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(54) **CHIN STRAP RETAINER RING FOR HEADGEAR**

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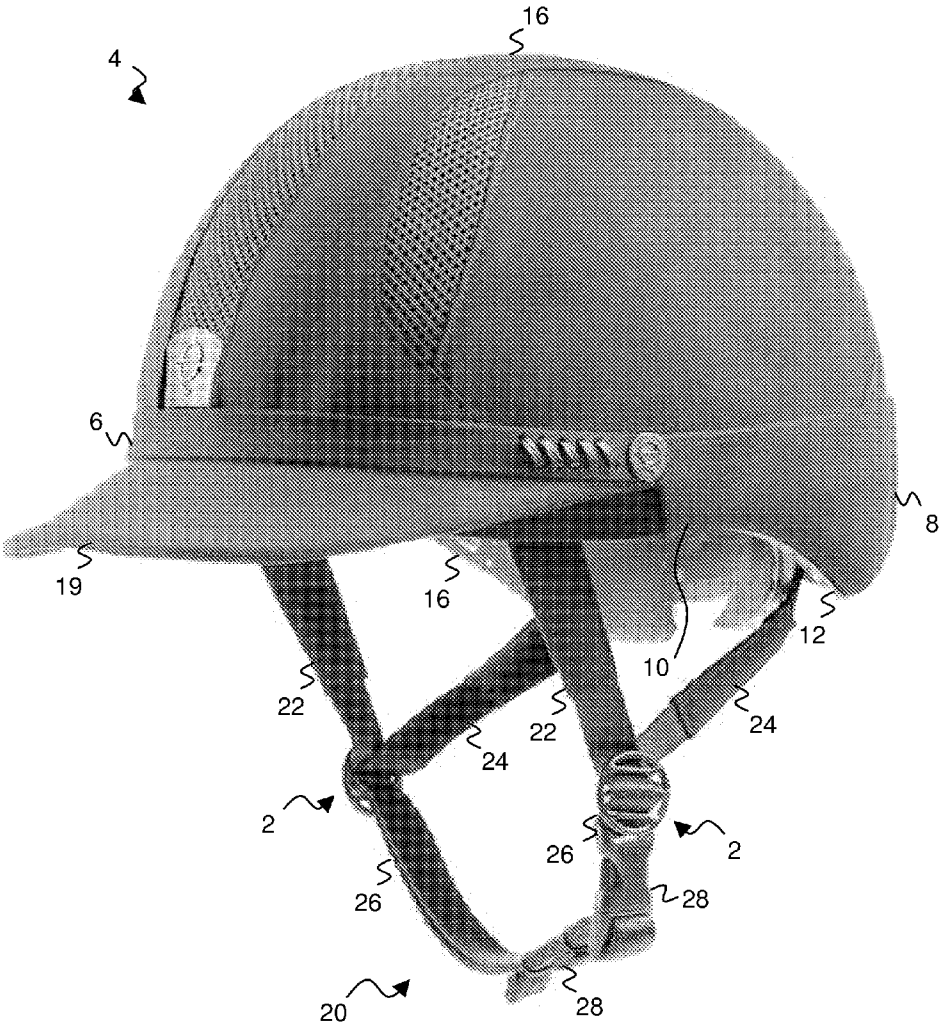
(57) **ABSTRACT**

A chin strap retainer for gathering the forward and rearward chin straps of a headgear into a substantially overlapping arrangement having the appearance of a single strap link. A substantially circular frame of the chin strap retainer defines an open interior region. A primary cross member extends across a central portion of the open interior region and a pair of secondary cross members are disposed on either side of the primary cross member. The frame and the cross members are part of a single integral workpiece. A pair of strap openings are provided between the primary cross member and the secondary cross members. A pair of apertures are provided between said secondary cross members and the frame.



