June 20, 1944. J. H. FAY 2,351,752

PROTECTIVE MASK

Filed July 31, 1942

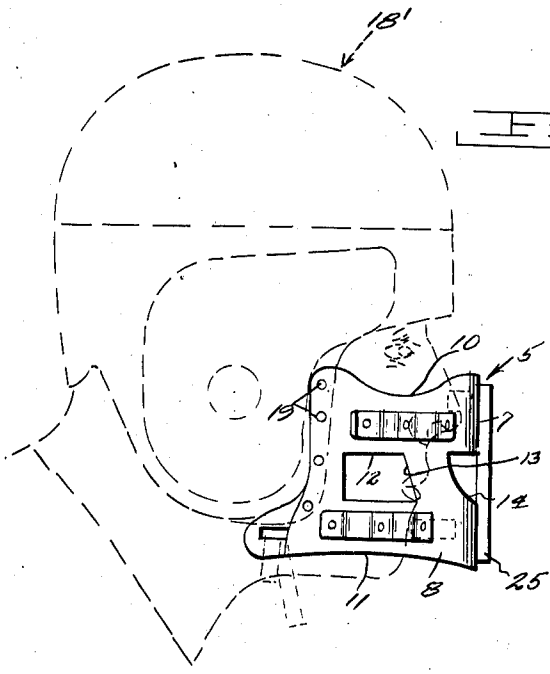


Fig 1

Fig 2

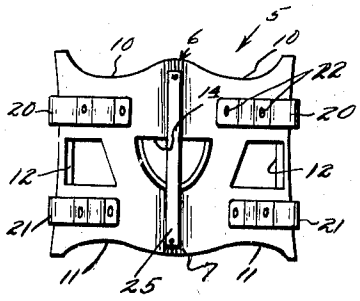


Fig 4

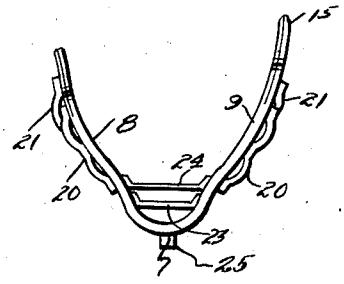


Fig 5

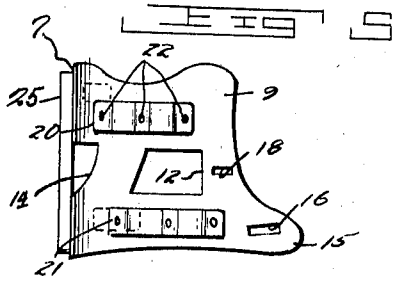


Fig 3

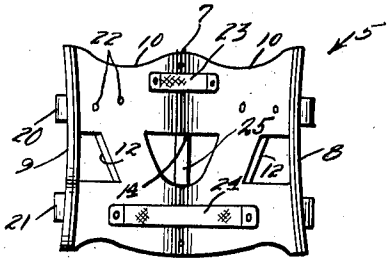
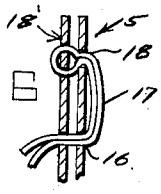


Fig 6



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PROTECTIVE MASK

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Application July 31, 1942, Serial No. 453,074

1 Claim. (Cl. 2—9)

This invention relates to an improved protective face mask, especially although not necessarily, to be worn with or attached to a football or similar helmet, the primary object of the invention being to provide a mask of this type affording unimpaired vision and maximum protection to teeth and jaw bones, and characterized by superior shock-absorbing effect, lighter weight, and economy of manufacture.

Other important objects and advantages of the invention will be apparent from a reading of the following description of the appended drawing, wherein for purposes of illustration a preferred embodiment of the invention is shown.

In the drawing:

Figure 1 is a right hand side elevational view of the mask showing in dotted lines a football or similar helmet associated with the mask.

Figure 2 is a front elevational view.

Figure 3 is a rear elevational view.

Figure 4 is a top plan view.

Figure 5 is a left hand side elevational view.

Figure 6 is an enlarged fragmentary vertical sectional view showing the lacing of the mask to the helmet.

Referring in detail to the drawing, the numeral 5 generally designates the improved mask which may be composed of any suitable material, preferably sole leather, which affords the desired resiliency, strength, and rigidity, the mask body 6 being formed of one or more plies of the material secured together.

