

[54] **FOOTBALL HELMET**

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[58] **Field of Search**2/3, 5, 6

[56] **References Cited**

UNITED STATES PATENTS

3,292,180	12/1966	Marietta	2/3 R
3,447,162	6/1969	Aileo	2/3 R
3,568,210	3/1971	Marietta	2/3 R
3,577,562	5/1971	Holt	2/3 R

3,605,113	9/1971	Marietta	2/3 R
3,609,763	10/1971	Raney	2/3 R

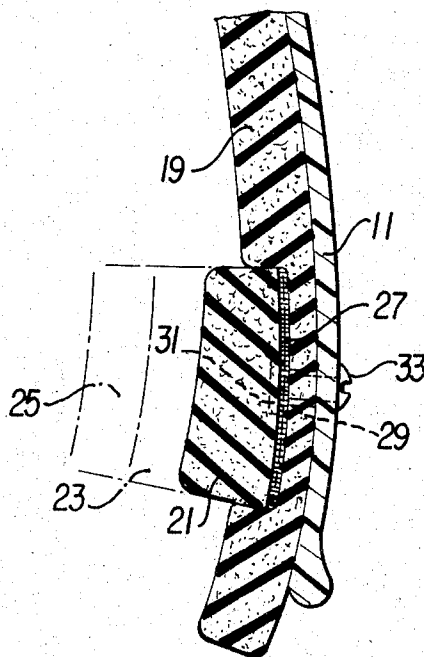
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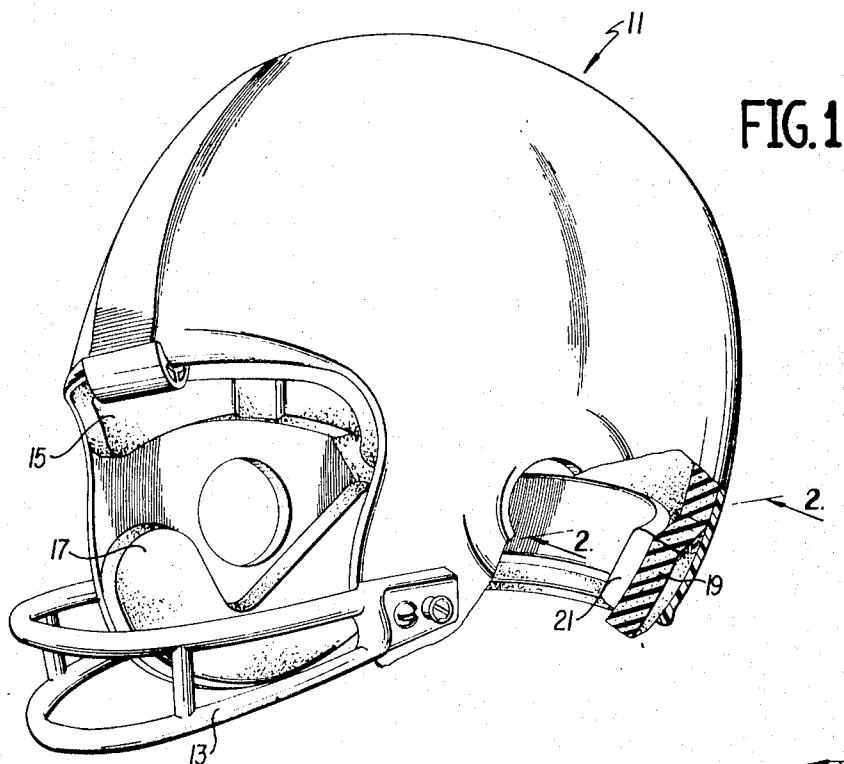
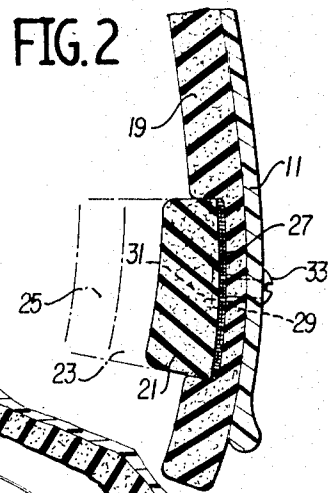
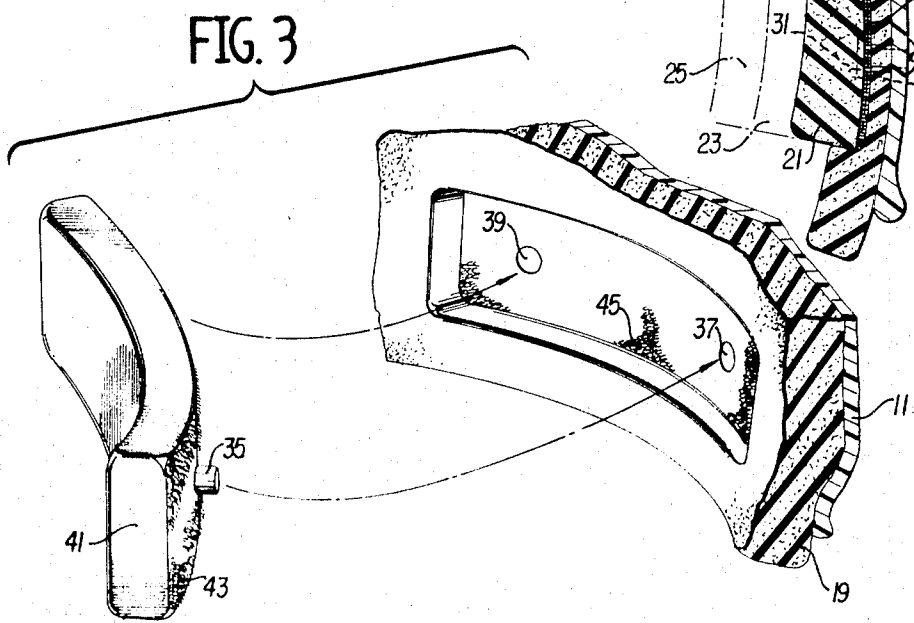
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[57] **ABSTRACT**

