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TOOTH GUARD

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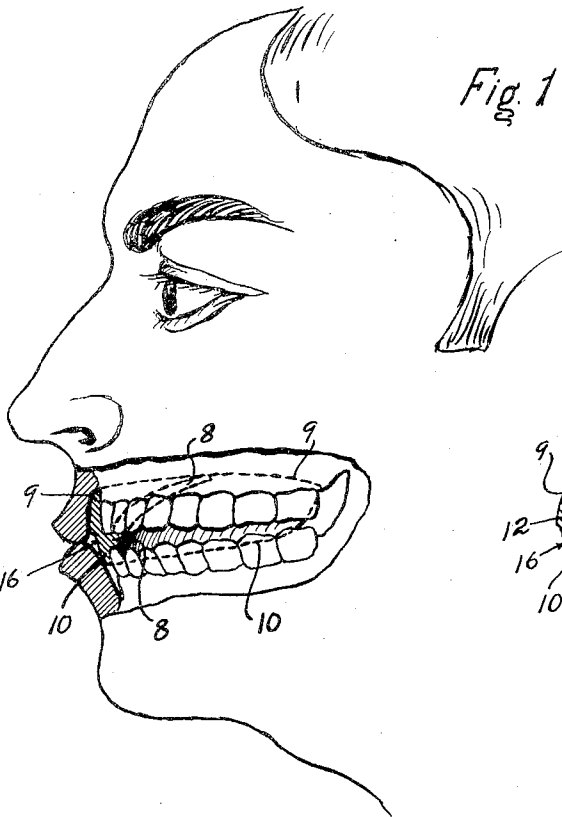


Fig. 1

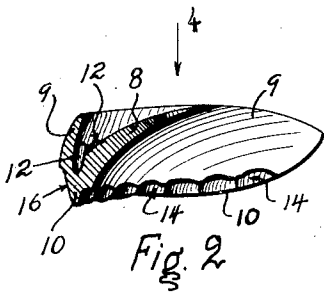


Fig. 2

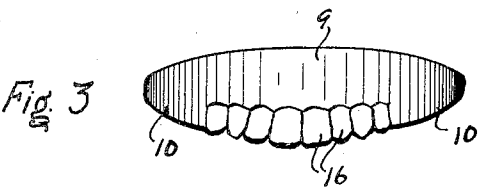


Fig. 3

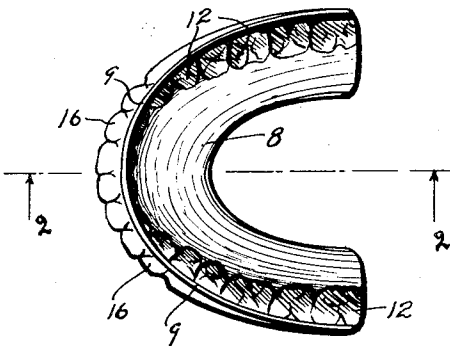


Fig. 4

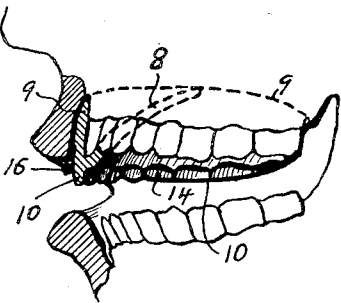


Fig. 5

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TOOTH GUARD.

Application filed June 27, 1925. Serial No. 39,905.

This invention relates to tooth guard and mouth protectors for use by contestants in boxing bouts and is intended to prevent lip lacerations caused by boxers.

5 An object of the invention is to produce an improved tooth guard which is capable of covering the front surfaces and occlusals of the teeth so that an impact on the contestant's mouth will not cut his lips.

10 A further object of the invention is to produce an improved mouth protector or guard which will positively remain in position during the boxing contest and while the wearer's mouth is open as well and which
15 will positively adhere as by palatal suction thereby avoiding all danger of being dislodged from its correct position and avoiding all possibility of becoming lodged in the throat of the wearer.

