embodiment of the present invention.

Mode(s) for Carrying Out the Invention

[0013] A detailed description of the hereinafter described embodiments of the disclosed apparatus and method are presented herein by way of exemplification and not limitation with reference to the Figures.

[0014] Referring firstly to Figure 1, there is shown a sock 10 in accordance with one embodiment of the present invention. The sock 10 is adapted to be worn over at least a foot of a wearer 12, as is generally known in the art. The sock 10 includes a main body 14, having both an ankle portion 16 and a foot portion 18. A cushion 20 is located at the ankle portion 16 of the main body 14, and extends partially about the ankle portion 16 of the sock 10. The cushion 20 is configured to protect the ankle or Achilles heel of the wearer 12 from abrasion and discomfort caused by impact with a heel 22 of a footwear 24, 26 (as is shown in Figures 4 - 5, described below). The cushion 20 provides additional thickness to the sock 10 at a location, such as the back of the ankle or at the Achilles heel, subjected to increased possibility of chafing, while at the same time allowing the sock 10 to retain an optimum thickness throughout the rest of the main body 14.

[0015] Turning to Figure 2, a rear view of the sock 10 is shown being worn by the wearer 12, taken at arrow 2 of Figure 1. The cushion 20 is shown having a horizontal body 28 wrapping partially around the ankle portion 16 from a rear side 30 of the sock 10. The horizontal body

28 helps to pad an ankle 32 (shown in Figure 3) of the wearer 12 at the height of the heel 22 of footwear 24, 26. Alternatively, the cushion may be referred to as a pad, support or insulated portion. In one embodiment, the horizontal body 28 is between 2 and 5 inches in length. However, the horizontal body 28 may have any appropriate length. Further, the cushion is shown having a vertical lip 34 extending from the horizontal body 28 at least partially to a heel corner 36 of the sock 10. The vertical lip 34 further protects the ankle 32 of the wearer 12, and provides some leeway for heels 22 of footwear 24, 26 having different heights. In one embodiment, the vertical lip is between 1 and 3 inches in length. However, the vertical lip may have any length that would be appropriate. It should be understood that the shape of the cushion 20 is not limited to this "T" shaped embodiment, however. Further, the top of the "T", the horizontal body 28, may be angled in any manner that would be appropriate to protect from the intended footwear to be worn with the sock 10. Cushions having other shapes, such as ovalar, triangular or other polygonal shapes are also contemplated.

[0016] Figure 3 depicts an exploded cutaway view the cushion 20 of the sock 10 of Figure 1, being worn by the wearer 12. The cushion 20 is held in place between the main body 14 and a fabric layer 38 that is sewn into the main body 14 along a seam 40. In alternate embodiments, the cushion 20 may be adhered directly into the main body 14 of the sock 10 by sewing, tacking, riveting or any other feasible attachment means such as natural adhesives, synthetic adhesives, hook and loop fastener, drying adhesives, contact adhesives and hot or reactive adhesives. Furthermore, the cushion 20 may be made of cotton. It should be understood that the cushion 20 is not limited to cotton, however, and analogous materials would be apparent to those skilled in the art. For example, the cushion 20 may be made of foam, feathers, polyester, silk, air, linen, gel or other liquid, rubber, synthetic plastic, or water-proof breathable material such as Gore-tex® for wicking and removing moisture, which causes wear on the skin. Also, the cushion 20 may be a thicker ply of the same material as the sock 10, such as two or more times the thickness.

[0017] Figure 4 depicts a perspective view of the sock 10, being worn with a dress shoe 24 by the wearer 12 in accordance with one embodiment of the present invention. Additionally, Figure 5 depicts a perspective view of a stocking 42 having the cushion 20 and being worn with a high heeled shoe 26 by the wearer 12 in accordance with another embodiment of the present invention. In this case, the horizontal body 28 of the cushion 20 is angled downward along the body of the typical high heeled shoe to accommodate the fact that the wearer's foot is propped up by the heel of the shoe 26. As described hereinabove, any angle or shape of the cushion is contemplated by this invention. It should also be understood that the cushion 20 may be configured to protect the wearer 12 from abrasion caused by the heel 22 of any type of footwear.

