

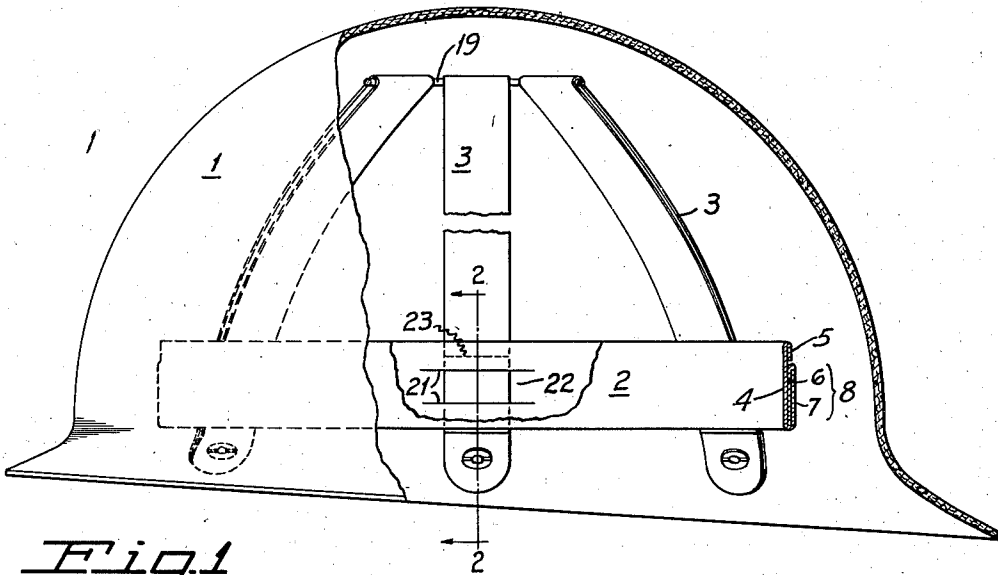
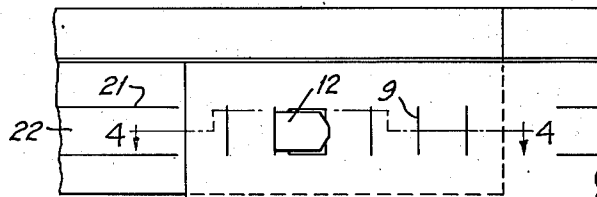
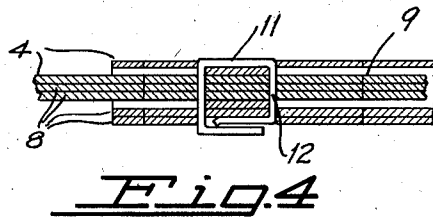
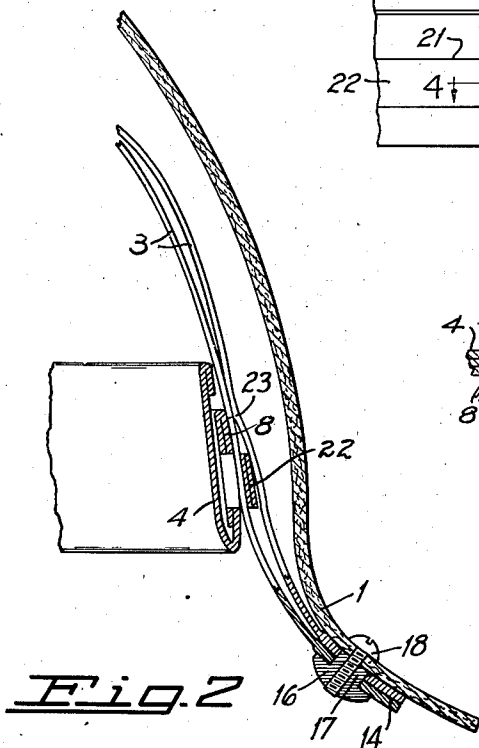
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2,398,561

SUSPENSION DEVICE FOR SAFETY HEADGEAR

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SUSPENSION DEVICE FOR SAFETY
HEADGEAR

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7 Claims. (Cl. 2—6)

My invention relates to safety headgear, and particularly to devices for fitting and supporting such headgear upon the head of a wearer.

