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(71) Applicant: **Saldaña Mundin, Yoel**
31014 Pamplona (ES)

(72) Inventor: **Saldaña Mundin, Yoel**
31014 Pamplona (ES)

(54) **CAP-ADJUSTING ACCESSORY**

(57) Cap-adjusting accessory for caps with a rear cut-out in the shape of an inverted "U", from the bottom ends (2-2') of which extend a male band (1) provided with a plurality of prongs (4), distributed linearly and equidistant from one another, and a female band (3) comprising a plurality of holes (5) distributed linearly and also equidistant from one another. The accessory is formed from an elongated laminar body (6) having a plurality of prongs (4') distributed linearly and with the same spacing therebetween as that of the male band (1) of the closure system, a plurality of holes (5') being provided between said prongs, which are distributed linearly and also equidistant from one another.

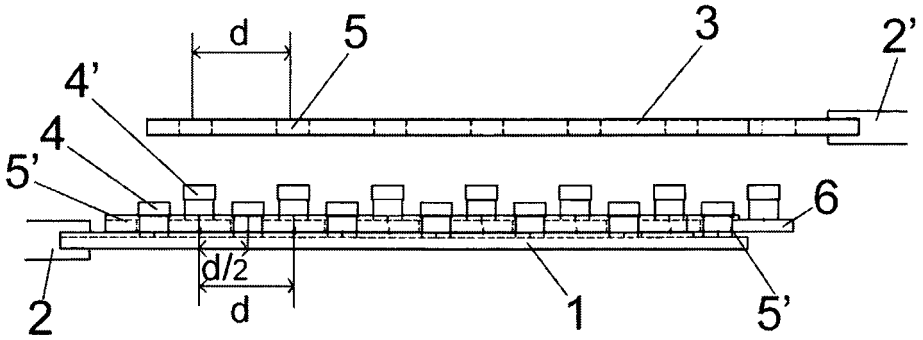

FIG. 5

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Description

PURPOSE OF THE INVENTION

[0001] This invention relates to a fine cap-adjusting accessory of the type with a rear cut-out in the shape of an inverted U, the ends of which are connected to each other through a so-called "Snapback" closure and adjustment system in which there are two plastic bands, which selectively button together, to adjust it to each user's head size.

[0002] The purpose of the invention is to provide an accessory piece for this type of cap that allows for twice as many adjustment positions for the cap, that is, that reduces by half the adjustment space between the different positions offered by the cap in order to obtain a much better fit.

BACKGROUND OF THE INVENTION

[0003] Within the sector for caps, sport-related or otherwise, the closure and adjustment system known as "Snapback" is well-known. This consists of a rear cut-out in the shape of an inverted "U", the bottom ends of which are connected to each other using two plastic bands, which selectively button together, to adjust it to each user's head size.

[0004] More specifically, a "male" band is defined from which a plurality of prongs extend, distributed linearly and equidistant from one another, whereas in the female part there are a plurality of holes distributed linearly and equidistant from one another, or the right shape and size to receive the prongs on the male part. These parts can be connected to each other in different positions of partial overlap, the possible positions depending on the longitudinal separation between them, so this separation is determined by the number of prongs and holes in each part and the predetermined distance between these, normally offering seven different positions.

[0005] This adjustment system has had great commercial success, with thousands, if not millions, of caps having been manufactured with this system. However, it has a problem with regard to the adjustment of the cap, as the separation between the holes, and consequently between the prongs, can be excessive, in such a way that there will be users requiring a size somewhere between two of the closest possible positions offered by this system.

[0006] Although the most obvious solution is to manufacture a similar system with smaller spacing between prongs and consequently between holes, this solution would not be applicable to the millions of caps already in the market.

DESCRIPTION OF THE INVENTION

[0007] The suggested cap-adjusting accessory fully and satisfactorily resolves the aforementioned problem, based on a simple but very effective solution with a minimum manufacturing/acquisition cost.

