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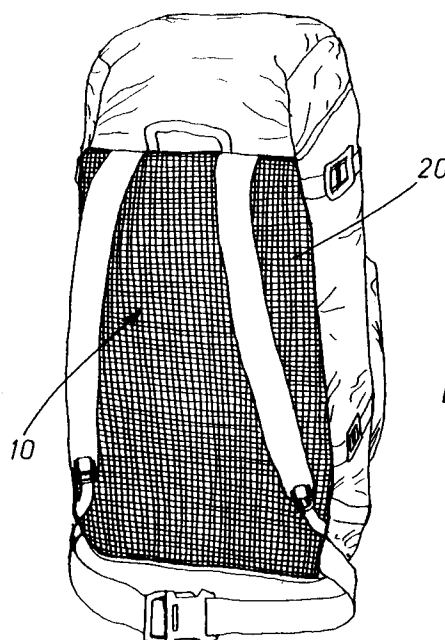
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I-10129 Turin (IT)(54) **Am improved back sheet for knapsacks and similar articles.**

(57) 1. A back sheet (10) for knapsacks and similar articles is provided with or formed by a fabric (20) capable of allowing the user's transpiration therethrough. The fabric (20) comprises a front face or "right side" (21) and an opposing face or "reverse side" (23), both made up by polyester in a weft and chain-stitch arrangement, and an interposed "nap" layer (25) formed by a single polyester yarn joining the two faces of said fabric (20).

**FIG. 5****EP 0 622 036 A2**

The present invention relates to an improved back sheet for knapsacks and similar articles, with the improvement consisting in that such back is provided and/or formed by a fabric allowing for the user's transpiration therethrough.

An existing known problem of the items normally carried in contact with the body is that of allowing a proper transpiration to the user, e. g. through the backs of knapsacks and similar shoulder articles.

In the past attempts have been made to solve such transpiration problem for knapsacks or rucksacks by using a more or less rigid framework fixed to the back sheet of the knapsack which would allow transpiration by maintaining the sack spaced from the user's back.

Such solution has drawbacks that are not discussed here, since in general said solution is suitable only for rucksacks and packs carried by hikers, but would be rather unpractical for knapsacks or similar back sacks for citizen and/or school use to which the present invention is directed.

In sacks to be used in metropolitan areas, for carrying school books or other items, waist-pouches and the like, a solution to the above problem is still needed: therefore it remains the drawback of a proper transpiration which is not allowed to the user by the known sacks or pouches.

The object of the present invention is to overcome said drawbacks by providing a back sheet or layer for knapsacks and similar articles which is provided with and/or formed by a fabric allowing user's transpiration therethrough.

The back sheet of knapsacks or similar articles of the present invention is characterized in that it is provided with or formed by a fabric capable of allowing the user transpiration therethrough; said fabric comprising a front face or "right side", an opposing face or "reverse side", and a "nap" layer interposed between said two faces.

More particularly, the face forming the "right side" comprises a polyester in weft and chain-stitch arrangement, and also the face forming the "reverse" is made up by a polyester in weft and chain-stitch arrangement, while the "nap" layer interposed between said two faces is formed by a single polyester yarn joining the two faces of the fabric.

A further basic characteristic of the fabric consists in that the single-filament yarn forming the "nap" is matted between the two faces in such a manner as to provide intermediate spaces through which air can flow freely; at the same time the mat is so formed that the fabric has a good stability.

The invention will now be described in details with reference to the accompanying drawings, that

illustrate a non limiting example, in which:

Fig. 1 is a diagram of the weft and chain-stitch arrangement forming the "right side" of the fabric;

Fig. 2 is a diagram of the weft and chain-stitch arrangement forming the "reverse side" of the fabric;

Fig. 3 is a diagram showing the matted connection between the "right" and the "reverse" sides by means of the single-yarn "nap" member;

Fig. 4 is a perspective view of a fabric piece in which it is better illustrated the matted connection between the "right" and "reverse" sides by the single-yarn "nap" member;

Fig. 5 is a perspective view of a knapsack incorporating a back sheet of transpiring fabric.

As clearly shown in the Figures, the back 10 of the invention is provided with or is formed by a fabric 20, adapted to allow the user's transpiration therethrough; said fabric 20 has a front face 21 or "right side", an opposing face 23 or "reverse side", and a "nap" layer 25 interposed between said two faces 21 and 23.

More particularly, the front face 21 or "right side" comprises a polyester in weft and chain-stitch arrangement (see Fig. 1), with the face 23 or "reverse" made up by a polyester in weft and chain-stitch arrangement too (see Fig. 2), while the "nap" layer 25, interposed between said faces, is formed by a single polyester yarn joining the two faces of the fabric (see Fig. 3).

It is to be noted that the single-filament yarn 25 forming the "nap" is matted between the two faces 21, 23, in such a manner as to provide intermediate spaces through which air can flow freely; at the same time the mat is so formed that the fabric has a good stability (see Fig. 4).

Claims

1. A back sheet (10) for knapsacks and similar articles, characterized in that it is provided with or formed by a fabric (20) capable of allowing the user's transpiration therethrough; said fabric (20) comprising a front face or "right side" (21), an opposing face or "reverse side" (23), and a "nap" layer (25) interposed between said two faces (21, 23).
2. A back sheet according to claim 1, characterized in that both the face (21) forming the "right side" and the face (23) forming the "reverse side" of said fabric (20) are made up by polyester in a weft and chain-stitch arrangement, with the "nap" layer (25) interposed between said faces (21, 23) being formed by a single polyester yarn joining the two faces of said fabric (20).

3. A back sheet according to claims 1 and 2, characterized in that the single filament yarn forming the "nap" (25) of said fabric (20) is matted between said two faces (21, 23) in such a manner as to provide intermediate spaces through which air can flow freely; at the same time the mat being formed in such a manner that the fabric has a good stability. 5
4. A fabric for backs of knapsacks or similar articles according to claim 1, characterized in that it comprises a front face (21) forming the "right side", an opposing face (23) forming the "reverse side", and a "nap" layer (25) interposed between said faces (21, 23). 10 15
5. A fabric for backs of knapsacks or similar articles according to claim 4, characterized in that both the face (21) forming the "right side" and the face (23) forming the "reverse side " of said fabric (20) are made up by polyester in a weft and chain-stitch arrangement, with the "nap" layer (25) interposed between said faces (21, 23) being formed by a single polyester yarn joining the two faces of said fabric (20). 20 25
6. A fabric for backs of knapsacks or similar articles according to claims 4 and 5, characterized in that said single-filament yarn forming the "nap" (25) is matted between the two faces (21, 23) in such a manner as to provide intermediate spaces through which air can flow freely; said mat being at the same time formed in such a manner that the fabric has a good stability. 30 35

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