



US 20140083435A1

(19) **United States**

(12) **Patent Application Publication**
Dorphley

(10) **Pub. No.: US 2014/0083435 A1**

(43) **Pub. Date: Mar. 27, 2014**

(54) **MOUTHGUARD**

(76) Inventor: **Nicholas Alexander Dorphley**, Laguna Niguel, CA (US)

(21) Appl. No.: **13/998,763**

(22) Filed: **Nov. 27, 2011**

Related U.S. Application Data

(60) Provisional application No. 61/419,316, filed on Dec. 3, 2010.

Publication Classification

(51) **Int. Cl.**
A63B 71/08 (2006.01)

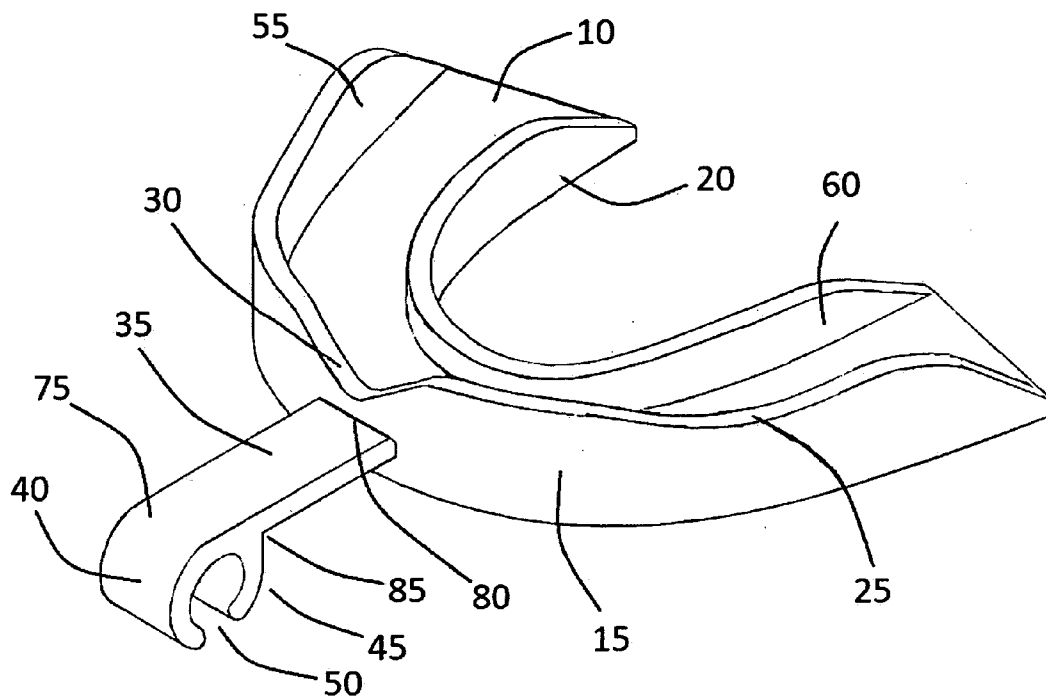
(52) **U.S. Cl.**

CPC **A63B 71/085** (2013.01)

USPC **128/861**

(57) **ABSTRACT**

The present invention is a mouthguard that includes a mouthpiece portion which is made to fit inside the user's mouth and provides a protective connection with the user's teeth. A relatively short member is integrally formed with the front of the mouthpiece. This member provides clear visibility to the referee or official that the user is wearing a protective mouthguard, even with the user's mouth closed. This member also includes an opening at the front end for attachment with a helmet, face mask, headgear, or the like. The user can selectively attach the present invention as needed. The present invention provides better safety and hygiene.



