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H. MCGOWAN

2,758,304

FOOTBALL HELMET

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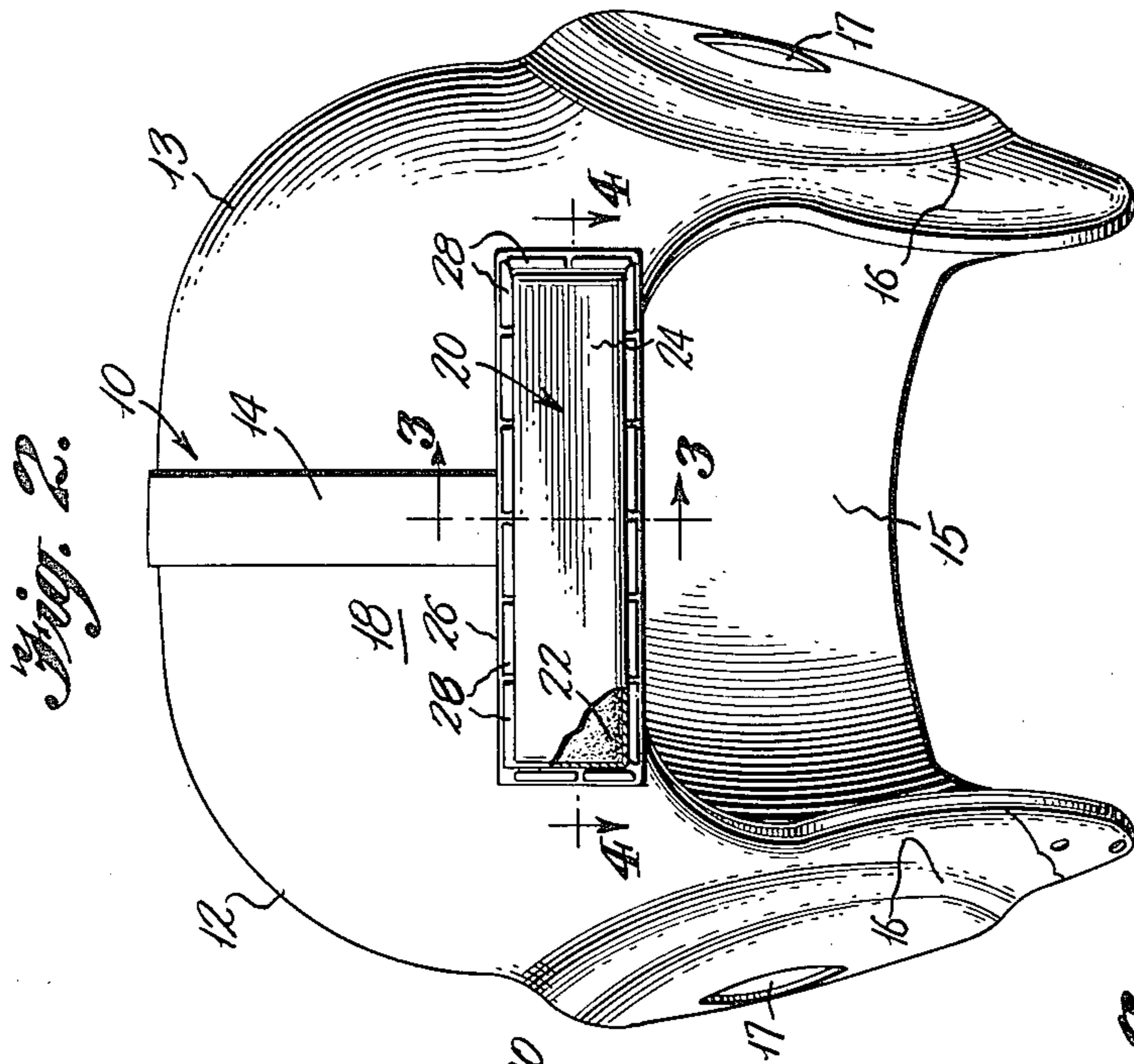


Fig. 2.

