BUTTON AND HEADWEAR USING THE SAME

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Applied No.: 11/737,312
Filed: Apr. 19, 2007

Foreign Application Priority Data

ABSTRACT
Provided is a vertex button disposed at an uppermost part of a wearing portion of a headwear and a headwear using the same. The button for a headwear includes: a cap member including a cover portion, a pillar portion extended from the cover portion, and a pin portion extended from the pillar portion; a fabric panel covering the cover portion; a supporting member for being fixed by the cover portion along with the fabric panel; and a fixing member disposed opposite to the cap member via a wearing portion and engaged with the cap member at a catching portion thereof, the catching portion being formed by the deformation of the pin portion of the cap portion.
FIG. 3
FIG. 5
FIG. 6
BUTTON AND HEADWEAR USING THE SAME

CROSS-REFERENCE TO RELATED APPLICATION


BACKGROUND OF THE INVENTION

[0002] (a) Field of the Invention

[0003] The present invention relates to a button and headwear using the same. More particularly, the present invention relates to a vertex button (hereinafter, referred to as a button) disposed at an uppermost part of a wearing portion of the headwear.

[0004] (b) Description of the Related Art

[0005] Usually a button is provided to a headwear at the top portion of a wearing portion (hereinafter, referred to as a crown portion), which is usually fabricated by combining a plurality of fabric panels that meet at the top portion thereof. Accordingly, such a button enhances the aesthetic features by covering the top portion of the crown portion, which is the weakest part in terms of aesthetics. The button usually consists of upper and lower parts that are fitted together at the top portion of the crown portion of the headwear. Specifically, the button includes a fixing pin having a protrusion-type catching portion at the lower part and a supporting member at the upper part. The protrusion-type catching portion is disposed at a lower portion (inner portion) of the crown portion and the supporting member is disposed at an upper portion (outer portion) of the crown portion, and the locking pin is inserted into a center portion of the supporting member. Then, a cover is fitted at the upper portion of the supporting member. While such a button for a headwear is engaged, an excessive force is applied along the progression direction of a fixing pin, and accordingly, the engagement portions between the fixing pin and the supporting member may be abraded. Accordingly, the conventional button for a headwear easily escapes from the crown portion because a binding force thereof becomes weakened at a portion where the fixing pin and the supporting member are engaged. In addition, since the button uses a metal cover, it increases a risk of being struck by a lightning bolt when outdoors, and causes a difficulty in passing through a metal detector.

[0006] The above information disclosed in this Background section is only for enhancement of understanding of the background of the invention and therefore it may contain information that does not form the prior art that is already known in this country to a person of ordinary skill in the art.

SUMMARY OF THE INVENTION

[0007] The present invention has been made in an effort to provide a vertex button disposed at an uppermost part of a wearing portion of a headwear, and a headwear using the same, having advantages of sufficiently reinforcing a binding force of engaged elements and preventing escape from the wearing portion.

[0008] In addition, the present invention has been made in an effort to provide a button disposed at an uppermost part of a wearing portion of the headwear and a headwear using the same having advantages of improving a market quality by having a tight binding force regardless of the thicknesses of various fabric panels.

[0009] In addition, the present invention has been made in an effort to provide a vertex button disposed at an uppermost part of a wearing portion of a headwear, and a headwear using the same, having advantages of reducing a risk of being struck by a lightning bolt when outdoors, and easing the passing through a metal detector, thereby reducing discomfort.

[0010] An exemplary embodiment of the present invention provides a button for a headwear. The button for a headwear includes: a cap member including a cover portion, a pillar portion extended from the cover portion, and a pin portion extended from the pillar portion; a fabric panel covering the cover portion; a supporting member for being fixed by the cover portion along with the fabric panel; a fixing member disposed opposite to the cap member via a wearing portion and engaged with the cap member at a catching portion thereof, the catching portion being formed by the deformation of the pin portion of the cap portion.