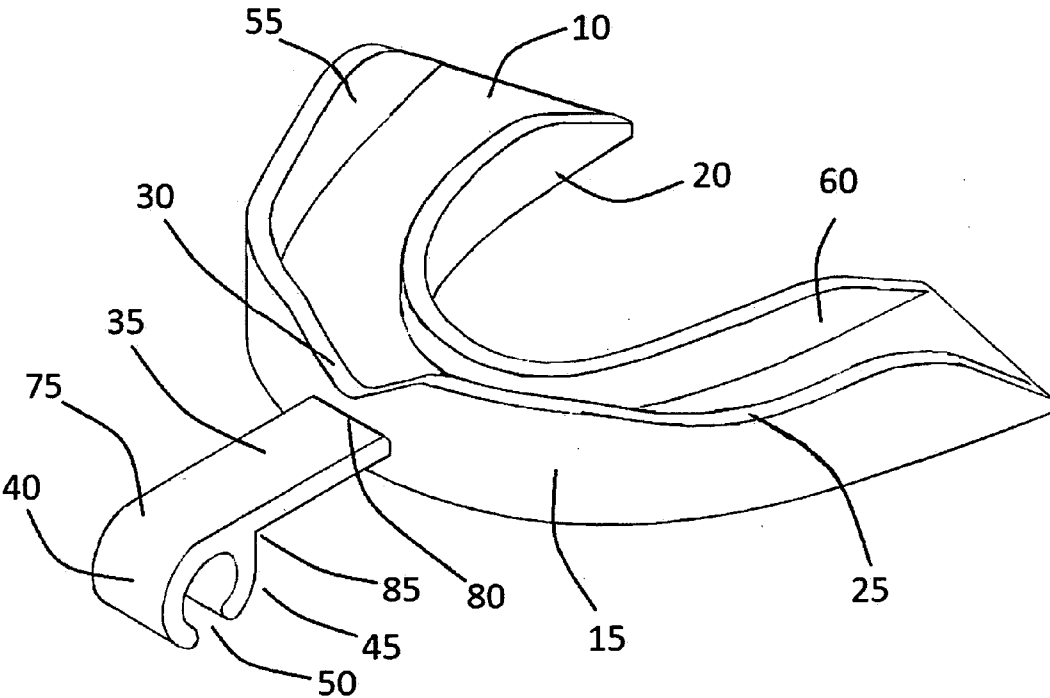


FIG. 1

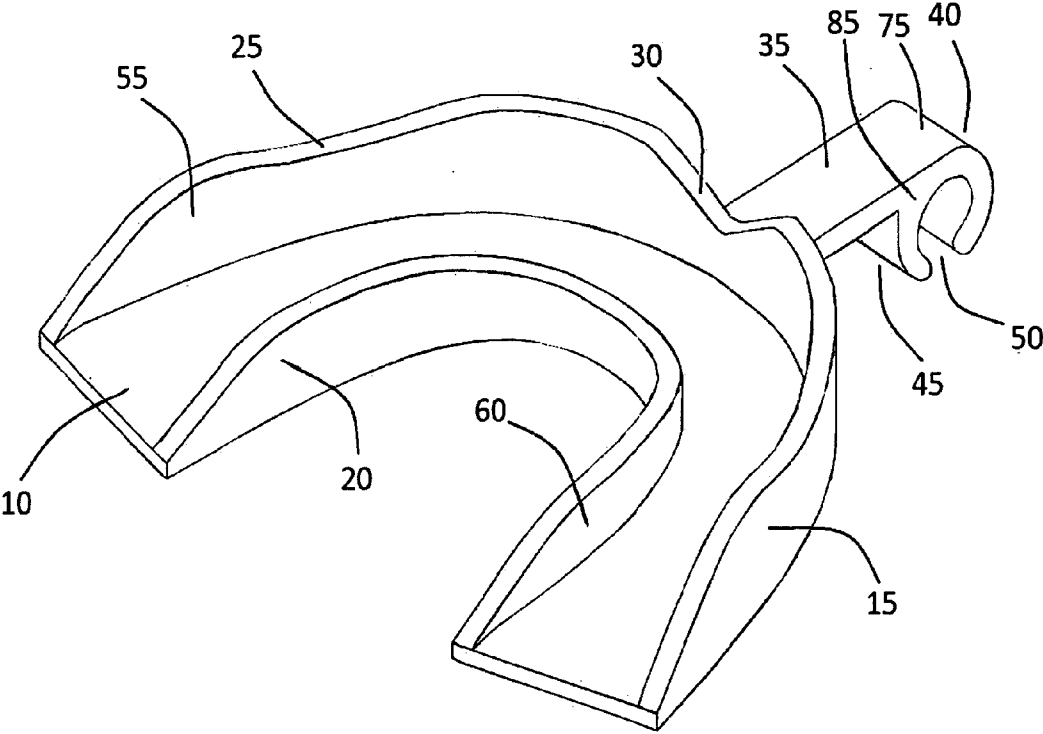


FIG. 2

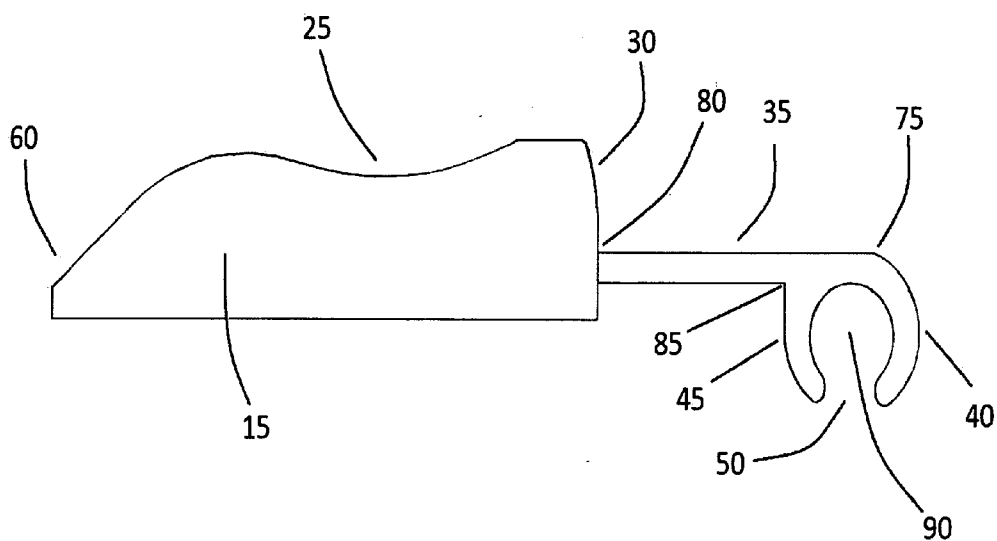


FIG. 3

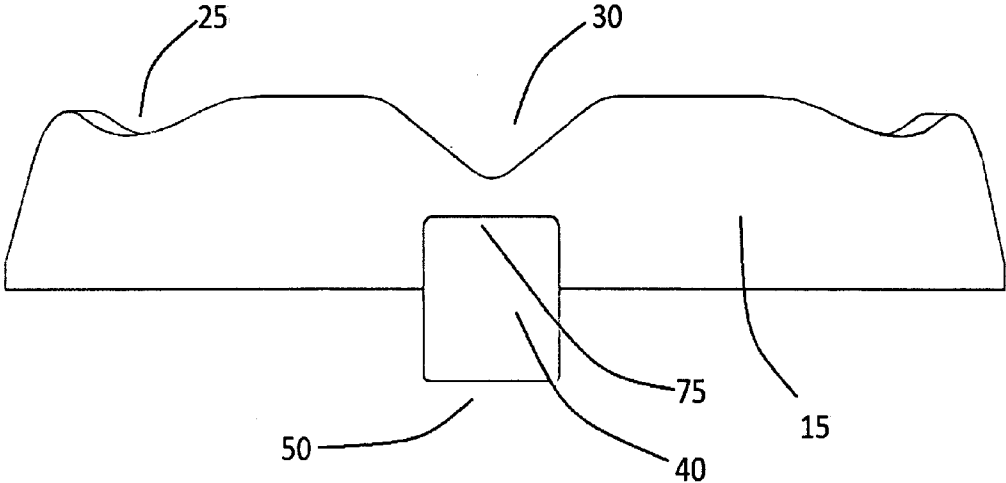


FIG. 4

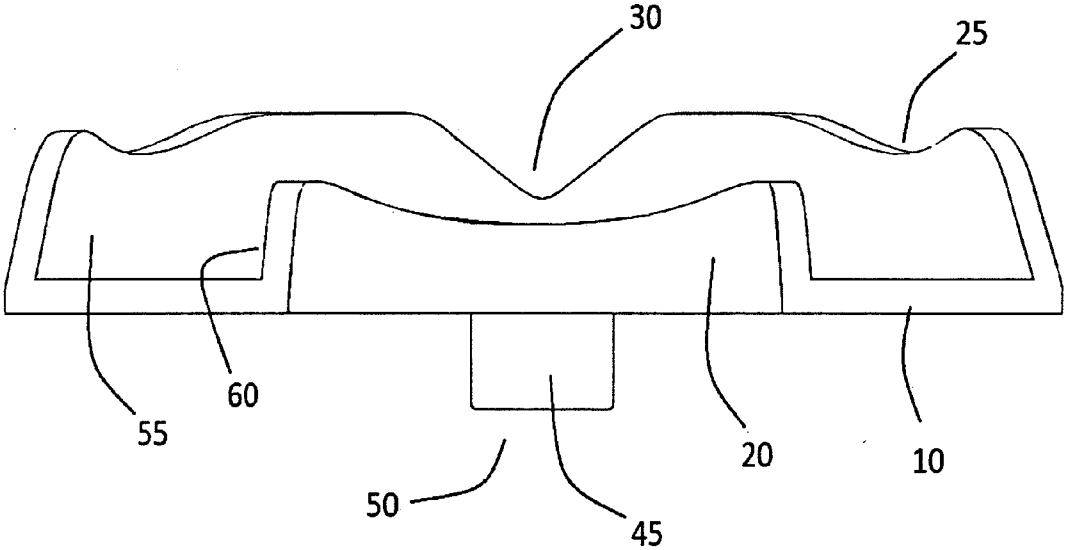


FIG. 5

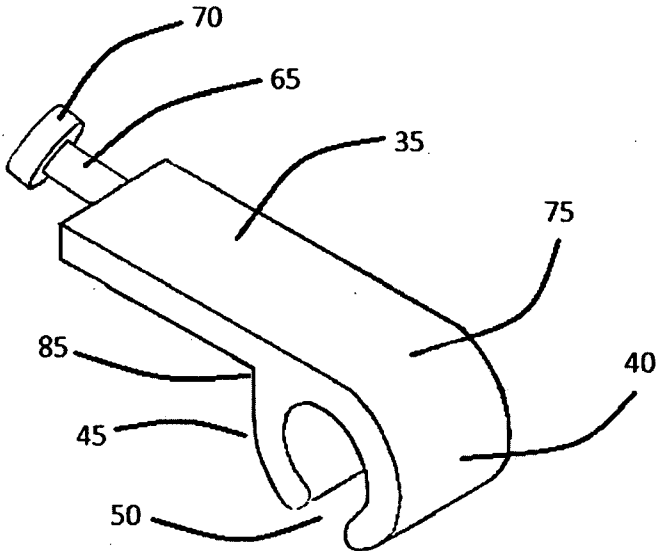


FIG. 6

MOUTHGUARD

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to protective mouthguards for use in athletic events to help protect the teeth, jaw, and head of the athlete.

[0003] 2. Description of the Prior Art

[0004] The main functions of mouthguards are for protecting the teeth and for decreasing the occurrences of concussions and other injuries from hits during athletic events. Mouthguards are placed inside the user's mouth during athletic events thus reducing injuries to the user's teeth and mouth. Mouthguards also reduce the risk of concussions and other injuries to the jaw and head.