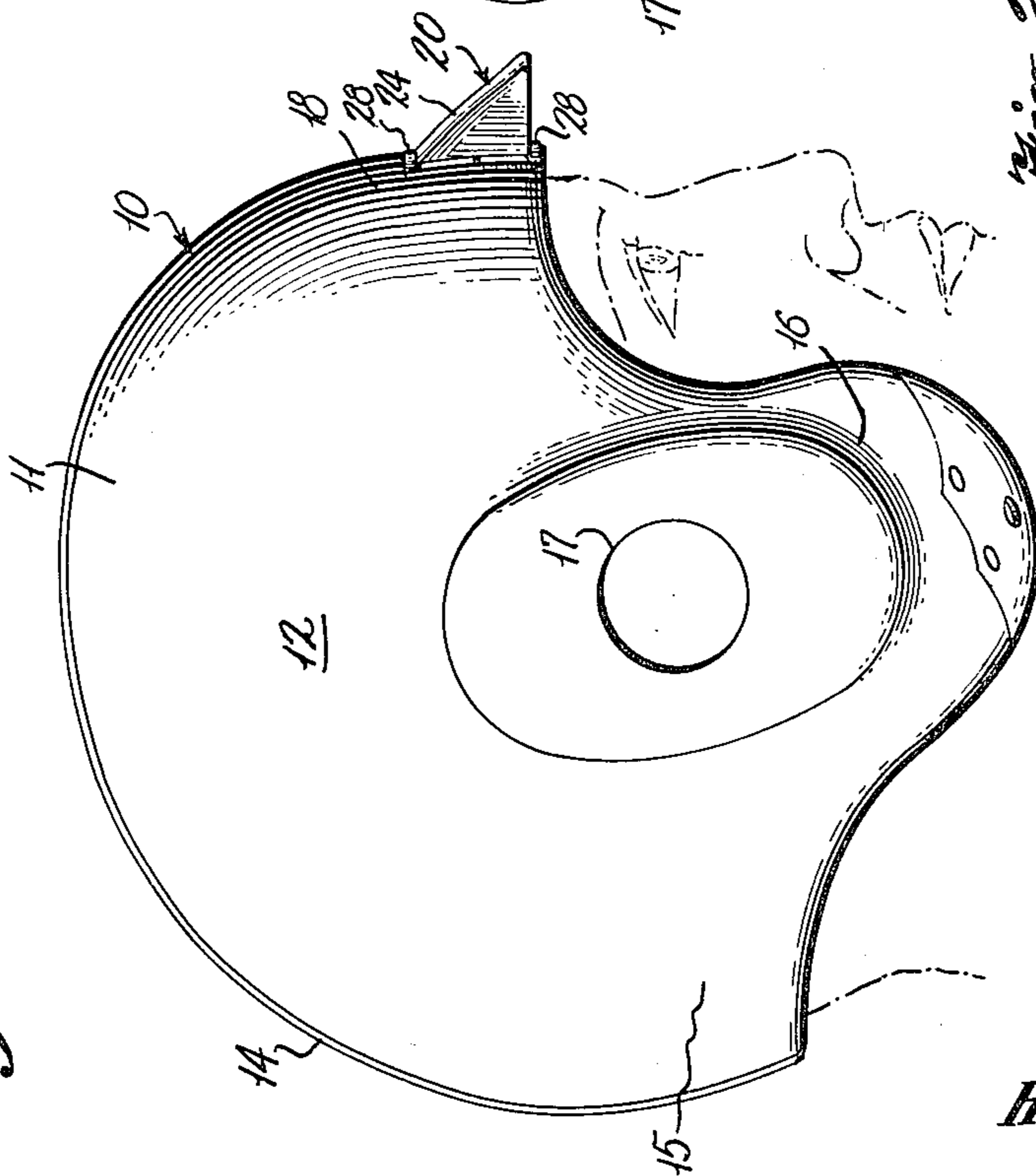


Fig. 1.

