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M. S. PUKISH, JR  
WRESTLER'S HEADGEAR  
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3,327,316

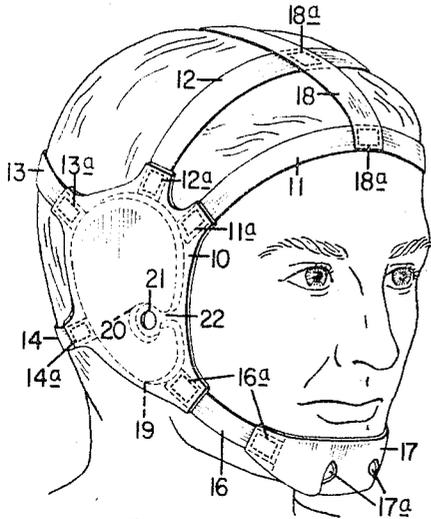


FIG. 1

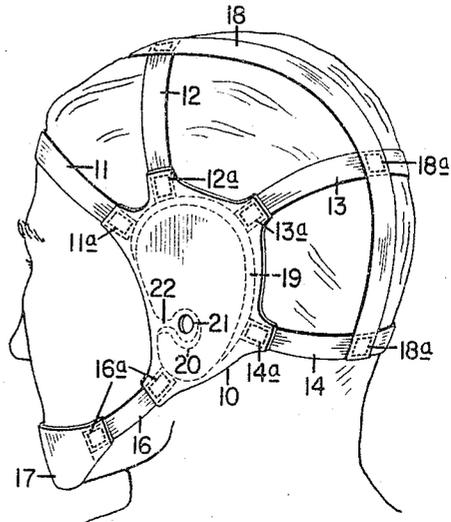


FIG. 2

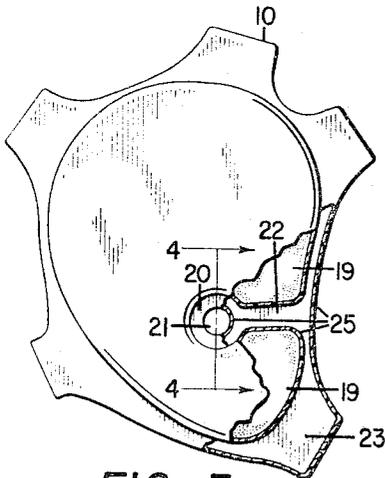


FIG. 3

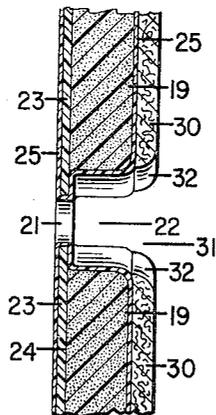


FIG. 4

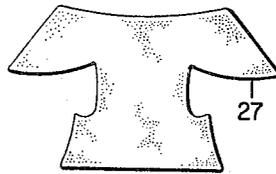


FIG. 6

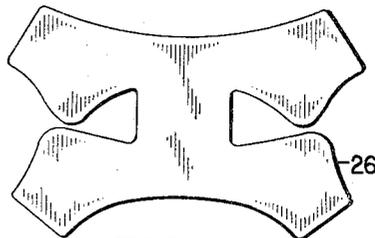


FIG. 5

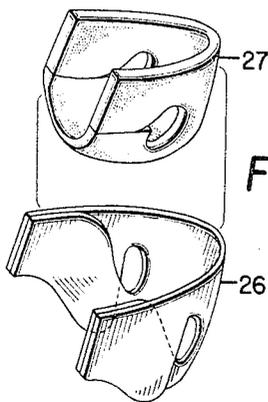


FIG. 7

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**WRESTLER'S HEADGEAR**

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6 Claims. (Cl. 2-3)

This invention relates to protective headgear, and more particularly to an improved protective headgear adapted to be worn by wrestlers or other athletes for wrestling or other sports.

Particularly during wrestling, the vulnerable side or ear regions of the wrestler's head must be protected against impact, and the wrestler's ears must be protected against rubbing, tearing, abrasions, and the like. This is normally accomplished by a pad or pads of shock absorbing material such as a foamed resin or foamed rubber, which pads are relatively thick and arranged to fit over the wearer's ears. To permit the wearer to hear, such pads preferably have a hearing passage or hole.