[0005] Mouthguards are required for most athletics events by the various governing athletic bodies. There are rules and regulations surrounding the use of mouthguards as well. Some of these rules and regulations include: The mouthguard must cover all upper teeth; The mouthguard must be a highly noticeable color; The mouthguard must be clearly visible to the referee or official.

[0006] Overall, mouthguards in the prior art can be put into two general groups: untethered and tethered. A tether, or strap, is a piece of material that is attached to the mouthguard and connects to the helmet or face mask, typically. Untethered mouthguards in the prior art do not have this tether, or strap, therefore the entire mouthguard is inside the user's mouth. Untethered mouthguards in the prior art are not clearly visible once inside the user's mouth. This flaw is inherent to untethered mouthguards in the prior art due to the nature of untethered mouthguards not having anything protruding from the user's mouth. This lack of a clearly visible mouthguard often causes the referee or official to stop the athletic event to verify if the user is wearing a mouthguard or not. Untethered mouthguards in the prior art also lack the functionality to be attached to the user's person or equipment when not in the user's mouth. That is why many users choose tethered mouthguards. The main purpose of tethered mouthguards is so the user will not lose the mouthguard once the user removes it from his or her mouth.

[0007] Both tethered and untethered mouthguards in the prior art have numerous shortcomings. For tethered mouthguards, the strap, which is usually wrapped around the user's face mask, is an obstruction to the user's view. This causes a blind spot in the user's field of vision and prevents the user from seeing something and could suffer a serious injury. Also, if the helmet is removed from the user as a result of a hit or the like, this results in the mouthguard being viciously pulled from the user's mouth, increasing the risk of severe harm.

[0008] As for untethered mouthguards in the prior art, as mentioned above, they are not clearly visible once inside the user's mouth, which often causes the referee or official to stop the athletic event to verify if the user is wearing a mouthguard or not. Untethered mouthguards in the prior art also lack the functionality to be attached to the user's person or equipment. As a result, some users have resorted to attaching their untethered mouthguards to their helmets by wedging the mouthguard between the helmet and the face mask. This method is highly susceptible to germs, not only germs getting on the mouthguard when the user touches it with their hands, but germs also get on the mouthguard when it comes in contact with the helmet and face mask.

[0009] Consequently, there is a need for a protective mouthguard for use in athletic events, and in particular, a mouthguard which is clearly visible to the referee, but does not obstruction to the user's view. Also, there is a need for a protective mouthguard that does not cause serious injury if the helmet is removed from the user as a result of a hit or the like. Lastly there is a need for a protective mouthguard that is hygienic, and able to be attached, as needed, to the user's helmet, face mask, headgear, or the like.

SUMMARY OF THE INVENTION

[0010] The present invention is a mouthguard that includes a mouthpiece portion which is made to fit inside the user's mouth and provides a protective connection with the user's teeth. A relatively short member is integrally formed with the front of the mouthpiece. This member provides clear visibility to the referee or official that the user is wearing a protective mouthguard, even with the user's mouth closed. This member also includes an opening at the front end for attachment with a helmet, face mask, headgear, or the like. The user can selectively attach the present invention as needed. This member does not obstruct the view of the user, due to its relative short length. Thus avoiding the various drawbacks of the prior art.

[0011] The present invention protects the teeth and decreases the occurrences of concussions and other injuries from hits during athletic events. Furthermore the present invention has a short member that is integrally formed with the front of the mouthpiece. This provides clear visibility to the referee or official that the user is wearing a protective mouthguard, which mouthguards in the prior art lack and often causes the referee or official to stop the athletic event to verify if the user is wearing a mouthguard or not.

[0012] Additionally, the present invention has incorporated into it a connecting clip extending from the front of the mouthguard which provides the user a convenient way to fashion the mouthguard to the user's helmet while the mouthguard is not in the user's mouth. As a result, the user circumvents the germs that accompany other untethered mouthguards in the prior art. The user circumvents germs putting in or taking out the mouthguard because the user no longer has to touch the part of the mouthguard that goes into the user's mouth. The connecting clip extending from the front of the mouthguard can be grasped by the user's fingers and be used to put in or take out the mouthguard. The user also circumvents germs that are on the user's helmet or face mask because the user's mouthguard no longer comes in contact with the helmet and face mask due to the connecting clip extending from the front of the mouthguard. The user also avoids the dangers with tethered mouthguards such as; the risk of injury to the teeth when the helmet comes off during a hit in an athletic event; and the reduced visibility while using tethered mouthguards.

