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2,619,641

EYESHIELD FOR HEADGEARS

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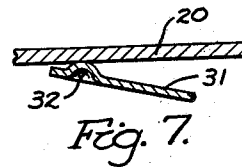
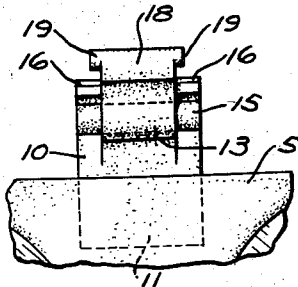
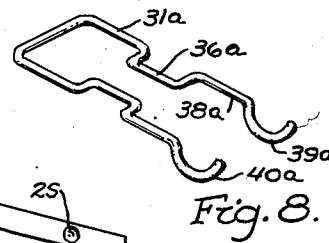
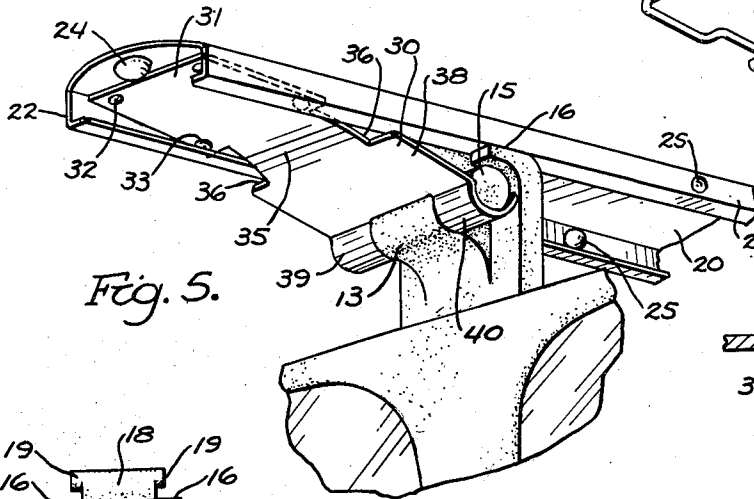
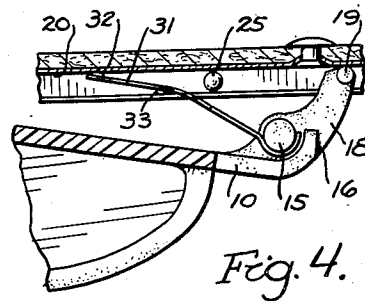
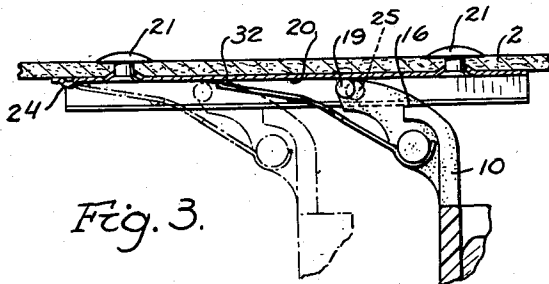
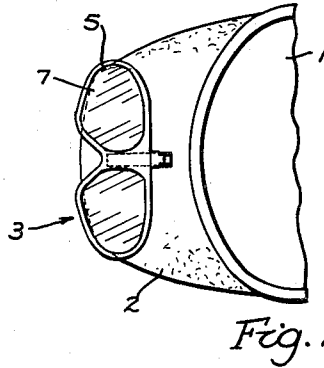
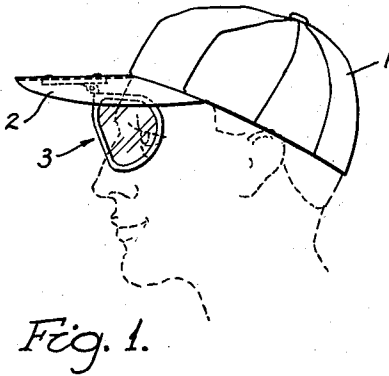


Fig. 6.

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EYESHIELD FOR HEADGEARS

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6 Claims. (Cl. 2-10)

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This invention relates to an eye shield construction in the nature of sun glasses to be secured to the under side of the visor of head gear such as the bill of a cap, or the brim of a hat, or similarly mounted on other head gear. The construction is such that the eye shield may be moved to and from positions of use and positions of non-use.