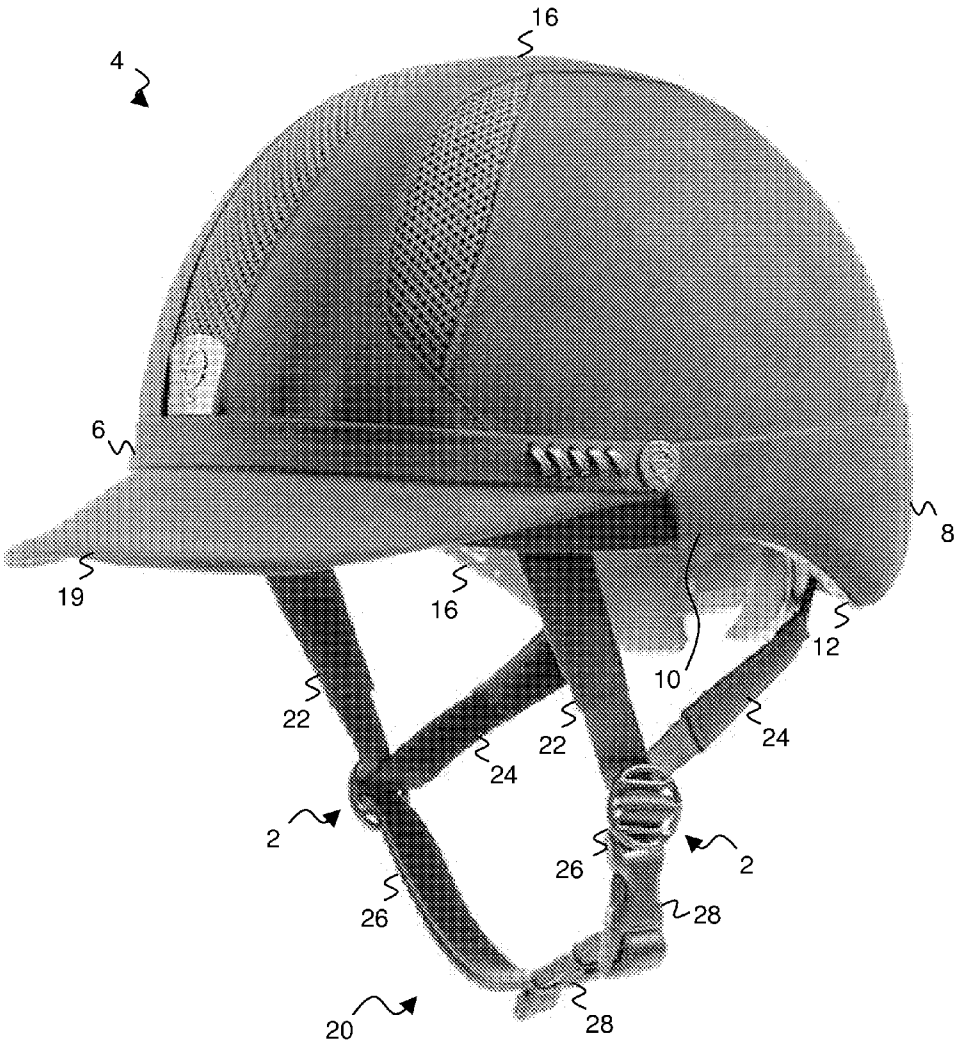
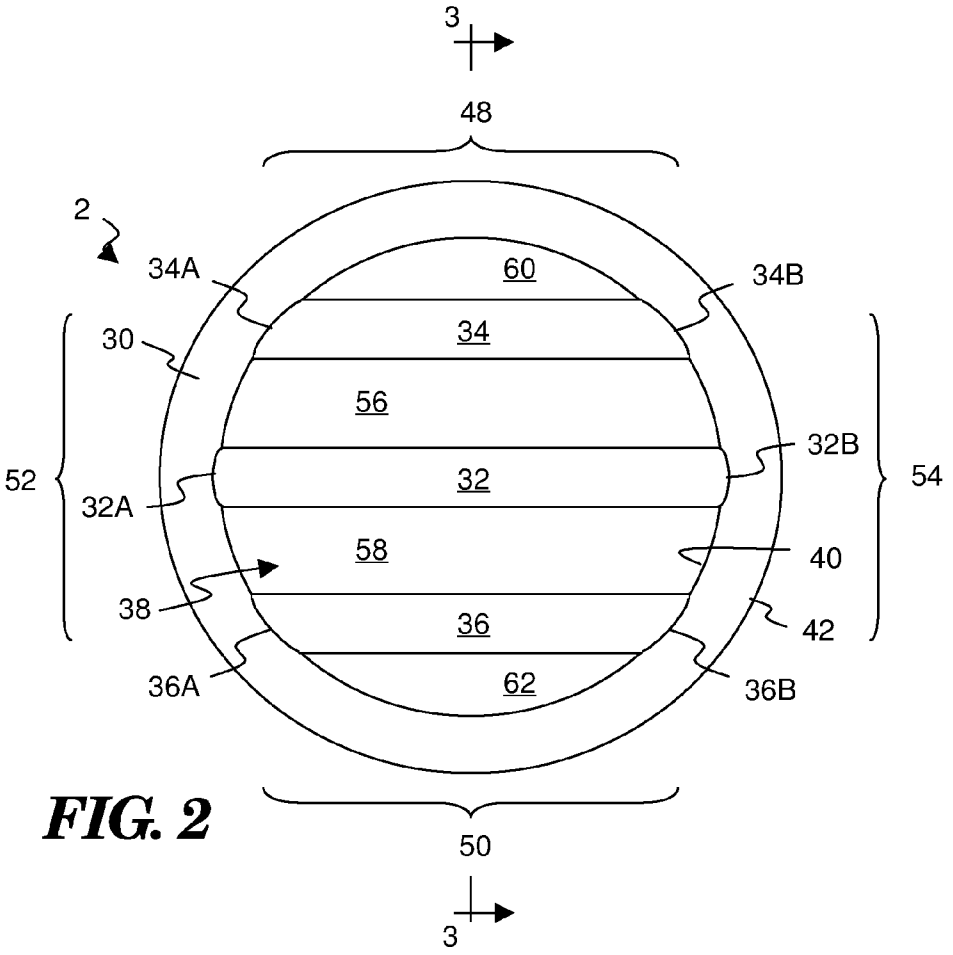


FIG. 1


3
48
2
34A
60
34B
30
34
56
32B
52
32
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32A
58
40
38
36
42
36A
62
36B
50
3

