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(54) Method for Making a protective helmet and the helmet made thereby

(57) A method for making a protective helmet (1) comprises the steps of:

- providing a cap (2) of a thermoplastic material, in a single piece;
- removing by cutting a portion (3) of the cap;
- decorating the removed portion (3) by coating it by leather, a leather-like material or other materials; and
- coupling again the decorated portion (3) to the cap (2) by glueing.

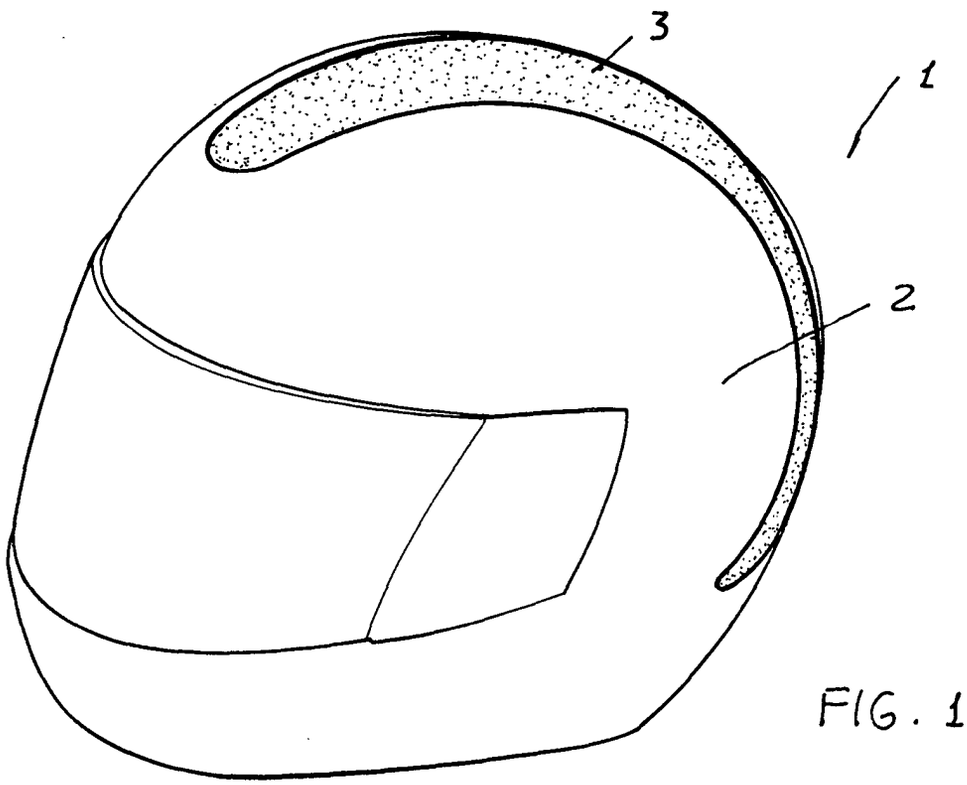

FIG. 1

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Description

BACKGROUND OF THE INVENTION

[0001] The present invention relates to a method for making a protective helmet and also relates to a protective helmet by said method.

[0002] As is known, the field of the protective helmets, in particular motorcyclist helmets, has been greatly developed due to the continuously increasing use of motorcycles and motorbicycles, mainly in urban centers and due to the recent regulations which, in several Countries have made compulsory the use of protective helmets for the motorbicycle and motorcycle users.

[0003] The great diffusion of said protective helmets, and the continuously increasing competition of the protective helmet makers, has generated the need of providing protective helmets easily differentiated even from a mere aesthetic standpoint, considering that a comparatively high rate of users requires protective helmets which not only provide the required safety and functionality properties, but also particular style and aesthetic characteristics.

SUMMARY OF THE INVENTION

[0004] Accordingly, the aim of the present invention is to provide a method allowing to make a safety protective helmet, having very good aesthetic characteristics.

[0005] Within the scope of the above mentioned aim, a main object of the present invention is to provide such a method which can also be applied by using existing systems and materials already used for making conventional helmets.

