April 30, 1957 T. J. SOWLE 2,790,175

FACE GUARD

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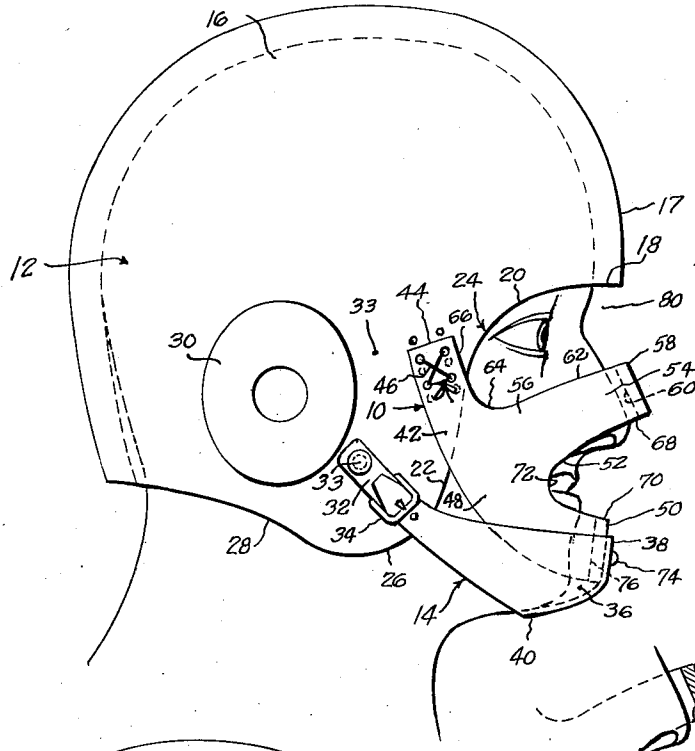

Fig. 1.

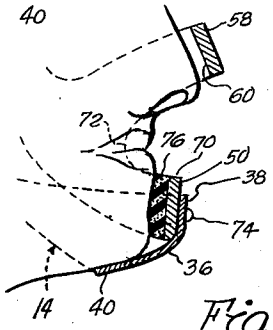

Fig. 3.

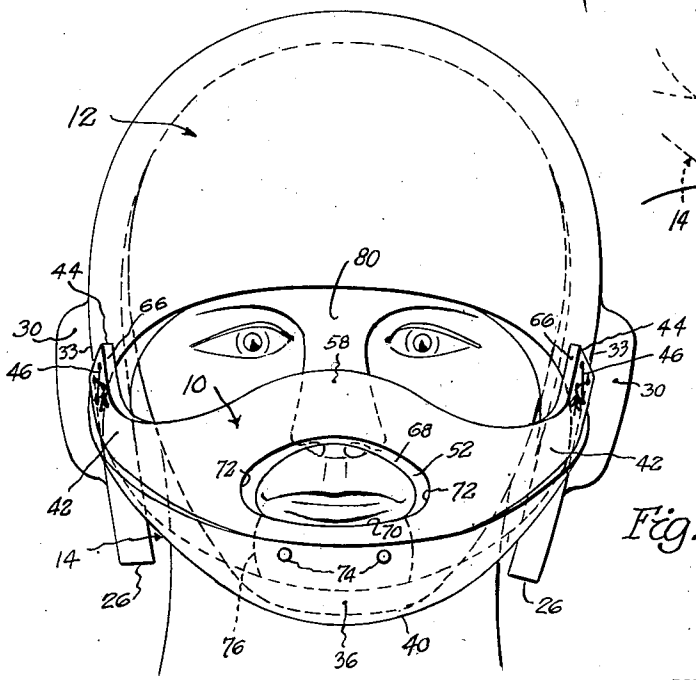

Fig. 2.

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FACE GUARD

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2 Claims. (Cl. 2—9)

This invention relates to face guards for athletes and, in particular, to face guards attachable to helmets or other head gear.

