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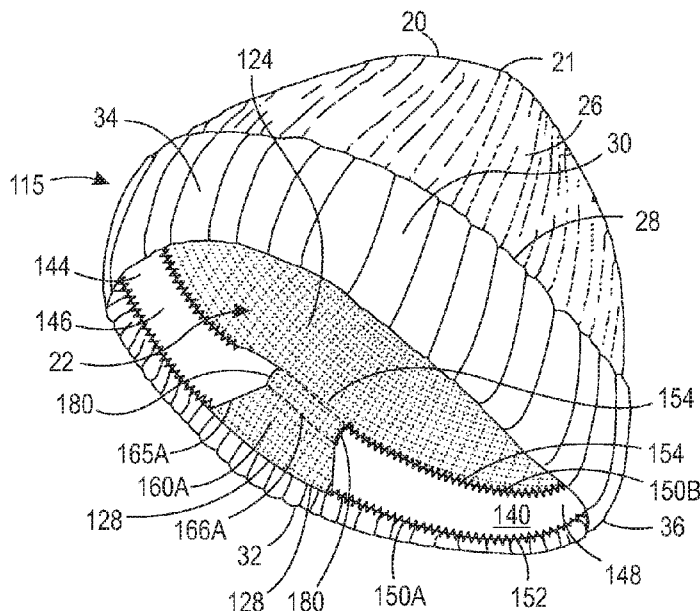


FIG. 9

(57) Abstract: A knit cap having a generally domed knitted crown and a sweatband having front and back arcuate portions attached to an interior surface of the knitted cap by stitching the front arcuate portion of the sweatband to a front portion of the crown, and by further stitching the back arcuate portion of the sweatband to a back portion of the crown, the sweatband having no stitching or other attachment to the crown at first and second side portions of the knitted cap.



KNIT HAT HAVING INTEGRATED SWEATBAND

TECHNICAL FIELD

[0001] This disclosure relates to knit caps, and particularly to a knit beanie style hat with a specially formed integrated sweatband.

DESCRIPTION OF RELATED ART

[0002] The design and use of classic knitted beanie-style caps is well known. Such caps are generally worn in colder conditions to cover a user's ears and top of head, thus providing the head and ears with warmth and protection from the elements. In certain cases, such knitted beanie-style caps are constructed from an elastic material, and are designed to closely fit the wearer's head.

[0003] U.S. Patent No. 1,675,864 is directed to a cloth hat with a sweatband made of a knitted webbing. The cloth hat has an expandable zone at the juncture of the crown and brim that permits the hat to expand to a larger size if required by a user.

[0004] U.S. Patent No. 7,055, 179 is directed a substantially circular hat body with an integrated elastic sweatband. The sweatband further comprises an integrated tail piece configured to drape over the neck and shoulders of a wearer.

[0005] U.S. Patent No. 8,769,723 is directed to a knit hat with an ear warmer. The ear warmer portion has a frame with an inward bias causing the knit hat to hug the bottom back of the head of a user when worn. The knit hat may also have an integrated interior pocket for housing a Bluetooth wireless accessory.

BRIEF SUMMARY

[0006] With parenthetical reference to the corresponding parts, portions or surfaces of the disclosed embodiment, merely for the purposes of illustration and not by way of limitation, the present disclosure provides a knitted cap (15) having a generally domed knitted crown (20). The crown has an interior surface (24), an exterior surface (26), a bottom peripheral edge (28) between the interior surface and the exterior surface, first and second side portions (30, 32), and front and back portions (34, 36). The interior surface of the crown defines an

interior cavity (22) for receiving the head (72) of a user (70) when worn. The knitted cap further comprises a sweatband (40) having opposite outer and inner surfaces (42, 44), along with front and back arcuate portions (46, 48). The sweatband is preferably attached to the interior surface of the knitted cap by stitching the front arcuate portion of the sweatband to the front portion of the crown, and by further stitching the back arcuate portion of the sweatband to the back portion of the crown. The present disclosure provides the sweatband having no stitching or other attachment to the crown at the first and second side portions of the knitted cap. The lack of attachment of the sweatband to the side portions may form first and second gaps (60) between the interior surface of the knitted cap and the outer surface of the sweatband.

[0007] The front arcuate portion of the sweatband may be longer than the rear arcuate portion of the sweatband in order to properly align the gaps with the ears of a user when worn. The gaps may be configured and arranged to receive at least a portion of the ears of the user when worn, such that the interior surface of the knitted cap will cover an outer area (75) of the ears (74) of the user. Further, the sweatband may extend between the inner areas (76) of each of the user's respective ears and the head of the user when worn. Alternatively, and based on user preference, the crown and the sweatband may be configured such that outer areas of the user's ears may be covered by both the sweatband and the crown when worn by the user. In an additional embodiment, the gaps for receiving the ears may be fastened to the crown along respective upper portions, thus forming enclosed ear pockets configured to receive the user's ears when worn.

[0008] The sweatband may be attached to the knitted cap such that a bottom perimeter edge (52) of the sweatband is generally adjacent to a bottom peripheral edge (28) of the crown. Alternatively, the sweatband may be positioned apart from and parallel to the bottom peripheral edge of the crown such that the bottom peripheral edge can be rolled over upon itself to provide a double thickness (38) along a lower portion of the knitted cap without also rolling the sweatband. The double thickness may extend up along the exterior surface of the crown such that the bottom peripheral edge of the crown overlaps a top perimeter edge (54) of the sweatband. Such a configuration can be aesthetically pleasing as well as provide extra warmth to the user's ears.

[0009] The front and back arcuate portions of the sweatband may be fixedly attached to the respective front and back portions of the interior surface of the crown by elastic stitching

(50), configured such that the sweatband will be allowed to stretch and flex along with the rest of the knitted cap. More specifically, the stitching may be sewn using a zigzag stitch that runs along a top perimeter edge and a bottom perimeter edge of the sweatband, securing the front and back arcuate portions of the sweatband to the respective front and back portions of the knitted cap, while leaving floating portions of the sweatband unstitched, thus forming gaps at the sides of the knitted beanie.

[0010] The sweatband may be made from an elastic and moisture-wicking material, and may additionally comprise a layer of silicone dots running along the inner surface of the sweatband. The silicone dots may be configured such that slippage of the sweatband, both when worn and when handled by the user, is greatly reduced.

[0011] In an additional embodiment, the crown may comprise an inner liner (162) having an interior surface (124), an exterior surface and a bottom peripheral edge (128) between the interior and the exterior surface, the first and second side portions (164A, 164B) of the sweatband (140) may have a narrower width than a width of the front and back portions (146, 148) of the sweatband, and the sweatband may have no attachment to either the knitted crown or the liner at the first and second side portions. The first and second side portions may extend between the interior surface of the crown and the exterior surface of the liner. The first and second side portions may be configured and arranged to align with ears of the user when worn, and an ear overlaying portion (160A, 160B) of the interior surface of the liner may cover an outer area of the ears of the user when worn.