[0008] To do this, the suggested part is intended to be fitted onto the male band of the cap's fastening system, its use going unnoticed, generating new potential adjustment positions in addition to those offered by the cap initially, and which correspond to the intermediate adjustment points between pairs of prongs/holes, that is, reducing the minimum adjustment margin of the cap by half and thus allowing for a much more accurate adjustment of the cap.

[0009] More specifically, the invented accessory takes the form of a laminar body, sturdy but flexible, similar to the bands in the cap's closure system, but with the specific feature that this part has a plurality of prongs, distributed linearly and equidistant from one another, with the same spacing between them as on the male band of the closure system, but with the specific feature that there are a plurality of holes between these prongs, distributed linearly and also equidistant from one another.

[0010] This structure means that the accessory can be fitted onto the male band of the cap's closure system through its holes, into which the prongs of this male band will be connected, meaning that there will be half the defined distance between the prongs of the male band and the unaligned prongs of the accessory, in such a way that these unaligned prongs will be used to connect to the female band of the cap.

[0011] Although it is true that the accessory offers a similar or even identical number of positions as those offered by the cap initially, its selective use, that is, using it or not using it, allows the cap to offer twice the number of adjustment positions as a whole. Therefore, there will be users who do not need to use the device as the cap perfectly fits their head in one of the initial positions offered by the cap adjustment system, and there will be other users who need to install the accessory so that the cap fits perfectly to the contour of their head.

[0012] The part, once installed on the cap in question, goes completely unnoticed, being sturdy enough to be able to be handled without danger of breakage and at a very economical manufacturing/acquisition price.

DESCRIPTION OF THE DRAWINGS

[0013] To supplement the following description and in order to help achieve a better understanding of the invention's features, a set of drawings are provided as an integral part of a practical example for which at least the following has been represented:

Figure 1. Shows a perspective view of a cap-adjusting accessory, produced in accordance with the purpose of this invention.

Figure 2. Shows a plan view of the device of the previous figure.

Figure 3. Shows a profile view of the part of the previous figures.

Figure 4. Shows a front elevated view of this accessory.

Figure 5. Shows a profile view of a practical application example of the device on the bands of a cap, which is partially represented.

PREFERENTIAL EMBODIMENT OF THE INVENTION

[0014] From the above figures, and especially figure 5, it can be seen that the cap-adjusting accessory is intended to be positioned on the male band (1) of the cap's fastening system, this being of the type where the cap incorporates a rear cut-out in the shape of an inverted "U", from the bottom ends of which (2-2') extend a male band (1) and a female band (3), the male band (1) having a plurality of prongs (4), distributed linearly and at an equidistant distance (d), whereas the female band (3) has a plurality of holes (5), distributed linearly and also equidistant from each other at a distance (d).

[0015] In accordance with the essence of the invention, and in accordance with figures 1 to 4, the accessory of the invention takes the form of an elongated laminar body (6), of sturdy and flexible plastic, with a similar configuration to the bands in the cap closure system, with the specific feature that a plurality of prongs (4') are established on this laminar body (6) distributed linearly and equidistant from each other, with the specific feature that a plurality of holes (5') are established between these prongs, distributed linearly and also equidistant from each other at a distance (d).

[0016] Based on this structure, and as can be seen in figure 5, the configuration of the accessory allows it to be connected to the male band (1) of the cap's closure system through its holes (5'), into which the prongs (4) of this male band (1) will be fitted, meaning that there will be a distance (d/2), that is, half the defined distance between the prongs of the male band and the unaligned prongs (4') of the accessory, in such a way that these unaligned prongs will be used for attachment to the female band (3) of the cap through its corresponding holes (5).

[0017] In this way, through using or not using the device, the cap can offer twice the possible adjustment combinations, in this case fourteen, for the same maximum separation, that is, reducing the minimum degree of adjustment permitted by the system by half.