In prior art headgear, this hole through the ear pad has been the cause of injuries to the wearer's ear and ear drum. If the ear pad is compressed rapidly against the side of the wearer's head as by an impact, and at the same time the hearing passage is covered as with a hand or mat surface, air pressure increases rapidly within the air passage adjacent the wearer's ear opening, and this pressure increase is often sufficient to injure or rupture the ear drum, or injure the ear. Conversely, if the hearing passage is covered and the ear pad is released or expands rapidly, the rapid reduction in pressure within the ear opening has a similar injurious effect on the wearer's ear.

In addition, previously known headgear did not stay securely in place on the wearer's head during wrestling and could be moved about on the wearer's head so as to add to his discomfort and necessitate repeated adjustments. Particularly undesirable were strap portions which could be moved over the wearer's face to block his vision or breathing.

An object of the invention is to overcome these drawbacks of the prior art headgear and to provide an improved protective headgear.

Another object of the invention is to provide a protective headgear that is comfortable to wear and which stays securely in place when being worn, even during wrestling combat.

Another object of the invention is to provide an improved protective headgear having an ear pad construction specifically designed to prevent rapid change of air pressure adjacent the wearer's ear opening.

Another object of the invention is to provide a protective headgear, the straps of which cannot be easily displaced over the wearer's face, and which, even if so displaced, will not obstruct his breathing or greatly discomfort him.

A further object of the present invention is to provide an ear pad adapted to cover the ear region of a wearer and formed with a main hearing bore or passage extending therethrough, together with an external relief passage connecting with such main hearing passage, to prevent rapid change of air pressure within the main hearing passage adjacent the ear opening of the wearer.

Other objects of the invention will be apparent hereinafter from the specification and from the recital of the appended claims. To these and other ends, the invention resides in certain improvements, all as will hereinafter be more fully described, with the novel features being pointed out in the claims at the end of this specification.

In the drawings:

FIG. 1 is a front pictorial illustration of an improved

protective headgear in accordance with one embodiment of the present invention, while being worn;

FIG. 2 is a rear pictorial illustration of the improved headgear of FIG. 1;

FIG. 3 is a side view of the ear piece construction provided for the improved headgear of the present invention with a portion of the inner padding exposed;

FIG. 4 is an enlarged cross-sectional view of the padded ear piece of FIG. 3, when viewed along line 4-4 in FIG. 3 in the direction of the arrows;

FIG. 5 is a view of a chin piece adapted to be incorporated into the improved headgear illustrated in FIG. 1;

FIG. 6 is a view of a shock-absorbing insert adapted to be inserted into the chin piece of FIG. 5; and

FIG. 7 is an isometric illustration showing both the chin piece of FIG. 5 and the shock-absorbing insert of FIG. 6 when each is shaped and ready to be assembled together.

Referring now to the accompanying drawings, a preferred embodiment of the inventive protective headgear is adapted to be worn on the head of an individual, as is clearly illustrated in FIGS. 1 and 2. This improved headgear comprises a pair of padded ear pieces 10 configured to cover each of the side or ear regions of the wearer and connected together by head straps 11, 12, 13, and 14 which extend laterally across the head of the wearer as shown in FIGS. 1 and 2. Preferably, these head straps 11 through 14 are formed of elastic material and are connected to tab projections on the respective padded ear pieces 10 in any suitable manner, for example by sewing, as indicated in the drawings by the box stitching at 11a-14a. In a similar manner, a pair of elastic chin straps 16 are connected to the lower tab portions of the respective ear pieces 10, to support a padded chin piece 17 over the chin region of the wearer. Straps 16, in one preferred embodiment, are connected to ear piece 10 and to chin piece 17 by stitching as at 16a, but it is also preferred to make one of the chin straps 16 connectable to the ear piece 10 or the chin piece 17 by means of a releasable coupler such as a snap fastener, buckle, or Velcro fastener, to facilitate putting the headgear on, and taking it off, the head.

A support or tie strap 18 is secured to each of the head straps 11 through 14 preferably by stitching at 18a, and extends transversely of such head straps (see FIGS. 1 and 2), to prevent the head straps from being moved relative to one another and thus functions to retain them in their respective proper positions about the head of the wearer.

