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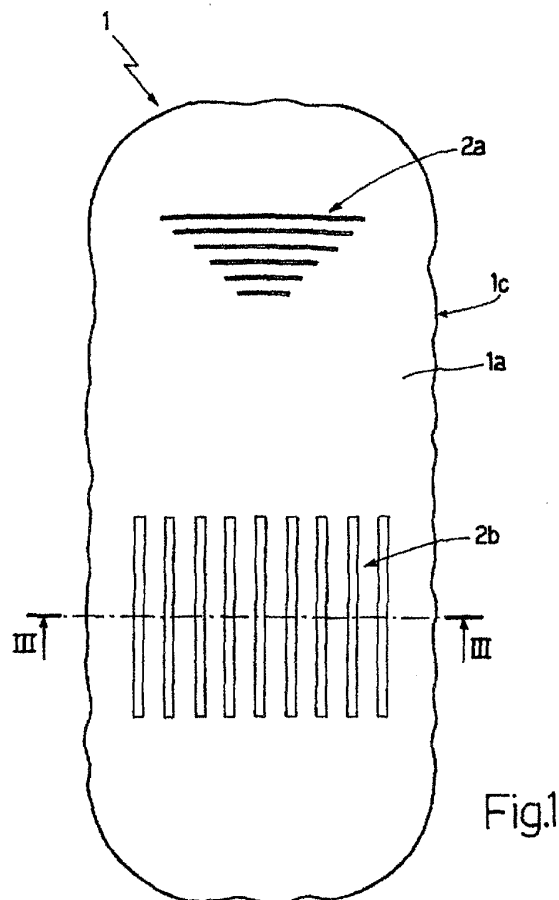
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(54) **A breathable sock**

(57) A breathable sock comprises at least one portion (2a) of fabric, positioned at the toes, which is looser-woven than the main body (1a) of the sock (1). Other portions (2a, 2b, 2c) of loose-woven fabric allow an increase in the advantages deriving from use of the sock (1) described herein. In particular, they are preferably positioned on both the upper part (1b) and on the lower part (1c) of the sock (1), at the sole of the foot and close to the instep.



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## Description

[0001] The present invention relates to a highly breathable sock.

[0002] In the underwear sector, manufacturers are constantly seeking solutions which increase the comfort and wellbeing of persons wearing their products. This explains the production of vests made of different fabrics, according to the part of the body to be covered, as well as the creation of bras and other underwear without seams.

[0003] From this viewpoint, a problem which affects many people is linked to sweating feet. In particular, those obliged to wear socks and shoes for many hours in a row and in unfavourable environmental conditions find that the fact that the foot is constricted causes, on one hand, troublesome sweating and, on the other hand, gradual dehydration of the skin, which remains dry and affected even for a long time after the footwear has been removed.

[0004] Obviously, the main cause of this is the fact that the foot cannot "breathe", as proved by the feeling of wellbeing one has immediately upon removing one's shoes and socks.

[0005] The aim of the present invention is, therefore, to overcome the above-mentioned disadvantages. This is achieved thanks to a sock whose weave makes it highly breathable.

[0006] The main advantage of the present invention is basically that, even when worn with shoes, this type of sock allows the foot to "breathe", promoting air circulation started by the movement of the foot.

[0007] Moreover, it can also be used in a split fashion, that is to say, combined with portions or whole parts of socks made of other materials.

[0008] Other characteristics and advantages of the present invention are more clearly illustrated in the detailed description which follows, with reference to the accompanying drawings, which illustrate a preferred embodiment without limiting the scope of the inventive concept, and in which:

- Figure 1 is a plan view from below of the invention;
- Figure 2 is a top plan view of the invention;
- Figure 3 is a cross-section of the invention according to line III-III in Figure 1.

[0009] As illustrated in the accompanying drawings, the invention consists of a breathable sock, comprising at least a portion (2a) of fabric, positioned at the toes, looser-woven than the main body (1a) of the sock (1).

