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(54) **SPORTS BOOT WITH DECORATION**

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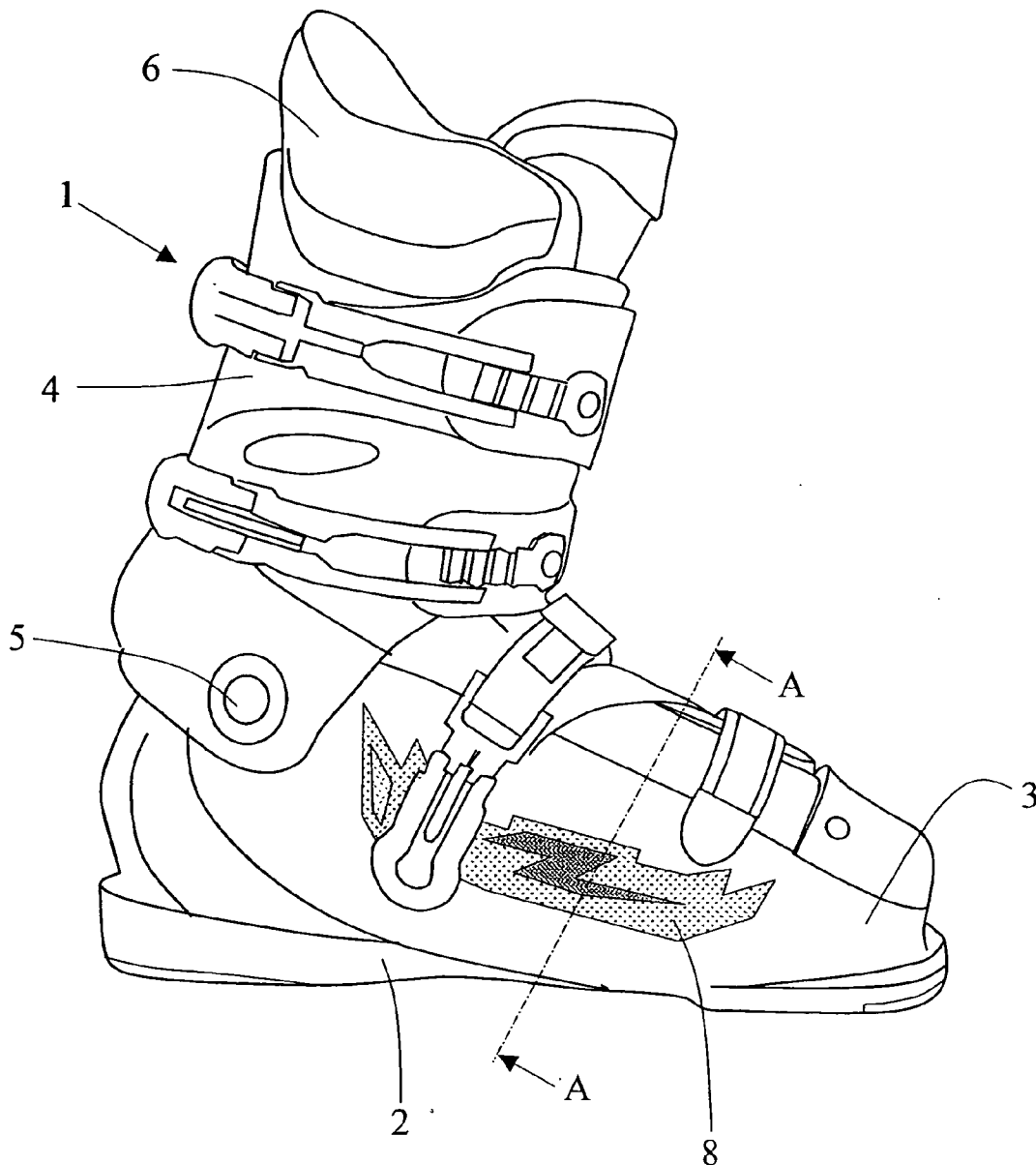
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(57) **ABSTRACT**

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The sports shoe comprises a transparent or translucent wall comprising a decoration on its inner face.