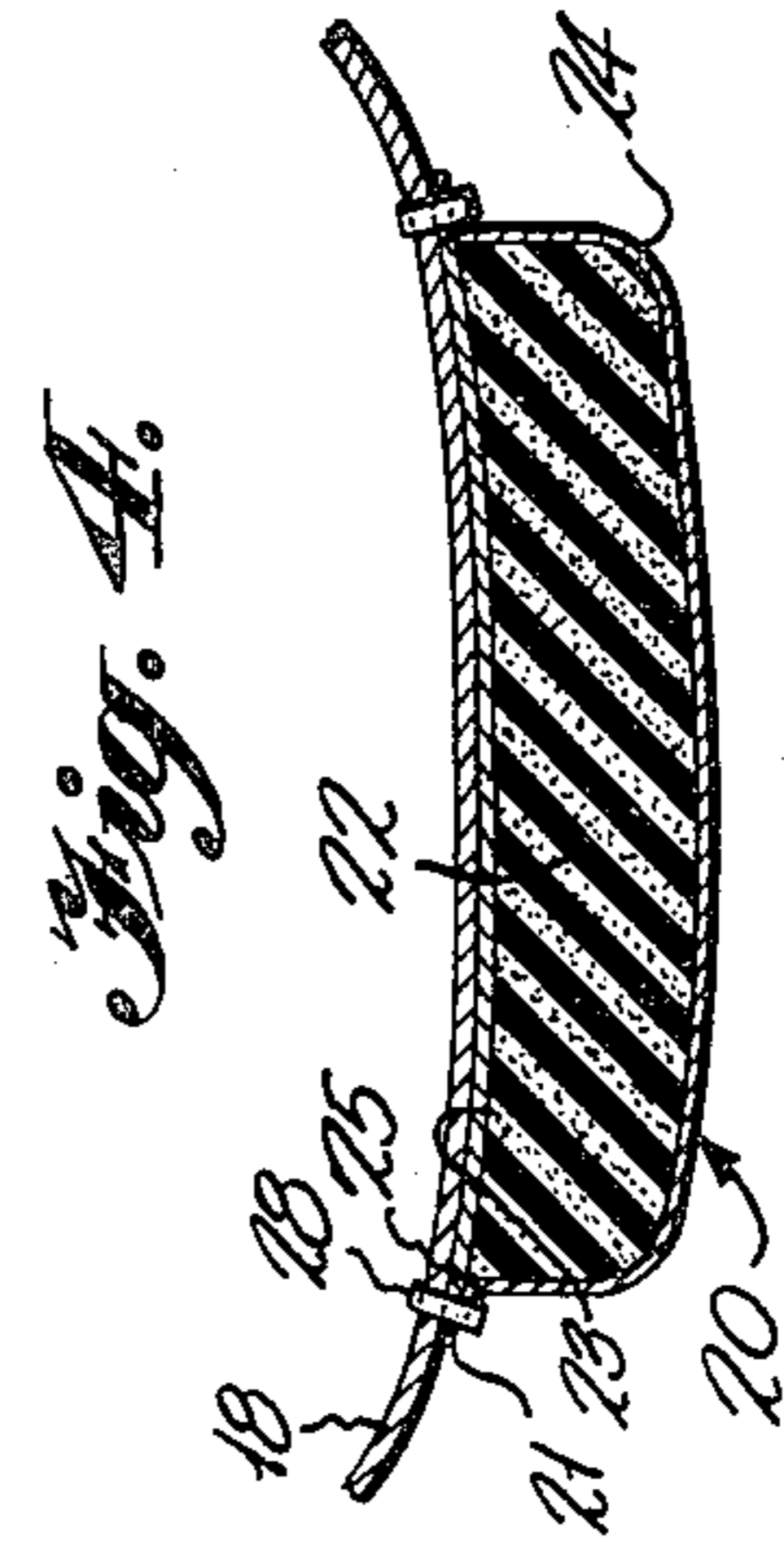


Fig. 4.