Each of the padded ear pieces 10 includes a relatively thick pad of shock-absorbing material such as foam rubber, or a foamed plastic material such as vinyl (shown dotted in FIGS. 1 and 2 and designated by the reference character 19) which covers the ears of the wearer to absorb any shock or impact at the side of the wearer's head. These pads 19 are each formed with a respective bore or passage 20 extending through the thickness thereof, in registry with hearing holes 21 provided in each of the ear pieces 10. Furthermore, the pads 19 are each formed with a relief passage or slot 22 preferably through the thickness thereof, which extends preferably forwardly from the associated hearing passage 20 to the forward outer edge of the pad 19 where it opens freely into the ambient atmosphere regardless of pressure in the ear piece 10. As will be pointed out in more detail hereinafter, it is these relief passages 22 which function to prevent rapid changes of air pressure adjacent the ear openings of the wearer during use of the protective headgear provided by this invention.

A typical earpiece 10 is illustrated in more detail in FIGS. 3 and 4 and is constructed of a cover or base 23

of flexible material such as a plastic material or a nylon or cotton fabric preferably coated with a plastic material such as vinyl, for example (see FIG. 4), which is configured as shown in FIG. 3 with extending tabs about its periphery to facilitate attachment of the various straps 11-14 and 16 thereto. Additionally, the cover or base sheet 23 is formed with a hearing hole 21 therethrough and positioned so that it will register with the ear opening of the wearer when the headgear is in place.

The pad 19 of foamed rubber, vinyl or the like is attached to the base sheet 23, for example, by cementing as designated at 24. This foam pad 19 has a general shape similar to that of an ear, and is formed with the bore 20 extending through the thickness thereof in registry with the hole 21 provided in the sheet 23. Additionally, the foam pad 19 is configured with the slot 22, previously discussed, extending from and communicating with the bore 20 laterally toward the right-hand edge of the pad 19, as viewed in FIG. 3, for purposes to be described in more detail hereinafter.

As illustrated in FIGS. 3 and 4 of the accompanying drawings, the typical ear piece 10 is completed by coating the base sheet 23 and cemented ear pad 19 with a relatively thin coat 25 of a suitable substance such as vinyl. This vinyl coating 25 helps to prevent the ear piece 10 from becoming excessively soiled during use, and furthermore facilitates cleaning of the ear piece when necessary.

It is also contemplated that, if desired, the single relatively thick pad 19 of foam rubber, etc. can be replaced by layers of foam with a rigid sheet member laminated therebetween, so as to provide protection to users that already have an ear injury. Also, the inside surface of pad 19 bearing against the ear of the wearer can be covered with a moisture-absorbing pad 30, as shown in FIG. 4, and which can be formed of a soft felt padding or an open-cell polyurethane foam pad preferably from 1/8" to 1/4" in thickness. Such pads are desirable for absorbing perspiration from the wearer's head to prevent the ear pieces from becoming wet and slippery and more easily moved out of place. Such moisture-absorbing pads tend to wear much more rapidly than the headgear, generally, and such pads are preferably made replaceable by applying them to pad 19 with a pressure-sensitive adhesive. Thus, a worn pad 30 can be peeled off and replaced by a new one. Such pads 30 are preferably the same shape as pad 19 and are provided with an aperture 31 for registry with aperture 20 and a slot 32 for registry with slot 22, but such moisture absorbing pads can be arranged to overlie slot 22 if desired.

The detailed construction of the chin piece 17 (FIG. 1) is shown in FIGS. 5, 6 and 7. This chin piece 17 is preferably formed of a substantially H-shaped sheet 26 of vinyl material or the like which, when folded as shown in the lower part of FIG. 7, forms a cup-like member adapted to fit over the chin region of the wearer.

A foam rubber insert 27 is shown in the upper part of FIG. 7 and is adapted to be inserted by lowering into the cup-shaped member 26 in the illustrated orientation to pad the chin of the wearer. The illustrated insert 27 is shaped from a sheet of foamed material patterned as indicated in FIG. 6 of the drawings, but either insert 27 or piece 26 can be molded or shaped by other means within the spirit of the invention.