It is among the objects of my invention to provide improved means for fitting safety headgear to the head of a wearer.

Another object is to provide a suspension device for safety headgear which will afford a relatively wide degree of adjustment as to head size, and a support yieldable laterally in any direction for absorbing impact with a minimum of shock to the wearer.

Another object is to provide suspension straps and sweat band embodying improved features of construction and arrangement.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be set forth in the following description of my invention. It is to be understood that I do not limit myself to this disclosure of species of my invention, as I may adopt variant embodiments thereof within the scope of the claims.

In the drawing:

Figure 1 is a side elevation of a safety headgear equipped with the suspension device of my invention, portions being shown broken away to more clearly illustrate the structure.

Figure 2 is a fragmental sectional view taken upon the line 2—2 of Figure 1 in the direction indicated, the figure being drawn upon a larger scale.

Figure 3 is a fragmental elevational view of a portion of a sweat band illustrating features of my invention.

Figure 4 is a sectional view taken upon the line 4—4 of Figure 3 in the direction indicated, the thickness and spacing of adjacent layers being exaggerated.

In terms of broad inclusion, the suspension device of my invention comprises a sweatband adjusted to the head of a wearer, and secured to the headgear by headstraps for supporting the headgear upon the wearer's head. The sweat band is connected to the head straps for sliding movement transversely and longitudinally thereof to facilitate adjustment as to head size, and for absorbing the impact of blows received upon the headgear. In its preferred embodiment the sweat band is formed of a strip of material folded lengthwise to provide mounting and head engaging portions, the ends being adjustably clipped together to form a continuous band of desired size; and the mounting portion having means for shiftably engaging the head straps.

In terms of greater detail, my invention con-

templates a suspension for safety headgear 1 comprising a sweatband designated in general by the numeral 2; and a plurality of head straps, designated in general by the numeral 3.

5 The sweatband 2 is formed from a strip of flexible material, for example fabricoid, doubled lengthwise to form a head engaging portion 4, preferably having a binding edge 5, intumed and cemented or otherwise secured to the portion 4
10 along the upper edge thereof. The opposite or lower edge of the band 2 is doubled to form two thicknesses 6 and 7, cemented or otherwise secured to each other and folded upwardly upon the outer side of the head engaging portion 4
15 to provide a mounting portion designated in general by the numeral 8.

The ends of the folded strip are adjustably secured together to form a band of desired head size. This is preferably accomplished by providing slits 9 spaced at regular intervals adjacent the ends of the folded strip. One end of the folded strip is inserted between the portions 4 and 8 at the opposite end, with selected slits 9 of the overlapping ends positioned in alignment.
25 Clips 11 are applied through aligned slits 9 for securing the ends of the band together. The size of the band is varied by moving a selected slit 9 at one end of the band into alignment with a slit 9 at the other end, so as to give a desired
30 head size. Preferably the clip 11 is formed of brass or other fairly stiff bendable metal, and provided with leg portions 12 arranged to be inserted through the aligned slits 9 and bent to overlapping positions, as best shown in Figures 3 and 4 of the drawings.
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The sweatband 2 is carried by a plurality of head straps 3, each comprising a strip of suitable material doubled to form a loop. The ends 14 of each strip are treated to give them strength and rigidity, as for example by impregnating and coating them with plastic material and thereafter treating them to convert the plastic to a dense hard condition. Apertures are formed in the ends 14 to receive fastening means by which the straps 3 are secured to the headgear 1.
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In the preferred embodiment illustrated in the drawing, the fastening means comprises a nut 16 having a shank 17 seating in the apertures provided therefor in the strip ends 14. A screw 18 extends through the headgear 1 and into engagement with the nut 16 for securing the strip ends in substantially matching overlying relation against the edge portion of the headgear 1. The screws are preferably made of plastic or other electrical insulating material.
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The closed loop ends of the head straps 3 are adjustably connected together by a tie cord 19 extending through the loops for drawing the ends together to a desired degree. Preferably six of the straps 3 are provided in regularly spaced relation within the crown portion of the headgear.