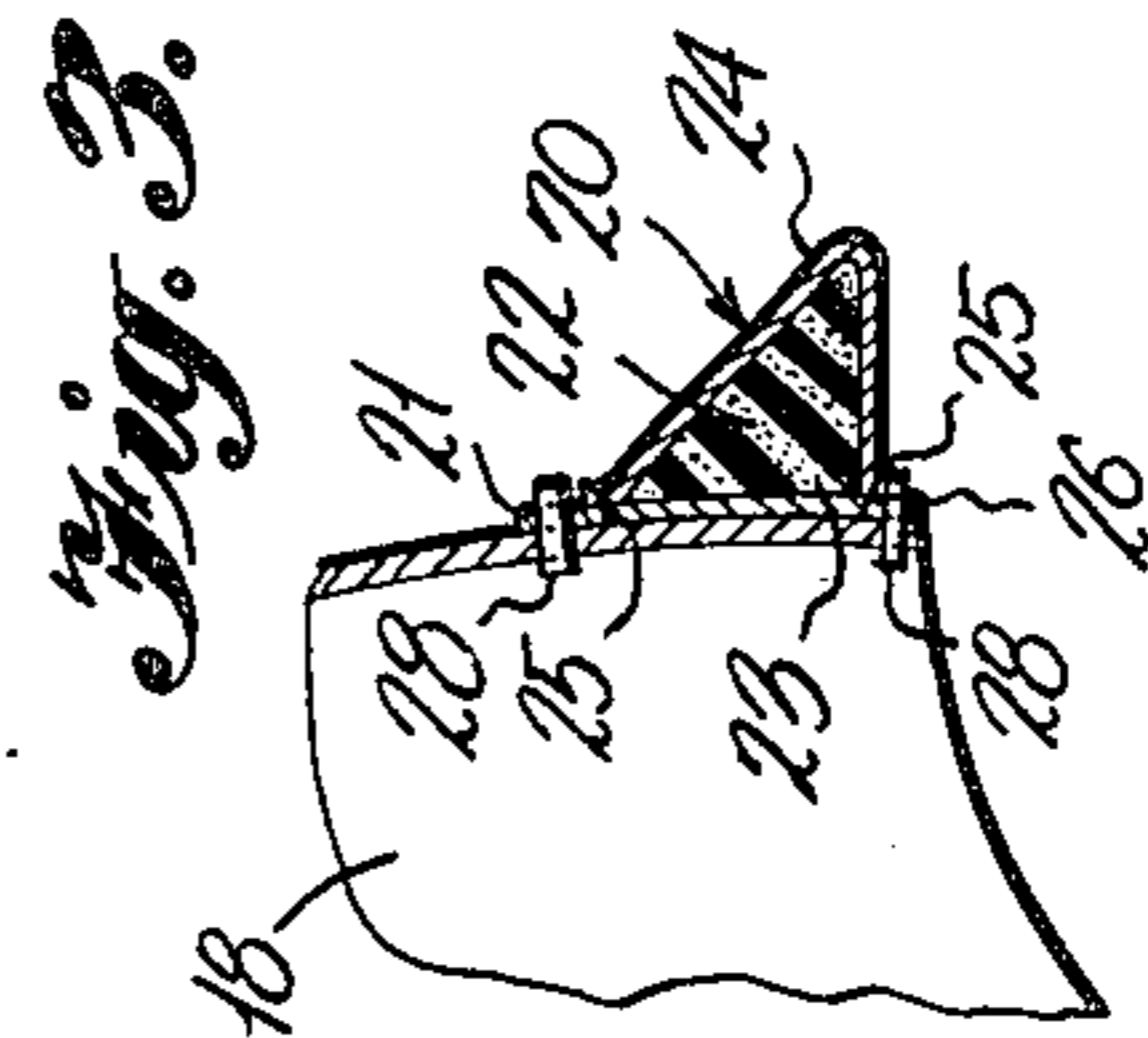


Fig. 3.