A contour adjusting device for a football helmet having an elongated channel in the rear padding of the helmet located substantially adjacent the nape of the neck of the wearer. A resilient pad of a selectively predetermined depth and of a dimension to fit within the elongated channel is secured within the channel and extends outwardly therefrom. The use of different depth pads adjusts the rear of the helmet to provide a snug fit against the nape of the neck.

4 Claims, 3 Drawing Figures





FOOTBALL HELMET

This application relates generally to football helmets and more specifically to a removable pad at the rear of the helmet for adjusting the inner part of the helmet to different wearer's heads.

The present day football helmet has become fairly standardized as to the basic configuration formed by the outer shell and the inner resilient lining about the head and the ears. Further, most helmets include a webbing which rests essentially on top of the wearer's head and prevents the helmet from being driven down onto his head. One of the problems which exists, primarily due to the fact that a face guard is mounted on the helmet, is the fact that any blow or pull upwardly on a face guard causes the helmet to rock about the wearer's head so as to press the rear part of the helmet back and against the nape of the wearer's neck. It is obvious that a blow of any severity can damage this very vulnerable part of the head and neck of the wearer.

Most helmets include a resilient padding at the rear part of the helmet which extends below the outer shell so as to provide at least some cushioning effect in the event of the above-described situation. However, if there is a substantial amount of room between the nape of the wearer's neck and the lower rear portion of the helmet, the rocking movement will allow the helmet to hit the nape of the neck with such a force that the padding does not have the desired protective effect.