In addition to the dress shoe 24 and the high heeled shoe 26, the cushion 20 may be configured to protect from abrasion from a casual shoe, boot, sneaker, tennis shoe, orthopedic shoe, basketball shoe, running shoe, ice skate, athletic cleat, ski boots, cross trainer shoes, sandals and flats. Additionally, it should be understood that the cushion 20 may be similarly applied to any form of hosiery in addition to the sock 10 and the stocking 42. For example, the cushion 20 may be applied to a dress sock, casual sock, legging, toe sock, tight, thigh-high sock, or athletic sock.

[0018] A further aspect of the present invention includes a method of producing a garment 10 comprising attaching the cushion 20 to the ankle portion 16 of the garment 10, wherein the cushion 20 is configured to protect the ankle 32 of the wearer 12 of the garment 10 from abrasion caused by the heel 22 of footwear 24, 26. The sewing may further comprise introducing the cushion 20 to the ankle portion 16 of the garment 10 and sewing, attaching or adhering the cushion 20 to the ankle portion 16 around the cushion 20. Alternately, the method may further comprise introducing the cushion 20 to the ankle portion 16 of the garment 10 and sewing the fabric layer 38 to the ankle portion 16 around the cushion 20.

[0019] Elements of the embodiments have been introduced with either the articles "a" or "an." The articles are intended to mean that there are one or more of the elements. The terms "including" and "having" and their derivatives are intended to be inclusive such that there may be additional elements other than the elements listed. The conjunction "or" when used with a list of at least two terms is intended to mean any term or combination of terms. The terms "first" and "second" are used to distinguish elements and are not used to denote a particular order.

[0020] While the invention has been described in detail in connection with only a limited number of embodiments, it should be readily understood that the invention is not limited to such disclosed embodiments. Rather, the invention can be modified to incorporate any number of variations, alterations, substitutions or equivalent arrangements not heretofore described, but which are commensurate with the spirit and scope of the invention. Additionally, while various embodiments of the invention have been described, it is to be understood that aspects of the invention may include only some of the described embodiments. Accordingly, the invention is not to be seen as limited by the foregoing description, but is only limited by the scope of the appended claims.

Claims

1. A garment comprising:

a main body adapted to enclose at least a foot of a wearer, the main body including an ankle portion and a foot portion; and

- a cushion located at the ankle portion of the main body, wherein the cushion is configured to protect an ankle of the wearer from abrasion caused by a heel of a footwear.
2. The garment of claim 1, wherein the cushion includes a lateral body, the lateral body wrapping partially around the ankle portion from a back side of the ankle portion. 5
 3. The garment of claim 1 or 2, wherein the cushion is sewn into the main body of the hosiery garment. 10
 4. The garment of any of the claims 1 through 3, wherein the cushion is held in place between the main body and a fabric layer sewn into the main body. 15
 5. The garment of any of the claims 1 through 4, wherein the garment is a garment selected from the group consisting of dress socks, casual socks, stockings, legging, toe socks, tights, thigh-high socks, and athletic socks. 20
 6. A garment adapted to be worn over an ankle of a wearer comprising a cushion located above a heel portion of the sock, and extending at least partially about an ankle portion of the sock, the cushion configured to provide protection to the wearer from a heel of a footwear. 25
 7. The garment of any of the claims 2 through 6, wherein the cushion further includes a vertical lip, the vertical lip extending from the lateral body at least partially to the heel. 30
 8. The garment of claim 7, wherein the vertical lip provides protection to the wearer from a plurality of footwear having a plurality of heel heights. 35
 9. The garment of any of claims 1 through 10, wherein the cushion is made of a material selected from the group consisting of cotton, foam, feather, polyester, silk, linen, gel, rubber and plastic. 40
 10. The garment of any of claims 6 through 9, wherein the cushion is sewn into the sock. 45
 11. The garment of any of the claims 6 through 10, wherein the cushion is held in place between the sock and a fabric layer sewn into the sock. 50
 12. The garment of any of the claims 1 through 11, wherein the cushion is configured to protect the ankle of the wearer from abrasion caused by the heel of a footwear selected from the group consisting of dress shoes, casual shoes, high heeled shoes, boots, sneakers, tennis shoes, orthopedic shoes, basketball shoes, running shoes, ice skates, athletic cleats, 55
- ski boots, cross trainer shoes, sandals, and flats.
13. A method of producing a garment, the method comprising attaching a cushion to an ankle portion of the garment, wherein the cushion is configured to protect an ankle of a wearer of the garment from abrasion caused by a heel of a footwear.
 14. The method of producing a garment of claim 13, wherein the sewing further comprises introducing the cushion to the ankle portion of the garment and sewing a fabric layer to the ankle portion around the cushion.
 15. The method of producing a garment of claim 13 or 14, wherein the method further comprises sewing the cushion to the garment.

