

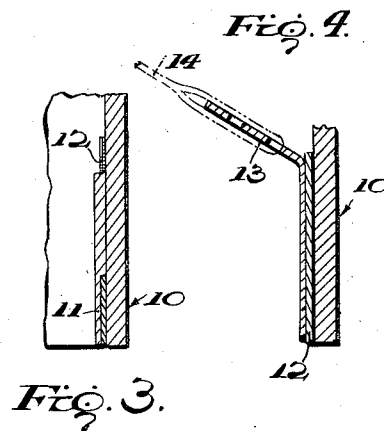
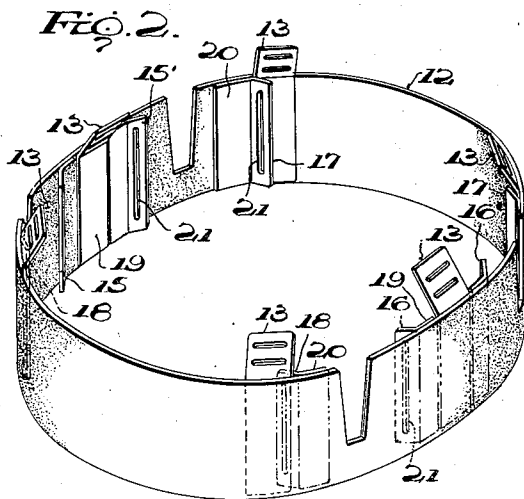
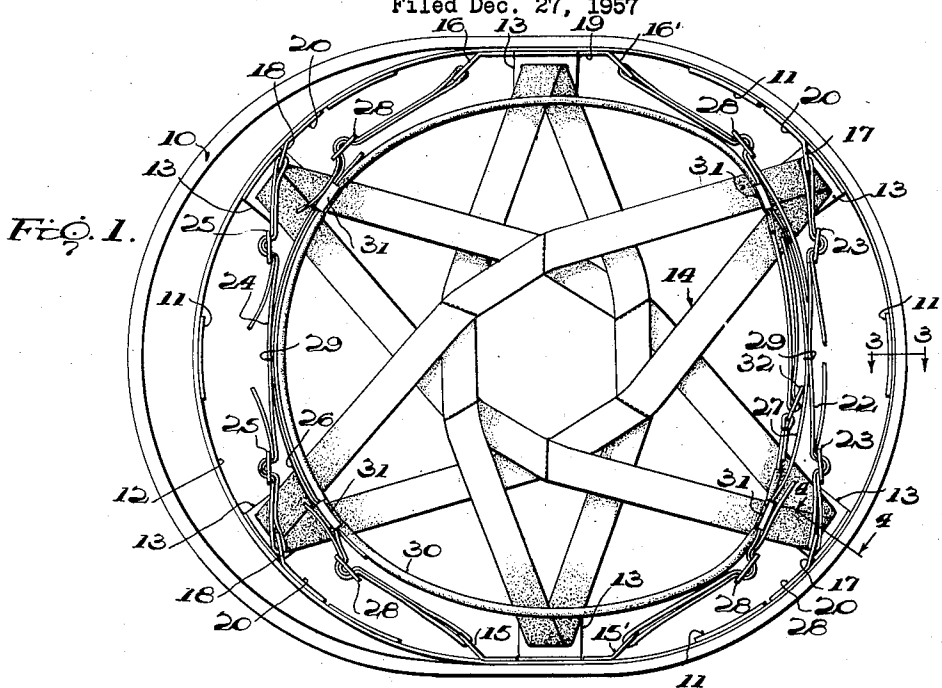
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2,861,271

SWEATBAND MOUNTING MEANS

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2,861,271

SWEATBAND MOUNTING MEANS

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8 Claims. (Cl. 2—3)

The invention relates to sweatband mounting means for head coverings and more particularly to such mounting means as mount the sweatband in radially inwardly spaced relation to the head covering as is desirable in some instances for ventilation and in other instances, such as protective helmets, to provide a cushion against shocks.

Sweatband mounting means of this general class are well known but are not entirely satisfactory in that they make no provision for adjusting the location of the sweatband within the head covering nor for adjusting the tension of the mount so as to vary the resistance of the mounting means against shocks.

With the foregoing in view, it is an object of the invention to provide improved mounting means for securing sweatbands in head coverings in inwardly spaced relation thereto.

A further object is to provide improved mounting means for sweatbands which include all around adjustment for not only varying the location of the sweatband within the head covering but for varying the tension of the mounting means as desired.

Other objects and advantages reside in the particular structure of the invention, the structure of the several elements thereof, combinations and sub-combinations of such elements, all of which will be readily apparent to those skilled in the art upon reference to the attached drawing which illustrates one species of the invention and to the following specification wherein the invention is described and claimed.