The invention aims to provide a construction of simplified form embodying a minimum number of parts so that the same can be manufactured with facility and supplied to the public at a relatively low cost, while at the same time, the construction is positive and sure in operation. In the position of non-use, the shield is positioned so as to underlie the visor and in its position of use, it depends therefrom in a position in the line of sight of the wearer. In this connection, the shield has a pivotal motion. Also, the shield is slidably adjustable to the end that it may be shifted toward and away from the face of the wearer. This is particularly convenient as it makes the device adjustable to accommodate different facial contours and also makes the device adjustable so that it may be conveniently used by persons who wear spectacles.

A device constructed in accordance with the invention is shown in the accompanying drawings:

Fig. 1 is a general view showing the structure applied to a bill of a cap and illustrating the shield in its position of use.

Fig. 2 is an underside view of the bill of the cap showing the shield in its position of non-use.

Fig. 3 is an enlarged sectional view taken through the bill of the cap showing the structure in position of use and illustrating in dotted lines, a second position.

Fig. 4 is a sectional view similar to Fig. 3 showing the structure shifted to a position of non-use.

Fig. 5 is an enlarged perspective showing the underside of the structure and illustrating the spring element.

Fig. 6 shows the hinge element on the shield.

Fig. 7 is an enlarged partial sectional view showing the formation of the spring member to provide a sliding action.

Fig. 8 is a view of a modified form of spring.

It is appreciated that an eye shield of this general type is not entirely new and, as a matter of fact, I have obtained several patents on eye shields of this nature. One patent which I have obtained is No. 2,538,608 of January 16, 1951. However, as explained above, the purpose of this invention is to provide a structure of a more simplified nature possessing both a pivotal adjustment and a sliding adjustment and one which is so designed that it can be manufactured with great facility and thus supplied to the public at a low cost.

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In Fig. 1 a cap is shown at 1 with its bill 2 which projects over the eyes of the wearer and the shield generally illustrated at 3 is in its position of use. This shield may have a frame 5 conveniently shaped in the conventional form of sun glasses. The shield carries suitable light filtering material 7 which may be of any desired substance, such as a colored plastic or glass or a substance for polarizing the light. The material 7 may, in fact, be lenses ground to prescription to correct imperfect vision if the same be desired.

The frame 5 may be of plastic material and a hinge or pivot element may be secured to what may be termed the upper central portion thereof. This hinge element, as shown in Figs. 5 and 6, has a body portion 10 which may be inserted into the material of the frame as indicated at 11 and cemented thereto. However, the frame and pivot member may be formed integrally of one piece. This member has a central thickened portion or fillet 13 for carrying a pintle 15 which may be of plastic material and which may be inserted in an opening in the fillet and cemented thereto. This pintle is advantageously of plastic material. The pintle and fillet may be integrally formed of plastic material or other substance. The body portion terminates in shoulders 16 and it has an angularly projecting part or finger 18 provided with oppositely extending projections 19.

There is a support and guide member arranged to be mounted on the under side of the visor of the head gear. This member is conveniently in the form of a body of metal having a back portion 20 with apertures therein so that it may be secured to the visor as by means of rivets or the like 21. The edges of this body member are fashioned to provide channels 22 and 23. One end of the body 20 is provided with a projection 24 which may be formed by indenting or pressing out the metal and the side walls of the channels 22 and 23 are formed with inwardly extending projections 25. These may be provided by pressing the metal to form an inwardly extending teat.

There is a single spring element generally illustrated at 30. It has an end portion 31, here shown as being of rectangular shape arranged to be positioned so that opposite edges thereof are engaged in the channels 22 and 23. In other words, the width of this end piece 31 is such that it is retained in the channels and yet it may slide therein. The corners of the portion 31 are provided with means for engaging and nicely sliding upon the guide. Near the free end of the portion 31 the corners are provided with depressed portions forming teats or bumps 32. These face upwardly to slidably engage the guide as shown in Fig. 7. The other two corners are provided with similar formations 33 which face downwardly to slidably engage in the channel

(Fig. 4). The spring has a narrowed central portion 35 formed by cut out portions 36 for passing between the inturned edges of the channel and it has an end portion 33 which lies outside the channel and is formed with two laterally spaced hook like bearing members 39 and 49. These bearing members engage the pintle 15.