As mentioned previously, the chin piece 17 comprising the cup-shaped member 26 and the inserted foam pad 27 is connected to earpieces 10 of FIGS. 1 and 2 by the elastic chin straps 16. Apertures 17a in chin piece 17 as shown in FIG. 1 are provided so that if chin piece 17 is forced up over the wearer's face and against his nose, his breathing will not be obstructed, because apertures 17a allow the passage of air through the chin piece 17.

If the wearer of the headgear should receive a sudden or severe blow against a side or ear region of his head, the associated foam pad 19 absorbs most of the shock

or impact and will thus be compressed rapidly in against the side of the wearer's head. If, during this impact, the hearing passage 20 is simultaneously covered, for example by the opponent's hand, etc., a rapid increase to an excessive air pressure could occur in the passage 20 adjacent the wearer's ear opening and this could rupture the ear drum if the relief passage 22 were not provided. However, by forming each ear pad 19 with relief passage 22 extending from the hearing passage 20 and opening freely into the atmosphere at the front edge of the pad, each passage 22 provides a relief route for any air trapped within the associated hearing passage, so that no rapid increase in air pressure can occur here during impact. Conversely, if a pad 19 is compressed and then rapidly released or expanded, a rapid decrease in air pressure might occur within the hearing passage 20, to rupture the wearer's ear drum, if it were not for the presence of the relief passage 22 to permit air to enter such hearing passage.

The inventive headgear also adds to the wearer's comfort by staying securely in place on the wearer's head and resisting any movement about the head. To this end, tie strap 18 prevents the wearer's opponent from pulling the forehead strap 11 down over the wearer's eyes. Also, chin piece 17 is padded and cupped to remain securely on the wearer's chin and, as mentioned above, is provided with apertures 17a to prevent the wearer's nostrils from being completely blocked, if the chin piece 17 is forced up against the bottom of the wearer's nose.

While the invention has been disclosed herein with reference to the details of a preferred embodiment thereof, it is to be understood that such disclosure is intended in an illustrative, rather than in a limiting, sense, and it is contemplated that various modifications in the construction and arrangement of the parts will readily occur to those skilled in the art, within the spirit of the invention and the scope of the appended claims.

I claim:

1. In a protective headgear, the improvement comprising a padded ear piece adapted to fit over an ear of the wearer and including:

- (a) a pad of shock-absorbing material configured to cover the outer area of said ear;
- (b) a hearing passage extending through said pad between the inner and outer surfaces thereof adapted to register with the wearer's ear opening; and
- (c) a relief passage formed in said pad to connect with said hearing passage and extending to the edge of said ear piece to prevent rapid change of air pressure within said hearing passage adjacent said ear opening from rapid compression or expansion of said pad when said hearing passage is covered.

2. The improvement specified in claim 1 wherein said relief passage comprises a slot formed through the thickness of said pad and extending laterally across said pad from said hearing passage to an outer edge of said pad, and a cover overlies said pad and said relief passage, said cover having an aperture in registry with said hearing passage.

3. A protective headgear for wrestlers or the like comprising:

- (a) a pair of padded ear protecting members adapted to fit over the ears of the wearer, each member including a pad of shock absorbing material configured to cover the outer area of each ear,
  - (1) said pad having a hearing passage extending therethrough adapted to be in substantial registry with the wearer's ear opening,
  - (2) and said path having a relief passage formed therein extending between said hearing passage and an outer edge of said pad to prevent rapid change in air pressure within said hearing passage adjacent said ear opening when said hearing passage is covered and said pad is rapidly compressed or expanded;

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(b) a padded, cup-shaped chin piece connected to each of said ear protecting members and adapted to protectively engage the chin region of the wearer; and

(c) a plurality of head straps connected laterally between said ear protecting members.

4. The protective headgear specified in claim 3 wherein said chin piece is formed with at least one aperture therethrough effective to prevent said chin piece from blocking the wearer's nostrils if said chin piece is urged upwardly against the wearer's nose.

5. The protective headgear specified in claim 3 wherein said ear protecting members each include a cover piece to which said head straps and said chin piece are connected, said cover piece having an aperture in registry with said hearing passage.

6. The protective headgear specified in claim 3 wherein

each of the surfaces of said ear-protecting members adjacent the wearer's head are covered with a moisture absorbing pad.

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