In the drawing:

Figure 1 is a bottom plan view of a head covering incorporating a preferred form of the invention;

Figure 2 is a perspective view of the invention apart from the head covering, sweatband and cradle; and

Figures 3 and 4 are enlarged, fragmentary, vertical sectional views taken respectively on the lines 3—3 and 4—4 of Figure 1.

Referring specifically to the drawing wherein like reference characters designate like parts in all views, 10 designates generally any suitable head covering such as the protective helmet illustrated. Such head covering includes any suitable means such as the spaced clips 11 for securing a substantially rigid band 12 therein in a manner readily understood and more specifically described in our copending application filed December 27, 1957, Serial Number 705,724. The band 12 may include vertically extending and horizontally slotted tabs 13 to which are secured the free ends of the straps of any suitable head-receiving cradle 14 such as that illustrated in U. S. Patent No. 2,679,046. The band 12 is formed also with a circumferential series of spaced pairs of anchors 15, 15', 16, 16', 17, 17 and 18, 18. In the species illustrated, the anchors 15, 15' are located at one side of the band 12 in opposed relation to the anchors 16, 16'. In like manner the anchors 17, 17 and 18, 18 are offset substantially 90° from the first duo with the

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anchors 17, 17 being at the rear of the head covering and the anchors 18, 18 being at the front of the same. Of course, other arrangements of the pairs of anchors are contemplated. Likewise, more than the first and second duos described supra are contemplated as being within the scope of the invention as hereinafter claimed.

In the embodiment illustrated, the pair of anchors 15, 15' and the pair 16, 16' are each mounted on common base plates 19 while the anchors 17 and 18 are mounted on individual base plates 20. In each instance all of the anchors comprise substantially identical diagonally inwardly directed tabs formed with vertical slots 21. Obviously the anchors may assume other forms and shapes as long as they provide adequate means for anchoring the sweatband mounting members now to be described.

The rear anchors 17, 17 are connected together by a flexible member 22 which is preferably inelastic and which is adjustably secured at each end to such anchors by being threaded through the slots 21 thereof and thereafter secured by buckles or the like 23. In like manner, the front pair of anchors 18, 18 are connected together by a similar or even identical flexible member 24 which is similarly adjustable at each end by buckles or the like 25.

The forward anchors 15, 16 of the first duo of pairs of anchors are connected together by a flexible member 26 which is also preferably inelastic. In like manner the rear anchors 15', 16' of the first duo are connected together by a similar or even identical flexible member 27. The opposite ends of the flexible members 26 and 27 are adjustable by any suitable buckle means 28. The flexible members 26 and 27 are relatively longer than those 22 and 24 and include central portions which are connected to these shorter members by any suitable connecting means such as the lines of stitching 29. Usually, the connecting means 29 will be disposed as shown, centrally of all of the flexible members 22, 24, 26 and 27.

The arrangement just described is such that the flexible members 22 and 24 span forward and rear portions of the head covering 10 inwardly thereof to provide opposed chords whose length and/or tension may be varied by the adjusting means 23 and 25. Meanwhile the ends of the flexible members 26 and 27 extend in opposite directions to the head covering beyond the ends of the chords 22 and 24 to provide semi-chords which likewise may be individually adjusted as to length and/or tension. The two opposed groups of chords and semi-chords comprise the mounts for any suitable sweatband 30 which is fastened to the semi-chords by any suitable fastening means such as the clips 31 which may correspond substantially to the clips disclosed in U. S. Patent No. 2,380,430. Preferably, each clip or the like 31 is located substantially midway between a connecting means 29 and an anchor 15, 15' or 16, 16'. Preferably, the sweatband 30 is adjustable to fit various sizes of heads by any suitable means such as the buckle 32.

It follows from the foregoing, that the sweatband mounting means just described by its all around adjustability is able to vary the position of the sweatband 30 in the head covering 10 by locating it nearer to the front or back or nearer to one side than the other when circumstances make such a variation desirable. It is clear also, that the all around adjustment enables uniform tension to be applied to the sweatband 30 irrespective of the size to which it is adjusted. Likewise, it is clear that the tension imparted to the chords and semi-chords may be varied as desired. By mounting the arrangement on the removable band 12 it is a simple matter to make the necessary adjustments with the band removed from the head covering 10, even though numerous trial adjust-

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ments must be made. This is because the assembled band and suspension may be tried on apart from the head covering.

It is apparent, therefore, that the arrangement shown and described provides an assembly which will enable one head covering to be fitted upon heads of substantially all sizes without any modification of the size or shape of the head covering itself and without the use of any special tools or skills.

Moreover, while there has been shown and described what is now thought to be the preferred embodiment of the invention, it should be understood that the same is susceptible of other forms and expressions. Consequently, the invention is not considered as being limited to the precise structure shown and described hereinabove except as hereinafter claimed.