[0012] The bottom perimeter edge (152) of the front and back portions of the sweatband may be fastened to the crown and a top perimeter edge (154) of the front and back portions of the sweatband may be fastened to the liner and not fastened to the crown. The bottom perimeter edge of the front and back portions of the sweatband may be fastened to the crown by elastic stitching (150A) and the top perimeter edge of the front and back portions of the sweatband may be fastened to the liner by elastic stitching (150B), and the stitching may be sewn using a zigzag stitch. The sweatband may be attached such that a bottom perimeter edge of the front and back portions of the sweatband is generally adjacent to the bottom peripheral edge of the liner. The sweatband may be attached parallel to and spaced from the bottom peripheral edge (28) of the crown such that the bottom peripheral edge can be rolled over upon itself to provide a double thickness along a lower portion of the cap without rolling either the sweatband or the liner. The first and second side portions of the sweatband may comprise a

notch (161A, 161B) in a bottom perimeter edge of the sweatband. The crown, the sweatband and the liner may be configured such that outer areas of first and second ears of the user may be covered by layers of all of the liner, the sweatband and the crown when worn by the user. The liner may comprise a moisture-wicking material.

[0013] In an alternative embodiment of the disclosure, provided is an article for wearing on a head of a user having a generally domed crown with an interior surface defining an interior cavity for receiving the head of a user when worn. The crown additionally has an exterior surface, a bottom peripheral edge between the interior surface and the exterior surface, first and second side portions, and front and back portions. The headwear article also has a sweatband with opposite outer and inner surfaces, which is attached to the interior surface of the headwear article such that first and second gaps are formed between the interior surface of the headwear article and the outer surface of the sweatband at the side portions of the headwear article. In such an alternative embodiment, the article of headwear can be a knitted beanie, or may alternatively be a baseball-style cap having a bill connected to and extending away from the generally domed crown.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

[0014] FIG. 1 is a side perspective view of a first embodiment of the knitted cap.

[0015] FIG. 2 is a bottom perspective view of the embodiment of the knitted cap of FIG. 1.

[0016] FIG. 3 is a side perspective view of the embodiment of the knitted cap of FIG. 1 showing the positioning of a user's ears within the side gap portions.

[0017] FIG. 4 is a perspective view of a user wearing the knitted cap of FIG. 1, with the knitted crown transparent to show the positioning of the sweatband relative to the user's ears and head.

[0018] FIG. 5 is a view of the back portion of the knitted cap of FIG. 1 turned inside out.

[0019] FIG. 6 is a view of the front portion of the knitted cap of FIG. 1 turned inside out.

[0020] FIG. 8 is a view of the front portion of an alternative embodiment of a knitted cap turned inside out.

[0021] FIG. 9 is a side perspective view of a second alternative embodiment of a knitted cap.

[0022] FIG. 10 is a perspective view of the sweatband of the knitted cap of FIG. 9.

[0023] FIG. 11 is an enlarged view of the knitted cap of FIG. 9 showing the sweatband extending between the crown and liner.

[0024] FIG. 12 is a bottom perspective view of the knitted cap of FIG. 9.

DETAILED DESCRIPTION OF THE EMBODIMENTS

[0025] At the outset, it should be clearly understood that like reference numerals are intended to identify the same structural elements, portions or surfaces consistently throughout the several drawing figures, as such elements, portions or surfaces may be further described or explained by the entire written specification, of which this detailed description is an integral part. Unless otherwise indicated, the drawings are intended to be read together with the specification, and are to be considered a portion of the entire written description of this invention. As used in the following description, the terms "horizontal", "vertical", "left", "right", "up" and "down", as well as adjectival and adverbial derivatives thereof (e.g., "horizontally", "rightwardly", "upwardly", etc.), simply refer to the orientation of the illustrated structure as the particular drawing figure faces the reader. Similarly, the terms "inwardly" and "outwardly" generally refer to the orientation of a surface relative to its axis of elongation, or axis of rotation, as appropriate.

[0026] The present disclosure has been made in view of the above-mentioned circumstances, and has an object to provide a knitted beanie-style cap that is generally tight-fitting and includes an integrated sweatband. The sweatband may be made of a performance, moisture-wicking, stretchable material. Further, the sweatband is configured such that it is sewn to the knitted cap around the front and back portions, but is left unstitched and floating at the sides of the beanie where the cap is worn over the ears of a user. Accordingly, the sweatband of a first embodiment can be positioned either to the outside of the ears or to the inside/behind the ears, depending on the user's preference and different activities and/or weather conditions. In a second embodiment, the knitted beanie-style cap may further comprise an inner liner and the sweatband may include a narrowed portion that extends behind the liner.

[0027] Referring now to the drawings, and more particularly to FIGS. 1 and 2 thereof, a novel knitted cap with integrated sweatband is provided, of which an embodiment is generally indicated at 15. In this embodiment, knitted cap 15 is comprised of a generally domed knitted crown 20 and an integrated sweatband 40. Generally domed crown 20 comes to a peak 21, has an interior surface 24 and an exterior surface 26, and is shaped such that interior surface 24 defines an interior cavity 22 configured to snugly receive the head of a user.

[0028] Knitted crown 20 is preferably made in a conventional knitting process in which the fabric is formed by stitching together a number of consecutive rows of interlocking loops. Alternatively, it is appreciated that crown 20 could be made using other methods of textile production such as weaving, felting, or plaiting. The material used to construct knitted crown 20 is preferably a yarn such as wool, cotton, or synthetic yarn, which is threaded in a loose knit pattern such that knitted crown 20 may stretch in one or more directions when worn by a user, while returning to its original shape when removed. In the preferred embodiments, knitted cap 15 is a beanie style cap, and thus does not include a bill or a visor extending outwardly from crown 20.

[0029] While the shape of crown 20 is generally rounded and symmetrical, for descriptive and illustrative purposes, generally domed crown 20 is further shown as having a front portion 34, a back portion 36, as well as first and second side portions 30, 32. Crown 20 is further illustrated having a double thickness portion 38, which is formed by folding the circumferential opening defined by a bottom peripheral edge 28 of crown 20 first outwards from interior cavity 22 and then upwards towards peak 21 such that a layer of doubly thick material 38 extends around the bottom portion of generally domed crown 20. Crown 20 is preferably constructed with a length of material such that the size of double thickness portion 38 will cover the length of a user's ears when worn, thus providing the user with added warmth around the ear area. It is also appreciated that knitted beanie 15 may be constructed such that there is no extra material of crown 20 available to create double thickness portion 38, as will be further discussed below.