FIG. 2

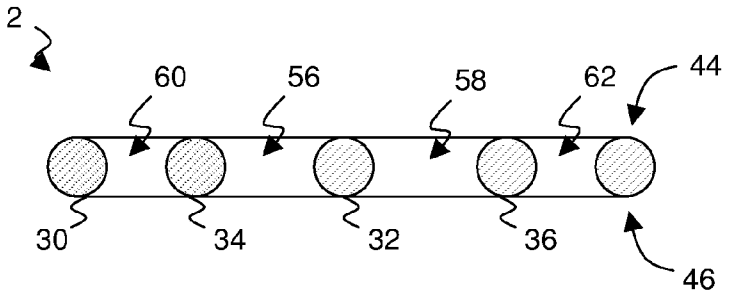
2
60
56
58
62
44
30
34
32
36
46

FIG. 3

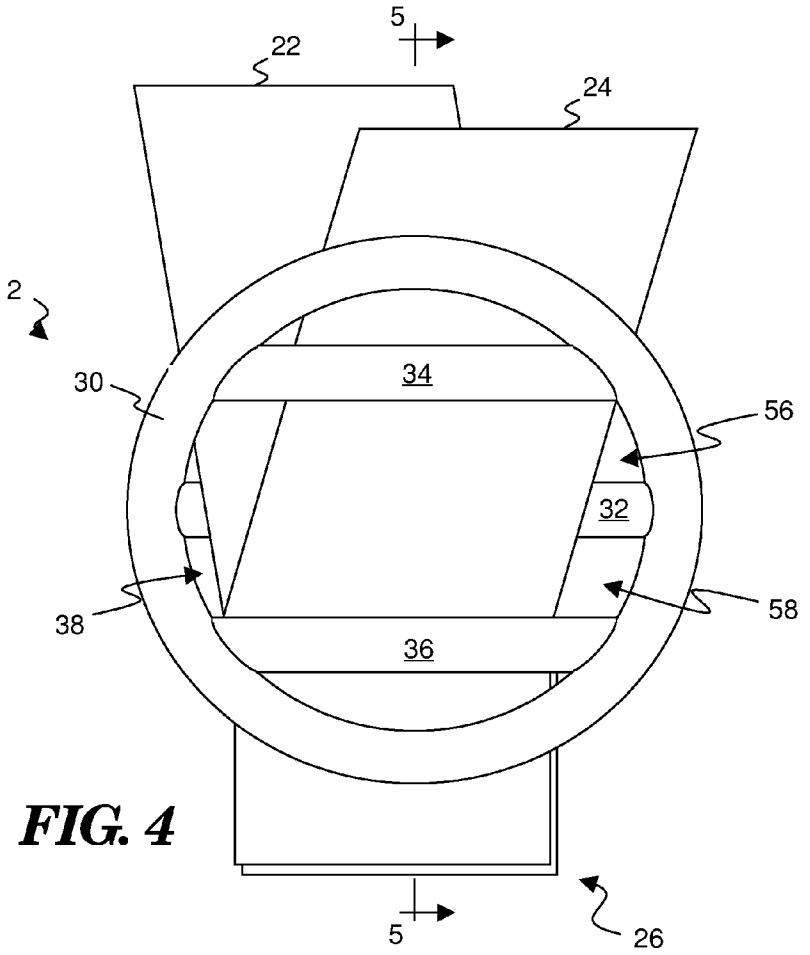

FIG. 4

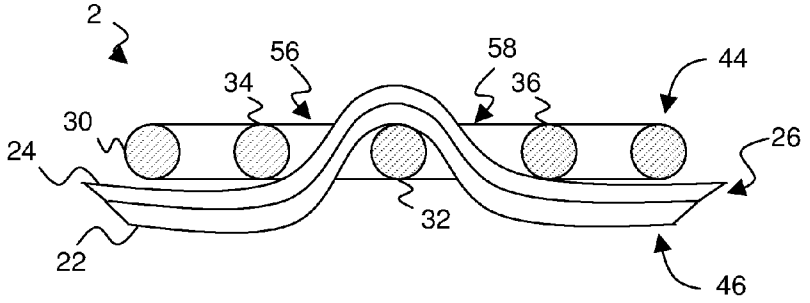

FIG. 5

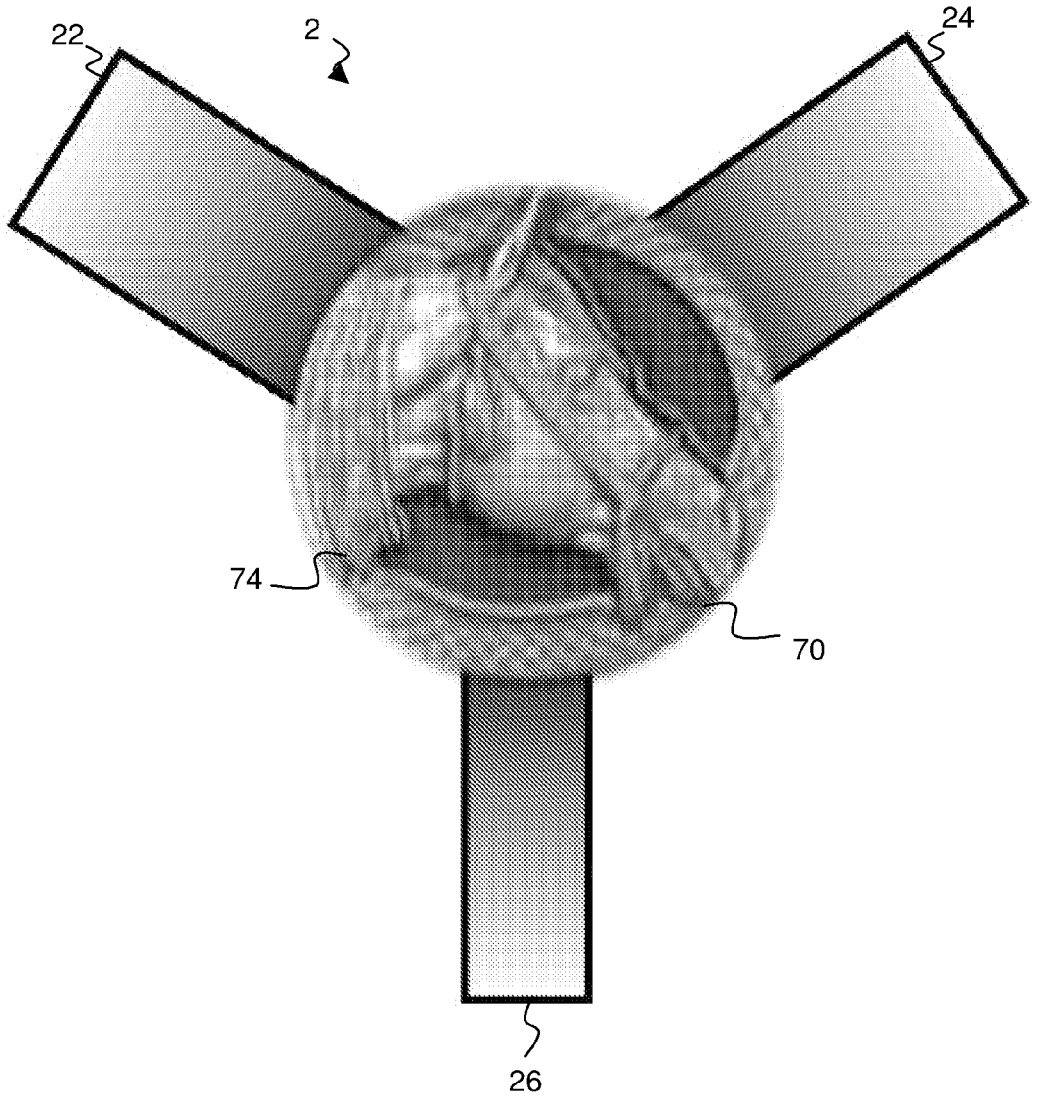

FIG. 6

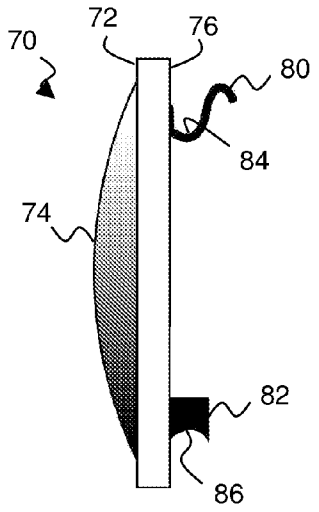

FIG. 7

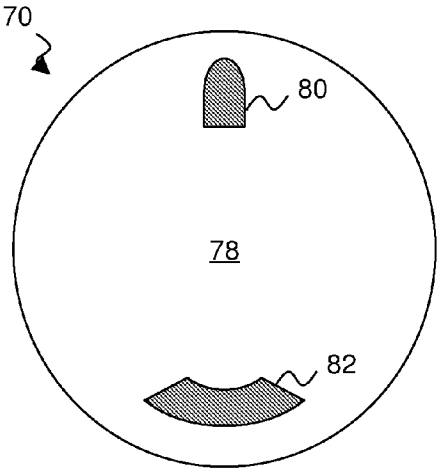

FIG. 8

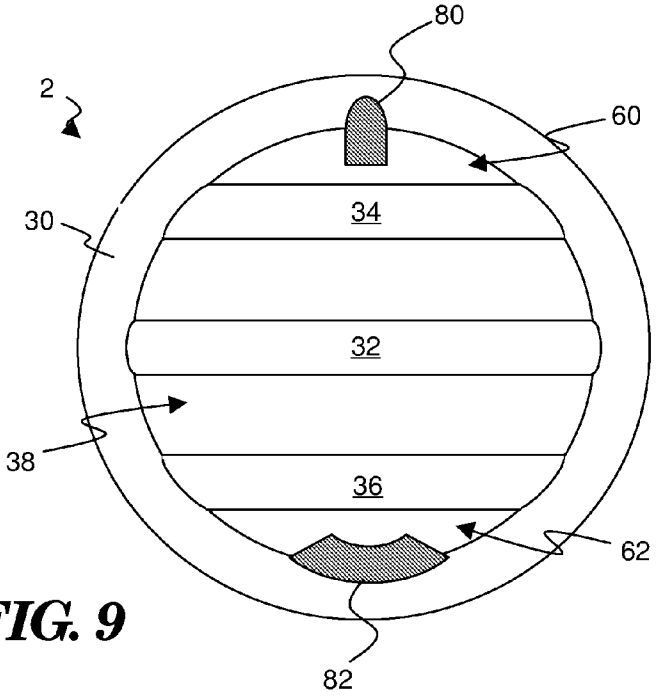

FIG. 9

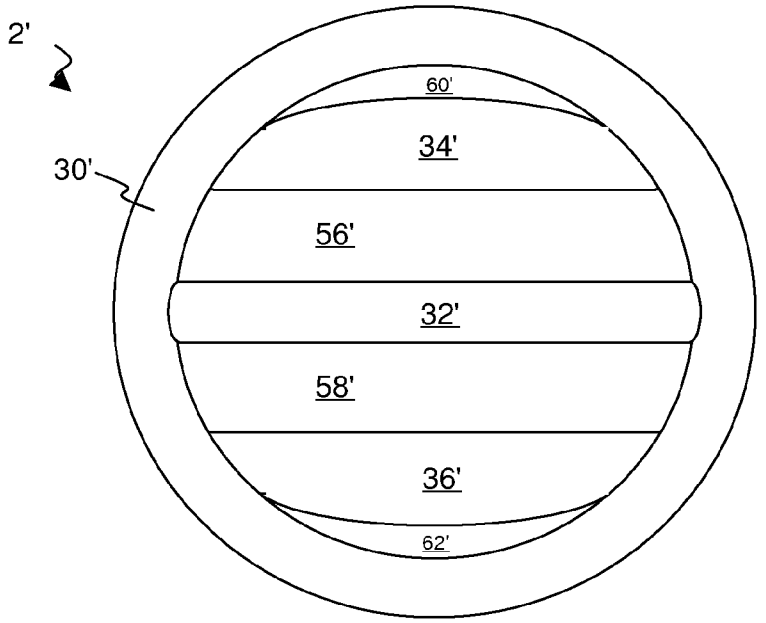

FIG. 10A

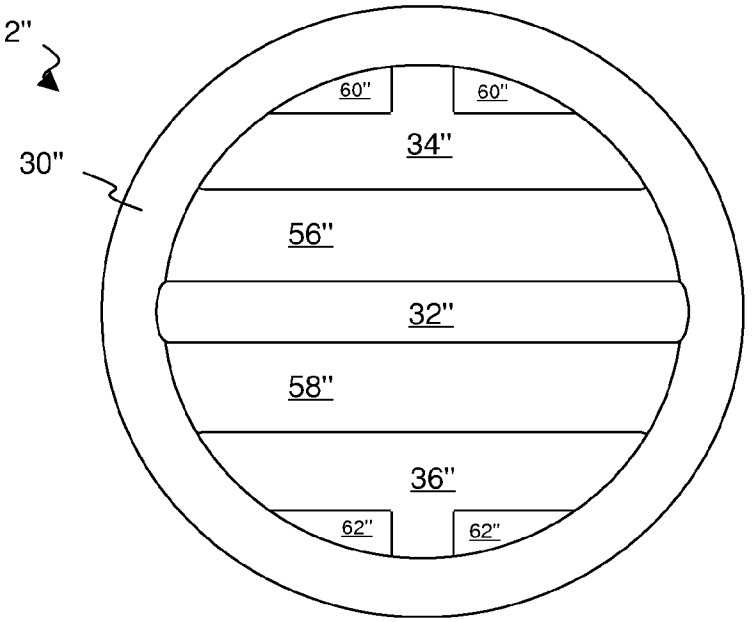

FIG. 10B

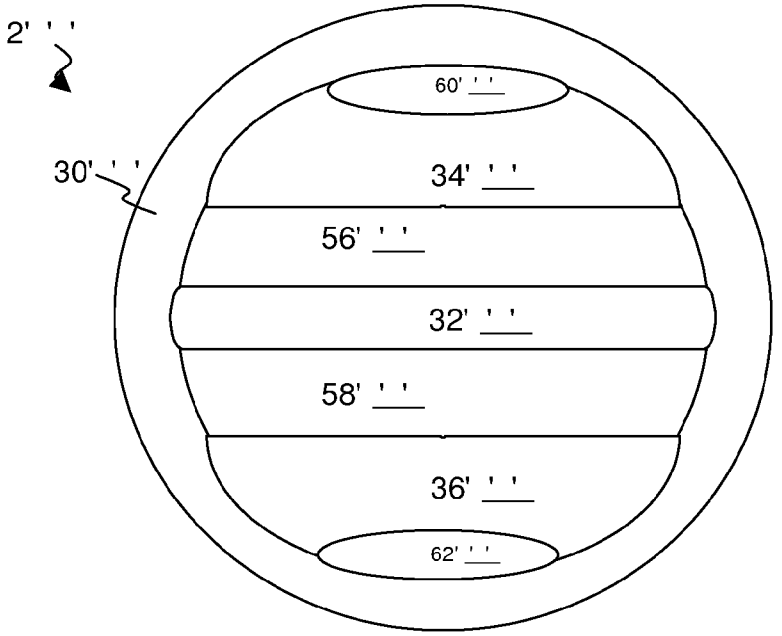

FIG. 10C

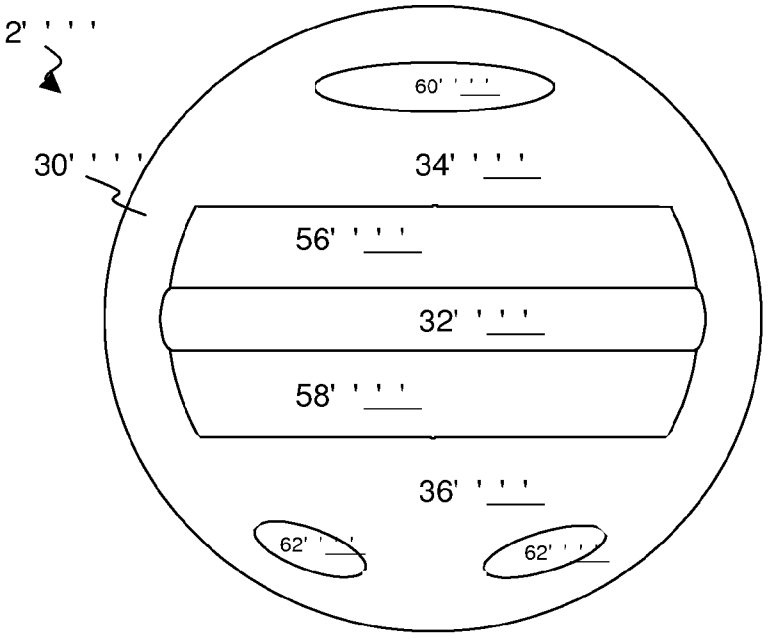

FIG. 10D

CHIN STRAP RETAINER RING FOR HEADGEAR

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The invention relates to protective headgear, and particularly helmets. More specifically, the invention is directed to a chin strap retainers for fitting and positioning protective headgear on a wearer's head.

[0003] 2. Description of the Prior Art

[0004] There are many types of protective headgear which are presently in use for a variety of recreational activities and work-related uses. In order to be effective, headgear must be properly secured to the wearer's head, and a chin strap system is commonly used to provide the required securement. For equestrian and bicycle headgear applications, each side of the headgear usually has two depending chin strap elements, one in front of the wearer's ear and the other behind the ear. Situated below the wearer's ear is a slideable chin strap retainer that gathers the front and rear chin strap elements into a substantially overlapping arrangement that has the appearance of a single strap link (albeit with the thickness of the two overlapping straps). This produces a "Y" shape with the upper legs of the "Y" extending upwardly to the headgear and the lower leg of the "Y" extending downwardly to define the single strap link. The strap links on each side of the headgear extend to corresponding buckle elements that are releasably connectable to each other under the wearer's chin.

