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F. E. BOGART ET AL

2,763,869

EAR PROTECTOR

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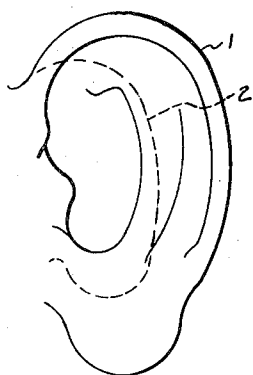


Fig. 1.

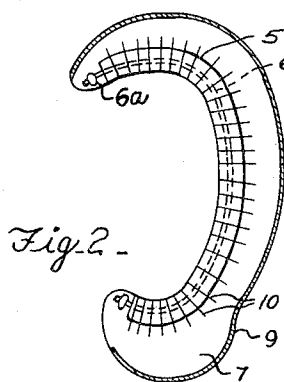


Fig. 2.

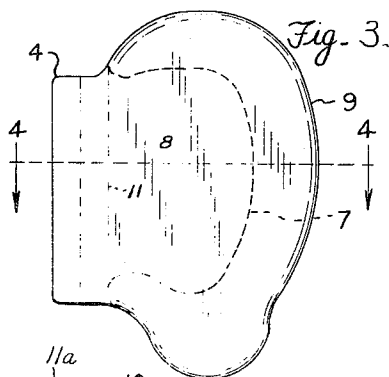


Fig. 3.

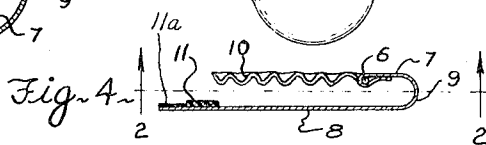


Fig. 4.

Fig. 7.

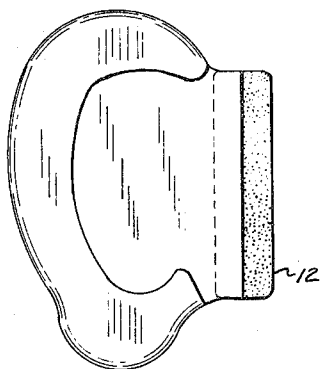
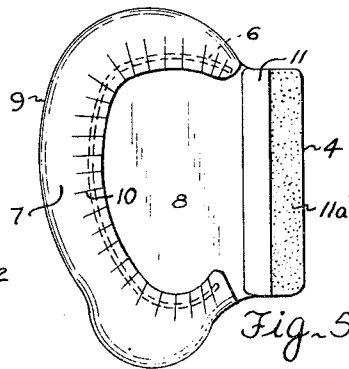


Fig. 5.

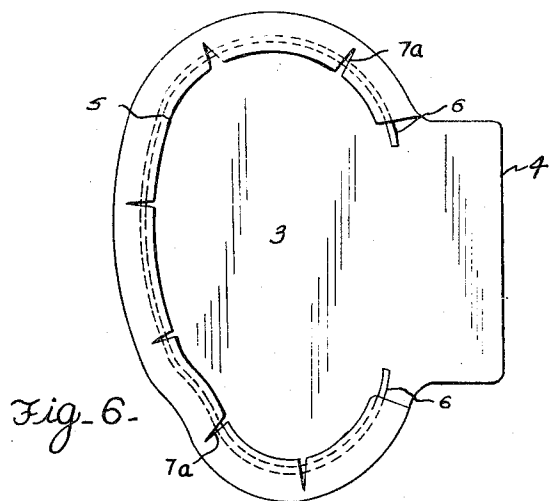


Fig. 6.

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2,763,869

EAR PROTECTOR

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2 Claims. (Cl. 2—174)

This invention relates to ear protectors serving to exclude liquids or dust or other particles from the ears.

An object of the invention is to provide an ear covering device which may be comfortably worn during hair treatments to protect the ears from any liquids or semi-liquids required by such treatments. It is to be noted in this connection that discomfort generally results from any entry of hair treating materials into the ears, and that some of the chemicals used may cause acute discomfort.

Another object is to hold an ear protector in place securely but in a very simple manner.

Another object is to adapt an ear protector to be flexibly conformed to the human ear and held in place in a novel and inexpensive manner.

Another object is to form an ear protector of a soft, flexible waterproof sheet material and to shape such material to a desired ear-fitting form by engaging an elastic cord or the like in a hem formed marginally of such material.

Another object is to provide an ear protector that may be worn during the performance of certain shop operations such as grinding, to prevent flying particles from lodging in the ears of the operator.

These and various other objects are attained by the construction hereinafter described and illustrated in the accompanying drawing, wherein:

Fig. 1 shows in side elevation a human ear.

