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## **EUROPEAN PATENT APPLICATION**

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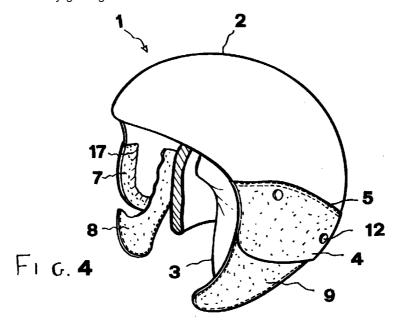
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## (54) Method for making a motorcyclist helmet and the helmet made thereby

(57) The invention relates to a method for making a motorcyclist helmet (1) comprising: a first covering step for covering the bottom edge of the helmet cap (2) by an outer coating layer (4), the covering being performed by stitching the outer coating layer (4) directly on the cap, and a second applying step for applying to the inner surface of the cap (2) an inner protecting element (3), said applying step being finished by glueing. The invention

further relates to a motorcyclist helmet (1) in which the bottom edge of the cap (2) is provided with an outer coating layer (4), directly applied to the cap (2) by stitching and in which an inner protecting element (4) is coupled, by glueing, to the inner surface of the helmet cap (2).



## Description

## **BACKGROUND OF THE INVENTION**

[0001] The present invention relates to a method for 5 making a motorcyclist helmet.

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[0002] The invention further relates to a motorcyclist helmet made by the inventive method.

[0003] Prior motorcyclist helmets usually have a lot of different configurations, depending on the specific use requirements thereof.

[0004] For example, prior motorcyclist helmets used for driving small and middle power motorcycles, are provided with a cap for protecting the head of the user, and a visor which projects at the front of the helmet cap for protecting the motorcyclist's eyes from the atmospheric agents.

[0005] The above mentioned prior helmets are conventionally provided of an inner structure, made of foamed polystyrene, which supports the outer cap of the helmet, forming the main operating element of the helmet, the inner foamed polystyrene structure allowing the top of the head of the user to be properly separated by the helmet cap.

[0006] In this connection it should be pointed out that the above mentioned helmets, while being rather satisfactory in protecting the top portion of the user's head from impacts, due to failings or accidents in driving the motorcycle, are however generally made of materials which are specifically selected depending on their constructional and functional characteristics.

On the other hand, it would be desirable to [0007] provide a motorcyclist helmet which, together with the above mentioned protective functions, would also provide pleasant aesthetic characteristics to fit them to modern fashion requirements, in particular, by female users.

### **SUMMARY OF THE INVENTION**

[8000] Accordingly, the aim of the present invention is to provide such a motorcyclist helmet which comprises high quality finishing materials while preserving its strength and comfort features unaltered.

[0009] Within the scope of the above mentioned aim, a main object of the present invention is to provide such a motorcyclist helmet which is provided with a very compact construction, thereby providing the helmet with last duration properties.

[0010] According to one aspect of the present invention, the above mentioned aim and object, as well as yet other objects, which will become more apparent hereinafter, are achieved by a method for making a motorcyclist helmet, characterized in that said method comprises: a first covering step for covering the bottom edge of the helmet cap by an outer coating layer, said covering being performed by stitching said outer coating layer directly on said cap, and a second applying step

for applying to the inner surface of said cap an inner protecting element, said applying being improved by glueing.

[0011] According to a preferred embodiment of the present invention, the covering step for covering the bottom edge of the helmet cap provides to reverse and stitch to the inner surface of the helmet cap a rim element pertaining to the outer coating layer.

[0012] According to a further preferred embodiment of the present invention, the coupling of the outer coating layer to the helmet cap is carried out by glueing.

[0013] According to a further preferred embodiment of the present invention, the helmet making method comprises a further applying step for applying a pair of side flaps, adapted to support a strap for coupling the helmet to the user chin, said side flap applying step providing to use a plurality of fixing rivets.

Moreover, the mentioned side flaps are cou-[0014] pled to the inner surface of the helmet cap at a position higher than that of said reversed and stitched rim element.

[0015] The present invention further relates to a motorcyclist helmet, comprising an outer cap and an inner coating or lining element, characterized in that the bottom edge of the helmet cap is provided with an outer coating layer, directly applied to said cap by stitching and that it is further provided with an inner protecting element, coupled by glueing to the inner surface of said helmet cap.

[0016] More specifically, the outer coating layer is coupled to the inner surface of the helmet cap by a reversed and stitched rim element.