One object of this invention is to provide a face guard which is attachable at two points to a helmet or other headgear, such as a football helmet, automobile race driver's helmet or the like, and at its third point rests against the front of the wearer's chin, thereby bringing about a three-point support of the guard which enables the elimination of the bulky and uncomfortable padding commonly used in other guards which are hot and stifling to the wearer.

Another object is to provide a face guard of the foregoing character which is of skeleton construction so that in addition to the portion extending from each side of the guard down to and in front of the chin, it requires only an additional portion extending from the sides of the guard across the face in front of the nose to give adequate protection to the wearer's face and eyes, in cooperation with the helmet or headgear to which it is attached.

Another object is to provide a face guard of the foregoing character which by reason of the two points of attachment to the headgear or helmet in combination with the fixed third point of engagement with the chin, is easily adaptable to fit all wearers and attachable to all sizes of helmets, regardless of the different sizes of wearers' faces, as well as being simple in construction, of light weight and of low cost of production.

Another object is to provide a face guard of the foregoing character which is held against the chin by a chin strap extending downward to the chin around the chin portion of the guard, thereby firmly holding the guard against displacement by blows and securing the guard in position automatically when the chin strap is snapped or otherwise fastened in position, as is necessarily done when the wearer puts on the helmet alone.

Another object is to provide a face guard of the foregoing character which allows the wearer to lift the guard away from his face by using the two points of attachment to the helmet or other headgear as pivot points or hinges.

Another object is to provide a face guard of the foregoing character wherein the face guard, by being attached at its sides to the helmet or other headgear by means of adjustable fastenings, such as lacings, renders the adaptation of the face guard to the individual wearer a rapid and easy matter.

Another object is to provide a face guard of the foregoing character which, by reason of its single and sole point of contact at the front of the wearer's chin eliminates irritation resulting in other face guards from dust and dirt of the playing field working its way under the extensive padding of such other guards and which, by reason of its skeleton construction, is airy and well ventilated.

Other objects and advantages of the invention will be-

come apparent during the course of the following description of the accompanying drawing, wherein:

Figure 1 is a side elevation of a face guard, according to one form of the present invention, shown as attached to a football helmet and held in position against the front of the wearer's chin by a chin strap attached to the helmet;

Figure 2 is a front elevation of the face guard and helmet shown in Figure 1; and

Figure 3 is a central vertical section through the forward portion of the face guard of Figures 1 and 2, showing its forward point of support against the front of the chin of the wearer.

Many forms of sport, such as football playing, automobile racing and the like, result in injuries to the nose, teeth, lips, jaw, cheekbones, eyes and other adjacent portions of the face, and face guards hitherto provided for protection of these facial areas have been unsatisfactory for various reasons. Some such prior guards have been in the form of masks covering the major portion of the face and tending to stifle the wearer in hot weather, as well as resulting in irritation to the wearer's face by reason of dust working its way under the extensive padding previously provided. Such prior masks also have not been adaptable to different sizes of faces or heads, thereby requiring it to be made in various sizes, with consequent high cost of production and necessarily high cost to the purchaser. Such prior guards and masks which extended over the entire face have also been bulky and heavy, with numerous points of attachment to the helmet or head gear which render a trim and satisfactory fit virtually impossible because of the wide variety of sizes and shapes of faces. Such prior face guards or masks have also frequently been loose-fitting and relatively insecure by reason of being easily displaced when subjected to blows from different angles, and lacking a firm and solid positioning of the guard.

The present invention provides a face guard which, although of skeleton construction, nevertheless provides complete protection, is easily adjustable to different sizes of faces, and requires no padding whatever, aside from an optional pad between the front of the guard and the front of the wearer's chin. The face guard of the present invention is secured at its sides to the sides of the helmet or headgear and in addition to this U-shaped portion extending from each side of the guard down to and in front of the chin, requires only a bridge portion extending from the side portions of the guard across the face in front of the nose to give adequate protection to the wearer's face and eyes, in cooperation with the helmet or other headgear to which it is attached. The face guard of the present invention is automatically held against the front of the wearer's chin by a chin strap which also holds the helmet or other headgear in position, so that the guard may be easily lifted away from the face when the chin strap is released, merely by using the two points of attachment to the helmet or other head gear as pivot points. The face guard of the present invention makes use of the fact that the wearer's chin is a strong and firm part of the face which is capable of sustaining severe blows which would seriously injure the other parts of the face. Proof of this fact is seen in the punishment which the jaw sustains in boxing, wrestling and like sports.