Fig. 2 is a view in medial sectional elevation, taken on the line 2—2 of Fig. 4, of a protector shaped from sheet material to conform to and cover the ear shown in Fig. 1.

Fig. 3 is an exterior side elevational view of said protector.

Fig. 4 is a cross sectional view of the protector taken on the line 4—4 of Fig. 3.

Fig. 5 is an interior side elevational view of the protector.

Fig. 6 shows a blank of sheet material suited to form our protector, an initial fashioning of such blank being illustrated.

Fig. 7 is a view similar to Fig. 5, but illustrating a modification.

Referring first to Fig. 1, the illustrated human ear 1 is joined to the head along the curved line 2, as well as at the front of the ear. Our improved protector is shaped from a sheet of soft, flexible, waterproof material, such as is available in various plastics. From such a sheet there is cut a blank 3, approximating the outer peripheral curvature of a human ear, but predeterminedly larger than such an ear. The curved margin of such blank is interrupted by a vertically elongated flap 4 proportioned to extend across and cover the front portion of the ear. Initially, the curved margin of the blank 3 is folded over on the body thereof so as to form a hem 5, and an elastic cord 6 or the like is freely engaged in the hem with its ends projecting therefrom as clearly appears in Fig. 6, the edge of the folded margin being

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heat-sealed to the body of the blank. To facilitate formation of the described hem, the margin may be formed at suitable points with V-shaped notches 7a. By pulling the exposed ends of the cord 6, the latter is now tensioned and its length within the hem is reduced, causing the hemmed margin to be drawn toward the center of the blank and producing spaced inner and outer walls 7 and 8 and a peripheral wall 9. This results in a puckering of the inner wall, as indicated at 10 and causes the inner or hemmed margin of the inner wall to conform substantially to the ear curvature indicated at 2 in Fig. 1. To maintain the described formation, any excess length of the cord 6 is cut off and its remaining exposed end portions are cemented as indicated at 6a in Fig. 2 or otherwise secured to the protector. To complete the construction, a non-drying adhesive is applied to the front portion of the flap 4 on its inner face at 11a, and a strip 11 of soft rubber or some other compressible sealing material is cemented or otherwise secured to the rear portion of such face.

In applying the described protector to an ear, it is initially disposed rearwardly adjacent to the ear, being then slid forwardly so that the walls 7 and 8 respectively engage the inner and outer faces of the ear, the hemmed margin of the wall 7 embracing the juncture 2 of the ear and head. It will be noted that the top and bottom portions of the protector must be flexed slightly respectively up and down in thus engaging the ear, so that said portions exercise a mild gripping action when released, whereby the device may be adequately held in place. When positioned as described, the flap 4 covers and protects the front portion of the ear. Due to its adhesive coating, a slight pressure applied to the flap will attach it to the cheek adjoining the ear preventing any liquid from rearwardly entering the protector. Due to its use of soft light material, presence of the described protector is not noticeable to a user thereof, and moreover it does not appreciably detract from auditory use of the ear.

The modification shown in Fig. 7 differs from the construction already described only in that the plastic material used is molded in suitable dies to the desired shape, thus eliminating necessity for the hem 5, cord 6, and puckers 10. The flap 4 of the first-described construction is replaced in the modification by a strip 12 of adhesive tape. After applying the described protector, such strip is pressed lightly against the wearer's cheek, serving both to hold the device in place and avoid any rearward flow of liquid into the device. Employment of the adhesive tape 12 has the advantage that such tape may be readily replaced in case the adhesion becomes inadequate due to numerous repeated uses of the device.

What we claim is:

1. An ear protector comprising a single sheet of soft flexible material and shaped to form spaced inner and outer walls interconnected by a peripheral wall, the inner wall being approximately C-shaped and having its inner edge shaped to freely fit the approximately C-shaped curved juncture of an ear and head, and the peripheral wall being curved to at least approximately fit the outer periphery of an ear, the outer wall being imperforate, a flap forwardly projecting from the outer wall and covering the front portion of the ear in use of the protector, said flap having the front marginal portion of its inner face adhesively coated for attaching the flap to a wearer's head in use of the protector, and a strip of compressible sealing material carried by said face of the flap rearwardly of such adhesive and extending substantially between the upper and lower edges of the flap.

2. An ear protector shaped to straddle the outer periphery of an ear and having a wall adapted to cover

the outer face of an ear, and having a portion forwardly projecting from such wall adhesively coated for attaching such portion to the head, and having a sealing strip elongated substantially vertically on such portion in close proximity to the adhesive coating to form a liquid seal against the head.

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