The sweatband 2 is connected to the strips preferably by passing one of the end portions of each strap 3 through slits 21 formed in the mounting portion 8. The slits 21 are formed in pairs, positioned along the band 2 at intervals corresponding to the spacing of the head straps 3. The slits 21 of each pair are substantially parallel to the edges of the sweatband, and are spaced from each other to form a strip 22 displaceable from the plane of the mounting portion 8.

The slits 21 are of a length materially greater than the width of the end portions of the straps 3 which are passed therethrough to underlie the strip 22. This permits a sliding movement of the sweatband 2 transversely with respect to the straps 3. The band 2 is also movable longitudinally along the end portions of the straps which are threaded through the slits 21, the degree of such longitudinal movement being limited by stitches 23 applied through the double thickness of each strap at an appropriate distance from their ends 14.

The transverse and longitudinal movement of the sweatband 2 relative to the head straps 3 facilitates adjustment of the band and straps to fit the head of a wearer, and affords a wide range of adjustment without distorting either the sweatband or the head straps. Also, such movement permits the sweatband to hold the headgear on the wearer's head and at the same time permit a bodily shifting of the hat relative to the head under pressure or a blow applied to the headgear. Minor impacts of laterally directed blows may be absorbed in this way without being transmitted to a material extent to the wearer's head, or occasioning appreciable movement of the head under such impact. The impact of heavier blows is absorbed to a substantial extent by lateral shifting of the headgear, and a corresponding reduction of the shock to the wearer results. The weight of the headgear 1 is carried entirely by the straps 3, and the sweatband holds the headgear in place upon the head in laterally shiftable relation thereto.

I claim:

1. A sweatband for safety headgear having a rigid crown provided with head straps for supporting the crown upon a wearer's head, comprising a strip of material folded lengthwise to form a head engaging portion and a band mounting portion, said mounting portion having slits positioned at intervals therealong for shiftable engaging the head straps and supporting the band thereon in spaced relation to the crown.

2. A sweatband for safety headgear having a rigid crown provided with head straps for supporting the crown upon a wearer's head, comprising a strip of material folded lengthwise to form a head engaging portion and a band mount-

ing portion, said mounting portion having slits for slidably and shiftable engaging the head straps and supporting the band thereon in spaced relation to the crown, and having a plurality of transversely disposed slits positioned near the ends of the mounting portion of the strip, and a clip applied through matching pairs of slits adjacent opposite ends of the strip for adjustably securing said ends to each other to form a continuous band of desired head size.

3. A sweatband for safety headgear comprising a strip of material folded lengthwise to provide a main section, a binding section doubled upon and secured to the upper edge of the main section, and a mounting section upwardly folded along the lower edge of the main section, said mounting section comprising a doubled thickness of the material and having slits for engaging the head straps of a headgear suspension.

4. A suspension for safety headgear having a rigid crown, comprising a plurality of head straps, means for securing each strap at one end thereof to the lower portion of the crown, means adjustably connecting the opposite ends of the straps together within the top of the crown, a sweatband, and means slidably and shiftable connecting the sweatband to the straps between the ends thereof and supporting the sweatband in spaced relation to the crown.

5. A suspension for safety headgear having a rigid crown, comprising a plurality of head straps, means for securing the head straps within the lower portion of the crown for supporting the same upon the head of a wearer, a sweatband, and means upon the sweatband for shiftable engaging the head straps for movement along the sweatband and permitting lateral movement of the crown relative to the sweatband while holding the crown out of contact with the wearer's head.

6. A suspension head strap for safety headgear having a rigid crown, and a sweatband comprising a strip of flexible material doubled to form a loop, the strip having end portions positioned in substantially matching overlying relation and being separable to engage and disengage a sweatband, means securing the doubled portions together at a point above the point of engagement thereof with the sweatband, and means below the sweatband for detachably securing said ends to the lower portion of the crown in substantially matching overlying relation.

7. In safety headgear having a rigid crown, a plurality of suspension straps each comprising a strip of flexible material doubled to form a loop having matching end portions secured together at a point spaced from their ends, means connecting the loops together within the upper portion of the crown, a sweatband shiftable engaged between the matching end portions of the respective straps below the points at which they are secured together, and means for detachably securing the ends of the straps to the lower portion of the crown at points below the sweatband.

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