Many designs have been provided in an attempt to adjust this inner section at the rear of the wearer's neck so as to provide a snug fit. Obviously, helmets cannot be designed so as to fit every differently shaped head exactly so that the fit must be accomplished after the helmet has been basically manufactured.

Various rather complicated devices have been proposed which are either removable and exchangeable or which may be finally permanently fixed in place for a particular shaped head. However, when the helmet is being worn or will be worn by different people, such as in the football leagues for younger children, the cumbersome structure does not lend itself to easy adjustment and therefore is often ignored or improperly used.

Accordingly, it is an object of this invention to provide a simple means for adjusting the rear lower part of the football helmet to mate with the nape of the neck of the wearer.

A further object of this invention is to provide simple selectively replaceable cushions of various depths which may easily be removed and replaced by anyone in a very short period of time.

These and other objects of the invention will become apparent from the following description taken in conjunction with the drawing wherein

FIG. 1 is a perspective view of a standard type helmet with a cut-away section illustrating a preferred embodiment of the present invention;

FIG. 2 is a section taken along lines 2—2 of FIG. 1; and

FIG. 3 is an exploded view of a further embodiment of the device of the present invention.

Broadly speaking, the invention comprises a contour adjusting device for a football helmet having an elongated channel in the rear padding of the helmet located substantially adjacent the nape of the neck of the

wearer and a resilient pad of a selectively predetermined depth and of a dimension to fit within the elongated channel which extends outwardly therefrom. The extent to which the pad extends outwardly from the channel is therefore determined by the depth of the pad, and means are provided for removably securing the pad within the channel.

Turning now more specifically to the drawings, there is illustrated in FIG. 1 a standard type football helmet 11 including a face mask 13 and inner padding 15 extending about the forward part of the head to the temple. Ear pad cushioning 17 extends along the lower ear flap. The rear of the helmet includes a rear padding 19 which normally extends from the upper inner rear part of the helmet downwardly beyond the outer plastic shell of the helmet.

There is also illustrated in FIG. 1 a resilient elongated removable pad 21 which nestles within the rear padding 19 as more clearly shown in FIG. 2. Rear padding 19 has an elongated channel section such as is shown in FIG. 3 within which the removable pad 21 is secured.

As stated above, the purpose of the present invention is to adjust the helmet so as to obtain a snug fit between the rear of the helmet and the nape of the neck of the wearer. Since the contour of the wearer's head varies quite substantially from person to person, this snug fit may be obtained by having available pads of varying depth such as illustrated in dotted lines by pads 23 and 25. These could also be additional sections which could be mounted if desired on the original pad. However, from a convenience and manufacturing standpoint, it is preferable to supply the pads individually.

As shown, the pad 21 includes a stiffener 27 at the inner face thereof with internally threaded cylindrical members being mounted so as to extend outwardly from the stiffener. Although one such cylindrical member would suffice when mated with a threaded bolt 33, it is preferable to use two such members as shown in FIG. 3 to assist in mating the pad properly within the channel. It can be seen that with the simple aid of a screw driver the pads can be changed easily and quickly.

FIG. 3 shows more clearly the holes 37 and 39 in the rear of the elongated channel of the pad 19 which mate with the cylindrical members 35.

FIG. 3 also discloses another means of securing the pad within the channel which includes a hook and loop fastener respectively on the faces 43 and 45 such as that sold under the trademark "Velcro." This, of course, may be used alone or could be used together with the bolt members 33 as shown in FIG. 2. In either case the padding 41 is secured tightly within the channel and yet may be easily and quickly removed.

It will be seen that means have been provided for adding additional needed protection to a football helmet to reduce the number of accidents caused by the rocking of the helmet and the contact with the rear of the nape of the wearer's neck. Further, since the pads may be easily and quickly replaced, people in charge of the teams, particularly in the younger leagues, will be more prone to adjust the helmets properly and thus reduce injuries.

The above description and drawings are considered illustrative only and the invention is to be limited only by the scope of the following claims.

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