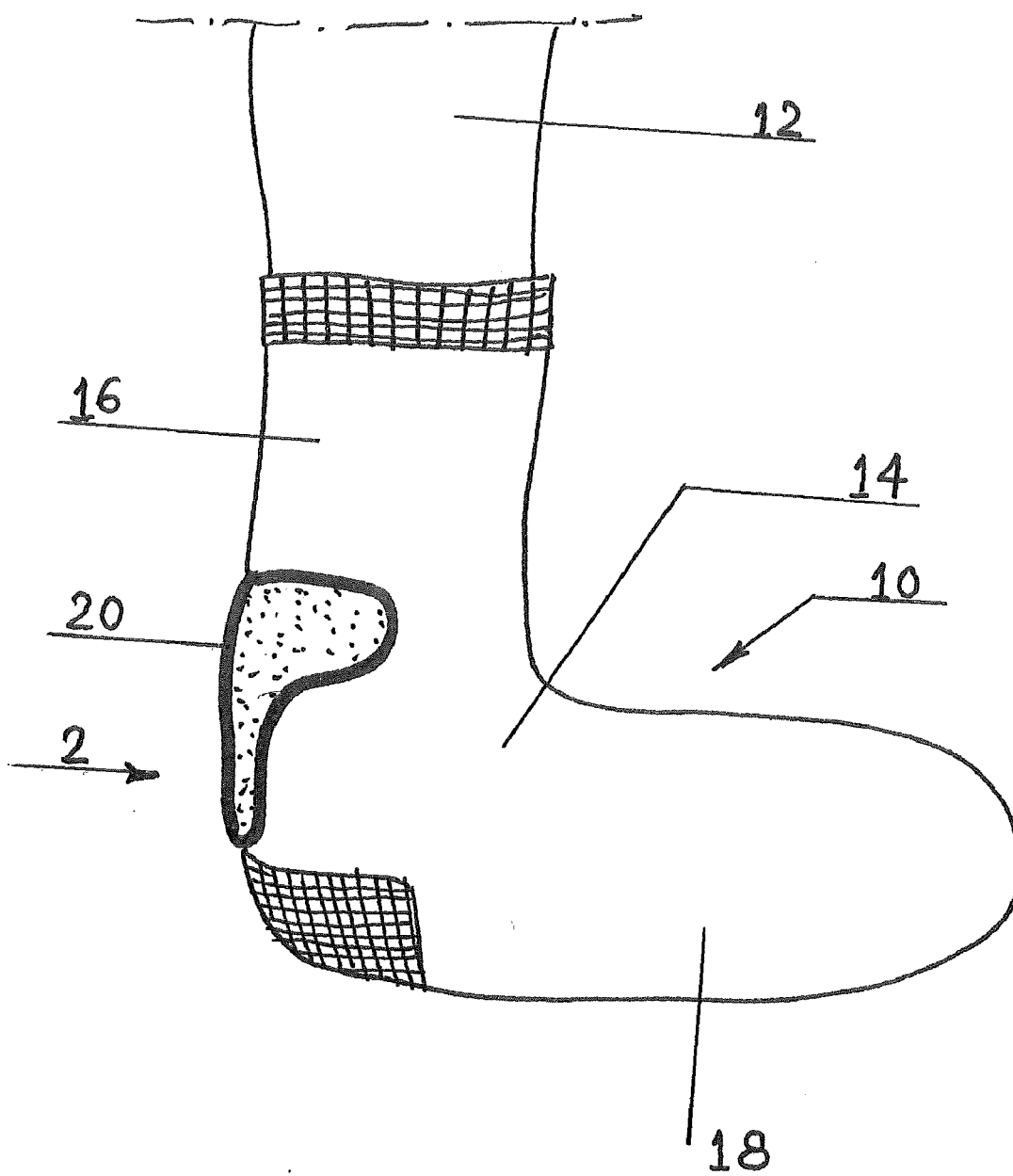


FIG. 1

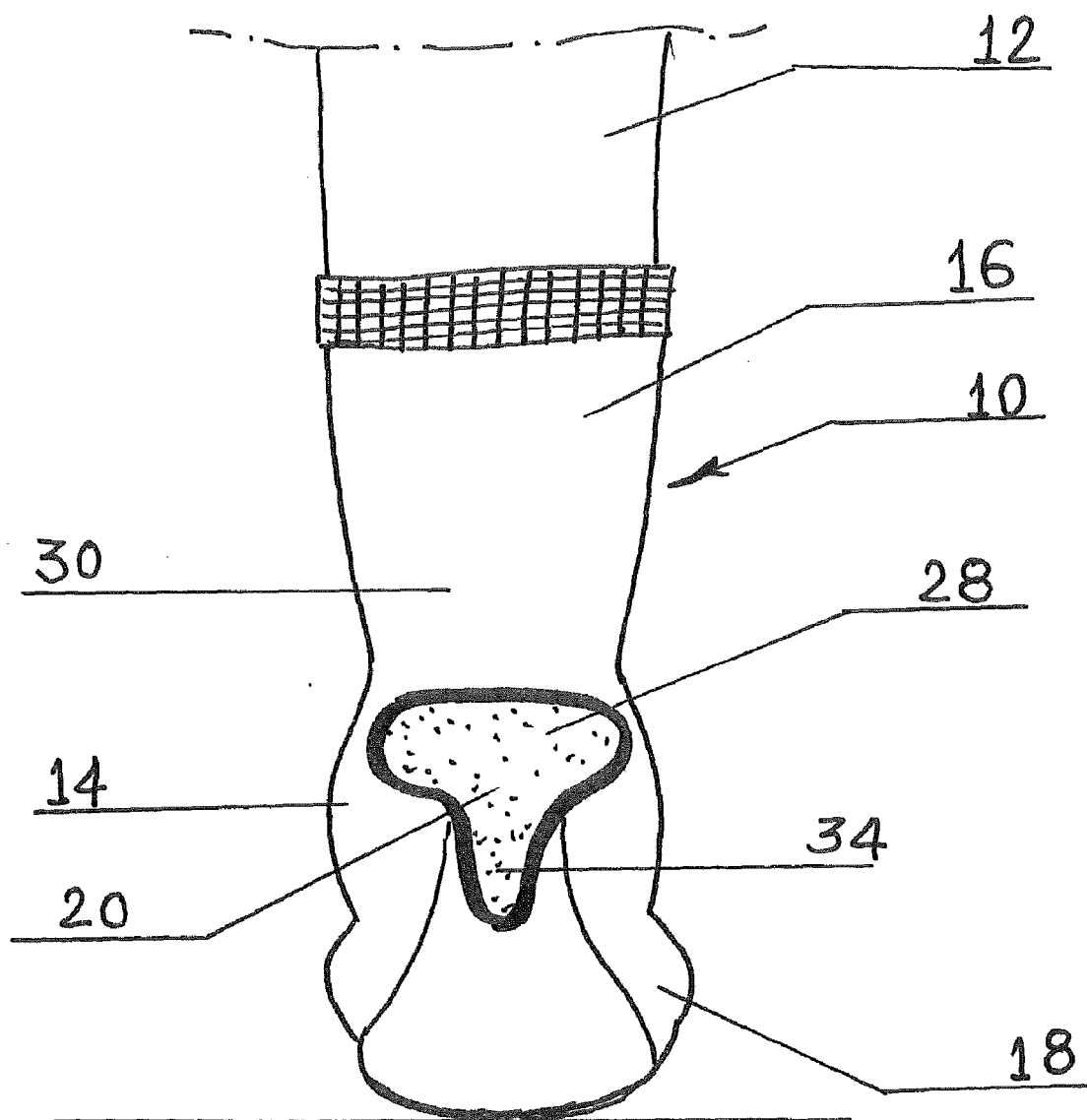


FIG. 2

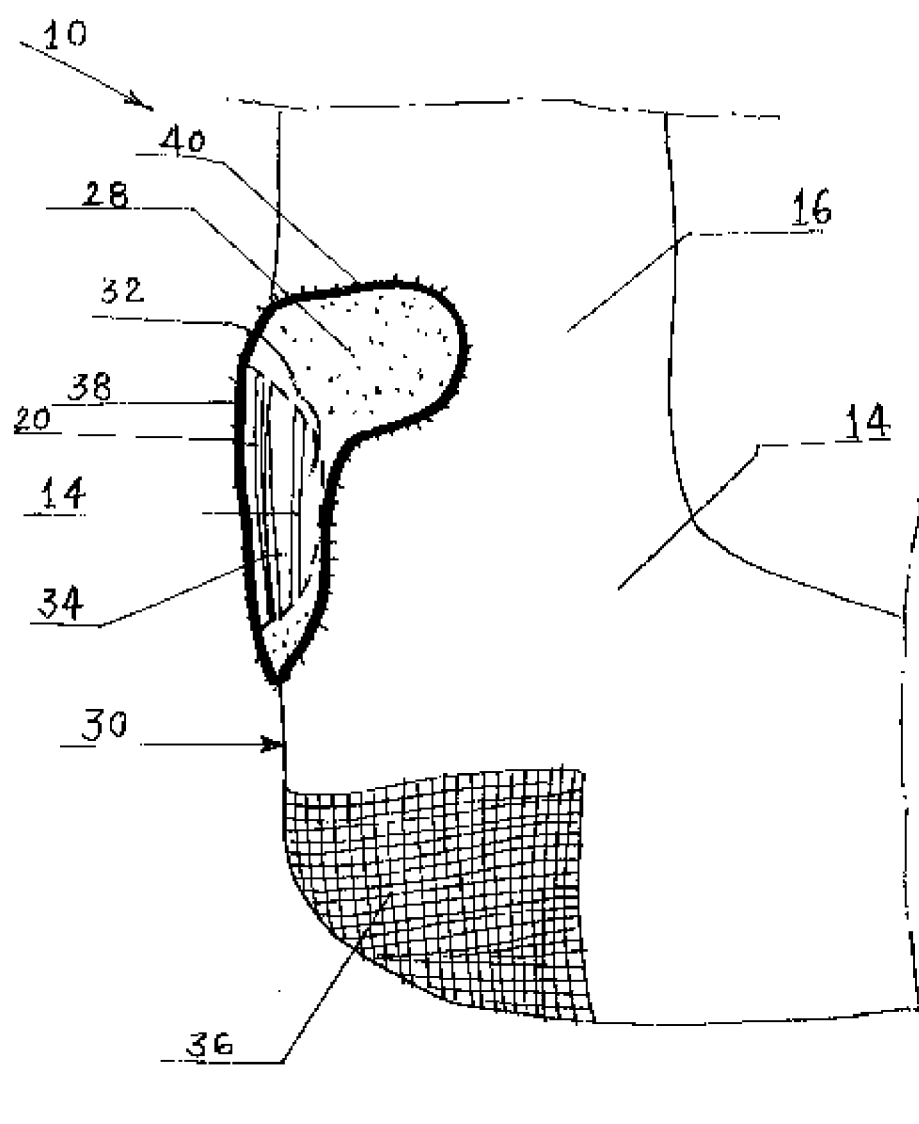


FIG. 3

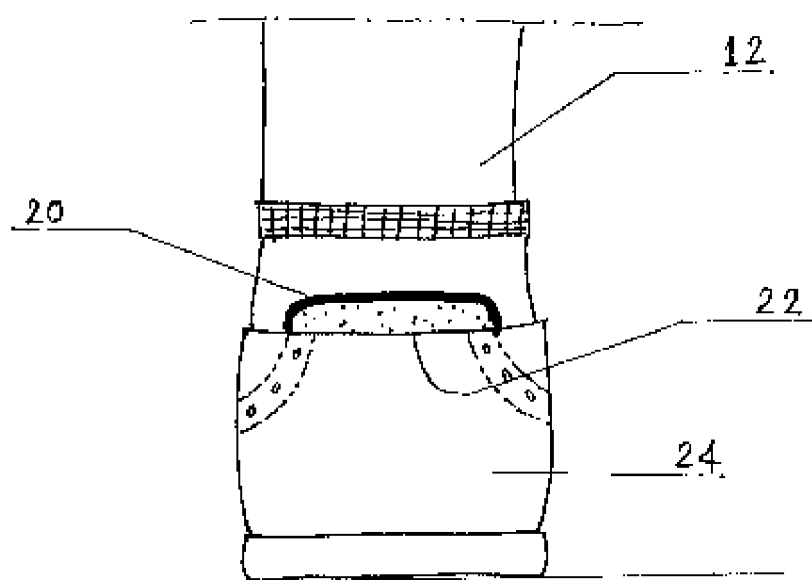