[0006] Yet another object of the present invention is to provide such a protective helmet making method allowing to make a protective helmet having all the desired safety and functionality requirements.

[0007] Yet another object of the present invention is to provide such a protective helmet making method which allows to produce protective helmets having different and differentiated finishing features, according to requirements.

[0008] According to one aspect of the present invention, the above mentioned aim and objects, which will become more apparent hereinafter, are achieved by a method for making a protective helmet, characterized in that said method comprises the steps of:

- providing a cap of a thermoplastic material, in a single piece;
- removing by cutting a portion of the cap;
- decorating the removed portion by coating it by leather, a leather-like material or other materials; and
- coupling again the decorated portion to the cap.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] Further characteristics and advantages of the present invention will become more apparent hereinafter from the following detailed disclosure of a preferred, though not exclusive, embodiment of the invention, which is illustrated, by way of an indicative, but not limitative example, in the accompanying drawings, where:

Figure 1 is a three-quarter perspective view of the protective helmet according to the invention;
Figure 2 is a rear view of the protective helmet according to the invention;
Figure 3 is a further rear view of the protective helmet according to the invention, showing the method step for applying the cut portion to the cap of the protective helmet;
Figure 4 is a partially cross-sectioned side view illustrating the method step of applying the cut portion to the cap of the protective; and
Figure 5 is a partially cross-sectioned side view of the protective helmet according to the invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0010] With reference to the number references of the above mentioned figures, the protective helmet, according to the present invention, which has been generally indicated by the reference number 1, is made by providing at first a helmet cap 2, made of a thermoplastic material, for example a polycarbonate material, in a single piece, in a per se known manner.

[0011] Then, from the cap 2, a cap portion 3 is removed, advantageously by cutting, for example by using a mechanical mill or a hydrojet of a highly pressurized fluid.

[0012] Alternatively, it is also possible to use laser devices or other suitable cutting means.

[0013] The removed portion 3 can be decorated according to any desired manners, for example by coating it by a leather material, a leather-like material, a fabric material or any other desired decorating, plastics or metal materials, by glueing or welding or thermosealing methods.

[0014] Then, the removed portion 3 is glued to the cap 2, inside of which a foamed material inner body 4 is applied, typically made of polystyrene, as well as the liner or padding, usually made of a fabric material, in a per se known manner.

[0015] It has been found that the invention fully achieves the intended aim and objects.

[0016] In fact, the invention provides a method allowing to make a safety-protective helmet having very good aesthetic characteristics.

[0017] In practicing the invention, the used materials, as well as the contingent size and shapes, can be any, depending on requirements and the status of the art.

Claims

1. A method for making a protective helmet, **characterized in that** said method comprises the steps of:

   - providing a cap of a thermoplastic material, in a single piece;
   - removing by cutting a portion of the cap;
   - decorating the removed portion by coating it by leather, a leather-like material or other materials;
     and
   - coupling again the decorated portion to the cap.

2. A method according to Claim 1, **characterized in that** said portion is cut by high pressure hydrojet cutting means

3. A method, according to Claim 1, **characterized in that** said portion of said cap is cut by a mechanic cutting mill.

4. A method, according to one or more of the preceding claims, **characterized in that** said portion of said cap is cut by laser beam or other cutting means.

5. A method, according to Claim 1 or 2, **characterized in that** said cap cut portion is coated by an outer layer of leather, a leather-like material, a fabric material or other decorative materials.

6. A method, according to one or more of the preceding claims, **characterized in that** said portion removed from said cap is coupled to said cap by glueing.

7. A method, according to one or more of the preceding claims, **characterized in that** said portion removed from said cap is coated and/or decorated by plastics materials or metal materials, by glueing, welding or thermosealing.

8. A safety helmet, comprising a thermoplastic material cap, and **characterized in that** said safety helmet further comprises a decorated portion, which originally formed a portion of said cap, made by molding in a single piece, said portion being cut, decorated and coupled again to said helmet cap.