[0005] The above-mentioned chin strap retainer is sometimes also referred to as a slider, a strap adjustment or a strap divider. Its function is to raise and lower the point at which the strap elements forming the upper legs of the "Y" join together below the ear. This adjustment is important to achieving a comfortable and correct headgear fit. For example, the strap retainer should be low enough to avoid interference with the wearer's ears, but not so low as allow the headgear to shift from side to side. The chin strap retainer also allows the length of the forward and rearward straps to be adjusted independently in order to change the position (angle) of the headgear on the wearer's head.

[0006] Although prior art chin strap retainers generally function effectively once they are correctly adjusted, these retainers are often difficult to adjust, are sometimes prone to breakage, and may detract from the decorative features of the headgear. Moreover, it is critical that the chin strap retainers be capable of locking onto the strap elements and that they resist sliding when large downward pull forces are applied to the strap elements. Such forces may be experienced during a crash event. The chin strap retainers must substantially maintain their locked position under such circumstances so that the headgear remains snugly fitted on the wearer's head and does not tilt or roll to a position wherein the wearer's head is partially unprotected. Accordingly, it would be desirable to provide an improved chin strap retainer design.

SUMMARY OF THE INVENTION

[0007] In accordance with the present invention, a chin strap retainer is provided for use with headgear having a pair of chin straps depending from each side thereof. A substantially circular frame of the chin strap retainer defines all open interior region. A primary cross member extends across a central portion of the open interior region and a pair of secondary cross members are disposed on either side of the primary cross member. The frame and the cross members are part of a single integral workpiece. A pair of strap openings are provided between the primary cross member and the secondary cross members. A pair of apertures are provided between said secondary cross members and the flame.