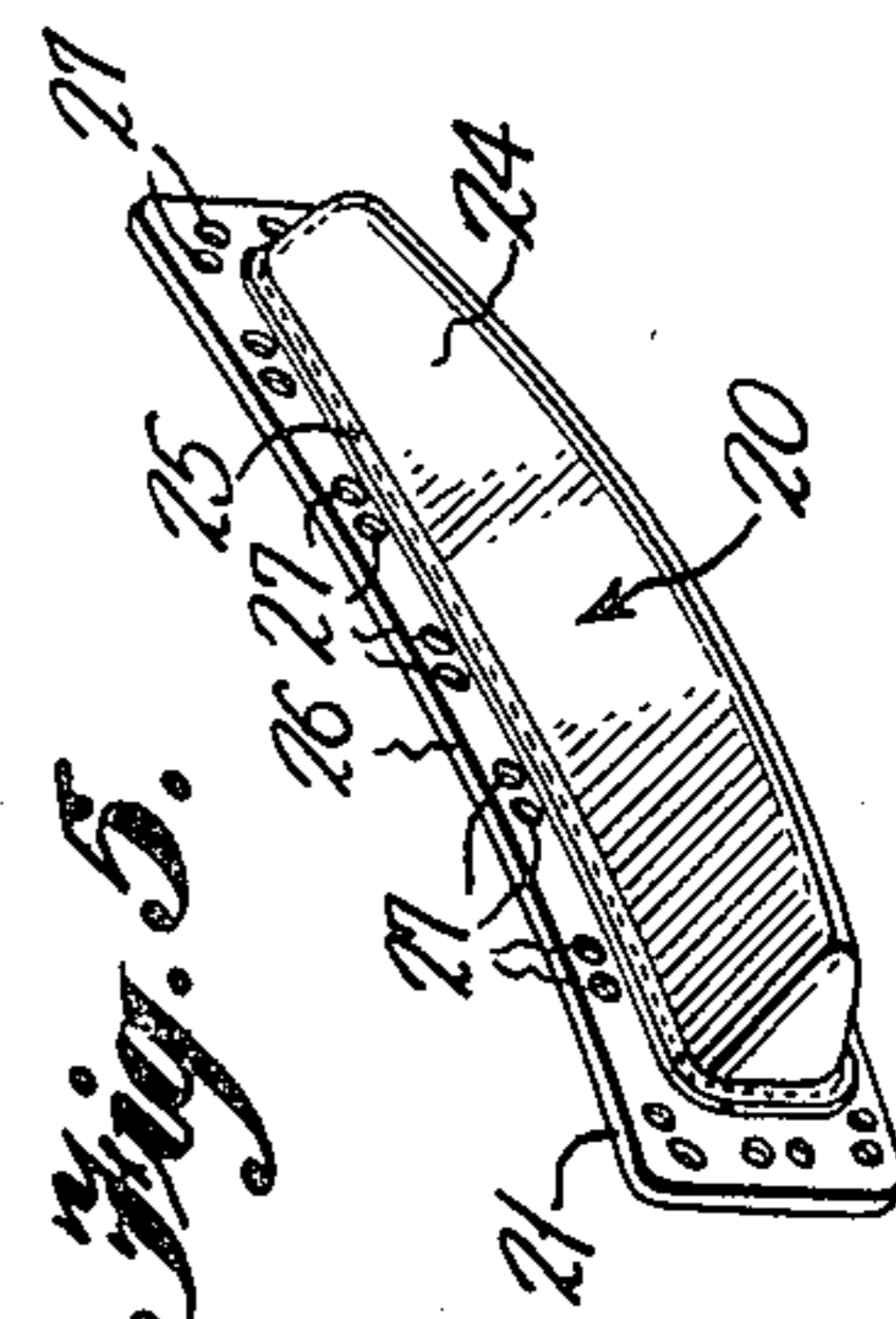


Fig. 5.