[0013] The present invention provides much greater flexibility of use and connection to the helmet, and which is also easy to attach and detach from the helmet, face mask, headgear, or the like.

[0014] The connecting clip can be constructed of various materials depending on the sturdiness required. It can be made of material similar to the material used in boil-and-bite mouthguards, and the user can increase or decrease the diameter or shape of the connecting clip, by boiling it in water and

carefully adjusting it. In the similar fashion to the technique used to fit the mouthpiece portion to each individual user's teeth.

[0015] It has also been discovered that the connecting clip can be used to display team logos, team colors, player initials, player numbers, nicknames, mottos, or the like.

[0016] It has been further discovered that select mouthguards in the prior art have a hole, in the front of the mouthpiece, adapted to fit an attachment for a tethered strap. Accordingly, another aspect of the present invention is to be compatible with this hole, in the front of select mouthguards in the prior art. Once inserted into this hole the user can attach the mouthguard, as needed, to the user's helmet, face mask, headgear, or the like, using the connecting clip. Refer to FIG. 6.

[0017] These and other objects of the present invention will become apparent with reference to the drawings and the description of the preferred embodiments.

BRIEF DESCRIPTION OF THE DRAWINGS

[0018] The above and other objects and advantages of the present invention may be more clearly seen when viewed in conjunction with the accompanying drawings wherein:

[0019] FIG. 1 is a front perspective view of the present invention with clearly visible member, which can be used as a connecting clip, as needed, to the user's helmet, face mask, headgear, or the like;

[0020] FIG. 2 is a rear perspective view of the present invention showing the connecting clip which does not obstruction to the user's view;

[0021] FIG. 3 is a side elevational view of the mouthguard that is hygienic because the user no longer has to touch the part of the mouthguard that goes into the user's mouth;

[0022] FIG. 4 is a front elevational view of the clearly visible member according to the principles of the present invention;

[0023] FIG. 5 is a rear elevational view according to the principles of the present invention; and

[0024] FIG. 6 is a front perspective view of the connecting clip of the present invention, to be used with select prior art's opening hole, in the front of the mouthpiece.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0025] It should be noted that specific embodiments of the present invention will now be defined with mention to the drawings, it should be noted that such embodiments are by means of illustration only and simply explanatory. Variations and alterations apparent to one skilled in the art to which the present invention relates are considered to be within the spirit and scope of the present invention as further defined.

[0026] Referring now to the drawings, and, more particularly, to FIG. 1, a front perspective view of the mouthguard of the present invention. The present invention has a channel for the upper teeth to fit. The upper teeth are surrounded by the inside of the outer wall 55 and the inside of the inner wall 60. Both the inside of the outer wall 55 and the inside of the inner wall 60 are connected to the floor 10. These three surround the upper teeth to protect the user from injury to the teeth, jaw, head, or the like. At the front end of the outside of the outer wall 15 there is a member 35 that is integrally formed with the front of the mouthpiece 80. This member 35 continues and curves downward 75 to form the outside of the connecting

clip 40. The other side of the connecting clip is made up of a piece 45 which comes downward from member 35 at intersection 85. This member provides clear visibility that the user is wearing a protective mouthguard, even with the user's mouth closed. The opening of the connecting clip 50 is where the user can selectively attach the present invention as needed to a helmet, face mask, headgear, or the like. This member 35 and the outside of the connecting clip 40 can be used to display team logos, team colors, player initials, player numbers, nicknames, mottos, or the like.