[0030] Sweatband 40 is positioned circumferentially around interior surface 24 of generally domed crown 20 and substantially parallel to bottom peripheral edge 28. Sweatband 40 is fixedly attached to crown 20 along two distinct sections. A front arcuate portion 46 of

sweatband 40 is attached to front portion 34 of crown 20, while a back arcuate portion 48 of sweatband 40 is attached to back portion 36 of crown 20.

[0031] Front and back arcuate portions 46, 48 can be attached to crown 20 via stitching 50. In this embodiment, stitching 50 is a zigzag stitch that runs over inner surface 44 and along both a bottom perimeter edge 52 and a top perimeter edge 54 of the front and back arcuate portions 46, 48 of sweatband 40. It is preferred that stitching 50 be comprised of a strong and elastic material, such that the stretching and flexibility of the combined sweatband 40 with generally domed crown 20 is improved. However, it is anticipated that other forms of stitching, adhesive, or any other suitable means of securing sweatband 40 to crown 20 may be used.

[0032] Between front arcuate portion 46 and back arcuate portion 48, located generally at first and second side portions 30, 32 of crown 20, are two areas of sweatband 40 where there is no attachment (stitching or otherwise) to crown 20, whereby sweatband 40 is allowed to float freely. Accordingly, there are formed two gaps 60 between crown 20 and sweatband 40 at first and second side portions 30, 32. In this embodiment, gaps 60 are sized, spaced, and otherwise configured to receive the ears of a user when beanie 15 is worn, as is now discussed in further detail.

[0033] Turning now to FIG. 3, illustrated is a knitted beanie 15 similar to that of FIGS. 1 and 2, with the addition of a user's ears positioned according to one embodiment of the disclosure. The use of gaps 60 within knitted beanie 15 allow a user to position his/her ears 74 such that outer surface 75 of ears 74 rests flush with interior surface 24 of crown 20, while sweatband 40 is able to rest alongside an inner surface 76 of ears 74. Accordingly, inner surface 44 of sweatband 40 can sit directly adjacent to the head and behind the ears of a user.

[0034] With reference now to FIG. 4, user 70 is depicted wearing knitted beanie 15 on his head 72 according to one embodiment of the disclosure. Here, crown 20 is shown as being transparent for illustrative purposes only, so as to provide further details as to the internal structure of knitted beanie 15. It can be seen that knitted beanie 15 is positioned such that outer surface 42 of sweatband 40 rests directly adjacent to an inner surface of ear 74 of user 70 at gaps 60, while at the same time crown 20 of knitted beanie 15 rests directly adjacent to outer surface 75 of ear 74.

[0035] While FIG. 4 depicts user 70 wearing sweatband 40 behind ears 74 via the placement of ears 74 within gaps 60, it is anticipated that user 70 may alternatively choose to place sweatband 40 over ears 74, such that inner surface 44 of sweatband 40 rests directly adjacent to outer surface 75 of ears 74. Accordingly, this embodiment affords individuals with an option to wear sweatband 40 of knitted beanie 15 behind the ears, or an option to wear sweatband 40 of knitted beanie 15 over the ears.

[0036] Turning now to FIGS. 5 and 6, there is depicted an embodiment of knitted beanie 15 unfolded and turned inside-out such that interior surface 24 of generally domed crown 20 is exposed. FIG. 5 illustrates back arcuate portion 48 of sweatband 40 attached to back portion 36 of crown 20, while FIG. 6 illustrates front arcuate portion 46 of sweatband 40 attached to front portion 34 of crown 20. In each figure, stitching 50 is depicted along top perimeter edge 54 and bottom perimeter edge 52 of sweatband 40, with no stitching 50 provided at gaps 60, where sweatband 40 freely floats. While sweatband 40 runs parallel to bottom peripheral edge 28 of generally domed crown 20, it is spaced far enough away from bottom peripheral edge 28 such that there is enough material for a user to fold and create a double thickness layer, as discussed above.

[0037] In an embodiment of knitted beanie 15, it is noted that stitching 50 across back arcuate portion 48 (see FIG. 5) is of shorter length than stitching 50 across front arcuate portion 46 (see FIG. 6). The reason for this disparity in stitching lengths is to accommodate the general positioning of the ears of an average individual, which tend to be closer together at the back of the head than at the front of the head. For instance, the length of stitching 50 along back arcuate portion 48 corresponding to FIG. 5 may be approximately 120 mm wide (for instance, within a range of 100 mm to 140 mm), while the length of stitching 50 along front arcuate portion 46 corresponding to FIG. 6 may be approximately 230 mm wide (for instance, within a range of 210 mm to 250 mm). Further, each gap 60 separating front arcuate portion 46 from back arcuate portion 48 may be approximately 70 mm wide (for instance, within a range of 60 mm to 80 mm). The disclosed dimensions are preferred for the construction of a "one-size-fits-all" type of knitted beanie 15. However, it is appreciated that such dimensions can be modified and tailored to the needs of any individual user or group of users.

[0038] Now referring to FIGS. 7 and 8, there is depicted an alternative embodiment of knitted beanie 15. Similar to the embodiment disclosed with reference to FIGS. 6 and 7,

sweatband 40 of FIGS. 7 and 8 runs parallel to bottom peripheral edge 28 of generally domed crown 20. However, in this embodiment sweatband 40 runs generally adjacent to bottom peripheral edge 28. The spacing and amount of material available between sweatband 40 and bottom peripheral edge 28 is configured such that knitted beanie 15 is not meant to have a folded double thickness layer or cuff along its bottom portion. Instead, when knitted beanie 15 is worn by a user, bottom peripheral edge 28 is preferably configured to extend approximately to the bottom of the user's ears, while sweatband 40 sits either behind or over the sides of the user's ears, whichever is preferred.

[0039] Turning now to FIG. 9, there is depicted a second alternative embodiment 115 of a knitted beanie. Knitted beanie 115 is similar to the first embodiment disclosed with reference to FIG. 1-5, having a generally domed knitted crown 20, with crown 20 coming to a peak 21, and having an interior surface 24 and an exterior surface 26, and being shaped such that the interior surface 24 defines an inner cavity 22 configured to snugly receive the head of a user. However, this embodiment differs from the first embodiment in that integrated sweatband 140 is specially configured with narrowed side portions 164A and 164B that extend behind an inner liner 162 in crown 20.

[0040] As in the first embodiment, crown 20 has a double thickness portion 38, which is formed by folding the circumferential opening defined by the bottom peripheral edge 28 of crown 20 outwards from the interior cavity 22 and then upwards towards peak 21 such that a layer of doubly thick material 38 extends around the bottom portion of the generally domed crown 20.