[0008] According to exemplary disclosed embodiments, the frame may be formed as a ring member of substantially uniform cross-sectional shape. The open interior region may be substantially circular in shape. The frame may be substantially planar in side view orientation. It may be continuous or noncontinuous. When the frame is formed as a ring member, the secondary cross members may be formed as mutually parallel cylindrical posts having substantially the same cross-sectional size and shape. Alternatively, one or more of the frame, the first secondary cross member or the second secondary cross member may comprise an irregular or non-uniform cross-sectional shape. The chin strap retainer can be made entirely from metal for strength and durability. A cap call be removably attached to the frame. The cap may comprise clips that clip to the frame at the first and second apertures or at other suitable locations.

[0009] A headgear may also be provided that includes a forward portion, a rearward portion, two lateral portions, a continuous lower rim and an upper crown, pair of forward and rearward chin straps depending from each of said lateral portions, and a pair of chin strap retainers each slidably retaining one of said chin strap pairs. The chin strap retainers may be constructed in the manner summarized above in the preceding two paragraphs.

[0010] A combination chin strap retainer and decorative cap may be further provided. The chin strap retainer may include a substantially circular, substantially planar frame having an open interior region, a primary cross member integral with the frame and extending across a central portion of the open interior region, a first strap opening on a first side of the primary cross member, and a second strap opening on a second side of the primary cross member. The decorative cap may be provided by a substantially circular cap removably or permanently attached to the frame. A removable attachment may be provided by way of clips, at least one of which is flexible.