[0011] The cover portion may be made of an elastic body and may have a protrusion portion protruded from an edge toward a center thereof.

[0012] The pin portion may have a sharp end portion.

[0013] The pin portion of the cap portion may be engaged with the fixing member and then deformed into a catching portion.

[0014] The supporting member may have a tapered hole for being inserted by the pillar portion and the pin portion. The supporting member may have a tapered external circumferential surface.

[0015] The supporting member may be formed in multi-stepped layers of different diameters.

[0016] The fixing member may be provided with a plurality of protrusion-type movement limiting portions at one surface thereof in contact with the wearing portion.

[0017] The fixing member may have a hole for inserting the pin portion and a plurality of buffering holes at a circumferential portion thereof spaced with a predetermined distance from the hole.

[0018] The fixing member may have a catching projection at an external circumferential portion of the hole for inserting the pin portion.

[0019] Another embodiment of the present invention provides a headwear. The headwear includes: a cap member including a cover portion, a pillar portion extended from the cover portion, and a pin portion extended from the pillar portion; a fabric panel covering the cover portion; a supporting member for being fixed by the cover portion along with the fabric panel; a wearing portion disposed at a lower portion of the supporting portion; and a fixing member disposed opposite to the cap member via a wearing portion and engaged with the cap member at a catching portion thereof, the catching portion being formed by the deformation of the pin portion of the cap portion.

[0020] Yet another embodiment of the present invention provides a button for a headwear. The button for a headwear includes: a cap member having a pin portion; and a fixing member disposed opposite to the cap member via a wearing portion and engaged with the cap member at a catching portion thereof, the catching portion being formed by the deformation of the pin portion of the cap portion.
Yet another embodiment of the present invention provides a headwear. The headwear includes: a cap member having a pin portion; a wearing portion disposed at a lower portion of the cap member; a fixing member disposed opposite to the cap member via a wearing portion and engaged with the cap member at a catching portion thereof, the catching portion being formed by the deformation of the pin portion of the cap portion.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a headwear showing overall features thereof according to an exemplary embodiment of the present invention.

FIG. 2 is a cross-sectional view of FIG. 1 along the line A-A according to an exemplary embodiment of the present invention.

FIG. 3 is an exploded view of an essential part of FIG. 1.

FIG. 4 illustrates how elements are engaged according to an exemplary embodiment of the present invention.

FIG. 5 illustrates a cap member according to an exemplary embodiment of the present invention.

FIG. 6 illustrates a cap member according to an exemplary embodiment of the present invention.

FIG. 7 illustrates a fastening member according to an exemplary embodiment of the present invention.

FIG. 8 is a top plan view of FIG. 7.

FIG. 9 is a bottom plan view of FIG. 7.

FIG. 10 is in correspondence with FIG. 2, and is a cross-sectional view according to another exemplary embodiment of the present invention.

FIG. 11 illustrates a before-engaged state of FIG. 10.

DETAILED DESCRIPTION OF THE EMBODIMENTS

Exemplary embodiments of the present invention will hereinafter be described in detail with reference to the accompanying drawings.

FIG. 1 is a perspective view of a headwear showing overall features thereof according to an exemplary embodiment of the present invention:

The headwear includes a crown portion 1 for being worn on a head of a wearer. The headwear may include a visor portion 3 connected to one side portion of the crown portion 1. A vertex button 5 (hereinafter, referred to as a "button") is engaged with the crown portion 1 at a top center thereof.

The crown portion 1 is fabricated by a plurality of fabric panels, e.g., by sewing. The fabric panels meet at the top center of the crown portion 1.

FIG. 2 is a cross-sectional view of FIG. 1 along a line A-A according to an exemplary embodiment of the present invention, and FIG. 3 is an exploded view of an essential part of FIG. 1, which illustrates the button 5. The button 5 includes a cap member 7, a fabric panel 9 disposed covering an external circumferential portion of the cap member 7, a supporting member 11 for fixing the cap member 7, and a fixing member 13 for fixing the cap member 7. It is preferable that such a button 5 is made from a synthetic resin.