INVENTOR
Hugh McGowan

BY *Mason, Fenwick & Lawrence*
ATTORNEYS

1

2,758,304

FOOTBALL HELMET

Hugh McGowan, Towson, Md.

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4 Claims. (Cl. 2-3)

The present invention relates in general to protective headgear of the type employed in connection with athletic wear such as football helmets, and more particularly to visor construction to be used with such football helmets.

Heretofore, it has been common practice in the design and production of football helmets to form the crown portion of the helmet, particularly that portion designed to protect the forehead and temples of the wearer, to conform closely to the shape of the head in this region and in substantially all instances the forehead portion of the helmet projects forwardly of the forehead of the wearer only a distance slightly greater than the thickness of the material forming the crown of the helmet. This is true even where leather helmets of the type having built-in forehead padding are concerned. This projection of the temple and forehead-protecting portion of the crown beyond the face of the wearer has not been sufficient to give any protection against glare from the sun in the eyes of the wearer, nor has it been sufficient to afford any significant protection against weather or blows directed downwardly toward the facial region near the lower edge of the forehead-protecting portion.

In the type of football currently in vogue wherein forward passing plays such a dominant role in offensive strategy, the inability of football helmets designed in accordance with conventional standards to protect the eyes of pass receivers from the sun and from weather presents significant disadvantages.

An object of the present invention is the provision of a visor assembly to be associated with conventional football helmets, which is effective to afford weather and sun protection for the wearer of the helmet, but which is constructed in a manner to avoid increasing danger of injury to opposing players.

Another object of the present invention is the provision of a novel visor unit for football helmets which will afford weather and sun protection to the wearer of the helmet, and which is readily adaptable to be associated with conventional football helmets of any of the various commercially available types.

Another object of the present invention is the provision of a visor unit to be associated with football helmets to afford weather and sun protection to the wearer, which is resiliently deformable in character to avoid injury to opposing players upon contact with portions of the visor projecting forwardly of the helmet.

Another object of the present invention is the provision of a novel visor unit to be associated with conventional football helmets to afford weather and sun protection to the wearer, which is constructed and arranged to afford additional forehead and facial protection by deflecting blows directed downwardly against the temple and forehead-protecting portions of the helmet.

Other objects, advantages and capabilities of the present invention will become apparent from the following detail description, taken in conjunction with the accom-

2

panying drawing illustrating one preferred embodiment of the invention.

In the drawing:

Figure 1 is a side elevation showing a visor unit embodying the present invention in assembled relation with a football helmet of the preferred type.

Figure 2 is a front elevation of a visor unit constructed in accordance with the preferred embodiment in assembled relation on a football helmet, parts of the visor unit being broken away to illustrate the internal construction thereof.

Figure 3 is a fragmentary vertical section view taken transversely of the visor unit along the lines 3-3 of Figure 2.

Figure 4 is a fragmentary horizontal section view taken longitudinally through the visor unit along the lines 4-4 of Figure 2.

Figure 5 is a perspective view of the visor unit in condition for assembly with the conventional football helmet.

Referring to the drawings wherein like reference characters designate corresponding parts throughout the several figures, there is illustrated a preferred form of football helmet, indicated by the reference character 10, with which the visor unit embodying the present invention is designed to be associated. The helmet 10 of the preferred embodiment is, for example, of the type disclosed in U. S. Patent No. 2,293,308, having the usual crown or body portion 11 molded from a suitable plastic material to the desired shape and formed of two sections 12 and 13 joined along a medial longitudinal dividing line covered by a reinforcing band 14 of plastic material secured to the crown in overlying relation to the joint between the sections 12 and 13. As illustrated, the crown is formed with a portion 15 designed to extend around the back of the head of the wearer and with ear-protecting portions 16 at opposite sides, each provided with suitable openings 17 located opposite the ears of the wearer. The crown is also formed with a forehead and temple-protecting portion 18 extending down over the forehead and temples of the wearer to a point immediately above the eyebrows of the wearer.