BRIEF DESCRIPTION OF THE DRAWING FIGURES

[0011] The foregoing and other features and advantages of the present invention will be apparent from the following more particular description of a preferred embodiment of the invention, as illustrated in the accompanying Drawings, in which:

[0012] FIG. **1** is a perspective view of a headgear having a chin strap and a pair of chin strap retainers;

[0013] FIG. **2** is a plan view of a chin strap retainer as shown in FIG. **1**;

[0014] FIG. **3** is a side view of the chin strap retainer shown in FIG. **2**;

[0015] FIG. **4** is a fragmentary plan view of the chin strap retainer shown in FIG. **2** slidably retaining a pair of chin strap members;

[0016] FIG. **5** is a fragmentary side view of the chin strap retainer shown in FIG. **3** while retaining chin strap elements;

[0017] FIG. **6** is a fragmentary plan view of the chip strap retainer shown in FIG. **2** with a decorative cap mounted thereon;

[0018] FIG. **7** is a side view of the decorative cap shown in FIG. **6**;

[0019] FIG. **8** is a rear view of the decorative cap shown in FIG. **6**;

[0020] FIG. **9** is a rear view of the chin strap retainer shown in FIG. **2** mounting the decorative cap of FIG. **6**;

[0021] FIG. **10**A is a plan view of an alternative configuration of the chin strap retainer of FIG. **2**;

[0022] FIG. **10**B is a plan view of another alternative configuration of the chin strap retainer of FIG. **2**;

[0023] FIG. **10**C is a plan view of another alternative configuration of the chin strap retainer of FIG. **2**; and

[0024] FIG. **10**D is a plan view of another, alternative configuration of the chin strap retainer of FIG. **2**.

DETAILED DESCRIPTION OF THE INVENTION

[0025] Turning now to the Drawing, wherein like reference numbers designate like elements in all of the several views, FIG. **1** shows a pair of exemplary chin strap retainers **2** mounted on a headgear **4**. The headgear **4** is illustrated by way of example only as an equestrian helmet, but could also be a bicycle helmet or any other protective head covering. The headgear **4** includes a forward portion **6**, a rearward portion **8**, two lateral portions **10** (only one is shown), a continuous lower rim **12**, a head band assembly **16**, and an upper crown **16**. The headgear may further includes a forward brim **19**.

[0026] The headgear **4** includes a strap retention system **20** for attaching the headgear to a wearer's head. The strap retention system **20** includes, on each side of the headgear **4**, a forward strap element **22** and a rearward strap element **24** that are mounted to the headgear in conventional fashion. One of the chin strap retainers **2** is used to join the forward and rearward strap elements **22** and **24** on each side of the headgear **4** into a substantially overlapping arrangement that has the appearance of a single strap link **26** (albeit with the thickness of the two overlapping straps). This produces the "Y" shape referred to by way of Background above, with the upper legs of the "Y" (the strap elements **22** and **24**) extending upwardly to the headgear **4** and the lower leg of the "Y" extending downwardly to define the single strap link **26**. Each strap link **26** connects to a respective buckle element **28** of conventional design that is releasably connectable to its counterpart buckle element under the wearer's chin. As further described by way of background above, the position of the chin strap retainers **2** can be adjusted upwardly and downwardly to raise and lower the point at which the strap elements **22** and **24** join together below the wearer's ear. The chin strap retainer **2** also allows the length of the forward and rearward strap elements **22** and **24** to be adjusted independently in order to change the position (angle) of the headgear **4** on the wearer's head.

[0027] Turning now to FIGS. **2**-**3**, the chin strap retainer **2** comprises a continuous frame **30** and three cross members **32**, **34** and **36** extending transversely across the frame's open interior region **38**. These components are preferably integrally formed as a single workpiece made of a lightweight metal such as zinc, aluminum, zinc-aluminum alloy (e.g., 78% zinc-22% aluminium), etc. A conventional die-casting process may be used to fabricate the chin strap retainer **2**. The frame **30** is preferably substantially circular in overall shape when seen in the plan view orientation of FIG. **2**, so as to constitute a ring member. In the side view orientation of FIG. **3**, the frame **30** is preferably substantially planar, although portions of the frame could be non-planar. As also shown in FIG. **3**, the cross-sectional shape of the frame **30** and the cross members **32**, **34** and **36** is preferably circular. The cross-sectional diameter of the frame may be slightly larger than the cross-sectional diameter of the cross members **32**, **34** and **36**. Alternatively, each of these elements may have the same cross-sectional diameter. With a circular cross-sectional configuration, the cross members **32**, **34** and **36** will comprise cylindrical posts due to their smooth cylindrical shape. The shape of the interior region **38** will tend to follow the shape of the frame **30**. Thus, if the frame **30** is a substantially circular ring member of uniform cross-sectional shape and size, the interior region **38** will usually also be substantially circular.

[0028] The cross member **32** is a primary cross member that preferably extends through the center of the interior region **38**. If the frame **30** is a circular ring member, the primary cross member **32** will extend along a diameter the ring member, which will normally be the widest portion of the ring member and of the interior region **38**. The primary cross member **32** intersects the frame **30** at two locations **32**A and **32**B. The cross members **34** and **36** are secondary cross members that are preferably disposed equidistantly from the central cross member **32**. If the frame **30** is a circular ring member, the secondary cross members **34** and **36** will extend along equal length chords of the ring member, with the chord length being less than the length of the primary cross member **32**. The secondary cross member **34** intersects the frame **30** at two locations **34**A and **34**B. Similarly, the secondary cross member **36** intersects the frame **30** at two locations **36**A and **36**B.

[0029] As best shown in FIG. **2**, the frame **30** has an inner side **40** and an outer side **42**. As further shown in FIG. **3**, the frame also has a front side **44** and a rear side **46**. When the headgear **4** is in use with the retainer ring **2** in the operational position shown in FIG. **1**, the front side **44** faces away from the wearer and the rear side **46** faces toward the wearer. As shown in FIG. **2**, the frame **30** additionally has an upper end **48**, a lower end **50**, a left end **52** and a right end **54**. Each of the regions **48**, **50**, **52** and **54** is contiguous with its two neighboring regions on each side thereof. The extent of the upper end **48** is generally defined by the locations **34**A and **34**B where the secondary cross member **34** intersects the frame **30**. The extent of the lower end **50** is generally defined by the locations **36**A and **36**B where the secondary cross member **36** intersects the frame **30**. It then follows that the extent of the left end **52** is generally defined by the locations **34**A and **36**A, and the extent of the right end **54** is generally defined by the locations **34**B and **36**B.

[0030] It will be seen in FIG. **2** that the cross members **32**, **34** and **36** subdivide the interior region **38** so as to create several interior subregions. Two of the subregions respectively define an upper strap opening **56** and a lower strap opening **58**. As described in more detail below, the strap openings **56** and **58** are for threading the forward and rearward strap elements **22** and **24** through the chin strap retainer **2**. The remaining subregions respectively define upper and lower apertures **60** and **62**. The apertures **60** and **62** allow material (and thus weight) to be removed from the chin strap retainer **2**, which as previously stated, is preferably made from metal rather than plastic. Because metal is stronger and more durable than the plastic conventionally used to make strap retainers, material can be removed to form the apertures **60** and **62** while still maintaining the required strength properties. As further described in more detail below, the apertures **60** and **62** may also be used for attaching a decorative cap to the chin strap retainer.

