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SPARK DEFLECTOR/VISOR ASSEMBLY

Filed April 2, 1954

2 Sheets-Sheet 1

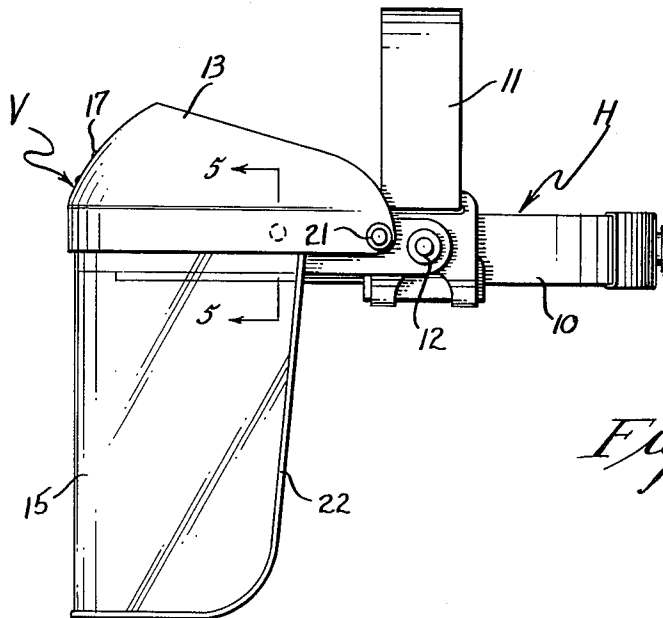


Fig. 1.

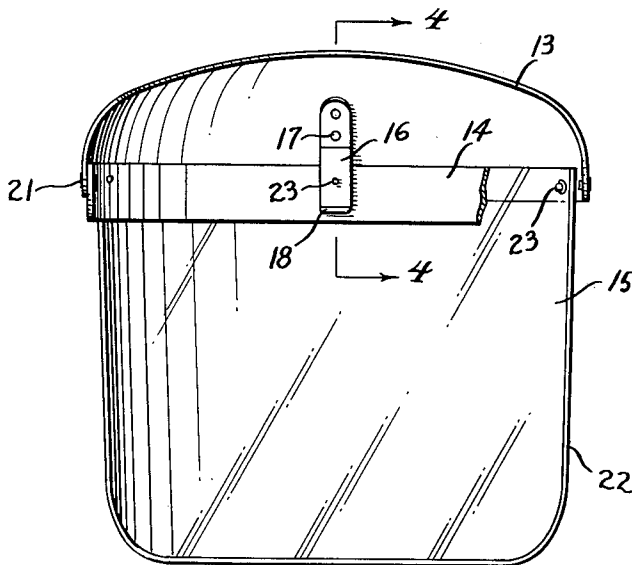


Fig. 3.

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2 Sheets-Sheet 2

Fig. 2.