[0018] Finally, it only remains to mention that, although in the figures provided the device has a rounded configuration at one end and is straight at the other, it is obvious that this configuration is irrelevant, and it can be a fully symmetrical piece at its ends, both rounded, straight or with any other appropriate configuration, without affecting the essence of the invention.

Claims

1. Cap-adjusting accessory, for the type of cap which incorporates a rear cut-out in the shape of an inverted "U", from the bottom ends (2-2') of which extend a male band (1) and a female band (3), the male band (1) having a plurality of prongs (4), distributed linearly and equidistant from one another, whereas the female band (3) has a plurality of holes (5), distributed linearly and equidistant from one another with the same spacing, **characterised by** the fact that it is constituted from an elongated laminar body (6), in which there are a plurality of prongs (4), distributed linearly and with the same spacing between them as on the male band (1) of the closure system, with the specific feature that a plurality of holes (5') are established between these prongs, distributed linearly and also equidistant from one another.

2. Cap-adjusting accessory, according to claim 1, **characterised by** the fact that the elongated laminar body (6) is made of sturdy and flexible plastic.

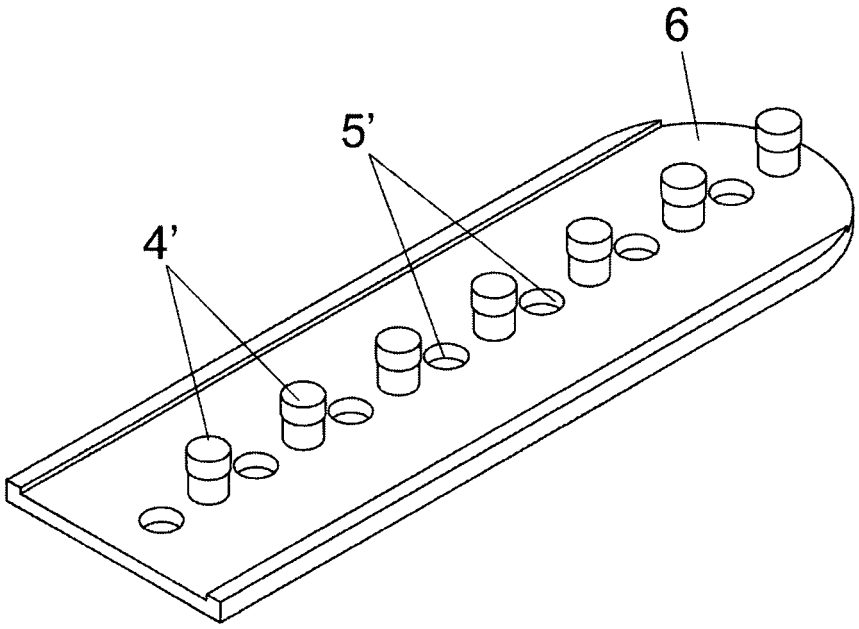

FIG. 1

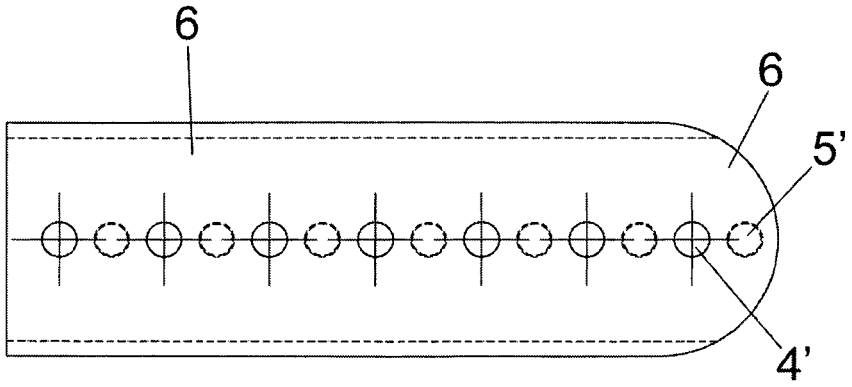

FIG. 2

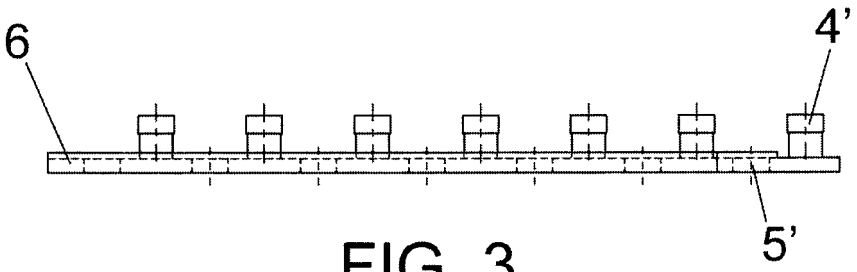

FIG. 3

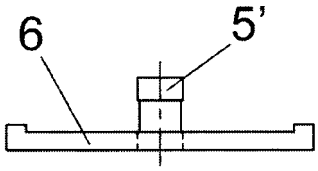

FIG. 4

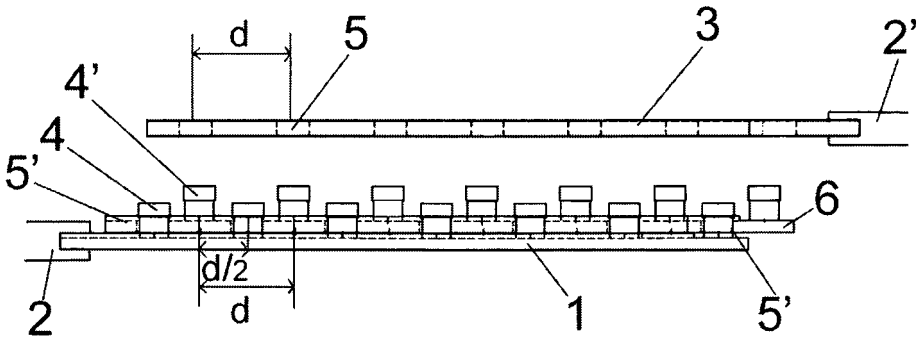

FIG. 5

INTERNATIONAL SEARCH REPORT

International application No.
PCT/ES2019/070353

A. CLASSIFICATION OF SUBJECT MATTER

See extra sheet