[0031] Turning now to FIGS. **4** and **5**, the forward and rearward strap elements **22** and **24** enter the upper strap opening **56** from the rear side **46** of the chin strap retainer **2**. The strap elements **22** and **24** then wrap over the top of the central cross member **32** and exit the lower strap opening **58** on the rear side **46** of the chin strap retainer **2**. The strap elements **22** and **24** exit the strap opening **58** in the substantially overlapping arrangement. This creates a single column of overlapped strapping that provides the appearance of the single strap link **26** and is necessary in order for the strap elements **22** and **24** to enter the receiving end of a buckle (such as the buckle element **28** of FIG. **1**) where the strap elements attach and terminate. The strap elements **22** and **24** are of course slideable relative to the chin strap retainer **2**, which allows the retainer to be adjusted upwardly and downwardly in FIG. **1**. This adjustment con be conveniently performed by grasping the outer side **42** of the frame **30** with the fingers and rotating the chin strap retainer **2** out of the plane of FIG. **4**. This is the adjustment position of the chin strap retainer **2**. When the chin strap retainer **2** lies in the plane of FIG. **4** (i.e., in substantially the same plane as the strap elements **22** and **24**, the chin strap retainer will be in substantially locking engagement with the strap elements so that it resists sliding along the length of the strap elements. This is the locking position of the chin strap retainer **2**. In the locking position, the chin strap retainer **2** maintains the position of the "Y" shape defined by the strap elements **22** and **24**, which is important in order to ensure proper headgear fit. Current ASTM (American Society for Testing and Materials) requirements for many types of headgear require such retention capability. In order to pass such testing, headgear chin strap retainers must not slide more than a specified distance when a specified downward force is applied to the chin strap elements.

[0032] The chin strap retainer **2** is fabricated from metal instead of plastic, and thus can be made sufficiently strong to resist breakage or excessive flexing while utilizing structural members that are non-bulky and relatively thin. By controlling the dimensions of these structural members, the chin strap retainer **2** may be optimized to meet or exceed prevailing ASTM retention requirements while in its locked position while still allowing the chin strap retainer to freely slide when pivoted to its position. This optimization consists of selecting the cross-sectional thickness of the cross members **32**, **34** and **36**, and well as the spacing between the cross members, based on the thickness (and to some extent the width) of the strap elements **22** and **24**. By way of example only, consider a circular implementation of the chin strap retainer **2** such as that shown in FIGS. **4** and **5**, with the frame **30** and the cross members **32**, **34** and **36** all having a circular cross-sectional shape. For conventional strap elements having a strap thickness of approximately 0.03 inches (e.g., 1/32 inches) and a strap width of approximately 0.625 inches (e.g., 5/8 inches), it has been found that a suitable cross-sectional diameter of the cross members **32**, **34** and **36** may be approximately 0.1 inches (e.g., 0.093 inches) and a suitable centerline spacing between the primary cross member **32** and the secondary cross members **34** and **36** may be approximately 0.3 inches (e.g., 0.229 inches). A suitable cross-sectional diameter of the frame **30** may be approximately 0.125 inches and a suitable outside diameter of the overall frame may be approximately 1 inch (e.g., 1.062 inches). In this configuration, the chin strap retainer **2** will have more than adequate retention capability in its locking position (as defined by prevailing ASTM standards). At the same time, it has been observed that less out-of-plane pivoting is required to release the chin strap retainer **2** than with conventional retainers. The chin strap retainer **2** also lies flat on the strap elements **22** and **24** due to it low profile. By comparison, conventional chin strap retainers tend to be bulky and protrude outwardly from the strapping. Many such chin strap retainers also have a rounded or beveled face, which further contributes to their bulky appearance.

[0033] Turning now to FIGS. **6-9**, the chin strap retainer **2** is adapted to removably mount a decorative cap **70** on its front side **44**. The decorative cap **70** can be made from molded plastic or metal. A front side **72** of the decorative cap **70** carries a decorative design **74**. A rear side **76** of the decorative cap **70** carries a fastener arrangement **78** to facilitate the cap's removable mounting to the chin strap retainer **2**. The fastener arrangement **78** can be implemented in a variety of ways. In FIGS. **7-9** illustrate one exemplary design wherein the fastener arrangement **78** comprises a pair of upper and lower clips **80** and **82**. As shown in FIG. **9**, the clips **80** and **82** respectively engage the upper and lower ends **48** and **50** of the chin strap retainer ring **2**. The upper clip **80** can be implemented as a flexible spring clip having a concave upper surface **84** that engages the inner side **40** of the frame's upper end **48** while also wrapping around the front side **44** and the rear side **46** of the frame **30**. The lower clip **82** can be implemented as a rigid post having a concave lower surface **86** that engages the inner side **40** of the frame's lower end **50** while also partially wrapping around the front side **44** and the rear side **46** of the frame **30**. It will be seen in FIG. **9** that the upper and lower apertures **60** and **62** allow the clips **80** and **82** to engage the frame **30** in the foregoing manner.

[0034] If desired, the decorative cap **70** could include additional clips for attachment to the frame **30**, such as side clips that respectively engage the inner side **40** of the frame's left end **52** and right end **54**. A further alternative would be to provide clips on the decorative cap **70** that releasably engage the outer side **42** of the frame **30** and do not contact the frame's inner side **40**. Note that both of these attachment alternatives would allow the apertures **60** and **62** to be eliminated to the extent that no clipping is required on the inner side **40** of the frame's upper and lower ends **48** and **50**.

[0035] By using any of the foregoing attachment schemes, the decorative cap **70** can be readily mounted on, and dismounted from, the frame **30**. This enables manufacturers to provide a variety of decorative caps **70** of unique appearance that wearers can acquire in order to customize their headgear to suit different occasions. Manufacturers can also utilize different decorative caps **70** hearing customized trademarks and logos. Permanently mounted decorative caps could also be used.