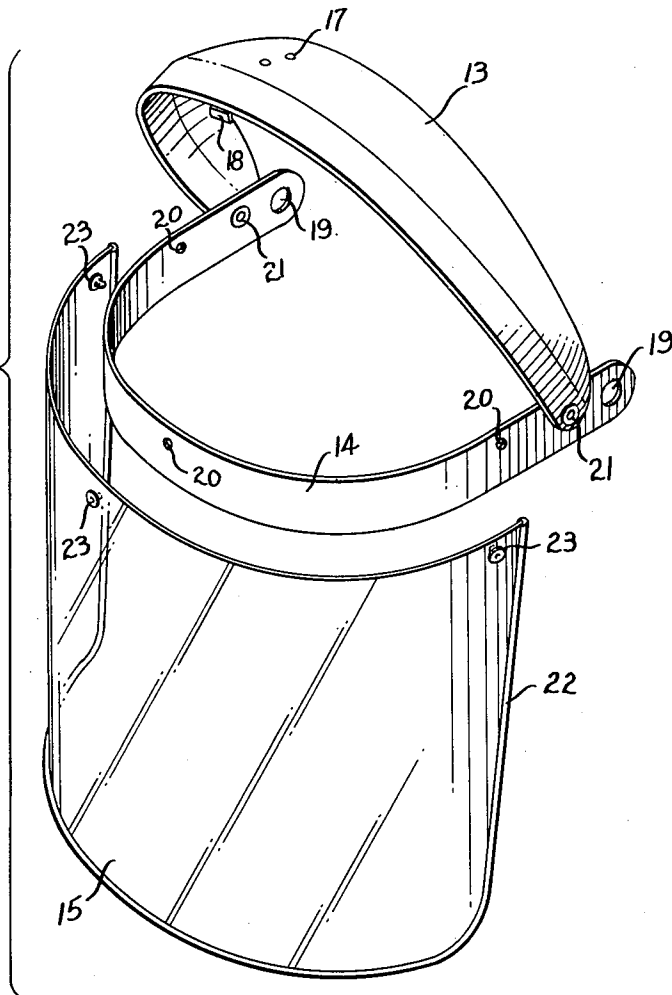


Fig. 4.

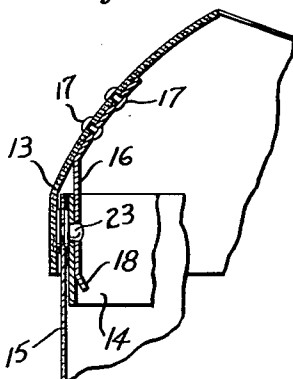
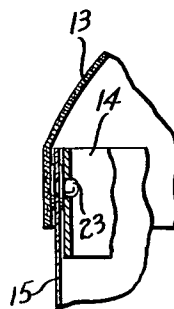


Fig. 5.



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1

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SPARK DEFLECTOR/VISOR ASSEMBLY

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1 Claim. (Cl. 2—8)

This invention relates to a combination spark deflector and visor, and particularly to a spark deflector/visor assembly in which the visor is readily detachable from the spark deflector but held securely thereto when in an assembled relationship therewith.

There are a variety of spark deflector/visor combinations on the market today, each of which satisfies a need, but each of which also possesses an inherent disadvantage which it is desirable to overcome. These combinations generally consist of a spark deflector provided with fastener means whereby a visor may be snapped thereto in detachable fashion. Since these spark deflectors are usually made from fibre, they are susceptible to warpage through use, whereby the attachment of the visor thereto is rendered less secure. In view of this, it is possible that the visor may accidentally become detached from the spark deflector during the use thereof, as in the case of accidentally bumping or jarring the visor.

It is an object of this invention, therefore, to provide an improved spark deflector/visor assembly.

It is another object of this invention to provide an improved spark deflector/visor assembly wherein the danger of accidental detachment of the visor through warpage of the spark deflector is eliminated.

It is a further object of this invention to provide an improved spark deflector/visor assembly wherein the visor is readily detachable from the spark deflector.

It is still another object of this invention to provide an improved spark deflector/visor assembly wherein the visor is securely held in clamped engagement with the spark deflector, but readily detachable therefrom with minimum effort.

These objects, and other objectives and advantages to be derived from the present invention will become apparent by reference to the following detailed description of a preferred embodiment thereof, and the accompanying drawings, wherein similar numerals refer to similar parts throughout the several views.

Figure 1 is a side elevational view of the spark deflector/visor assembly of this invention shown attached to a headgear.

Figure 2 is a perspective view of the spark deflector and visor of the present invention shown in exploded relationship to one another.

Figure 3 is a rear elevational view of the present spark deflector/visor assembly, with parts broken away, illustrating the mode of attachment of the visor to the spark deflector.

Figure 4 is a sectional view of the spark deflector/visor assembly, with parts broken away, taken along the line 4—4 of Figure 3.

Figure 5 is a sectional view of the spark deflector/visor assembly, with parts broken away, taken along the line 5—5 of Figure 1.

Referring to the drawings, and particularly Fig. 1 thereof, the spark deflector/visor assembly of the present invention is shown therein being used in connection with a headgear and is referred to in its entirety by the letter

2

V, the headgear being indicated by the letter H. Since the said headgear H does not constitute a part of this invention, it will not be described in detail. Suffice it to say that the headgear H consists of an adjustable headband 10 and a cross-piece 11 to which the spark deflector/visor assembly V may be pivotally attached, as at 12.