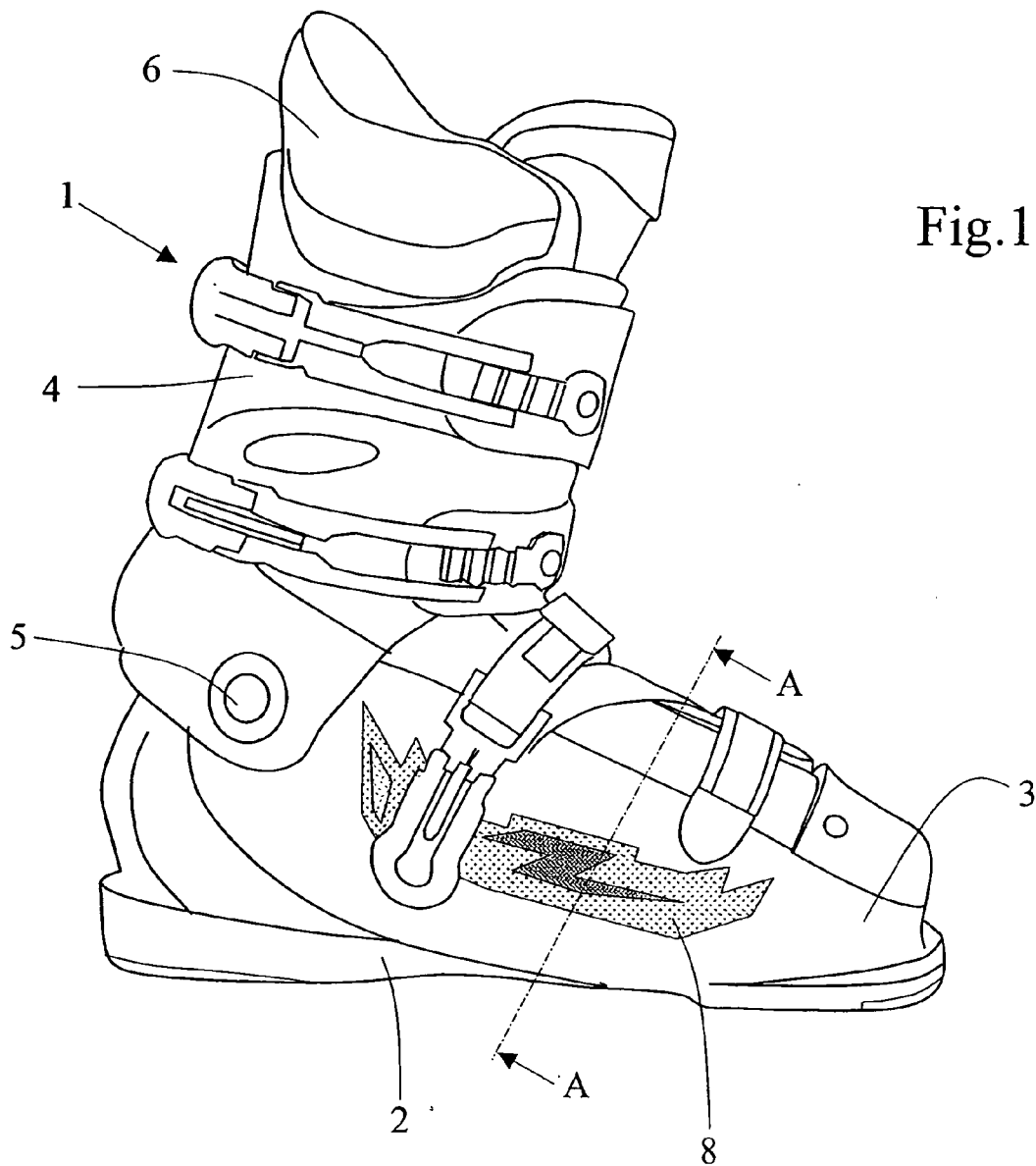


Fig.1

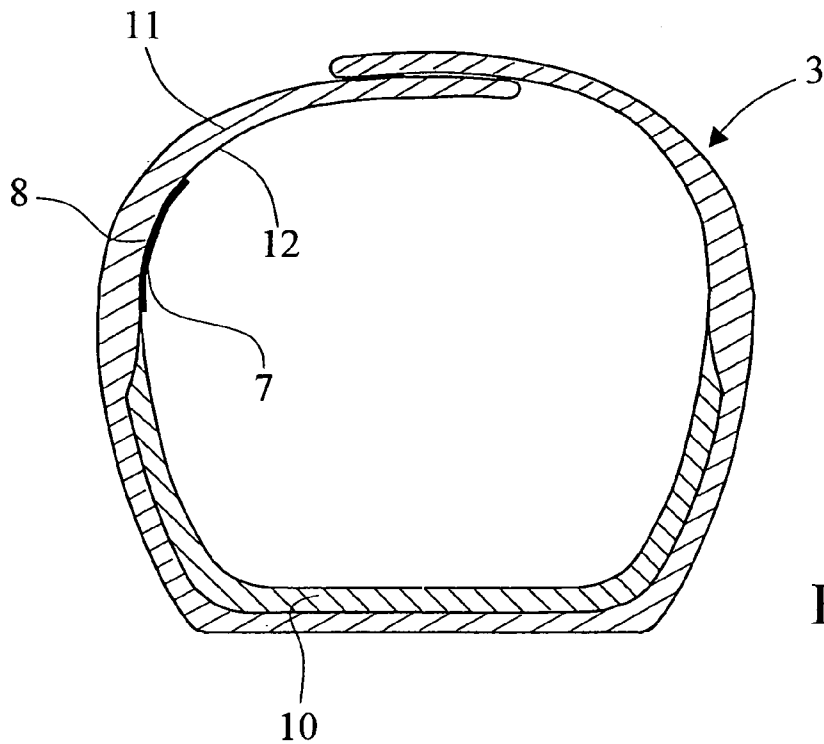


Fig.2

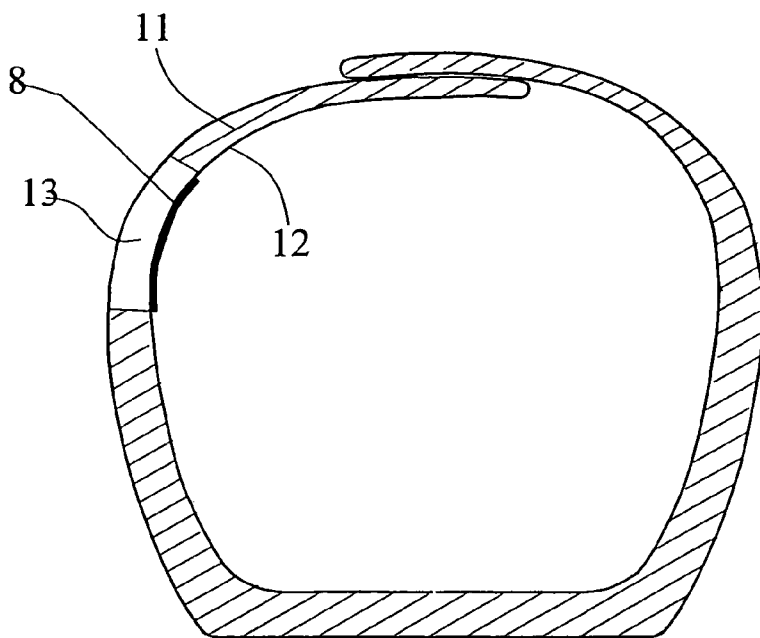


Fig.3

SPORTS BOOT WITH DECORATION

BACKGROUND OF THE INVENTION

[0001] The invention relates to all or part of a sports shoe comprising a decoration and is particularly appropriate for boots for sliding boards, such as skis or snow boards, or for skating, which are used in abrasive environments. Furthermore, the invention also relates to the process for manufacturing such a shoe.