[0041] In this embodiment, crown 20 includes an interior lining 162 facing that portion of inner surface 24 of crown 20 above the fold of cuff 38. Lining 162 has an inner surface 124 that contacts the head of the user and is a moisture wicking fabric. Liner 162 may comprise a stretch hex mesh, although it is contemplated that other materials may be used as the interior lining. As shown, the bottom perimeter edge 128 of lining 162 is fastened with stitching to the interior of crown 20 together with the bottom perimeter edge 152 of sweatband 140. Thus, liner 162 extends at its bottom peripheral circumference generally between crown 20 and sweatband 140. However, as shown, sweatband 140 extends behind liner overlaying side portions 160A and 160B of liner 162.

[0042] As shown in FIG. 10, sweatband 140 is specially configured such that it includes side cutouts 161A and 161B that form narrowed side portions 164A and 164B, respectively, positioned circumferentially approximately to be adjacent to the wearer's ears. Cutouts 161A and 161B are laser cut into the bottom perimeter edge 152 of sweatband 140 to provide narrowed side portions 164A and 164B, respectively, which bear, through liner overlays 160A and 160B, against the wearer's ears when properly positioned on the wearer's head. As shown, side portions 164A and 164B of sweatband 140 have a narrower width than the width of front and back arcuate portions 146 and 148. Notches 161A and 161B have opposed tapered edges 165A and 165B to narrowed lower edges 166A and 166B, respectively. These narrowed side portions 164A and 164B comprise a floating stretch part of sweatband 140 that is not sewn down. Such specially configured sweatband is not as heavy and thick or wide adjacent the ears of the user and exerts less pressure against the ears of the user, making the hat more comfortable to wear over periods of time. Liner 162 adds an additional level of comfort, particularly with respect to the overlaying portions 160A and 160B that rest against the ears of the user, respectively.

[0043] Narrowed stretch portions 164A and 164B extend through small buttonholes 180 in lining 162. As shown in FIG. 11, slits 180 in lining 162, through which narrowed portions 164A and 164B of sweatband 140 extend, are each finished off with button stitching so they do not tear. Alternatively, such slits 180 may be laser-cut. Similarly, cut edges 165A, 166A, 165B and 166B may be finished with stitching so that they do not tear or become unraveled.

[0044] As shown in FIG. 11, sweatband 140 is positioned circumferentially around the interior surface of liner 162 and crown 20 and substantially parallel to bottom peripheral edge 28 of crown 20. Sweatband 140 is fixedly attached to crown 20 and liner 162 along two distinct sections. The front arcuate portion 146 of sweatband 140 is attached to front portion 34 of crown 20, while back arcuate portion 148 of sweatband 140 is attached to the back portion 36 of crown 20.

[0045] In this embodiment, such arcuate portions are attached to crown 20 via stitching 150A at the bottom perimeter edge 152 of sweatband 140. However, unlike the first embodiment, such arcuate portions are attached only to liner 162 via stitching 150B at the top perimeter edge 154 of sweatband 140. Thus, stitching 150B is used to attach the top perimeter edge 154 of front and back arcuate portions 146 and 148 of sweatband 140 just to liner 162 to hold sweatband 140 in position circumferentially in cavity 22 of crown 20.

While sweatband 140 runs parallel to bottom peripheral edge 28 of generally domed crown 20, it is spaced far enough away from bottom peripheral edge 28 such that there is enough material for a user to fold and create a double thickness layer, as discussed above. Also, the bottom peripheral edge 128 of generally domed liner 162 is aligned with the bottom perimeter edge 152 of sweatband 140, and therefore is also spaced the same distance away from bottom peripheral edge 28 such that there is enough material for a user to fold and create a double thickness layer, as discussed above.

[0046] Similar to the first embodiment, narrowed side portions 164A and 164B between front arcuate portion 146 and back arcuate portion 148, located generally at first and second side portions 30, 32 of crown 20, are two areas of sweatband 140 where there is no attachment, stitching or otherwise, to crown 20 or liner 162, whereby sweatband 140 is allowed to float freely behind lining 162, and more specifically between the outside surface of lining 162 and the opposed inside surface of crown 20. Sweatband over-lining portions 160A and 160B are sized, spaced, and otherwise configured to align and cover the ears of a user when the beanie 115 is worn. Accordingly, inner surface 124 of liner 162 at over-portions 160A and 160B rests directly adjacent to the ears of the user while the inner surface 144 of sweatband 140 rests directly adjacent to the head of the user at other circumferential positions.

[0047] The present invention contemplates that many changes and modifications may be made. Therefore, while the presently preferred form of the hat has been shown and described, and several modifications and alternatives discussed, persons skilled in this art will readily appreciate that various additional changes and modifications may be made without departing from the scope of the invention, as defined and differentiated by the following claims.

CLAIMS

1. A knitted cap, comprising:
a generally domed knitted crown defining an interior cavity for receiving the head of a user when worn and having an interior surface, an exterior surface, a bottom peripheral edge between said interior surface and said exterior surfaces, and front and back portions;
a sweatband attached to said crown and having opposite outer and inner surfaces, first and second side portions, and front and back portions; and
said front portion of said sweatband fastened to said front portion of said crown and said back portion of said sweatband fastened to said back portion of said crown; and
said sweatband having no attachment to said crown at said first and second side portions.
2. The knitted cap of claim 1, wherein said front portion of said sweatband is longer than said back portion of said sweatband.
3. The knitted cap of claim 1, wherein first and second gaps are formed between said interior surface of said crown and said outer surface of said sweatband at said first and second side portions, said gaps are configured and arranged to receive at least a portion of ears of said user when worn, and said interior surface of said crown covers an outer area of said ears of said user and said sweatband extends between each of said respective ears and said head of said user when worn.
4. The knitted cap of claim 1, wherein first and second gaps are formed between said interior surface of said cap and said outer surface of said sweatband at said first and second side portions, and said first and second gaps are fastened to said crown along respective upper portions, thus forming first and second pockets configured to receive first and second ears of said user when worn.
5. The knitted cap of claim 1, wherein said crown and said sweatband are configured such that outer areas of first and second ears of said user may be covered by both said sweatband and said crown when worn by said user.
6. The knitted cap of claim 1, wherein said sweatband is attached such that a bottom perimeter edge of said sweatband is generally adjacent to said bottom peripheral edge of said crown.

7. The knitted cap of claim 1, wherein said sweatband is attached parallel to and spaced from said bottom peripheral edge of said crown such that said bottom peripheral edge can be rolled over upon itself to provide a double thickness along a lower portion of said cap without rolling said sweatband.

8. The knitted cap of claim 7, wherein said double thickness extends up along said exterior surface of said crown such that said bottom peripheral edge of said crown overlaps a top perimeter edge of said sweatband.

9. The knitted cap of claim 1, wherein said sweatband is fixedly attached to said front and back portions of said interior surface of said crown by elastic stitching.

10. The knitted cap of claim 9, wherein said stitching is sewn using a zigzag stitch, and wherein said stitching runs along a top perimeter edge and a bottom perimeter edge of said sweatband.