FIG. 4

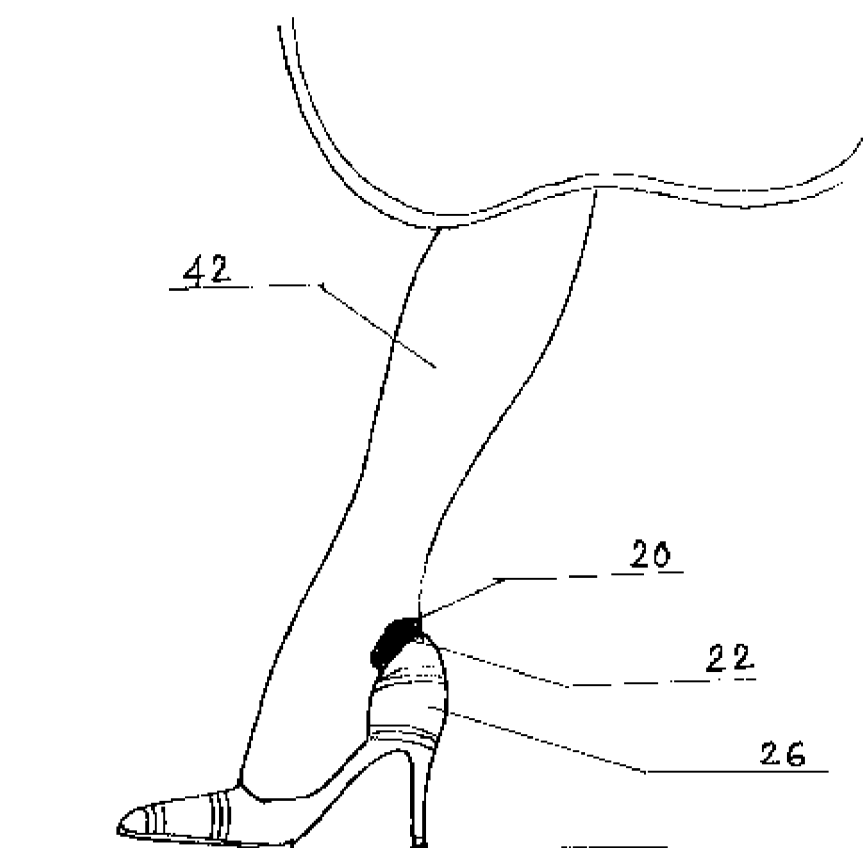


FIG. 5



EUROPEAN SEARCH REPORT

Application Number
EP 09 16 5261

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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 1 June 2010	Examiner Fonseca Fernandez, H
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 03/02 (P04C01)

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

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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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