DESCRIPTION OF THE PRIOR ART

[0002] Boots for sports involving sliding require an appropriate compromise between the constraints of comfort and rigidity. The latter is necessary in order to allow the user to guide the sliding device accurately and to feel the response of the device to his actions. To this end, the boots generally consist of a shell and a collar, part of which is made of a rigid plastic material. The decoration of such boots is frequently sober and produced by hot-marking on the outer surface of the shell or collar. The decorations produced are often damaged by the abrasive environment encountered during use of the boot and, in the case of skiing or snowboarding, they are moreover subjected to unintentional impacts caused by the edges, which give rise to unattractive scratches on these decorations. Such decorations are therefore not very durable. Furthermore, such a decoration process is inconvenient because it adds a long and expensive stage to the process for manufacturing sports shoes.

[0003] More generally, the processes for decorating sports shoes of the prior art are unsatisfactory on account of the combination of a large number of constraints, including:

[0004] the shoe is intended for an abrasive environment and for sports use which results in major stresses on its structure. In the case of skiing or snowboarding, the boot is also subjected to accidental impacts caused by the edges. This external aggression makes the arrangement of durable decorations on the shoe difficult;

[0005] moreover, the shoe has a complex, non-planar surface, which does not facilitate its decoration;

[0006] the shoe furthermore has a complex, expensive structure on account of the mechanical and comfort-related constraints, and it is not financially conceivable to increase its cost significantly for an additional constraint of aesthetic nature. Nor is it conceivable to reduce the rigidity and/or the comfort of the shoe in order to make it possible to develop decoration solutions;

[0007] the shoe also has to have a minimum weight in order to optimize its performance and its cost. Decoration solutions which would result in an increase in the weight of the shoe would therefore be unsuitable.

SUMMARY OF THE INVENTION

[0008] A first object of the present invention consists in proposing a sports shoe comprising a decoration, the latter being, if required, of large size, and of any shape, being capable of comprising a large number of colors, and being

resistant to the stresses imposed by the use of the sports shoe and appropriate for the complex shape of the surface of the shoe.

[0009] A second object of the present invention consists in proposing a sports shoe with decoration of which the manufacturing process is simple and the extra cost remains negligible.

[0010] A third object of the present invention consists in proposing a sports shoe with decoration of which the weight remains minimal.

[0011] According to the concept of the invention, the sports shoe comprises at least a portion of transparent wall having a decoration on its inner surface in such a way that it is visible from the outside and protected from external aggression.

[0012] Thus, the sports shoe according to the invention comprises a part of shell or cuff type of which at least a portion of wall is transparent or translucent and includes a decoration on its inner face so as to leave the decoration visible from the outside and to protect it.

[0013] The decoration can be a marking by silk screen printing and/or lacquer and/or varnish applied to the inner face of the wall.

[0014] The decoration can also consist of a support comprising the decoration and fixed to the inner face of the wall by an adhesive means. The support can be the adhesive means, a sticker or of the decal type.

[0015] The decoration can also be produced by hot transfer from a ribbon or from a label.

[0016] The sports shoe can be a ski boot, the part of the shoe being the shell made of polyurethane and the decoration being arranged on the lateral portions of the shell.

[0017] The decoration can be of alphanumeric and/or four-color type.

[0018] It can include information allowing management of the sports shoe, by means of a part of bar-code type, for example.

[0019] The invention also relates to the process for manufacturing a sports shoe, which comprises the following stages:

[0020] manufacture of a portion of wall on a part of the shoe of shell or cuff type with the aid of a transparent material;

[0021] production of a decoration on the inner face of the portion of transparent wall.

[0022] The production of the decoration can be effected by means of a method of silk-screen printing type and/or by application of a lacquer and/or a varnish.

[0023] In a variant, the production of the decoration can be effected by means of a hot-marking stage.

[0024] According to another variant, the production of the decoration can consist in arranging a support including the decoration with the aid of an adhesive means on the inner face of the wall. To this end, this stage can consist in removing a film from the support of the decoration so as to obtain the adhesive effect of the adhesive means. Thus, the

production of the decoration can comprise a stage of sticking-on a sticker, the support of the decoration being a sticker.