The cap member 7 includes a hemispherical cover portion 16, a pillar portion 17 extended from a center of the cover portion 16, and a pin portion 19 extended from the pillar portion 17. The cover portion 16 is provided with a protrusion portion 15 (see FIG. 5) protruded from an edge portion towards a center portion thereof. Preferably, the cover portion 16 is made from a material with excellent elastic force. The protrusion portion 15 of the cover portion 16 is elastically inserted into an external circumferential surface of the supporting member 11, and accordingly, the cover portion 16 is engaged with the supporting member 11.

Since the pin portion 19 has a sharp end portion, the pin portion 19 extended from the pillar portion 17 may easily penetrate through the crown portion 1. In addition, after the pin portion 19 is engaged with the fixing member 13, the pin portion 19 is deformed into a catching portion. Preferably, the pin portion 19 of the cap member 7 is made from, for example, a synthetic resin material. The synthetic resin material may be deformed by the application of a predetermined force and may be maintained in the deformed shape.

The fabric panel 9 is disposed such that it covers the covering portion 16. That is, the fabric panel 9 may cover the hemispherical portion of the cover portion 16 and be wrapped in an inner side of the protrusion portion 15.

As shown in FIG. 6, the supporting portion 11 has a hole 11a, the hole 11a being tapered at an angle a. With such a structure, the pin portion 19 of the cap member 7 may be easily inserted into the hole 11a. In addition, the supporting portion 11 has an external circumferential surface, the external circumferential surface being tapered at an angle b. Such a structure allows the supporting member 11 to maintain the engagement with the cover portion 16 by the protrusion portion 15, when the supporting member 11 is engaged with the cover portion 16 of the cap member 7.

The supporting member 11 has a multi-stepped structure as indicated by reference numbers 11c and 11b, the multi-stepped structures having different diameters. That is, based on FIG. 6, the supporting member 11 is formed such that a diameter d2 of the large-diameter portion 11b disposed at a lower portion is greater than a diameter d1 of the small-diameter portion 11c disposed at an upper portion. With such a structure, stability of the engagement may be increased because the supporting member 11 is tightly fitted into the inner portion of the cover portion 7 when the supporting member 11 is engaged with the cap member 7.

The fixing member 13 is provided with a hole 31 at a center portion thereof into which the pin portion 19 of the cap member 7 is inserted as shown in FIG. 7, FIG. 8, and FIG. 9. Preferably, this hole 31 is tapered at an angle c. The fixing member 13 is provided with a protrusion-type movement limiting portion 33 protruded from an opposite surface with respect to the crown portion 1 with a predetermined space. In the case of the engagement state where the crown portion 1 is disposed between the supporting member 11 and the fixing member 13, the movement limiting portion 33 is in tight contact with the crown portion 1, and accordingly, prevents the supporting member 11 and the fixing member 13 from being rotated or moved, thereby maintaining a tight engagement and improving market quality. In addition, the hole 31 provided at the fixing member 13 has a catching projection 35 at an external circumferential portion thereof. The catching projection 35 is engaged with the catching portion 19a so as to prevent separation of each other when
the pin portion 19 of the cap portion 7 is deformed into the catching portion 19a (see FIG. 2).

[0043] Meanwhile, the fixing member 13 has a buffering hole 37 at a circumferential portion thereof spaced by a predetermined distance from the hole 31. Such a buffering hole 37 is formed in a slot along the circumference of the hole 31. The buffering hole 37 provides a buffering function and prevents breakage of the fixing member 31 when the pin portion 19 of the cap member 7 is inserted into the hole 31 and is deformed by the application of the predetermined force.