In making the assembly, the portion 31 of the spring element can be easily slipped into the channel from the left hand end thereof as Fig. 3 is viewed. The end of the portion 18 is placed in the channel with the projections 19 engaging in the respective channels. Then the spring is flexed so that the bearing portions 39 and 49 may be engaged over the pintle 15. The spring thus remains under tension at all times. The extending portion of the spring which is outside the channel yieldably urges the pintle 15 toward the guide, the spring acting as a cantilever with its support obtained by contact of the elements 32 and 33 with opposite sides of the channels.

In operation, the finger 12 swings over center as it is shifted to and from operative and non-operative position. In Fig. 4, which is the non-operative position, the projections 19 engage the guide and the force of the spring maintains a yielding pressure on the pintle tending to rock the shield clockwise about the end of the projection 12. The spring thus holds the shield snugly against the underside of the bill 2. When the shield is swung counter-clockwise from the Fig. 4 position, the spring is flexed and the finger 12 moves over center and the structure ultimately reaches the operative position, as shown in Fig. 3. In this position, the spring holds the shield strongly in position as the shoulders 16 abut the channel formation on each side of the guide. In this position, the yielding action of the spring tends to swing the shield counter-clockwise as Fig. 3 is viewed. The shield is accurately and strongly positioned by the engagement of the shoulders 16 with the two channels.

The shield may be adjusted lengthwise in the channel by merely sliding the same along the the same in which action the rounded teats or bumps 32 or 33 nicely slide on the metal of the guide. These teats prevent sharp edges from cutting into the guide or scraping the same. Since the spring is always under tension, the portion 31 is always in an angular position, as shown in Figs. 3 and 4 and the teats 32 and 33 yieldably engage the surfaces of the channels. The forward limit of sliding adjustment is determined by the projection 24, against which the part 31 abuts. The inwardly extending projections 25 limit the rearward sliding position as the body portion 31 abuts against the same. The elements 25 do not interfere with the projections 19.

The modified form of spring shown in Fig. 8 is formed of spring wire. The wire is fashioned to provide a portion 31a to be received in the guide, the intermediate narrow portion 36a and the outer portion 33a. The bearings 39a and 49a are formed by hook shaped parts at the end of the spring. This spring may be inserted in the guide the same as the spring made out of strip material and insofar as its function is concerned, it acts like and is a flat spring.

It will readily be seen that the shield may be moved from one position to the other to filter the rays of light or otherwise protect the eyes of the wearer depending upon the substance used in the shield. A person who wears spectacles may desire to shift the shield so that it is in a

relatively outward position and thus does not engage the spectacles. The shield may be easily removed from the guide for purposes of changing the type or color of the light filtering material. By the use of a sharp instrument a spring may be flexed so that it may be moved over the projection 24.

I claim:

1. An eye shield attachment for head gear having a visor, comprising, a guide member having a back portion and an inwardly opening channel at each edge for attachment to the under side of the visor with the guide member extending in a fore and aft direction, a spring of flat form having an end part slidably engaged in the channels, a relatively narrow intermediate part extending out between the channels and a second end part positioned outside the channels, said second end part having bearing means, a shield, pintle means on the shield engaged in the bearing means, a finger extending angularly from the shield and engaging the guide member, the pintle means being at all times spaced from the guide member so that the spring is under tension and with the first named end of the spring yieldably and slidably engaging in the channels of the guide member, said shield being movable about the axis of the pintle to and from inoperative position in which it lies substantially against the underside of the visor and operative position in which it depends from the visor in the line of sight of the wearer, and the said finger being shiftable from one side to the other of a center line through the pintle means so that said spring holds the shield in both positions.

2. The eye shield as substantially described in claim 1, characterized in that the bearing means on the spring member is of hook form and is detachably engageable with the pintle means.

3. The eye shield as substantially described in claim 1, characterized in that the guide member has projections thereon engageable by the first named end of the spring to limit the fore and aft sliding movement thereof.

4. The eye shield as substantially described in claim 1, characterized in that the first named end of the spring has a dimension measured lengthwise of the guide member, such that when the spring is flexed, one edge of said end yieldably bears against the surfaces on one side of the channels and the opposite edge of said end engages against the surfaces at the opposite sides of the channels.

5. The eye shield as substantially described in claim 4, characterized in that said first end of the spring member is formed with rounded projections for slidably engaging the surfaces of the channels.

6. The eye shield as substantially described in claim 1, characterized in that the shield has a shoulder adjacent the pintle for engaging the guide member when the shield is in operative position for holding the shield fixed against the tension of the spring.

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REFERENCES CITED

The following references are of record in the file of this patent:

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