The visor unit of the preferred embodiment, indicated generally by the reference character 20, is in the form of a resilient body having a substantially horizontal lower surface and an inclined upper surface, the body being adapted to be fixed to the forehead and temple-protecting portion 18 of the crown 11 so as to project approximately one inch forward of the front of the helmet and serve as a visor protecting the face and eyes of the wearer against sun, weather and downwardly directed blows.

The preferred form of construction of the visor unit 20 comprises a mounting panel 21 of substantially rectangular form, which is preferably formed of stiff leather hide or other moderately deformable material which will conform itself to the curvatures of the forehead and temple-protecting portion 18 of the helmet. A body 22 of highly resilient material, such as sponge rubber having a right triangular cross section, is supported with its rear face 23 against the front face of the supporting panel 21, the resilient body 22 being held in position by a readily deformable cover 24 of sheet material, preferably of thin pliant leather or the like. As illustrated in Figures 2, 3 and 4, the rear face 23 of the sponge rubber body 22 is of a rectangular outline which is somewhat shorter and narrower than the base panel 21, leaving exposed securing flanges 25 formed by the edge portions of the mounting panel 21, projecting above, below and to each side of the sponge rubber body 22. The cover 24 of sheet material is closely conformed to the surface of the sponge rubber body 22 projecting from the mounting panel 21, the edge portions of the cover 24 being stitched as indi-

3

cated at 25 to the panel 21 along the boundary of the rectangular surface 23, leaving the securing flange portions 26 of the mounting panel 21 exposed in projecting relation beyond the sponge rubber body 22.

This preferred form of visor unit 20 may be readily mounted on conventional football helmets of the type illustrated in Figures 1 and 2 by providing a series of apertures or slits 27 in the projecting flange portions 26 of the mounting panel 21 and producing registering apertures in the temple and forehead-protecting region 18 of the crown 11 of the football helmet and lacing a leather thong 28 knotted outwardly of the panel 21 through the registered apertures in the helmet and the visor unit, the apertures 27 being preferably formed in rather widely spaced groups of adjacent pairs of apertures and the lacing 28 being disposed outwardly of the securing flange portions 26 of the visor unit 20 between the more widely spaced apertures so as to overlies the securing flanges 26 throughout the major extent of the flange portions.

It will be understood that other methods of securing the mounting panel 21 supporting the remainder of the visor unit in overlying relation to the temple and forehead-protecting portion 18 of the helmet 10 may be employed, such as providing registering apertures at generally uniformly spaced points around the flange portion 26 of the panel 21 and the crown 11 of the helmet to receive rivets or other conventional securing members.

By the foregoing invention a visor construction has been provided which may be readily affixed to the existing football helmets which are effective to protect the eyes of the wearer against the glare of the sun and against adverse weather conditions, which conform to the rules governing protecting attachments on football helmets in that visor-forming projection is sufficiently deformable that it will not serve as a source of injury to opposing players, although the design does serve to deflect downward blows in the forehead region of the helmet away from the face of the wearer, and which is of simple construction that it can be readily repaired or replaced without requiring the exercise of high leather craft skills.

While but two particular embodiments of the invention have been particularly shown and described, it is apparent that various modifications may be made in the invention without departing from the spirit and scope thereof, and it is desired, therefore, that only such limitations shall be placed thereon as are imposed by the prior art and are set forth in the appended claims.

I claim:

1. In a football helmet of the type having a crown formed of a shell conforming substantially to the shape of the head of the wearer including a forwardly disposed temple and forehead-protecting region terminating in a transverse horizontal edge located immediately above the eyes of the wearer, a removable visor assembly comprising an elongated body of resilient deformable material extending transversely of the helmet over the major portion of the width of the temple and forehead-protecting region, said body being of right triangular cross section providing a lower face projecting perpendicularly from said temple and forehead-protecting region and lying immediately above said transverse edge and a back face at right angles to said lower face, a stiff rectangular mounting panel extending over the rear face of said body having peripheral securing flanges projecting laterally and vertically beyond said rear face, a cover of pliable sheet material extending over the outwardly projecting surfaces of said body and stitched along its periphery to said mounting panel to support said body on said panel, said securing flanges having a plurality of spaced apertures therein, and means extending through said apertures and complementary portions of said shell to retain said panel in intimate overlying contact throughout with said temple and forehead-protecting region.

