Jan. 16, 1962 V. J. DONAHUE 3,016,545

CAPS

Filed March 6, 1958

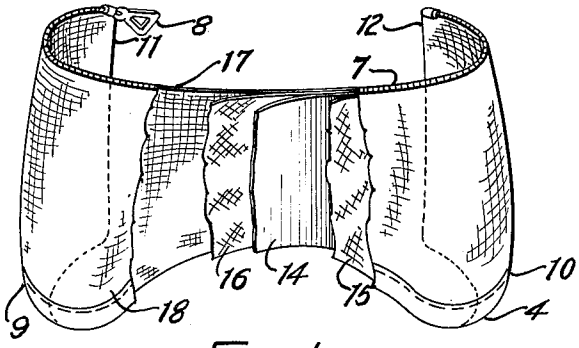


FIG. 1.

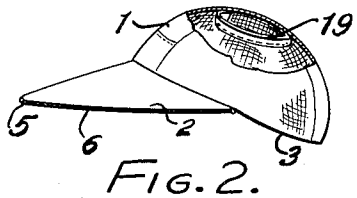


FIG. 2.

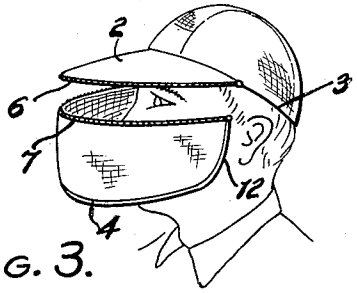


FIG. 3.



FIG. 6.

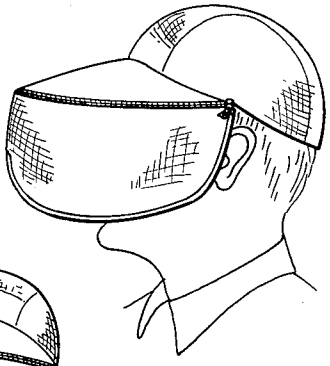


FIG. 4.

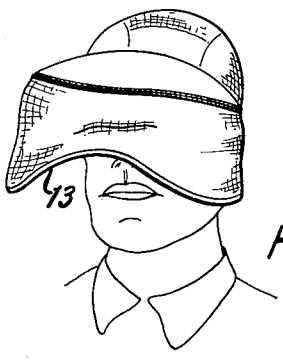


FIG. 5.



FIG. 7.

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CAPS

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The present invention relates broadly to caps, and more specifically to a type of cap to be used in the training of pilots in instrument flying. While the cap may assume various configurations, I have found it expedient to use that type of cap which is generally worn by aviation personnel on a flying field. Similar caps are worn by ball players, fishermen, and others.

The particular cap is characterized in that it has the crown portion, commonly called the cap, together with a large visor which extends quite a distance outwardly from the perimeter of the cap and effectively shades the eyes from glare. Caps of this character are quite comfortable to wear, in that they are light in weight. I propose to utilize a cap of the character stated and to apply to the visor thereof, a quick detachable hood, flap, or curtain of light weight. Most devices now utilized for the teaching of instrument or blind flying are difficult to wear, heavy, and quite uncomfortable if worn over any period of time.

An object of the present invention is the provision of a hood which depends from the visor and circumscribes the same so as to prevent the person using the cap and hood from seeing ahead or to the side, to the end that he will be forced to depend upon instruments for flight navigation.

A further object is the provision of a cap provided with a hood having deformable characteristics in that the hood may be set at any desired position and retain its shape in said position until re-adjusted.

A further object is the provision of a cap of the character stated which incorporates a hood which is detachable from the visor of the cap, and whereby the cap may be utilized for casual wear, the cap being so constructed and arranged as to conveniently carry the hood within a crown-type pocket when the hood is not in use.

It may be pointed out at this time that so-called Link trainers are utilized which have a canopy type hood that encloses the cockpit for teaching a pilot to fly by instrument. However, the present device has the advantage in that actual flying, utilizing instruments, is obtained, there being a co-pilot who has a full view of the terrain, while the person under training is taught instrument flying without hazard. In fact, it is possible for a pilot to teach himself to fly by instruments, through use of the present invention without particular hazard, as he may readily move the hood. Furthermore, in actual training, it is to be realized that the windshields of various airplanes have different depths and configuration and, therefore, the hood for the cap may be adjusted for a pilot flying from either seat where a pilot and co-pilot are utilized.

Other objects and advantages of the invention will readily suggest themselves to those who have use for a cap of the character of this invention.

Other objects include a cap for use by pilots which is simple of construction, inexpensive in cost of manufacture, and generally superior to means now employed in the practice of instrument flying.

In the drawings:

FIGURE 1 is a fragmentary front elevation of the hood used in the practice of the invention,

FIGURE 2 is a fragmentary side elevation, partly in section and on a reduced scale, of a cap used in the practice of the invention,

FIGURE 3 is a perspective view of the cap and hood in detached position,

FIGURE 4 is a perspective view of the cap and hood in cooperative relationship on the head of the wearer,

FIGURE 5 is a front elevation of the cap and hood as it appears when worn,

FIGURE 6 is a front elevation of the cap, the hood having a changed position relative to the visor, and

FIGURE 7 is a front elevation of the invention, the hood being raised relative to the visor to expose the eyes of the wearer.