[0036] Accordingly, a chin strap retainer has been described. The chin strap retainer, by virtue of its design, is durable, easy to operate, and allows decorative elements to be attached to the headgear on which the retainer is used. While various embodiments have been disclosed, it should be apparent that many variations and alternative embodiments would be apparent to those skilled in the art in view of the teachings herein. For example, in alternative constructions of the chin strap retainer **2**, the frame **30** could be noncircular in overall shape. Non-circular cross-sectional shapes could also be used for the frame **30** and/or the cross members **32**, **34** and **36**. Moreover, the cross-sectional size and configuration of any given one of these elements need not be uniform. For example, the cross-section of the frame **3** could be thicker near the cross member **32** and thinner near the cross members

34 and 36, and visa versa. The same is true for the cross members 32, 34 and 36. Whereas the cross member 32 is preferably of uniform cross-sectional size and shape because it engages the strap elements 22 and 24, the cross members 34 and 36 could be of any shape, including irregular shapes of varying cross-sectional size. FIGS. 10A-10D respectively show alternative chin strap retainers 2', 2", 2"' and 2"" that are illustrative of several possible variations in the shape and size of the cross members 34 and 36. Note that in FIG. 10B the shape of the cross member 36" is such as to create two apertures 60" and two apertures 62". In FIG. 10D, the shape of the cross member 36"' is such as to create two apertures 62"".

[0037] It is understood, therefore, that the invention is not to be in any way limited except in accordance with the spirit of the appended claims and their equivalents.

What is claimed is:

1. A chin strap retainer for headgear, the headgear having a pair of forward and rearward chin strap elements depending from each side thereof, and the chin strap retainer being for gathering the forward and rearward chin strap elements into a substantially overlapping arrangement that has the appearance of a single strap link, said chin strap retainer comprising:
- a substantially circular frame defining an open interior region;
- a primary cross member extending across a central portion of said open interior region;
- a first secondary cross member disposed on a first side of said primary cross member;
- a second secondary cross member disposed on a second side of said primary cross member;
- said frame, said primary cross member and said secondary cross member being part of a single integral workpiece;
- a first strap opening between said primary cross member and said first secondary cross member;
- a second strap opening between said primary cross member and said second secondary cross members;
- a first aperture between said first secondary cross member and said frame; and
- a second aperture between said second secondary cross member and said frame.

2. A chin strap retainer in accordance with claim 1 wherein said frame is a ring member of substantially uniform cross-sectional shape.

3. A chin strap retainer in accordance with claim 1 wherein said open interior region is substantially circular in shape.

4. A chin strap retainer in accordance with claim 1 wherein said frame is substantially planar in side view orientation.

5. A chin strap retainer in accordance with claim 1 wherein said frame is continuous.

6. A chin strap retainer in accordance with claim 1 wherein said frame is a ring member of substantially uniform circular cross-sectional shape, and wherein said primary cross member, said first secondary cross member and said second secondary cross members are mutually parallel cylindrical posts having substantially the same cross-sectional size and shape.

7. A chin strap retainer in accordance with claim 1 wherein one or more of said frame, said first secondary cross member or said second secondary cross member comprises an irregular or non-uniform cross-sectional shape.

8. A chin strap retainer in accordance with claim 1 wherein said chin strap retainer is made entirely from metal.

9. A chin strap retainer in accordance with claim 1 further including a cap removably attached to said frame.

10. A chin strap retainer in accordance with claim 9 wherein said cap comprises clips that clip to said flame at said first aperture and said second aperture.

11. A headgear having a forward portion, a rearward portion, two lateral portions, a continuous lower rim and an upper crown, pair of forward and rearward chin straps depending from each of said lateral portions, and a pair of chill strap retainers each slidably retaining one of said chin strap pairs, said chin strap retainer comprising:
- a substantially circular frame defining an open interior region;
- a primary cross member extending across a central portion of said open interior region;
- a first secondary cross member disposed on a first side of said primary cross member;
- a second secondary cross member disposed on a second side of said primary cross member;
- said frame, said primary cross member and said secondary cross member being part of a single integral workpiece;
- a first strap opening between said primary cross member and said first secondary cross member;
- a second strap) opening between said primary cross member and said second secondary cross members;
- a first aperture between said first secondary cross member and said frame; and
- a second aperture between said second secondary cross member and said frame.

12. A headgear in accordance with claim 11 wherein said frame is a ring member of substantially uniform cross-sectional shape.

13. A headgear in accordance with claim 11 wherein said open interior region is substantially circular in shape.

14. A headgear in accordance with claim 11 wherein said frame is substantially planar in side view orientation.

15. A headgear in accordance with claim 11 wherein said frame is substantially continuous.

16. A headgear in accordance with claim 11 wherein said frame is a ring member of substantially uniform circular cross-sectional shape, and wherein said primary cross member, said first secondary cross member and said second secondary cross members are mutually parallel cylindrical posts having substantially the same cross-sectional size and shape.

17. A headgear in accordance with claim 11 wherein one or more of said frame, said first secondary cross member or said second secondary cross member comprises an irregular or non-uniform cross-sectional shape.

18. A headgear in accordance with claim 11 wherein said chin strap retainer is made entirely from metal.

19. A headgear in accordance with claim 11 further including a cap removably attached to said frame.

20. A chin strap retainer for headgear, the headgear having a pair of forward and rearward chin strap elements depending from each side thereof, and the chin strap retainer being for gathering the forward and rearward chin strap elements into a substantially overlapping arrangement that has the appearance of a single strap link, said chin strap retainer comprising:
- a continuous substantially circular ring frame of substantially uniform cylindrical cross-section defining a substantially circular open interior region;
- said ring frame being substantially planar in side view orientation;
- a primary cylindrical post member extending across a central portion of said open interior region;

a first secondary cylindrical post member disposed on a first side of said primary post member;

a second secondary cylindrical post member disposed on a second side of said primary cross member;

said frame, said primary cross member and said secondary cross member being part of a single integral workpiece made entirely of metal and each having a substantially uniform cross-sectional size;

a first strap opening between said primary cross member and said first secondary cross member;

a second strap opening between said primary cross member and said second secondary cross members;

a first aperture between said first secondary cross member and said frame; and

a second aperture between said second secondary cross member and said frame.

21. A chin strap retainer for headgear, the headgear having a pair of forward and rearward chin strap elements depending for each side thereof, and the chin strap retainer being for gathering the forward and rearward chin strap elements into a substantially overlapping arrangement that has the appearance of a single strap link, said chin strap retainer comprising:

a substantially circular, substantially planar frame having an open interior region;

a primary cross member integral with said frame and extending across a central portion of said open interior region;

a first strap opening on a first side of said primary cross member;

a second strap opening on a second side of said primary cross member; and

a substantially circular cap attached to said frame.

22. A chin strap retainer in accordance with claim **21**, wherein said cap is removably attached to said frame by way of clips, at least one of said clips being flexible.

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