[0010] Obviously, the distribution of other portions (2a, 2b, 2c) of loose-woven fabric allows an increase in the advantages deriving from use of the sock (1) described herein. In particular, a first advantage will derive from the creation of two portions (2a) of looser-woven fabric, positioned at the toes, on both the upper part (1b) and the lower part (1c) of the sock (1).

[0011] In addition, another advantage will derive from

the insertion of another portion (2b) of looser-woven fabric at the sole of the foot.

[0012] Finally, but without ruling out the possibility of creating further portions of fabric of this type, another certain advantage derives from the creation of a portion (2c) of looser-woven fabric close to the instep.

[0013] It seems unnecessary to emphasise that the form of these portions (2a, 2b, 2c) of fabric remains completely arbitrary, both with regard to their shape and their size.

[0014] However, generally speaking, their usefulness is determined by the thinning of the fabric in the areas in question: for example, in the accompanying drawings these portions (2a, 2b, 2c) of fabric appear as low-relief channels, with variable width, relative to the weave of the main body (1a) of the sock (1). The efficiency of the breathability derives from the fact that, when the foot moves, during the normal walking action, it causes the movement of small quantities of air which, finding free spaces towards which they may move (because the fabric is looser-woven), create an effect similar to that of many cushions (consisting of the air in the low-relief channels) which inflate and deflate alternately.

[0015] As already indicated, parts of socks (1) comprising the afore-mentioned portions (2a, 2b, 2c) of fabric looser-woven than the main body (1a) may be incorporated in socks (1) also made of other materials. This can be done either by completely covering all or some such portions (2a, 2b, 2c), or using the latter to cover parts made of another material.

[0016] The invention described may be subject to modifications and variations without thereby departing from the scope of the inventive concept. Moreover, all details may be substituted with technically equivalent elements.

[0017] Obviously, in practice modifications and/or improvements may be made which are covered by the following claims.

## Claims

1. A breathable sock, **characterised in that** it comprises at least one portion (2a) of fabric, positioned at the toes, which is looser-woven than the main body (1a) of the sock (1).
2. The breathable sock according to claim 1, **characterised in that** it comprises two portions (2a) of looser-woven fabric, positioned at the toes, on both the upper part (1b) and the lower part (1c) of the sock (1).
3. The breathable sock according to claim 1 or 2, **characterised in that** it comprises another portion (2b) of looser-woven fabric, at the sole of the foot.
4. The breathable sock according to claim 1 or 2 or 3, **characterised in that** it comprises a portion (2c) of looser-woven fabric close to the instep.

5. The breathable sock according to any of the foregoing claims, **characterised in that** it comprises at least one of said portions (2a, 2b, 2c) of fabric covered by another material.

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6. The breathable sock according to any of the foregoing claims, **characterised in that** at least one of said portions (2a, 2b, 2c) covers another material.