[0017] Moreover, the outer coating layer is made of a high quality material, such as leather or leather-like materials, whereas the protective inner element is made of foamed polystyrene and then coated by a suitable coating material.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

[0018] Further advantages and characteristics of the present invention will become more apparent from the following disclosure given by way of an illustrative but not limitative example, with reference to the accompanying drawings, where:

Figure 1 is a front view of a motorcyclist helmet made by a method according to the present inven-

Figure 2 is a cross-sectional view of a detail of the motorcyclist helmet shown in Figure 1;

Figure 3 is a side view of the motorcyclist helmet shown in Figure 1;

Figure 4 is a perspective view, as partially crosssectioned, of the motorcyclist helmet according to the present invention;

Figure 5 is a further perspective view of the motorcyclist helmet according to the present invention;

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and

Figure 6 is a further perspective view, in a partially exploded form, of the motorcyclist helmet according to the invention.

#### DESCRIPTION OF THE PREFERRED EMBODI-MENTS

**[0019]** In the following disclosure reference will be made to some preferred embodiments of the invention, which have been illustrated exclusively as a not limitative example of several possible of several possible variations of the invention.

**[0020]** In Figure 1, the motorcyclist helmet made by the method according to the present invention has been generally indicated by the reference number 1.

**[0021]** The method for making the motorcyclist helmet according to the present invention comprises a first covering step for covering the bottom edge of the cap 2 of the helmet 1 by an outer coating layer 4.

**[0022]** The covering of the bottom edge of the cap 2 of the helmet 1 by the outer coating layer 4 is carried out by stitching the outer covering layer directly on the helmet cap 2.

**[0023]** This stitching is defined by the stitching or seaming lines 5.

**[0024]** More specifically, the mentioned covering step for covering said bottom edge of said helmet 1 cap 2 comprises a reversal and stitching directly on the inner surface of the cap 2 of the helmet 1 of a rim element 7 pertaining to the outer coating layer 4.

**[0025]** The stitching of said rim element 7 is performed by stitching or seaming lines 17.

**[0026]** The outer coating layer 4, in particular, is stitched or seamed by using suitable seaming machine, and using moreover a high strength stitching yarn, for directly stitching said outer coating layer on the cap 2.

**[0027]** Furthermore, the coupling of the outer coating layer 4 to the cap 2 of the helmet 1 is secured by a glueing operation.

**[0028]** The inventive method further comprises a second applying step for applying to the inner surface of the helmet cap 2 an inner protecting element 3, the application step being improved by a further glueing operation.

**[0029]** The inventive method comprises moreover a further applying step for applying to the helmet 1 a pair of side flaps 8 and 9, operating for supporting a small strap 13 for connecting the helmet 1 to an user chin.

**[0030]** This latter applying step, for applying the mentioned side flaps 8 and 9, provides to use a plurality of fixing rivets 12.

**[0031]** Moreover, the mentioned flaps 8 and 9 are coupled to the inner surface of the cap 2 of the helmet 1 at a position higher than that of the reversed and stitched rim element 7 of the outer coating layer 4.

[0032] In this connection it should be pointed out that the mentioned flaps 8 and 9 can also be coupled,

by stitching, the the inner surface of the cap 2 of the helmet 1; furthermore, the connection of the flaps 8 and 9 to the helmet 1 cap 2 can be secured by a further glueing operation.

**[0033]** The present invention relates moreover to a motorcyclist helmet, which has been generally indicated by the reference number 1.

**[0034]** The helmet 1 comprises an outer helmet cap 2, made of a plastic material having a high strength against impacts, in particular a polycarbonate material, and being coupled to an inner coating element 3.

**[0035]** The inner protective coating or lining element 3 is in turn coupled, by glueing, to the inner surface of the helmet cap 2.

**[0036]** The bottom edge of the helmet 1 cap 2 is provided with an outer coating or lining layer 4, directly applied to said cap 2 by any suitable stitching or seaming operation.

**[0037]** The outer coating layer 4 is also coupled to the inner surface of the helmet 1 cap 2, by a dedicated edge or rim element 7, which is reversed and directly stitched to the inner surface of the cap 2.

**[0038]** The helmet 1 comprises, in addition to a visor 10, a pair of side flaps 8 and 9 which support a strap 13 for coupling the helmet to an user's chin.

**[0039]** In particular, the flaps 8 and 9 are applied to the inner surface of the helmet 1 cap 2 by using a plurality of fixing rivets 12.