11. The knitted cap of claim 1, wherein said sweatband comprises an elastic and moisture-wicking material.

12. The knitted cap of claim 1, wherein said sweatband comprises a layer of silicone dots along said inner surface configured such that slippage of said sweatband is reduced.

13. The knitted cap of claim 1, wherein:
said crown comprises an inner liner having an interior surface, an exterior surface and a bottom peripheral edge between said interior and said exterior surfaces;
said first and second side portions of said sweatband have a narrower width than a width of said front and back portions of said sweatband; and
said sweatband has no attachment to either said knitted crown or said liner at said first and second side portions.

14. The knitted cap of claim 13, wherein said first and second side portions extend between said interior surface of said crown and said exterior surface of said liner.

15. The knitted cap of claim 14, wherein said first and second side portions are configured and arranged to align with ears of said user when worn, and an ear overlaying

portion of said interior surface of said liner will cover an outer area of said ears of said user when worn.

16. The knitted cap of claim 13, wherein a bottom perimeter edge of said front and back portions of said sweatband is fastened to said crown and a top perimeter edge of said front and back portions of said sweatband is fastened said liner and not fastened to said crown.

17. The knitted cap of claim 16, wherein said bottom perimeter edge of said front and back portions of said sweatband are fastened to said crown by elastic stitching and said top perimeter edge of said front and back portions of said sweatband are fastened to said liner by elastic stitching.

18. The knitted cap of claim 17, wherein said stitching is sewn using a zigzag stitch.

19. The knitted cap of claim 13, wherein said sweatband is attached such that a bottom perimeter edge of said front and back portions of said sweatband is generally adjacent to said bottom peripheral edge of said liner.

20. The knitted cap of claim 19, wherein said sweatband is attached parallel to and spaced from said bottom peripheral edge of said crown such that said bottom peripheral edge can be rolled over upon itself to provide a double thickness along a lower portion of said cap without rolling either said sweatband or said liner.

21. The knitted cap of claim 13, wherein said first and second side portions of said sweatband comprise a notch in a bottom perimeter edge of said sweatband.

22. The knitted cap of claim 13, wherein said crown, said sweatband and said liner are configured such that outer areas of first and second ears of said user may be covered by layers of said liner, said sweatband and said crown when worn by said user.