Referring now to Figs. 2 and 3, the spark deflector/visor assembly is therein shown as consisting of a spark deflector 13, a U-shaped metallic bracket 14, and a transparent visor 15. The spark deflector 13, which is made from a rigid material such as fibre, metal or plastic, is also of a substantially U-shaped configuration, and is designed to cover and protect the frontal and parietal areas of the skull. The underside of the spark deflector 13 is provided with a metallic leaf spring member 16, attached thereto by means of rivets 17 and provided with an aperture therein for a purpose to be described below. The end of the spring 16 is slightly bent, as at 18, to facilitate the manipulation thereof, as will be described later.

The U-shaped metallic bracket 14 is provided with an aperture 19 in the end of each leg thereof, and a plurality of small holes 20 are provided along the surface of the bracket 14 intermediate the end apertures 19 and in a fixed spaced relationship to one another. The spark deflector 13 is pivotally attached to the bracket 14, as shown at 21, so that the said deflector may be swung downwardly into an encasing position with respect to said bracket with the bracket lying within the deflector 13. It is to be noted that when the deflector is in this downwardly encasing position, the space between the deflector 13 and bracket 14 is just large enough to accommodate the thickness of the visor 15.

The visor 15, which is preferably made from a flexible transparent plastic, such as cellulose acetate, is of a substantially rectangular configuration and is provided with a plastic beading 22 along three of its sides to impart rigidity thereto. The fourth side of the visor 15 carries a plurality of male snap fastener elements 23, equal in number to the holes 20 along the surface of the bracket 14 and in an identically spaced relationship therewith. It is to be noted that one of the holes 20 and one of the fastener elements 23 are in direct alignment with the aperture in the leaf spring member 16.

To securely assemble the visor 15 to the spark deflector 13, the said deflector is first pivotally raised into the upward position shown in Fig. 2. The visor 15 is then laid against the bracket 14 so that the male snap fastener elements 23 are received in the holes 20 of said bracket, the said fastener elements protruding slightly from the opposite side of said bracket, as shown in Figs. 4 and 5. Then, the deflector 13 is pulled downwardly until it encases the fastener end of the visor 15 and the bracket 14, so that the said visor is maintained in a clamped position therebetween. It will be noted from Figs. 3 and 4 that when the said deflector is swung downwardly as described above, the leaf spring member 16 engages the rear side of the bracket 14, receiving the protruding end of one of the fastener elements 23 in its aperture so as to lock the deflector 13 in this downwardly position. The bent end 18 of the spring member 16 facilitates the sliding movement of the spring 16 over the bracket 14 and fastener element 23.

To disassemble this device, it is merely necessary to lift the spring element 16 away from the bracket 14 so as to release the fastener element 23, and then a slight push upwardly on the pivoted deflector 13 will release the visor 15 from the said bracket.

The spark deflector/visor assembly described above may be used with a conventional headgear, skullguard, or both, and possesses a great advantage over existing designs in that it is not subject to accidental disassembly.

3

The bracket 14 being made from a rigid metal is not subject to warpage so as to interfere with the alignment of the holes 20 and the fastener elements 23. This fastener, combined with the tight clamped engagement achieved of the visor with the deflector and bracket, contributes to a firm and secure combination spark deflector and visor.

Although the present discussion of the invention has been limited to the above-described preferred embodiment, variations thereof are possible without departing from the spirit of the invention. It is to be understood, therefore, that the invention is not to be limited to the particular embodiment disclosed, but rather to the inventive concept as defined by the appended claim.

What is claimed is:

In a spark deflector/visor assembly, a rigid U-shaped metallic support bracket having apertures in the ends thereof; a substantially U-shaped spark deflector encasing said support bracket and pivotally connected thereto; the said U-shaped bracket having a plurality of spaced holes about the surface thereof; a semi-rigid transparent plastic visor between said spark deflector and bracket;

4

the said visor conforming to the shape of said U-shaped bracket; male snap fastener elements attached to said visor and received in the spaced holes of said bracket with the ends of said fastener elements protruding therefrom; and a strip of spring steel ribbon fixedly attached at one end to the underside of said spark deflector, the free end of said strip having an aperture therein to receive the protruding end of one of said fastener elements so as to lock the deflector in an encased position with respect to said visor and bracket, the said free end being bent upwardly and inwardly away from said bracket to permit said strip to slide over said fastener element and automatically seat itself thereon after the deflector is swung downwardly over the visor and bracket.

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