We claim:

1. In a head covering including a sweatband; the improvement comprising sweatband mounting means supporting said sweatband in said head covering in radially inwardly spaced relation thereto, said means including a circumferential series of pairs of spaced anchors, means mounting said anchors on said head covering inwardly thereof, there being opposed pairs of front and back anchors and opposed pairs of side anchors therebetween, each pair of said side anchors comprising a forward and a rear anchor, a first flexible member connecting said front pair of anchors together, a second flexible member connecting said back pair of anchors together, a third flexible member connecting said forward anchors of said side anchors together, a fourth flexible member connecting said rear anchors of said anchors together, connecting means connecting said third and fourth flexible members respectively to said first and second flexible members inwardly thereof and substantially centrally the same, fastening means securing said sweatband to said third and fourth flexible members inwardly thereof, each flexible member having two end portions, and means for adjusting the length of each end portion to provide an all around adjustable support for said sweatband.

2. A sweatband mounting means according to claim 1, there being a substantially rigid endless base band mounting all of said anchors, and means for readily detachably mounting said base band in said head covering.

3. In a head covering including a sweatband; the improvement comprising sweatband mounting means supporting said sweatband radially inwardly of said head covering, said means including a circumferential series of pairs of spaced anchors, means mounting said anchors on said head covering inwardly thereof, there being a first duo of opposed pairs of anchors, a flexible member connecting the anchors of each pair of said first duo together, a second duo of opposed pairs of anchors offset substantially 90° from said first duo, flexible members connecting opposed anchors of said second duo to each other inwardly of said first named flexible members, connecting means connecting said second named flexible members to said first named flexible members, fastening means securing said sweatband to said second named flexible members inwardly thereof, and each flexible member including means for adjustably connecting it to each anchor whereby to provide an all around adjustable support for said sweatband.

4. A sweatband mounting means according to claim 3, wherein each flexible member is inelastic.

5. In a head covering including a sweatband; the improvement comprising sweatband mounting means supporting said sweatband in said headcovering in radially inwardly spaced relation thereto, said means including two relatively short flexible members, means mounting said flexible members within said head covering in

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chordal relation thereto to provide chords disposed opposite to each other, two relatively long flexible members having central portions and opposite ends, connecting a central portion of each long member to an associated chord centrally of said chords, said ends of each of said long members extending beyond the associated chord substantially equal distances into adjacent relation with a corresponding end of the other long member, opposed securing means securing said adjacent corresponding ends of said long flexible members to said head covering between said chords to provide four semi-chords, fastening means fastening said sweatband to said semi-chords, there being a fastening means between each connecting means and securing means, and all of said flexible members including at least one length adjusting means.

6. In a head covering including a sweatband; the improvement comprising sweatband mounting means supporting said sweatband in said headcovering in radially inwardly spaced relation thereto, said means including two relatively short flexible members, means mounting said flexible members within said head covering in chordal relation thereto to provide chords disposed opposite to each other, two relatively long flexible members having central portions and opposite ends, connecting means connecting a central portion of each long member to an associated chord centrally of said chords, said ends of each of said long members extending beyond the associated chord substantially equal distances into adjacent relation with a corresponding end of the other long member, each chord including a length adjusting means on each side of each connecting means, opposed securing means adjustably securing said adjacent corresponding ends of said long flexible members to said head covering between said chords to provide four semi-chords, and fastening means fastening said sweatband to said semi-chords, there being a fastening means between each connecting means and securing means.

7. In a head covering including a sweatband; the improvement comprising sweatband mounting means supporting said sweatband within said head covering in radially inwardly spaced relation thereto, said means comprising at least two opposed mounts for said sweatband, each mount comprising a flexible member disposed as a chord spanning a portion of said head covering inwardly thereof and a second flexible member secured to said chord inwardly thereof, each second flexible member having opposite ends secured to said head covering beyond its chord to provide two semi-chords, means mounting said sweatband on said semi-chords inwardly thereof, and means for varying the length and tension of each chord and semi-chord.

8. In a head covering including a sweatband; the improvement comprising sweatband mounting means supporting said sweatband within said head covering in radially inwardly spaced relation thereto, said means comprising at least two opposed mounts for said sweatband, each mount comprising a flexible member disposed as a chord spanning a portion of said head covering inwardly thereof and a second flexible member secured to said chord inwardly thereof, each second flexible member having opposite ends secured to said head covering beyond its chord to provide two semi-chords, means for varying the length and tension of said semi-chords, and means mounting said sweatband on said semi-chords inwardly thereof.

References Cited in the file of this patent

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UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 2,861,271

November 25, 1958

Wilbur J. Lee et al.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 4, line 3, after "ends," insert -- connecting means --.

Signed and sealed this 3rd day of March 1959.

(SEAL)
Attest:

KARL H. AXLINE
Attesting Officer

ROBERT C. WATSON
Commissioner of Patents