[0044] How the button for the headwear is engaged with the crown portion 1 will now be described. Firstly, the fabric panel 9 is wrapped in the external circumferential surface of the cap member 7, and the pin portion 19 is inserted into the hole 11a of the supporting member 11. At this time, the protrusion portion 15 of the cover portion 16 of the cap member 7 is elastically engaged in the external circumferential surface of the large-diameter portion 11b of the supporting member 11 (see FIG. 4). The sharp end portion of the pin portion 19 is disposed and pressed into the top center portion (engagement portion) of the crown portion 1. Without an additional process for puncturing a hole, the sharp end portion of the pin portion 19 is inserted into the crown portion 1. Simultaneously, the pin portion 19 is inserted into the hole 31 of the fixing member 13. And then, for example, a support (not shown) is disposed at the lower portion of the fixing member 13 or the pin portion 19 is pressed by a predetermined force so that the pin portion 19 is deformed. At a space 39 of the fixing member 13, the pin portion 19 is deformed into the catching portion 19a (see FIG. 2). The movement of the catching portion 19a is limited by the catching projection 35, thereby providing a tighter engagement.

[0045] According to an exemplary embodiment of the present invention, the button for a headwear may be tightly fixed through a simple structure and assembling work, thereby enhancing the productivity and market quality. Such a button for a headwear may be easily applied for a baseball headwear (cap) or the like. In addition, since the button for a headwear is made from the synthetic resin material, the risk being struck by a lightning bolt when outdoors may be minimized, and also the button may not rust, thereby improving market quality. According to an exemplary embodiment of the present invention, the headwear may pass through a metal detector, and accordingly, it is convenient to use the headwear.

[0046] FIG. 10 is in correspondence with FIG. 2, and is a cross-sectional view according to another exemplary embodiment of the present invention, and FIG. 11 is a before-engaged state of FIG. 10 in which the button is illustrated. In the description and drawings in connection with the another embodiment, elements of the another embodiment correspondent to elements of the embodiment are referenced with the same reference numbers as in the embodiment for illustrational purposes and for better comprehension of the another embodiment. Only the features of the another embodiment differentiated from those of the embodiment are described hereinafter, and unexplained features of the another embodiment can be obviously understood from the description of the embodiment of the present invention. According to the another exemplary embodiment of the present invention, a cap member 51 is engaged with a fixing member 53. According to the another exemplary embodiment of the present invention, the fabric panel 9 described in the exemplary embodiment is not disposed and the cap member 7 is integrated with the supporting member 14. In more detail, according to the another exemplary embodiment of the present invention, a pin portion 52 (see FIG. 11) is provided at a center portion of the cap member 51, and the pin portion 52 is fitted into the fixing member 53. Such a pin portion 52 is fitted into the fixing member 53 and then deformed into a catching portion 52a (see FIG. 10). According to the another exemplary embodiment of the present invention, since the button of the headwear is made from the synthetic resin material, the cap member 51 need not be covered with a fabric panel corresponding to the crown portion of the headwear. Accordingly, the exterior aesthetical features may be improved by matching a color of the button to a color of the crown portion. In addition, a logo may be carved on the exterior surface of the cap member 51 thereby providing an ornamental effect. According to the another exemplary embodiment of the present invention, a simpler button structure may be provided in comparison with the embodiment of the prevent invention.

[0047] According to exemplary embodiments of the present invention, an additional puncturing process may be omitted when the button is engaged with the crown portion, and thus, it is convenient to assembling the button of a headwear, thereby improving productivity. In addition, during the fitting process of the button of a headwear, the hole provided at the supporting member or the fixing member is prevented from being extended by the pillar of the cap member. Thus, the tight engagement may be maintained, thereby improving market quality. While this invention has been described in connection with what is presently considered to be practical exemplary embodiments, it is to be understood that the invention is not limited to the disclosed embodiments, but, on the contrary, is intended to cover various modifications and equivalent arrangements included within the spirit and scope of the appended claims.