23. The knitted cap of claim 13, wherein said liner comprises a moisture-wicking material.

1/6

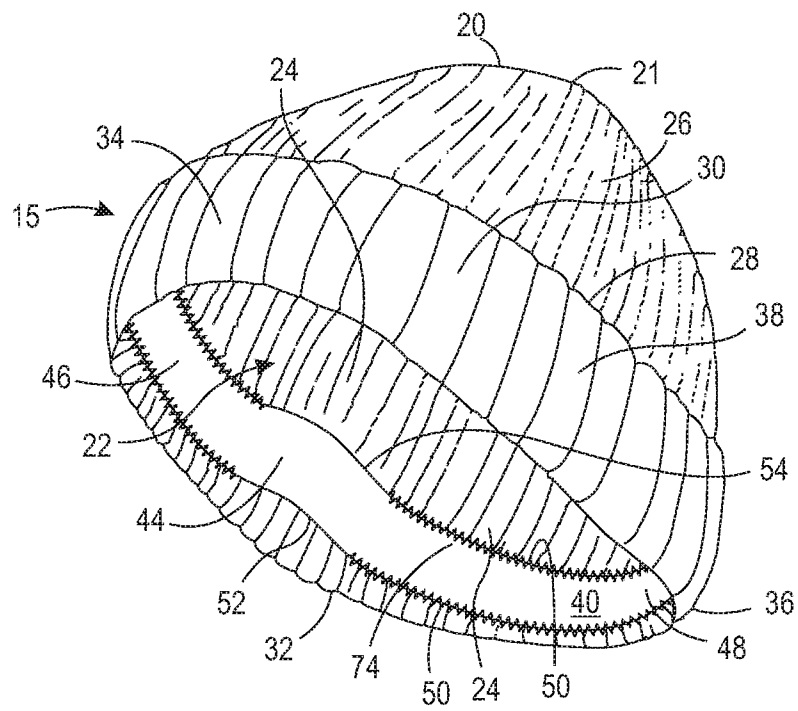


FIG. 1

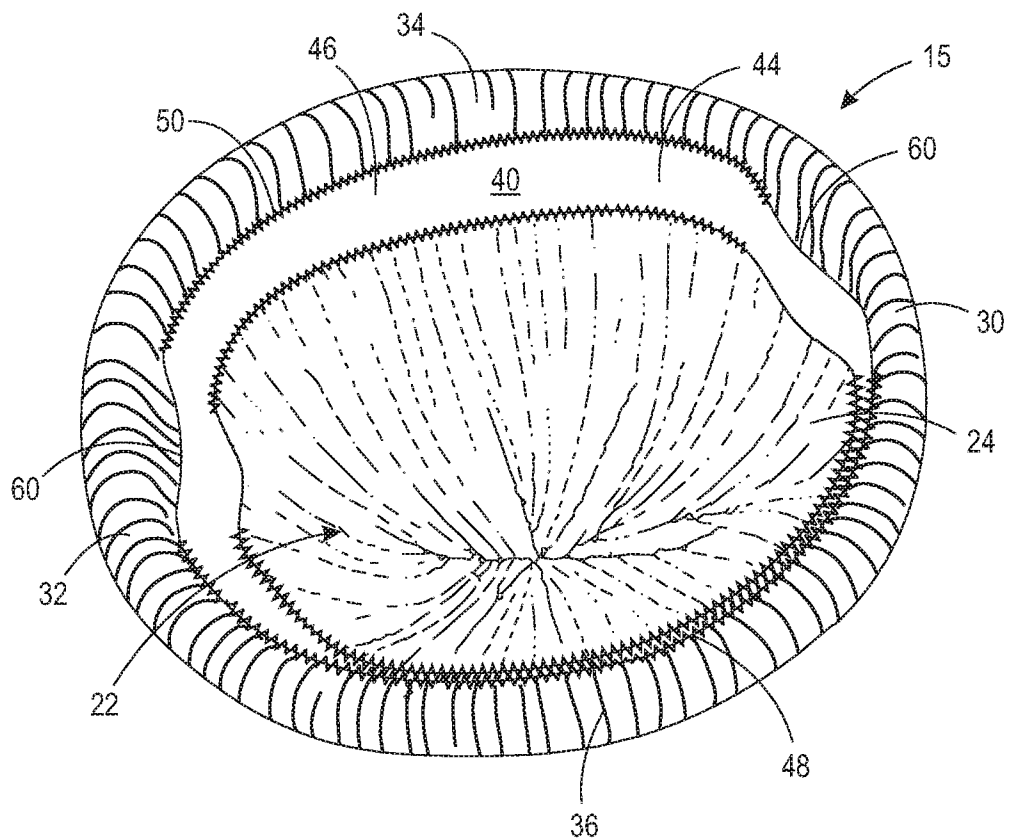


FIG. 2

2/6

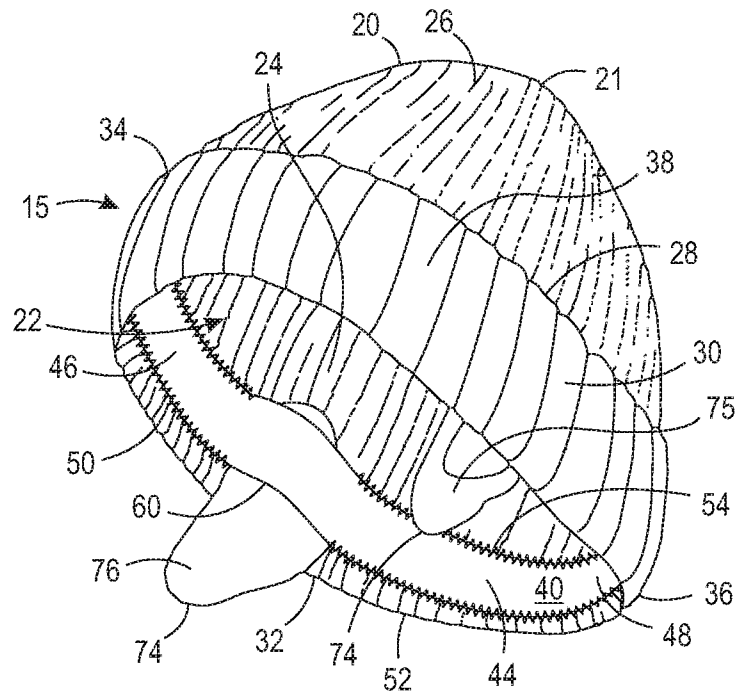


FIG. 3