9. A method, according to one or more of the preceding claims, **characterized in that** said method comprises one or more of the disclosed and/or illustrated characteristics.

10. A safety helmet, according to one or more of the preceding claims, **characterized in that** said safety helmet comprises one or more of the disclosed and/or illustrated characteristics.

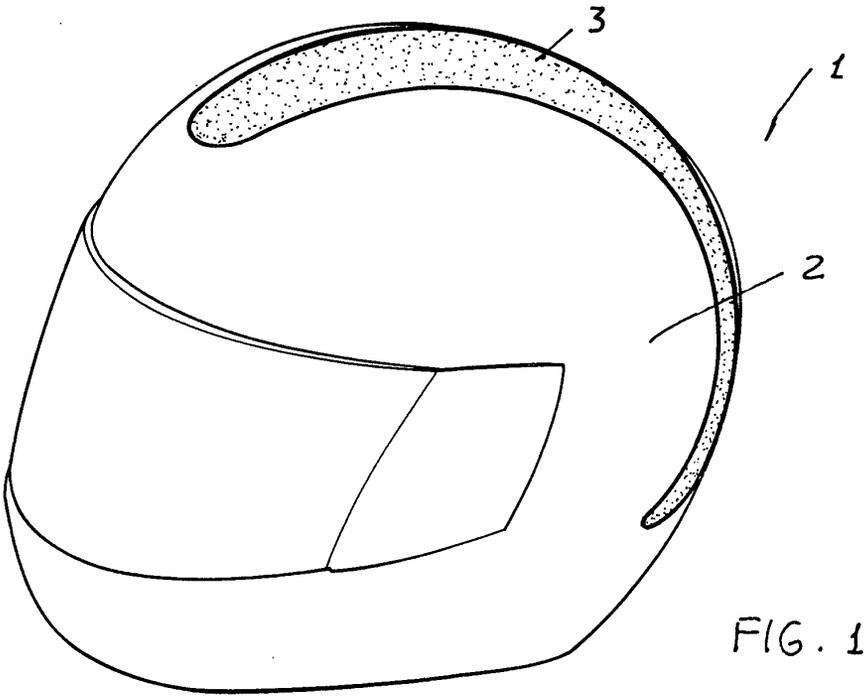