What is claimed is:
1. A button for a headwear comprising:
a cap member including a cover portion, a pillar portion extended from the cover portion, and a pin portion extended from the pillar portion;
a fabric panel covering the cover portion;
a supporting member for being fixed by the cover portion along with the fabric panel; and
a fixing member disposed opposite to the cap member via a wearing portion and engaged with the cap member at a catching portion thereof, the catching portion being formed by the deformation of the pin portion of the cap portion.

2. The button for a headwear of claim 1, wherein the cover portion is made of an elastic body and has a protrusion portion protruded from an edge toward a center thereof.

3. The button for a headwear of claim 1, wherein the pin portion has a sharp end portion.

4. The button for a headwear of claim 1, wherein the supporting member has a tapered hole for inserting the pillar portion and the pin portion.

5. The button for a headwear of claim 1, wherein the supporting member has a tapered external circumferential surface.

6. The button for a headwear of claim 1, wherein the supporting member is formed in multi-stepped layers of different diameters.
7. The button for a headwear of claim 1, wherein the fixing member is provided with a plurality of protrusion-type movement limiting portions at one surface thereof in contact with the wearing portion.

8. The button for a headwear of claim 1, wherein the fixing member has a hole for being inserted by the pin portion and a plurality of buffering holes at a circumferential portion thereof spaced with a predetermined distance from the hole.

9. The button for a headwear of claim 1, wherein the fixing member has a catching projection at an external circumferential portion of the hole for inserting the pin portion.

10. A headwear comprising:
   a. A headwear comprising:
   a. A headwear comprising:
   a. A headwear comprising:
   a. A headwear comprising:
   a. A headwear comprising:
   a. A headwear comprising:

11. The headwear of claim 10, wherein the fixing member is provided with a plurality of protrusion-type movement limiting portions at one surface thereof in contact with the wearing portion.

12. The headwear of claim 10, wherein the fixing member has a catching projection at an external circumferential portion of the hole for inserting the pin portion.

13. The headwear of claim 10, wherein the fixing member has a catching projection at an external circumferential portion of the hole for inserting the pin portion.

14. The headwear of claim 10, wherein the fixing member has a catching projection at an external circumferential portion of the hole for inserting the pin portion.

15. The headwear of claim 10, wherein the fixing member has a catching projection at an external circumferential portion of the hole for inserting the pin portion.

16. The headwear of claim 10, wherein the fixing member has a catching projection at an external circumferential portion of the hole for inserting the pin portion.

17. The headwear of claim 10, wherein the fixing member has a catching projection at an external circumferential portion of the hole for inserting the pin portion.

18. The headwear of claim 10, wherein the fixing member has a catching projection at an external circumferential portion of the hole for inserting the pin portion.

19. A button for a headwear comprising:
   a. A button for a headwear comprising:
   a. A button for a headwear comprising:
   a. A button for a headwear comprising:
   a. A button for a headwear comprising:
   a. A button for a headwear comprising:

20. The button for a headwear of claim 19, wherein the fixing member has a catching projection at an external circumferential portion of the hole for inserting the pin portion.

21. The button for a headwear of claim 19, wherein the fixing member has a catching projection at an external circumferential portion of the hole for inserting the pin portion.

22. The button for a headwear of claim 19, wherein the fixing member has a catching projection at an external circumferential portion of the hole for inserting the pin portion.

23. The button for a headwear of claim 19, wherein the fixing member has a catching projection at an external circumferential portion of the hole for inserting the pin portion.

24. A headwear comprising:
   a. A headwear comprising:
   a. A headwear comprising:
   a. A headwear comprising:
   a. A headwear comprising:
   a. A headwear comprising:

25. The headwear of claim 24, wherein the fixing member has a catching projection at an external circumferential portion of the hole for inserting the pin portion.

26. The headwear of claim 24, wherein the fixing member has a catching projection at an external circumferential portion of the hole for inserting the pin portion.

27. The headwear of claim 24, wherein the fixing member has a catching projection at an external circumferential portion of the hole for inserting the pin portion.