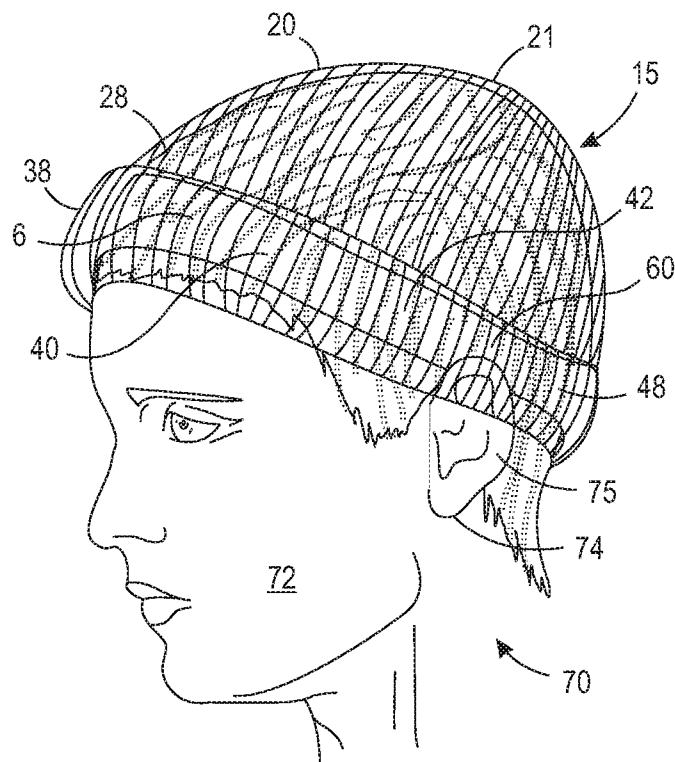


FIG. 4

3/6

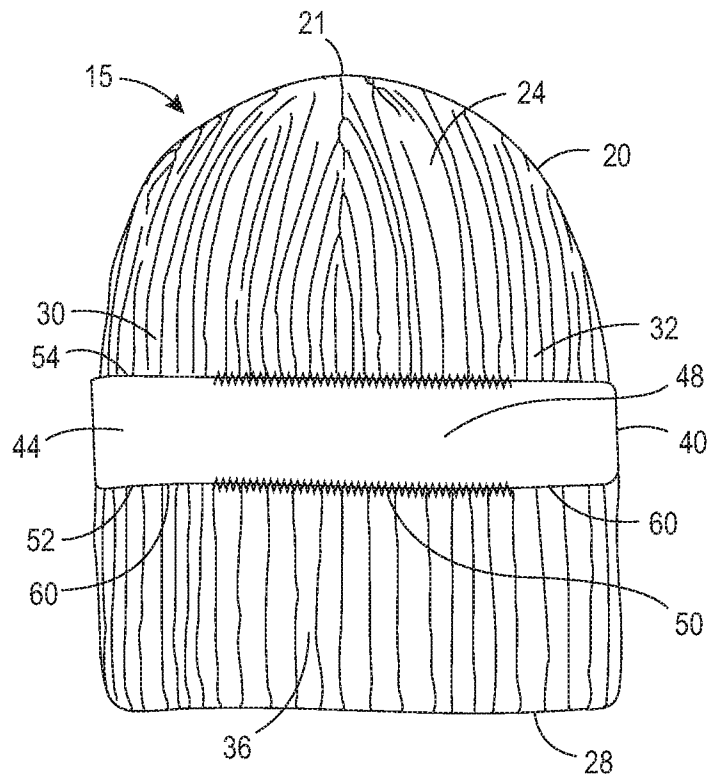


FIG. 5

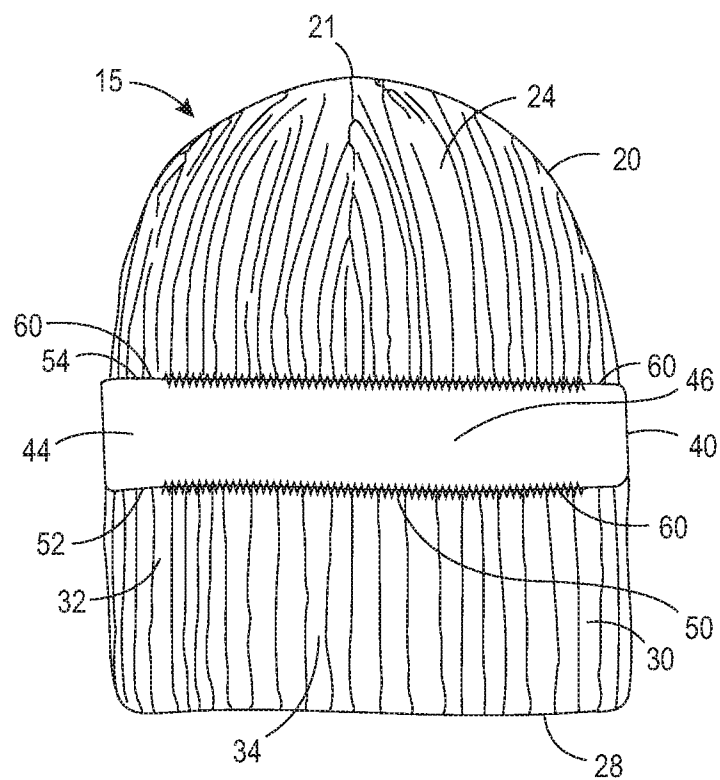


FIG. 6

4/6

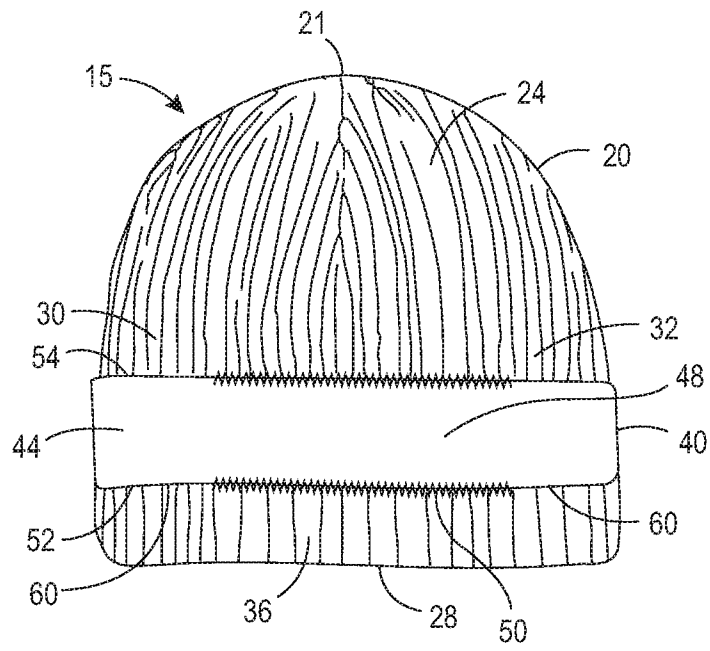


FIG. 7

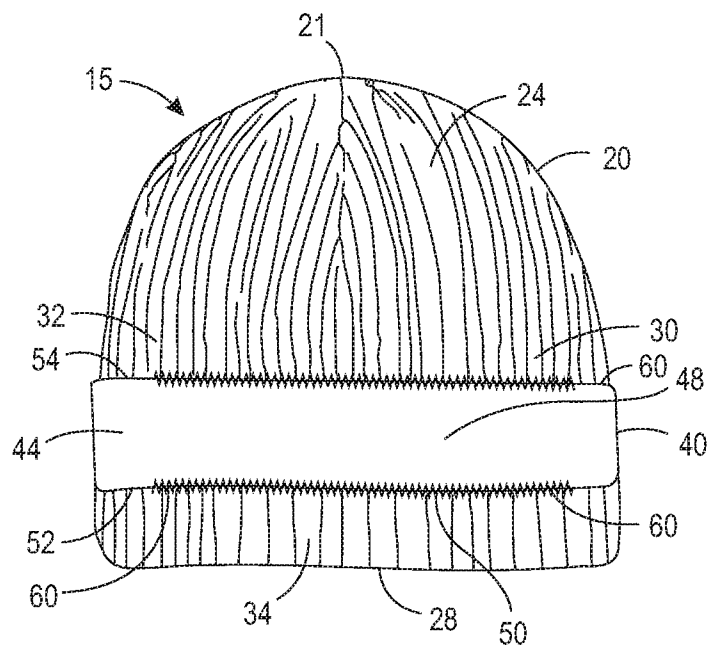
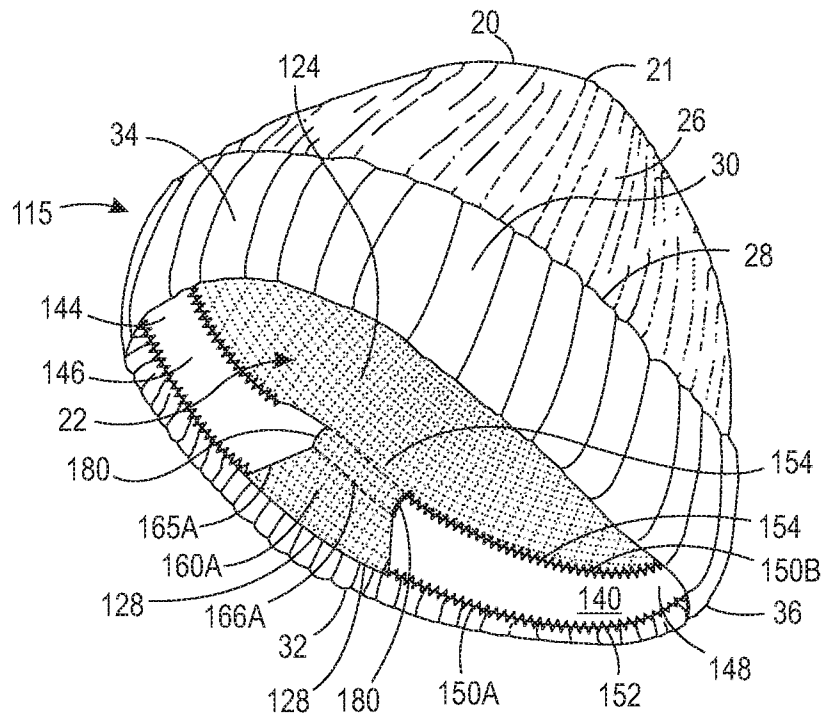