DESCRIPTION OF THE DRAWINGS

[0025] These objects, characteristics and advantages of the present invention will be explained in detail in the description below of one particular embodiment given on a non-limiting basis with reference to the accompanying figures, in which:

[0026] **FIG. 1** is a perspective view of a boot according to the invention;

[0027] **FIG. 2** is a sectional view along A-A of the boot in **FIG. 1**, and

[0028] **FIG. 3** is a sectional view along A-A of a boot similar to that in **FIG. 1** according to a variant of implementation of the invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0029] The embodiment described below with reference to **FIGS. 1 and 2** relates to a ski boot **1** consisting essentially of a sole **2**, a shell **3** and a cuff **4** articulated on the shell **3** in the malleolar region at a point **5**. This shell **3** and this cuff **4** receive a comfort liner **6**. The shell comprises a decoration **8**.

[0030] **FIG. 2** shows the structure of the shell **3** in section. It consists essentially of a transparent or translucent wall **11** made of a plastic material, for example polyurethane, comprising a decoration **8** produced directly on its inner face **12**, which is visible from the outside by virtue of the transparency of the layer **11**.

[0031] This decoration **8** can be produced by means of silk-screen printing, or indeed any other printing technique. In particular, all the marking processes in use today for decorating the outer faces of sports shoes remain compatible with the concept of the invention and can be applied to the inner face of the transparent wall.

[0032] In a variant, this decoration can be produced by means of a support **7** for the decoration **8**, shown in **FIG. 2**, which can be a conventional self-adhesive paper, consisting of a face including the decoration **8** and also an adhesive means, this face being covered by a protective film which is removed just before the arrangement of the support **7** on the boot. This support **7** is stuck directly to the inner face **12** of the transparent wall **11** of the boot. The support **7** for the decoration **8** is selected to be flexible and not very thick, made of paper, of plastic or of a natural or synthetic adhesive element, for example, so as to be capable of following the non-planar surface of the wall **11** of the shell **3**. The decoration **8** can be produced very easily by printing from a computer printer.

[0033] According to another variant, the decoration can be arranged in accordance with the decalcomania method, which will therefore consist in applying the support to the wall **11** of the boot by removing the film from the bottom of the decoration.

[0034] According to another variant, the decoration can be produced by the hot-transfer method from a label or from a ribbon.

[0035] The shell shown in **FIG. 2** comprises in places a second wall **10** made of polyurethane, possibly superposed on the wall **11**, according to a combination known from the prior art for improving the rigidity and comfort of the boot.

[0036] In a variant illustrated in **FIG. 3**, the transparent portion of the wall **11** can be reduced to a simple window **13** corresponding to the location of the decoration **8**.

[0037] The invention also relates to the process for manufacturing the ski boot **1**, which is obtained by means of the following essential stages:

[0038] formation of the wall **11** comprising a stage of injection of transparent or translucent polyurethane;

[0039] arrangement of the decoration **8** on the inner surface of the transparent wall **11**.

[0040] The portion of transparent wall **11** therefore fulfils the dual purpose of being a main constituent element of the shell, the main function of which is more specifically rigidity and comfort, while performing the function of supporting and protecting the decoration as it represents a barrier with regard to external aggression for the decoration.

[0041] In this embodiment, the decoration has been arranged on the lateral portion of the shell of the boot. However, it could also be arranged on another surface of the shell **3** or on the cuff **4**.

[0042] Furthermore, the decoration process according to the invention can be combined with the conventional decoration processes of the prior art, which are based on decoration of the outer surface of the walls of the shoes. It is thus possible to increase the aesthetic effects possible by obtaining reliefs, for example, by means of two superposed decorations located in different planes.

[0043] In a variant, the decoration can be more than a simple decoration and include information useful for the management of sports shoes for rental organizations, for example. Thus, the decoration can be of the barcode type or any equivalent in order to indicate an identification number of the shoe. It also makes it possible to identify the rental organization which owns the sports shoe. This allows it to automate the shoe rental process thanks to a stage of rapid identification of the shoe. It can also identify easily and with certainty the shoes belonging to it.