[0027] FIG. 2 is a rear perspective view of the mouthguard of the present invention. This view shows the channel for the upper teeth to fit, which are surrounded by the inside of the outer wall 55 and the inside of the inner wall 60, and are both connected to the floor 10. Member 35 is integrally formed with the front end of the mouthpiece and curves downward 75 to form the outside of the connecting clip 40. The other side of the connecting clip is made up of a piece 45 which comes downward from member 35 at intersection 85, forming the opening of the connecting clip 50.

[0028] FIG. 3 is a side elevational view of the present invention. At the front end of the outside of the outer wall 15 there is a member 35 that is integrally formed with the front of the mouthpiece 80. Member 35 curves downward 75 to form the outside of the connecting clip 40. The other side of the connecting clip is made up of a piece 45 which comes downward from member 35 at intersection 85, forming the opening of the connecting clip 50. The user can attach this connecting clip, as needed, by attaching the hole 90 to the user's helmet, face mask, or the like. The connecting clip, made up of pieces 35, 40, 45, 50, 75, 85 and 90 can be grasped by the user's fingers to circumvent germs putting in or taking out the mouthguard because the user no longer has to touch the part of the mouthguard that goes into the user's mouth.

[0029] FIG. 4 is a front elevational view of the present invention. The member 40 provides clear visibility that the user is wearing a protective mouthguard, even with the user's mouth closed. Member curves downward 75 to form the outside of the connecting clip 40, forming the opening of the connecting clip 50.

[0030] FIG. 5 is a rear elevational view of the present invention. The channel for the upper teeth to fit, which are surrounded by the inside of the outer wall 55 and the inside of the inner wall 60, and are both connected to the floor 10. The outer wall has optional cutouts 30 and 25 to make a more comfortable fit inside the user's mouth.

[0031] FIG. 6 is a front perspective view of only the connecting clip of the present invention, to be used with prior art's opening hole, in the front of the mouthpiece. Member 35 curves downward 75 to form the outside of the connecting clip 40, the other side of the connecting clip is made up of a piece 45 which comes downward from member 35 at intersection 85, forming the opening of the connecting clip 50. The rear end of the connecting clip can be inserted to the opening hole of the select mouthguards in the prior art, which have a hole adapted to fit an attachment for a tethered strap. Pieces 65 and 70 fit into the opening hole of the prior art, and once inserted, piece 70 prevents the connecting clip from accidentally coming out.

What is claimed is:

1. A mouthguard that includes:

- a. a mouthpiece portion which is made to fit inside the user's mouth and provides a protective connection with the user's teeth;

- b. a channel for the upper teeth to fit, said channel surrounds the upper teeth with an outer wall and an inner wall, and both walls are connected to the floor of the mouthguard;
 - c. a relatively short member is integrally formed with the front of the mouthpiece, which provides clear visibility to the referee that the user is wearing a protective mouthguard, even with the user's mouth closed;
 - d. said member sticks out of the user's mouth wherein the user can grab it, circumventing germs because the user no longer has to touch the part of the mouthguard that goes into the user's mouth; and
 - e. said member also includes an opening at the front end for attachment with a helmet, face mask, headgear, or the like, the user can selectively attach the present invention as needed.
2. The mouthguard in accordance with claim 1 wherein said floor is to absorb the top and bottom teeth of the user.
3. The mouthguard in accordance with claim 1 wherein said connecting clip can be used to display team logos, team colors, player initials, player numbers, nicknames, mottos, or the like.
4. The mouthguard in accordance with claim 1 wherein said connecting clip:
- a. can be constructed of various materials depending on the sturdiness required; and
 - b. can be made to increase or decrease the diameter or shape of the connecting clip, by boiling it in water and carefully adjusting it, in the similar fashion to the technique used to fit the mouthpiece portion to each individual user's teeth.
5. The mouthguard in accordance with claim 1 wherein said connecting clip can be compatible with the hole, in the front of the mouthpiece, of select mouthguards in the prior art, which have a hole adapted to fit an attachment for a tethered strap. Accordingly said connecting clip can be inserted into said hole for use in attachment to a helmet, face mask, headgear, or the like.

* * * * *