20 A further object of the invention is to produce an improved tooth guard which has the general appearance of the tooth and gum structure of the wearer so that when his lips are parted or his mouth is open his
25 appearance is not changed, and to this end a front artificial tooth formation may be molded into the device thereby simulating the general appearance of the wearer's tooth and gum structure.

30 The tooth and lip guard constituting this invention is shown in the accompanying drawing as worn in the upper portion of the mouth, but it is understood that a device of this character may also be constructed in
35 accordance with the principles of this invention and be worn in the lower portion of the mouth. It is preferred that the tooth guard be made for each individual person in order that a perfect occlusal formation
40 be attained and in order that the general curvature and formation of the entire structure be accurately molded and fashioned for each individual person intending to wear the device.

45 The accompanying drawing illustrates a preferred form of the tooth guard structure which may be varied in certain particulars without departing from the scope of the invention.

Figure 1 shows a cross sectional view of 50 the tooth guard placed in a closed mouth.

Figure 2 shows a sectional view of the tooth guard removed from the mouth.

Figure 3 shows a front view of the tooth guard illustrating the artificial tooth forma- 55 tion where it is desired to combine this feature with and as a part of the invention.

Figure 4 is a plan view of the complete tooth guard taken for example as looking 60 down on Figure 2, the view in Figure 4 being tilted slightly so as to see the artificial front teeth formation.

Figure 5 shows a cross sectional view of the tooth guard held in position by palatal 65 suction with the mouth of the wearer in open position showing how the guard remains in place though the mouth is open.

Referring further to the drawing for a more detailed description of the invention, there is shown a hard palatal piece 8 which 70 is arcuate in form and which is adapted to fit up closely against the roof of the mouth and thereby remain in place by palatal suction. The palatal plate is usually made of vulcanized hard rubber so as to hold its 75 shape and give partial rigidity to the entire structure.

An upwardly extending soft rubber flange 9 is integrally made on the hard rubber palate piece 8 and this soft rubber flange 9 80 is preferably made of pink rubber so as to be more nearly the color of the gum margin and not detract from the appearance of the wearer when his lips are parted. A lower soft rubber protective flange 10 is integrally 85 formed with the upper flange 9 and with the palatal piece 8. This lower flange 10 forms in fact a continuation or lower extension of the upper flange 9, and the palatal piece 8 is integrally molded on the flange 9—10 and 90 curves back therefrom and conforms to the shape of the roof of the mouth.

With further reference to the upper flange or tooth guard covering means 9, I will explain that this part is designed to overlie 95 and protect the front surfaces of all the front and side teeth, and this flange is positioned between the inner surface of the up-

per lip and the outer surface of the upper teeth and upper gum margin. In other words, the thin soft rubber flange 9 is interposed between the wearer's upper lip and his upper teeth to pad and cover the teeth.

The upper protective guard flange 9 is spaced at its lower margin from the lower portion of the palate 8 and this clearance is just enough to permit the teeth to press down thereinbetween. The wearer's upper teeth are intended to press in between the flange 9 and palatal piece 8. With this in view upper occlusal pockets 12 are impressed between the flange 9 and palatal piece 8 in order that the wearer's teeth may accurately rest in position thereby causing the upper arcuate surface of the arcuate piece 8 to rest in contiguous relation against the roof of the mouth.

With further reference to the lower protective flange 10, it is noted that tooth occlusal pockets 14 are imprinted or molded on the underneath inside of the flange 10 adjacent the base of the palatal piece 8. These occlusal pockets 14 afford a resting place into which the occlusals of the lower teeth may snugly rest when the mouth is closed, but when the mouth is open the entire tooth guard structure clings to the upper roof of the mouth thereby giving the wearer perfect freedom in moving the muscles of his lips and jaws and in holding his mouth open to breathe. While closed, the occlusals of the lower teeth rest in the pockets 14 and the flange 10 slightly overhangs the front surface of the teeth as shown in the assembly Figure 1 with the result that the flange guard 10 is interposed between the lower lip and the cutting surface of the lower teeth. So long as the occlusal surfaces of the lower teeth are covered, it follows that the lip cannot be lacerated by blows received thereon. The lower teeth cover flange 10 is preferably shorter than the upper teeth cover flange 9 which is a practical improvement because it is desired to cover only the occlusals, the points of the lower teeth, rather than the entire front tooth surface.