The sheet or plate composing the body 6 is curvedly bent intermediate its ends to define the nose or frontal portion 7 and the two cheek or side portions 8 and 9, respectively. The sides 8 and 9 are substantially similar in shape, being generally rectangular. The upper edges of the sides are downwardly curved at 10 to avoid obscuring the field of vision of the corresponding eye of the wearer while reaching along the cheekbone as indicated in Figure 1 of the drawing. The lower edge of the sides may be slightly upwardly curved as at 11 or substantially straight. Each side has a polygonal opening 12 having a forwardly declining front edge 13 substantially paralleling the corresponding side edges of the inverted substantially triangular opening 14 in the frontal portion 7. All of the said openings are spaced intermediate the upper and lower edges of the mask body and intermediate the front and rear extremities of the sides 8 and 9, the holes being provided for ventilation and to reduce the weight and rigidity of the mask in locations wherein rigidity is not required.

The side 9 has at the lower end of its rear edge an extension 15 having a horizontal slot 16 for reception of the chin strap 17, such as is usually present on football and similar helmets, for retaining the helmet on the head of the wearer. A second slot 18 is formed in the side 9 above and forwardly from the slot 16 as shown in Figures 5 of the drawing.

In assembling the mask as equipment on a helmet 18', the rear edge portion of the side 8 is riveted as indicated at 19 to the forward edge of the adjacent part of the helmet. The rear edge of the side 9 is left unattached and is arranged to be removably secured to the forward edge of the other side of the helmet by means of the strap 17. When the strap 17 is disengaged, the mask can be turned aside for removing or donning the helment-equipped mask.

Shock-absorbing elements 20 and 21 are vertically spaced on the outside of the sides 8 and 9. The upper element 20 is located to protect the jaw bone and cheek bone area while the lower element 21 is located to protect the teeth of the wearer, both elements being horizontally arranged and extending from the frontal part 7 well back along the sides 8 and 9.

Each shock-absorbing element is composed of a heavy strap of one or more plies of material secured together and bent into a double bow shape clearly seen in Figure 5 of the drawing. Rivets 22 secure the elements at their ends and at their middle to the mask body sides.

One upper nose strap 23 and a lower chin strap 24, preferably of flexible and elastic material are secured at their ends chordally across the frontal portion 7, as indicated in Figure 4, in positions to engage the nose and chin of the wearer whenever a severe shock is imposed on the frontal portion, to prevent injurious or uncomfortable contact by the frontal portion.

The open side of the mask is removably secured in closed position by looping the chin strap 17 through the upper and lower slots 18 and 16 as shown in Figure 6 of the drawing, the strap being tethered at one end to the helmet and the opposite end of the strap being passed under the chin of the wearer and secured to the opposite side (not shown) of the helmet.

In certain instances I have found it expedient and practicable to add to the rigidity of the structure by utilizing an extra brace. By preference this is in the form of a longitudinally elongated piece or strip of leather 25. It is externally arranged and riveted or otherwise fastened so that it becomes superimposed against the crown or

crest portion of the area 7. In the drawing it is shown extending from points just inwardly of the upper and lower edges of the main structure. It is also shown spanning or bridging the opening or aperture 14.

Although there is shown and described herein a preferred embodiment of the invention it is to be understood that it is not desired to limit the application of the invention thereto, except as may be required by the scope of the subjoined claim.

Having described the invention, what is claimed as new is:

A mask to be attached to a football helmet having a chin strap and for protecting the face of the wearer comprising a sheet of resilient relatively-stiff material including a pair of substantially rectangular side walls, and a transversely rounded front wall from which said sidewalls diverge, said walls being of less height than the distance between the eyes and throat of the wearer whereby the front wall is adapted to extend across the lower portion of the nose and across the mouth and front of the chin and the side walls are adapted to extend alongside the cheeks and sides of the jaws, the front and side walls being provided with relatively small central ventilating openings therein, respectively, a pair of shock absorbing strap-like elements extending horizontally across the outer side of each side wall along the upper and lower edges of said side walls, a vertical strap-like brace element extending longitudinally of said front wall on the outer side of the same and in the longitudinal center thereof, means to permanently attach the edge of one side wall to one side of the helmet, and a slotted lower corner tab on the other side wall through which said chin strap may be looped to fasten said other side wall alongside the face of the wearer.

JOSEPH H. FAY.