FIG. 1

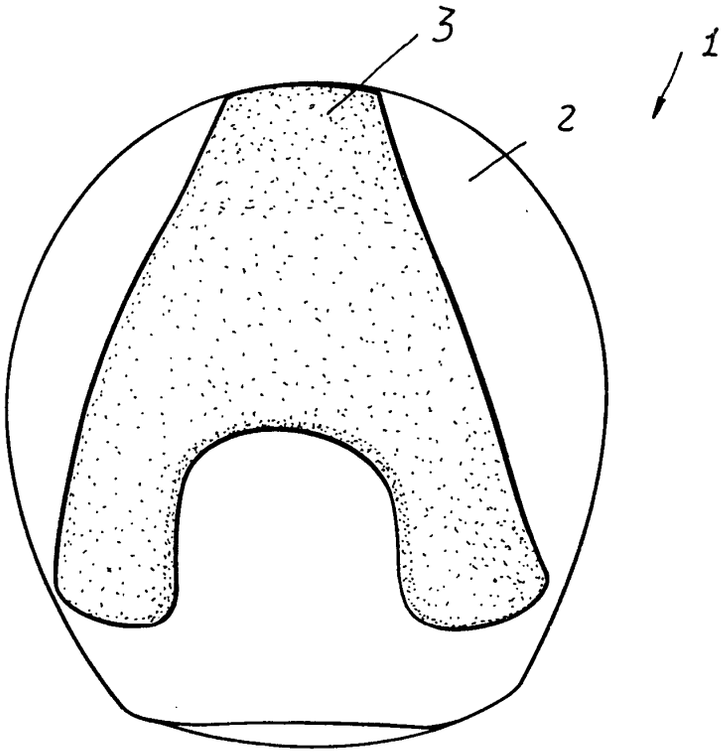

FIG. 2

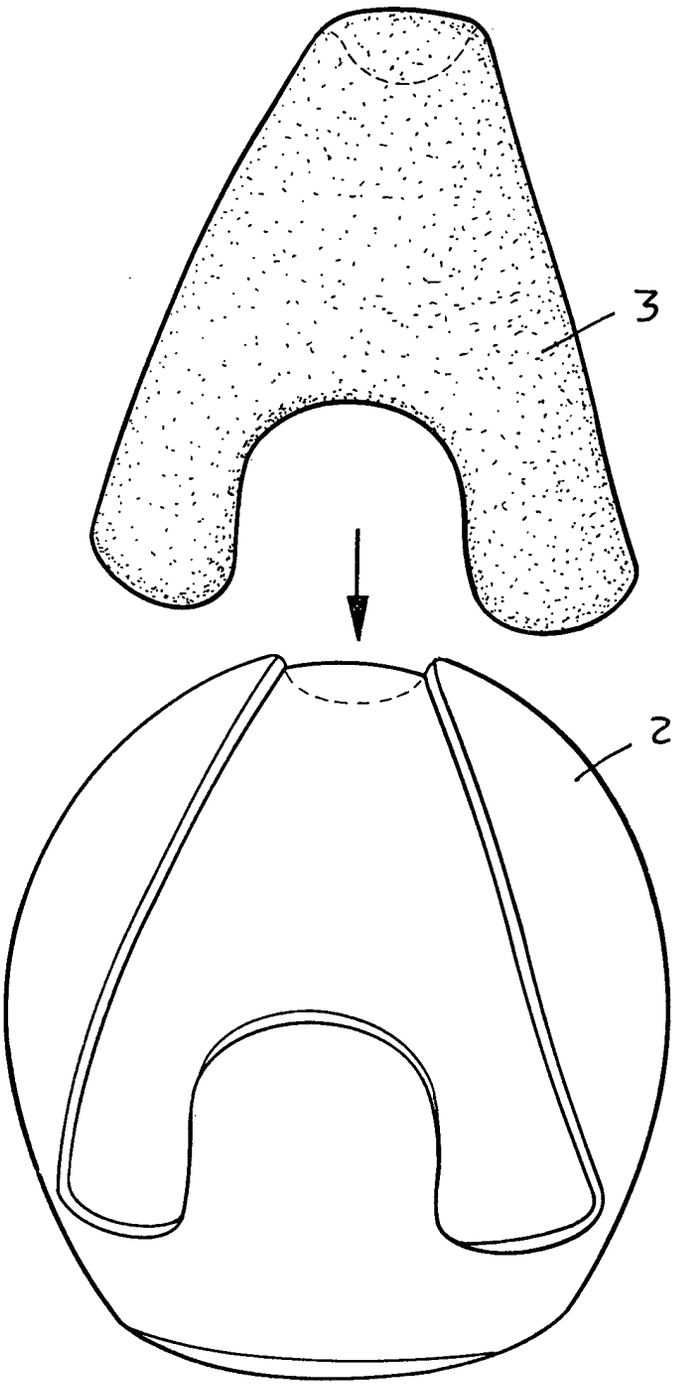

FIG. 3

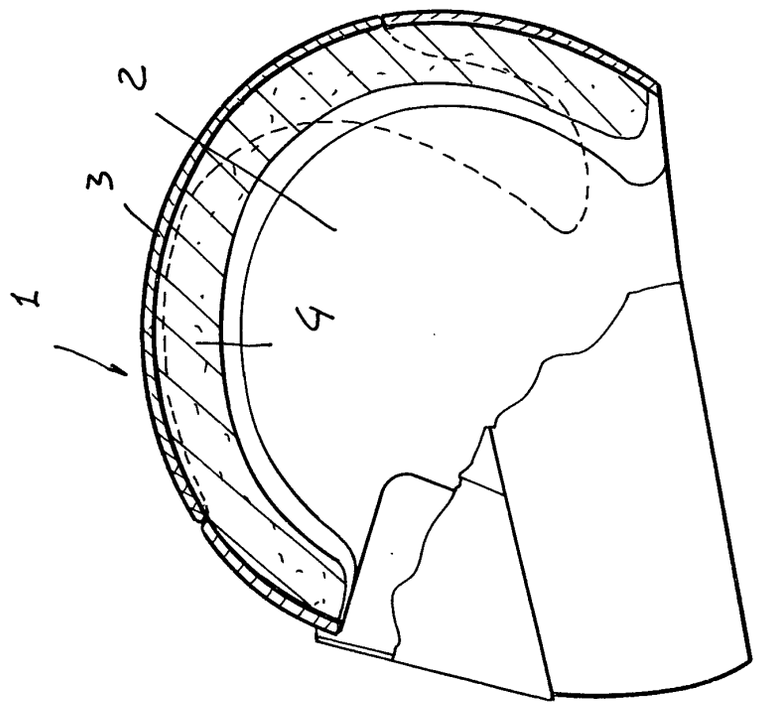

FIG. 5

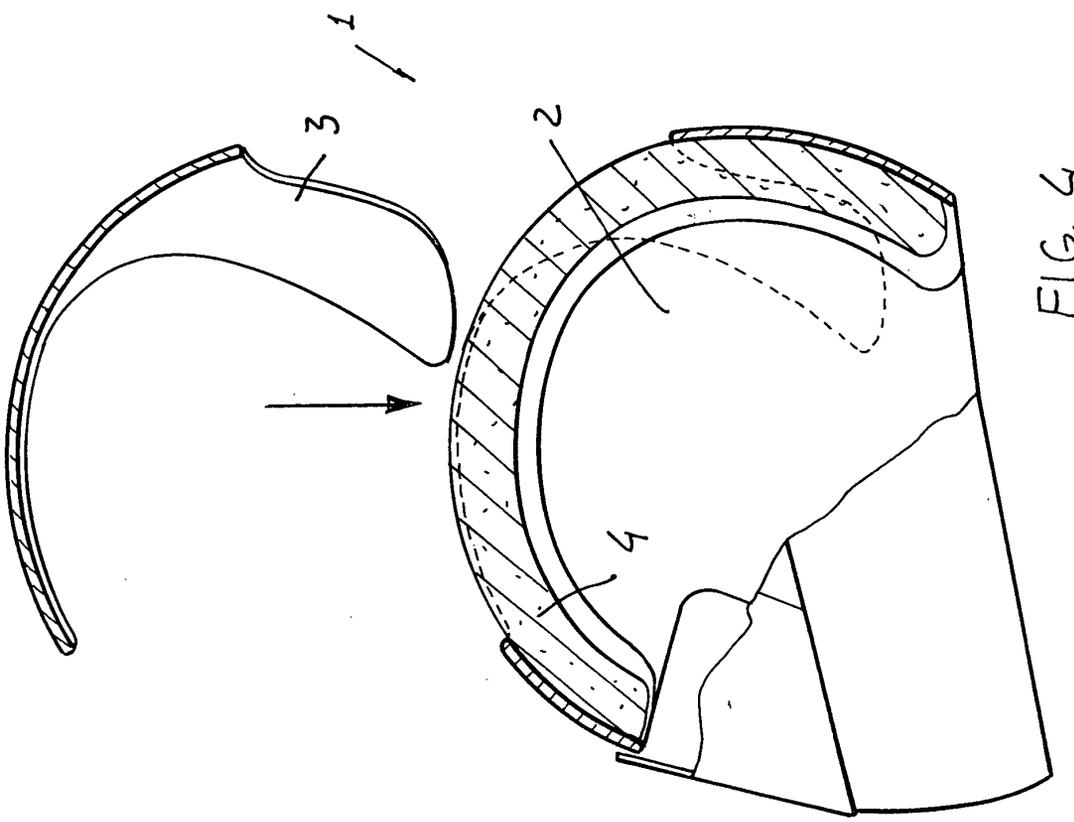

FIG. 4