A further improvement which may to advantage be used in connection with this tooth guard structure resides in the fact that the lower tooth guard flange 10 may have impressed, printed or molded therein, artificial teeth formations 16. The teeth formations 16 are made of white rubber so as to appear like teeth and the remaining portions 10 of the lower flange guard which extend to either side of the teeth formation 16 may also be made of white rubber. It is preferred that the upper teeth guard or flange 9 be made of pink rubber to simulate the appearance of the gums, and so by printing or molding white teeth 16 onto the pink flange 9, it follows that the general appearance of the front of this guard takes on the appearance of

front teeth of the wearer in which case his personal looks are not materially altered during the time his mouth is open.

This improved tooth and lip guard removes the many objections held heretofore against such protectors for the reason that a contestant may safely wear this guard with his mouth open, and therefore mouth breathing which takes place in the ring is not impeded and so the fighter is not in danger of having the guard knocked out of position and down his throat since the palatal suction feature operates to positively hold the guard in place despite the fact the mouth may be open. When the fighter closes in on his opponent, it is good practice that he instantly close his mouth at which time the occlusal of both upper and lower teeth are padded and embedded in soft rubber, and then when the contestants are parted, the wearer is free to open his mouth for respiration.

What I claim is:

1. A tooth guard comprising a palatal piece by which the guard is held in the mouth by suction, and tooth pad covering means carried by the palatal piece by which the tooth occlusals are covered to prevent lip cutting in boxing contests.

2. A tooth guard comprising a palatal piece by which the guard is held in the mouth by suction, a soft upwardly extending rubber flange integrally made on the palatal piece by which the front of the upper teeth are covered, said upwardly extending flange being spaced from the palatal piece, occlusal pockets for the points of the upper teeth made in the space between the flange and palatal piece, occlusal pockets for the lower teeth made under the palatal piece, and a short downwardly projecting cover flange overhanging the last named tooth pockets.

3. A tooth guard comprising a palatal piece by which the guard is held in the mouth by suction, a soft rubber flange integral with the palatal piece adapted to cover the front surface and the occlusals of the upper teeth, and a depending short length soft rubber flange adapted to cover the lower teeth when the wearer closes his mouth.

4. A tooth guard comprising a palatal piece by which the guard is held in the mouth by suction, pad covering means carried by the palatal piece by which the tooth occlusals are covered to prevent lip cutting in boxing contests, and an artificial simulation of teeth molded into the pad covering means which overlap the front surface of the wearer's teeth and which if exposed to view appear as ordinary teeth.

5. A tooth guard comprising a palatal piece by which the guard is held in the mouth by suction, a soft rubber flange integrally made on the palatal piece by which the front of the teeth and the occlusals of

the teeth are covered, and a soft white rubber front teeth simulation outlined in the flange adapted to ordinarily appear as the wearer's teeth.

- 5 6. A tooth guard comprising a palatal piece made of hard rubber which remains in position by suction when the mouth is open, and a soft rubber pad integral with the palatal piece and forming a flange covering the
10 teeth to prevent lip cutting.

7. A tooth guard comprising a vertical

soft rubber guard adapted to be placed between the lips and teeth, an arcuate palate piece integrally formed with the guard, one part of the guard being made of pink rubber to simulate the gums of the wearer, and the other part of the guard being made of white rubber with tooth formations therein molded to simulate the teeth of the wearer.

In testimony whereof I affix my signature.

JACK L. SHAPIRO.