Referring to the drawings in detail, Figure 1 shows a face guard, generally designated **10**, according to one form of the invention as attached to a headgear, generally designated **12**, such as a football helmet having a chin strap **14** passing in front of and beneath the chin of the wearer. The headgear **12** is of any suitable type and may also consist of the helmet used by a race driver for the protection of his skull and forehead, and has a top portion **16** extending down over the forehead to a front

or forward portion 17 having a lower front edge 18 at approximately the level of the eyebrows with a rearwardly and downwardly extending edge portion 20 and 22 respectively following the approximate location of the cheek bones to leave vision from the eyes unobstructed. The lower portion 22 of the front edge, generally designated 24, has a rounded corner 26 where it joins the lower edge 28 of the head gear or helmet 12. Ear guards or protectors 30 are optionally provided and the chin strap 14 has an anchorage portion 32 secured as by a snap fastener 33 to the lower portion of the helmet forwardly of the ear guards 30. The chin strap 14 is secured to the side portions 33 of the helmet 12 in any suitable manner, such as by the buckle 34 shown in Figure 1 or by a quick-detachable snap fastening or any other suitable form of fastener. The forward portion 36 of the chin strap is cupped, having an upper part 38 passing in front of the chin of the wearer and a lower part 40 passing beneath it. The face guard 10 is made of any suitable material, such as synthetic plastic, preferably transparent synthetic plastic.

The face guard 10 has an approximately U-shaped main portion 42 with upper end portions 44 secured by any suitable fastenings 46 to the side portions 33 of the headgear 12. The main portion 42 has side portions 48 of arcuate shape extending downwardly and forwardly around the front of the wearer's chin, the front portion being designated with the reference numeral 50. A mouth opening 52 of horizontally-elongated outline is provided between the front portion 50 and a bridge portion 54 which extends upwardly and forwardly at an inclined position, having its opposite end portion 56 joining the side portions 48 of the main portion 42 just below the nose level. The bridge portion 54 has a front portion 58 which extends over the lower front portion of the nose and which has an inner surface 60 spaced away from the nose to keep it out of contact with the nose. The upper edge 62 of the bridge portion 54 extends forwardly and upwardly from is junction 64 with the forward edges 66 of the side portions 48. The lower edge 68 of the bridge portion 54 extends upwardly and forwardly at approximately the level of the bottom of the nose to provide protection for the nose and mouth.

The upper edge 70 of the front portion 50 lies approximately at the level of the lower lip and joins the lower edge 68 of the bridge portion 54 at the "corners" 72 of the mouth opening 52 corresponding to the "corners" of the wearer's mouth. The upper part 38 of the forward portion 36 of the chin strap 14 is optionally secured by any suitable fastener or fasteners 74 to the front portion 50 of the main portion 42, and a small pad 76 is optionally secured, as by cementing, to the inner surface 78 of the forward portion 50 and engages the front of the chin of the wearer below the level of the teeth. The pad or cushion 76 is preferably of elastic deformable material such as natural or synthetic rubber or sponge rubber, or a resilient synthetic plastic. The side portions 48 and bridge portion 54 of the face guard 10 elsewhere than at the front portion 50 are preferably out of contact with the face of the wearer, thereby providing a space through which cooling air can pass, ventilating the guard and rendering it comfortable on the face. Moreover, this same space prevents dust from irritating the wearer by coming between the guard and the face, as in prior types of mask or face guard having large areas of padding directly engaging the face.