[0044] Finally, the solution achieves fully the objects mentioned above and affords the following advantages:

[0045] as the decoration can be produced by a great many means, in particular by means of a simple support, it is suitable for shapes of any kind and any size. It can also comprise any type of complex printing of alphanumeric or four-color type, including colors, markings, holograms etc. As it can be produced very simply, the process for manufacturing the shoe is suitable for small series;

[0046] as the decoration is arranged on the inner face of the shoe, it is protected from external aggression;

[0047] the invention does not require any specific supplementary protection to be added to the shell to protect the decoration: it merely involves integrating a decoration on a shoe of which the structure is

standard and does not require any modification, apart from the transparency of the wall in the region of the decoration;

[0048] given the explanations above, the increase in weight and cost of the shoe according to the invention in relation to a shoe without decoration is limited simply to the weight and cost of the added decoration, which is negligible;

[0049] the process for manufacturing such a shoe is simple—all that is required is to arrange the decoration by any means on the inner wall of the shoe;

[0050] the invention also makes it possible to increase the aesthetic effects possible, for example by virtue of the possibility of combining the decoration process according to the invention with existing processes in order to obtain reliefs.

1. A sports shoe (1) comprising a part of shell (3) or cuff (4) type comprising a wall (11) with a decoration (8), wherein at least a portion of the wall (11) is transparent or translucent and includes the decoration (8) on its inner face (12) so as to leave the decoration visible from the outside and to protect it.

2. The sports shoe (1) as claimed in claim 1, wherein the decoration (8) is a marking by silk screen printing and/or lacquer and/or varnish applied to the inner face (12) of the wall (11).

3. The sports shoe (1) as claimed in claim 1, wherein the decoration consists of a support (7) comprising the decoration and fixed to the inner face (12) of the wall (11) by an adhesive means.

4. The sports shoe (1) as claimed in claim 3, wherein the support (7) is the adhesive means.

5. The sports shoe (1) as claimed in claim 3, wherein the decoration support (7) is a sticker.

6. The sports shoe (1) as claimed in claim 3, wherein the decoration support (7) is of the decal type.

7. The sports shoe (1) as claimed in claim 1, wherein the decoration (8) is produced by hot transfer from a ribbon or from a label.

8. The sports shoe (1) as claimed in claim 1, wherein the wall (11) of the part of the shoe is made of polyurethane.

9. The sports shoe (1) as claimed in claim 1, wherein the shoe is a ski boot, the part of the shoe being the shell (3) and the decoration (8) being arranged on the lateral portions of the shell.

10. The sports shoe as claimed in claim 1, wherein the decoration (8) is of alphanumeric and/or four-color type.

11. The sports shoe as claimed in claim 1, wherein the decoration (8) includes information allowing management of the sports shoe.

12. The sports shoe as claimed in claim 11, wherein the decoration comprises a part of bar-code type for including the information.

13. A process for manufacturing a sports shoe as claimed in claim 1, which comprises the following stages:

manufacture of a portion of wall (11) on a part of the shoe of shell or cuff type with the aid of a transparent material;

production of a decoration (8) on the inner face of the portion of transparent wall (11).

14. The process for manufacturing a sports shoe as claimed in claim 13, wherein the production of the decoration (8) is effected by means of a method of silk-screen printing type and/or by application of a lacquer and/or a varnish.

15. The process for manufacturing a sports shoe as claimed in claim 13, wherein the production of the decoration (8) is effected by means of a hot-marking stage.

16. The process for manufacturing a sports shoe as claimed in claim 13, wherein the production of the decoration (8) consists in arranging a support (7) including the decoration (8) with the aid of an adhesive means on the inner face (12) of the wall (11).

17. The process for manufacturing a sports shoe as claimed in claim 16, wherein the production of the decoration (8) comprises a stage consisting in removing a film from the support (7) of the decoration (8) so as to obtain the adhesive effect of the adhesive means.

18. The process for manufacturing a sports shoe as claimed in claim 17, wherein the production of the decoration comprises a stage of sticking-on a sticker, the support (7) of the decoration (8) being a sticker.

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