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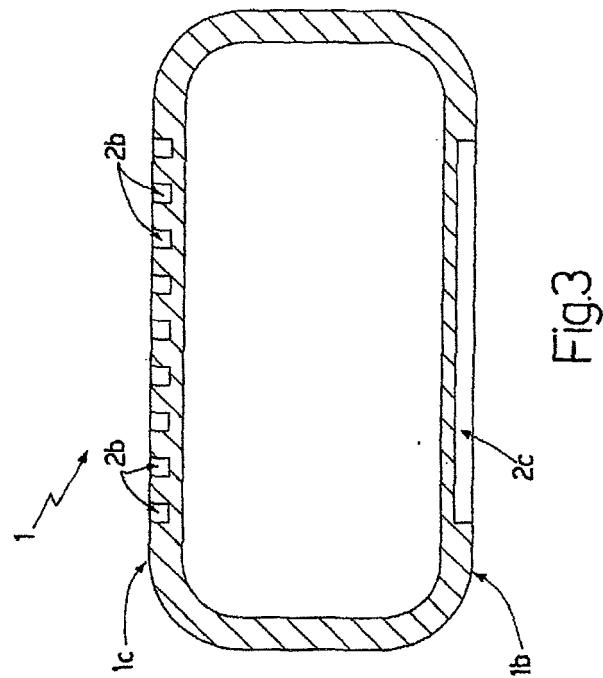
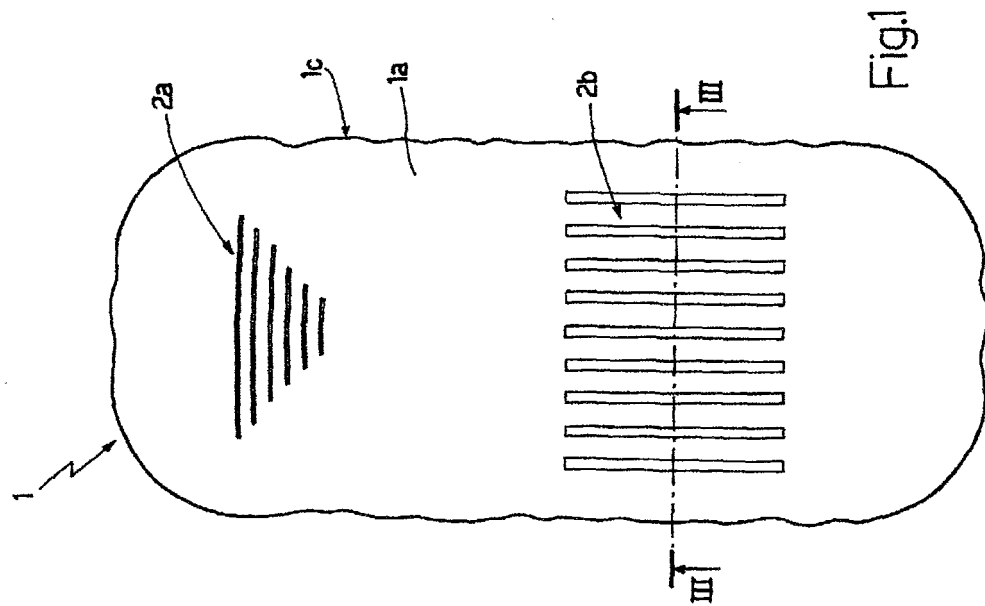
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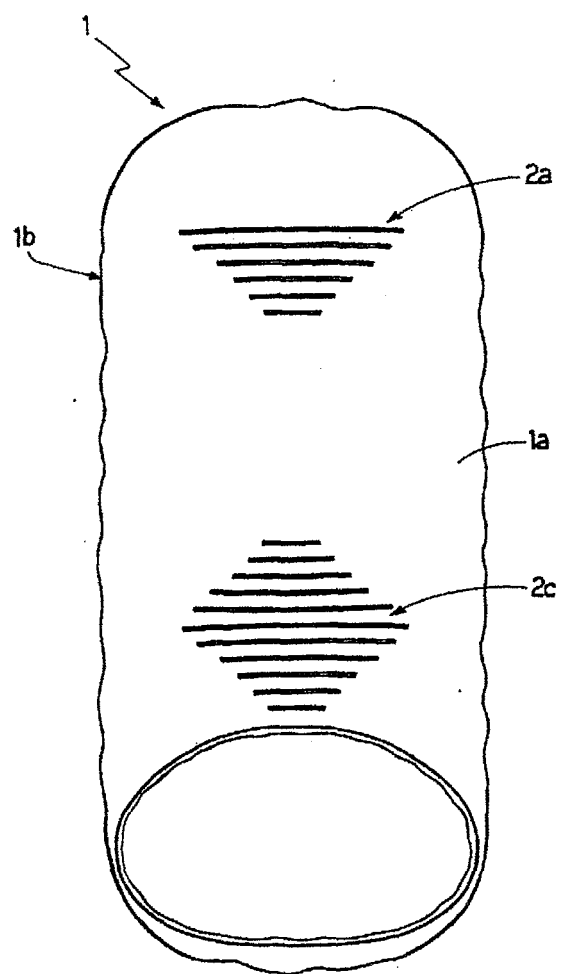


Fig.2



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Application Number  
EP 04 42 5579

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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 19 July 2005	Examiner Lanniel, G
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p> <p>&amp; : member of the same patent family, corresponding document</p>			

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EPO FORM 1503 03.82 (P04C01)

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