2. A removable visor assembly for a football helmet of the type having a crown-forming shell conforming sub-

4

stantially to the shape of the head of the wearer including a forwardly disposed temple and forehead-protecting region terminating in a transverse horizontal edge located immediately above the eyes of the wearer, comprising an elongated body of sponge rubber material adapted to be disposed transversely of the helmet over the major portion of the width of the temple and forehead-protecting region, said sponge rubber body being of right triangular cross section providing a lower face to project perpendicularly from the temple and forehead-protecting region of the helmet and lying immediately above the transverse edge of the helmet and a back face extending vertically at right angles to said lower face, a stiff rectangular mounting panel of leather hide extending over the rear face of said sponge rubber body and having peripheral securing flanges projecting laterally and vertically beyond said rear face of said sponge rubber body, a cover of pliable leather extending over the surfaces of said sponge rubber body exposed forwardly of said mounting panel and stitching along the periphery of said leather cover securing the same to said mounting panel to support said sponge rubber body within said cover, said securing flanges having a plurality of relatively widely spaced groups of closely adjacent pairs of apertures extending therethrough to receive lacing thongs adapted to be knotted outwardly of said flanges and laced through the apertures therein and complementary apertures in the temple and forehead-protecting region of the helmet, the lacing thongs overlying the outer surface of the flanges between the relatively wider spaced apertures to retain the visor assembly in position on the helmet.

3. In a football helmet of the type having a crown formed of a shell conforming substantially to the shape of the head of the wearer including a forwardly disposed temple and forehead-protecting helmet region terminating in a transverse horizontal edge located immediately above the eyes of the wearer, a removable visor assembly comprising a backing panel portion of elongated substantially rectangular shape extending in overlying relation to said helmet region in conformity with the surface contour thereof with its longitudinal axis arranged transversely of the helmet, an elongated resiliently deformable visor body portion supported by said backing panel portion to project forwardly of said helmet region with its longitudinal axis in parallelism with the longitudinal axis of said backing panel, said visor body portion having upper and lower surfaces projecting forwardly of said helmet region, said upper surface declining forwardly relative to the upper surface of said helmet region and terminating in a lower edge of confluence with said lower surface, said edge of confluence lying in a horizontal plane paralleling and located immediately above said transverse horizontal edge and spaced a sufficient distance forwardly of said helmet region to afford substantial sun visor protection for the wearer of the helmet, the marginal portions of said rectangular backing panel projecting laterally and vertically beyond said visor body portion to form marginal securing flanges extending in exposed relation from the rearward boundaries of said body portion, said securing flanges having a plurality of spaced apertures therein, and means extending through said apertures and complementary portions of said shell to retain said panel in intimate overlying contact throughout with said temple and forehead-protecting helmet region.

4. In a football helmet of the type having a crown formed of a shell conforming substantially to the shape of the head of the wearer including a forwardly disposed temple and forehead-protecting region terminating in a transverse horizontal edge located immediately above the eyes of the wearer, a removable visor assembly comprising an elongated resiliently deformable visor body portion extending transversely of the helmet over the major portion of the width of the temple and forehead-protecting region, said body being of right triangular transverse cross section providing a lower face projecting per-

5

pendicularly from said temple and forehead-protecting region and lying immediately above said transverse edge and a back face at right angles to said lower face, an elongated rectangular mounting panel portion extending over the rear face of said body portion having peripheral securing flanges projecting laterally and vertically beyond said rear face, means supporting said body portion in outwardly projecting relation on said panel portion, said securing flanges having a plurality of spaced apertures therein, and means extending through said apertures and complementary portions of said shell to retain said panel portion in intimate overlying contact throughout with said temple and forehead-protecting region.

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