FIG. 8

5/6



6/6

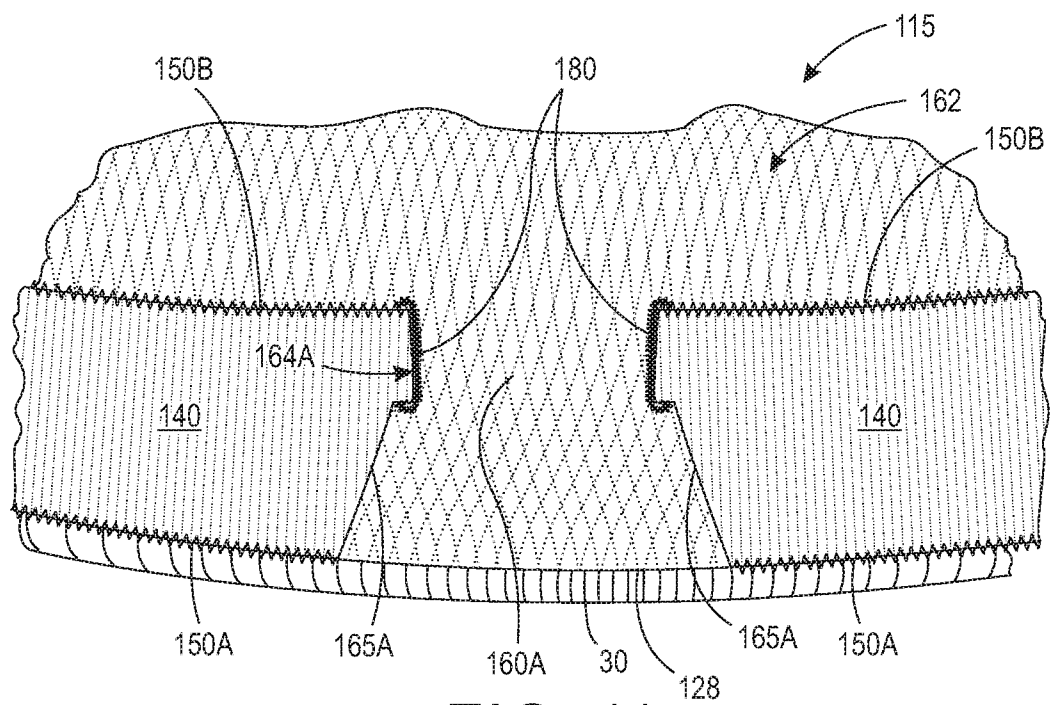


FIG. 11

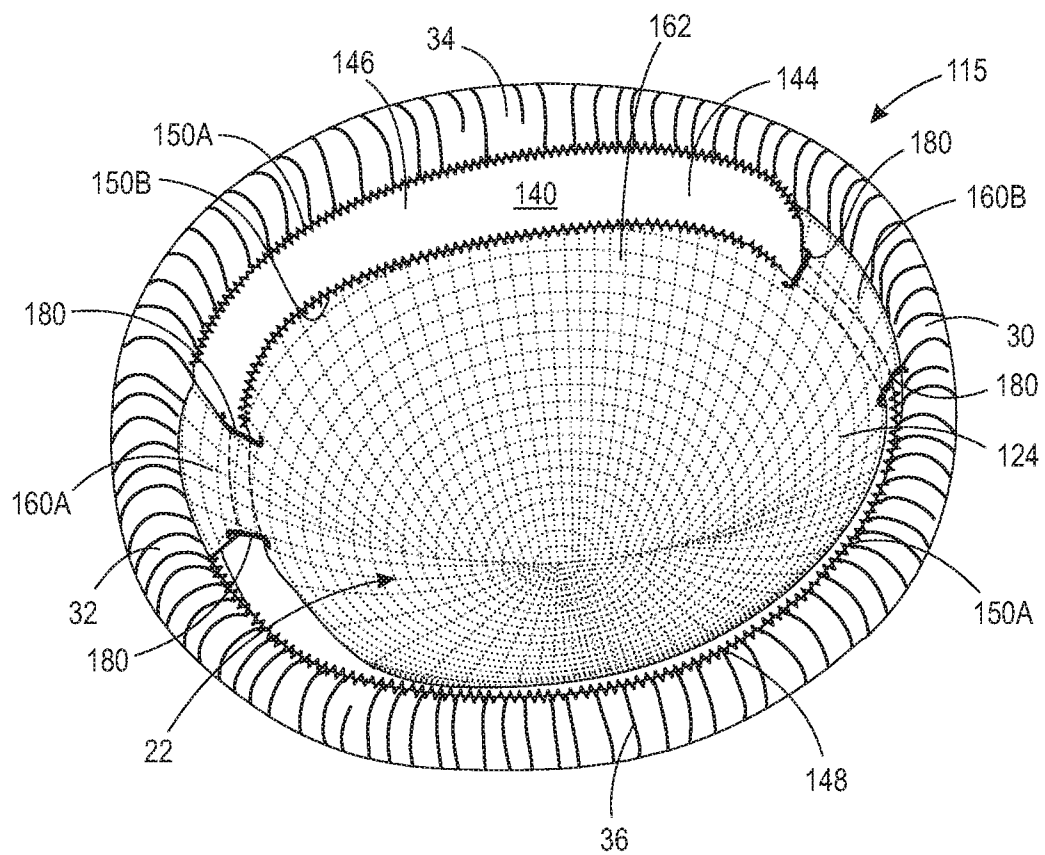


FIG. 12

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2017/012393**A. CLASSIFICATION OF SUBJECT MATTER****A42B 1/04(2006.01)i, A42B 1/06(2006.01)i, A42C 5/02(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A42B 1/04; A42B 1/00; A42B 1/06; A42B 1/22; A42B ; A42C 5/02

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords:sweatband, crown, liner, knitted cap, beanie

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 8402564 B2 (DUWYN-ZYLSTRA, ANN-MARIE) 26 March 2013 See abstract; claim 1; column 2, lines 40-45; column 4, line 57 - column 5, line 23; column 6, lines 28-64; and figures 7A-8C.	1-6,9-12
Y		7,8,13-23
Y	US 2009-0151731 A1 (SCOTT, JANE et al.) 18 June 2009 See claims 1, 3; paragraph [0029]; and figures 1, 2.	7,8,20
Y	US 6012172 A (STEFFY, SHARON L.) 11 January 2000 See abstract; claims 1-3; and figures 2-9.	13-23
A	WO 03-017794 A2 (WILSON, PETER, L.) 06 March 2003 See the entire document.	1-23
A	US 5426789 A (MACLEOD, ANGUS D.) 27 June 1995 See the entire document.	1-23



Further documents are listed in the continuation of Box C.



See patent family annex.

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"&" document member of the same patent family

Date of the actual completion of the international search

14 April 2017 (14.04.2017)

Date of mailing of the international search report

18 April 2017 (18.04.2017)

Name and mailing address of the ISA/KR

International Application Division

Korean Intellectual Property Office

189 Cheongsa-ro, Seo-gu, Daejeon, 35208, Republic of Korea

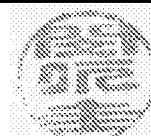


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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2017/012393

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 8402564 B2	26/03/2013	US 2010-0043121 A1 US 2011-0099691 A1 US 8375469 B2 WO 2011-053882 A2 WO 2011-053882 A3	25/02/2010 05/05/2011 19/02/2013 05/05/2011 29/09/2011
US 2009-0151731 A1	18/06/2009	US 8096304 B2	17/01/2012
US 6012172 A	11/01/2000	US 6230330 B1	15/05/2001
WO 03-017794 A2	06/03/2003	US 2003-0037365 A1 US 6892398 B2 WO 2003-017794 A3	27/02/2003 17/05/2005 04/03/2004
US 5426789 A	27/06/1995	None	