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

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

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

EPODOC, INVENES, WPI

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4481681 A (HANKIN BENJAMIN) 13/11/1984, column 1, lines 48 - 53, 58 - 64; column 3, lines 25 - 26, 34 - 37, 40 - 68 ; figures 1 - 7.	1-2
A	US 2014101820 A1 (CHO BYOUNG-WOO) 17/04/2014, page 2, paragraph [21] - page 5, paragraph [82]; figures 1 - 9e.	1-2

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance.
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"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
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"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other documents , such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
21/06/2019	**(27/06/2019)**
Name and mailing address of the ISA/ OFICINA ESPAÑOLA DE PATENTES Y MARCAS Paseo de la Castellana, 75 - 28071 Madrid (España) Facsimile No.: 91 349 53 04	Authorized officer C. Marín Calvo Telephone No. 91 3495594

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/ES2019/070353

Patent document cited in the search report	Publication date	Patent family member(s)	Publication date
US2014101820 A1	17.04.2014	US2016345649 A1	01.12.2016
		US10299527 B2	28.05.2019
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		KR101430114B B1	14.08.2014
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US4481681 A	13.11.1984	NONE	

Form PCT/ISA/210 (patent family annex) (January 2015)

INTERNATIONAL SEARCH REPORT

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CLASSIFICATION OF SUBJECT MATTER

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A42B1/02 (2006.01)
A42B1/04 (2006.01)

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