**[0040]** Finally, the outer coating layer 4 is made of a high quality material, such as leather or a leather-like material.

**[0041]** The inner protective element 3, in turn, is made of a foamed polystyrene material, and then being covered by a coating or lining material.

**[0042]** Thus, the method according to the invention provides a motorcyclist helmet which has a high quality finishing, since it is made by using high quality materials, and, in particular, leather or synthetic leather, thereby meeting modern fashion requirements.

40 [0043] The helmet made by the inventive method, which, as stated, also constitutes an important aspect of the present invention, preserves the desired functional properties related to the user safety and comfort.

**[0044]** The subject helmet, moreover, has a very compact construction, and, accordingly, a very high duration and strength.

**[0045]** From the above disclosure it should be apparent that the invention fully achieves the mentioned aim and objects.

## **Claims**

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A method for making a motorcyclist helmet, characterized in that said method comprises: a first covering step for covering the bottom edge of the helmet cap by an outer coating layer, said covering being performed by stitching said outer coating layer directly on said cap, and a second applying step for

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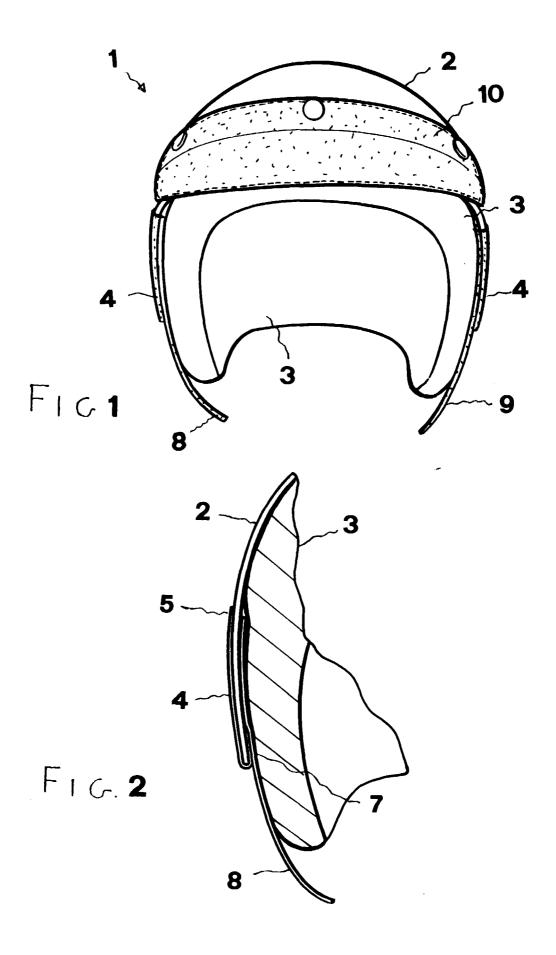
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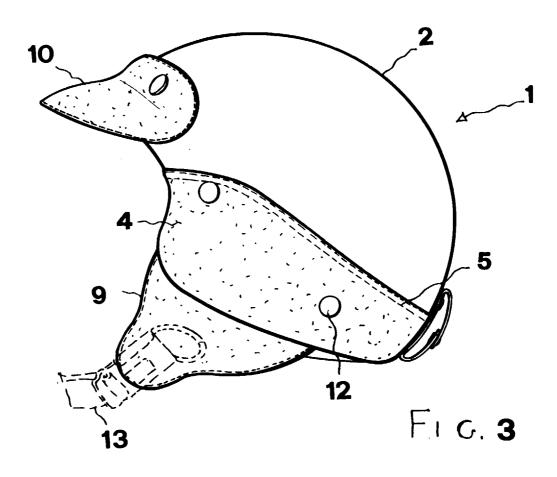
applying to the inner surface of said cap an inner protecting element, said applying being improved by glueing.