In the use of the invention, assuming the face guard 10 to have been attached in the above-described manner to the helmet or other headgear, and assuming the chin strap 14 to be in its released position, the wearer puts on the helmet 12 and face guard 10 simultaneously by holding the helmet 12 above his head and pulling it downward over the top of his skull, while holding the front portion 50 and bridge portion 54 in an upwardly-swung position around the fastenings 46 as pivots. After he pulls the upper portion 16 of the helmet 12 downwardly over the top of his head, he swings the face guard 10 downwardly and inwardly into the position shown in Figures 1, 2 and 3, bringing the cushion or pad 76 against the front of the chin or jaw and at the same time pulling the chin strap 14 backward to a position where it can be fastened in its closed position shown in Figure 1.

During the game, race or other activity, the helmet 12 protects the skull and main portion of the head of the wearer from blows from above, from the sides or from the rear. The forward portion 17 of the helmet 12 protects the forehead, down as far as the eyebrows and eyes, and the bridge portion 54 cooperates with the forward portion 17 in providing an eye opening 80. The bridge portion 54 protects the nose and mouth and, by reason of its rigid and integral connection with the side portions 48 of the main portion 42, provides protection for the cheek area of the face. The front portion 50 cooperates with the bridge portion 54 to protect the mouth, lips and teeth, while still enabling the user to talk, breathe freely, drink or expectorate. The shock of a blow falling upon the face guard is borne by the face guard and transferred by it partly to the helmet 12 at the points of attachment 46 and partly to the wearer's chin or jaw through the cushion or pad 76. The front of the jaw is naturally of sufficient strength to sustain such blows, especially when they are muffled or reduced by the padding 76 and by the transfer of a portion of the blow to the side portions 33 of the helmet or other headgear 12. The skeleton construction of the face guard 10, while giving adequate protection to the face, at the same time gives adequate vision to the user and satisfactory ventilation.

To remove the head gear 12 and face guard 10, the user unsnaps or releases the chin strap 14, swings the forward portion 50 of the face guard 10 upward around the fastening points 46 as pivots, and raises the head gear 12 upwardly off his head with an upward motion of his hands. Thus, the same motion which removes the helmet or other headgear 12 also removes the face guard 10. The chin strap 14 assists in holding the face guard 10 in position and provides additional support and protection from the effects of lateral blows against the sides of the face guard.

What I claim is:

1. A face guard adapted to be attached to the opposite sides of an athletic helment, said face guard comprising a half-mask member of approximately U-shaped longitudinal section configured to cover only the lower part of the wearer's face below the eye level thereof and having a lower central portion configured to fit around and rest against the front of the wear's chin and side arms of arcuate shape extending upwardly and rearwardly from said lower central portion, said side arms having upper ends with means thereon for pivotally attaching said guard to said sides of said helmet, and a bridge bar extending forwardly from said side arms and secured thereto at its opposite ends, said bridge bar having an upper central portion disposed uppermost on said half mask member below the wearer's eye level and adapted to arch over the wearer's nose; and a chin strap having opposite ends adapted to be secured to said opposite sides of said helmet and having a middle portion passing in front of and engaging the front of said lower central portion of said U-shaped member, said upper central portion being spaced above said lower central portion, said central portions having a mouth opening disposed therebetween.

2. A face guard adapted to be attached to the opposite sides of an athletic helmet, said face guard comprising a half-mask member of approximately U-shaped longitudinal section configured to cover only the lower part of the wearer's face below the eye level thereof and having a lower central portion configured to fit around and rest against the front of the wearer's chin and side arms of arcuate shape extending upwardly and rearwardly from

said lower central portion, said side arms having upper ends with means thereon for pivotally attaching said guard to said sides of said helmet, and a bridge bar extending forwardly from said side arms and secured thereto at its opposite ends, said bridge bar having an upper central portion disposed uppermost on said half-mask member below the wearer's eye level and adapted to arch over the wearer's nose; and a chin strap having opposite ends adapted to be secured to said opposite sides of said helmet and having a middle portion connected to and engaging the lower central portion of said U-shaped member, said upper central portion being spaced above said lower central portion, said central portions having a mouth opening disposed therebetween.

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