Referring now with particularity to the drawing, I have shown a cap **1** having a visor **2**. As previously set forth, the cap is of the fatigue type worn by military personnel at military bases and also by sportsmen generally, and wherein it will be noted that the cap fits closely upon the head of its user, with the visor **2** extending forwardly and being joined to the edge **3** of the cap at approximately a semi-circumference thereof, or to express it in a different way, the visor encircles the rim **3** at least one-half of its longest dimension. The hood **4** is adapted to be detachably joined to the edge or perimeter **5** of the visor and, in the present instance, I have deemed it expedient, for illustration only, to provide a zipper which includes the teeth **6** secured to the edge of the visor with a row of cooperating zipper teeth **7** joined to the upper edge of the hood. The usual lacer **8** is provided for causing cooperation between the rows of teeth **6** and **7**, in the usual manner. While the hood may assume a desired configuration, I have found the form shown in the drawings to function efficiently in actual practice. Thus, the hood has a substantially uniform width for side portions **9** and **10**, which extend from ends **11** and **12** with the bottom edge curved inwardly at **13**. The greatest depth of curve **13** is midway between ends of the hood. While the depth of curve and the length thereof may vary, generally speaking, the curved edge commences approximately in alignment with the eyes and terminates between the upper lip and the nose.

To form the hood so that it may be deformable and retain its shape when deformed until a new shape is desired, I provide a sheet of deformable metal foil **14**, such as aluminum, lead, tin, zinc, magnesium, copper, on one or both sides of which is glued or otherwise secured, cheesecloth **15** and **16**. The cheesecloth backed metal foil is interposed between black cloth, which may be formed from cotton, as shown at **17** and **18**, with the entirety stitched together and taped along the edges, if desired, to form a hood having the desired configuration, as just described. One length of zipper teeth, as shown at **7**, is secured to the upper edge of the hood. This hood, formed as just stated, is capable of being deformed in the manner illustrated in the several figures of the drawing. Thus, in FIGURES 4 and 5, the hood is maintained in a normal position without deformation and the pilot's eyes are, therefore, prevented from observing the terrain during instrument flying, while he may observe, under the curved edge **13**, the flight instruments upon the instrument panel. If it is desired to shield one side of the face from the terrain, such as might occur where the windshield extends around the cockpit, a portion of the hood may be deformed, as shown in FIGURE 6, the metal foil maintaining its deformation without recovery until it is desired to remove the deformation. In FIGURE 7, the hood has been moved upwardly so that the eyes of the pilot may look straight forwardly without obstruction.

The cap, at its crown, is provided with a pocket **19**, and the hood may be folded, when the lacer **8** has been moved to release the zipper teeth **6** and **7** from joint cooperation so that the said hood may be placed within the pocket **19**. When this occurs, the cap may be used for ordinary purposes, as the hood has little bulk; the hood when in the pocket, will be unnoticed by the cap wearer. Furthermore, the pocketed hood acts as a cushion when the cap wearer is using headphones.

The operation, uses and advantages of the invention just described is no doubt clear to those familiar with instrument or blind flying. The basic principle of the invention is the provision of a hood detachably secured to the visor of a cap in such a manner that the hood depends from the visor and extends from just forward of the ears of the wearer around the edge of the visor. Visors may differ as to position of attachment to a cap. However, I contemplate the use of a visor which extends forwardly of the wearer's eyes a considerable distance and which in its attachment to the cap extends substantially a semi-circumference of the edge of said cap. The hood itself may have a uniform width extending from where the edge of the visor connects with the cap but preferably said hood has its greatest depth adjacent the cheek bones of the wearer of the cap so as to deprive the wearer of lateral vision in the event that the cockpit side windows are deep. From a position roughly forwardly of the cheek bones, the hood has an inwardly curved edge so as to permit the pilot to see the flight instruments on the instrument panel and still block forward visibility at the windshield level. The hood, by being deformable, may block visibility at the sides, as illustrated in the figures, or may be deformed so as to permit the wearer to see straight forwardly. The cap of the invention performs its intended function in an efficient manner which lends confidence to the pilot in training for instrumet flight, in that he is aware that he may easily see ahead without obstruction by pushing upwardly upon the hood, if the necessity should arise. Furthermore, it has been found that a hood constructed in accordance with the present invention is capable of being deformed innumerable times without affecting the hood efficiency.

I claim:

An aviator's cap for use in teaching instrument flying, the cap having a crown and a visor which extends forwardly of and joins the cap at the front lower edge of the crown, the combination therewith, of: an elongated opaque hood depending from and having one of its longitudinal edges joined to the free edge of and encircling the entire visor, said hood characterized in that it is made of deformable and shape retaining material; said hood having side portions of uniform width and a central portion having its free longitudinal edge curved inwardly midway between ends of the hood, said hood normally adapted to obstruct side and forward vision.

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