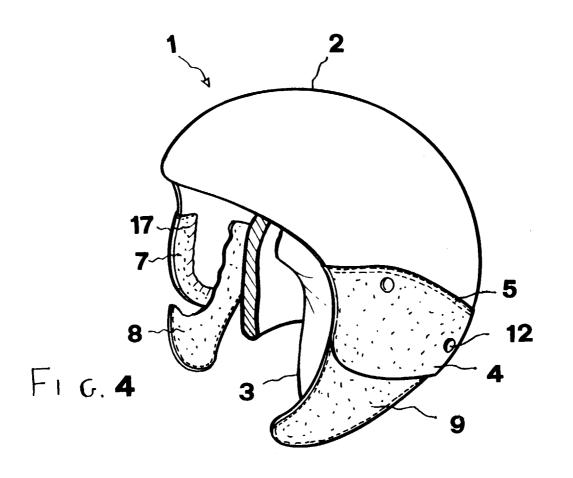
- 2. A method for making a motorcyclist helmet accord- 5 ing to Claim 1, characterized in that said covering step for covering said bottom edge of said helmet cap comprises reversing and stitching to the inner surface of the helmet cap an edge pertaining to said outer coating layer.
- 3. A method for making a motorcyclist helmet according to Claims 1 or 2, characterized in that said outer coating layer is coupled to said helmet cap by a glueing operation.
- 4. A method for making a motorcyclist helmet, according to one or more of the preceding claims, characterized in that said method comprises a further step of applying a pair of side flaps, for supporting a strap for coupling the helmet to the user chin, where said side flap applying step provides to use a plurality of fixing rivets.
- 5. A method for making a motorcyclist helmet, according to one or more of the preceding claims, characterized in that said method provides to connect said flaps to the inner surface of the said helmet cap at a higher level than that of said reversed and stitched rim or edge.
- 6. A method for making a motorcyclist helmet, according to one or more of the peding claims, characterized in that said method provides to connect, by stitching, said flaps to said inner surface of said helmet cap.
- 7. A method for making a motorcyclist helmet, according to one or more of the preceding claims, characterized in that said flaps are coupled to said helmet 40 cap by glueing.
- 8. A motorcyclist helmet comprising an outer cap and an inner coating or lining element, characterized in that the bottom edge of said helmet cap is provided with an outer coating layer directly applied to said cap by stitching and that it further comprises an inner protecting element coupled by glueing to the inner surface of said helmet cap.
- 9. A motorcyclist helmet, according to claim 8, characterized in that said outer coating layer is coupled to said inner surface of said helmet cap by a reversed and stitched rim element.
- 10. A motorcyclist helmet, according to Claims 8 or 9, characterized in that said helmet comprises a pair of side flaps, adapted to support a strap for coupling

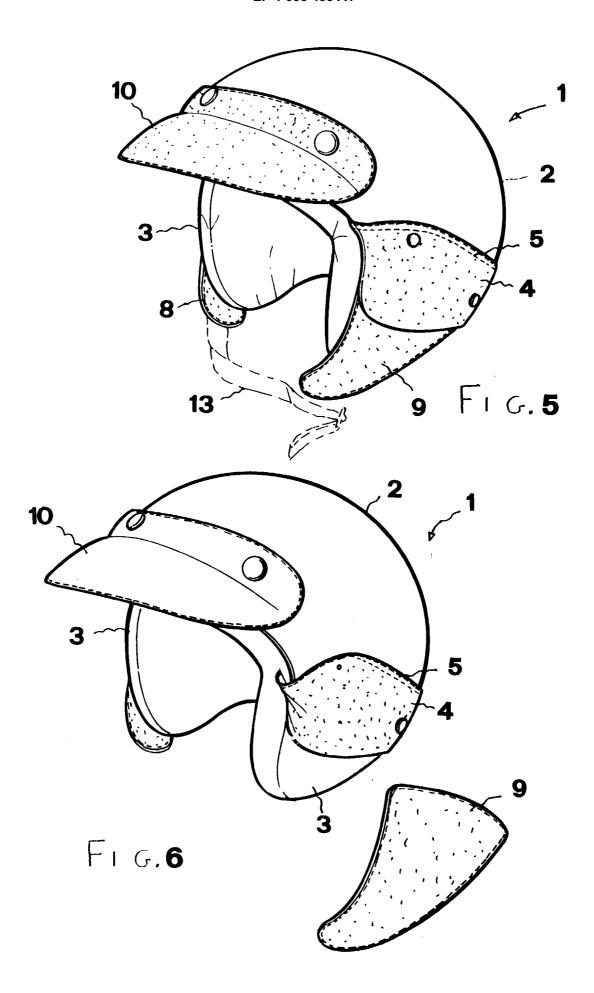
said helmet to a user chin, applied to the inner surface of said helmet cap by a plurality of fixing rivets.

- 11. A motorcyclist helmet, according to one or more of Claims 8 to 10, characterized in that said outer coating layer is made of a high quality material, such as leather or a leather-like material.
- 12. A motorcyclist helmet, according to one or more of the preceding Claims 8 to 11, characterized in that said inner protective element is made of a foamed polystyrene and then being coated by a coating material.











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