March 23, 1943. L. GORETSKY 2,314,782

EARMUFF

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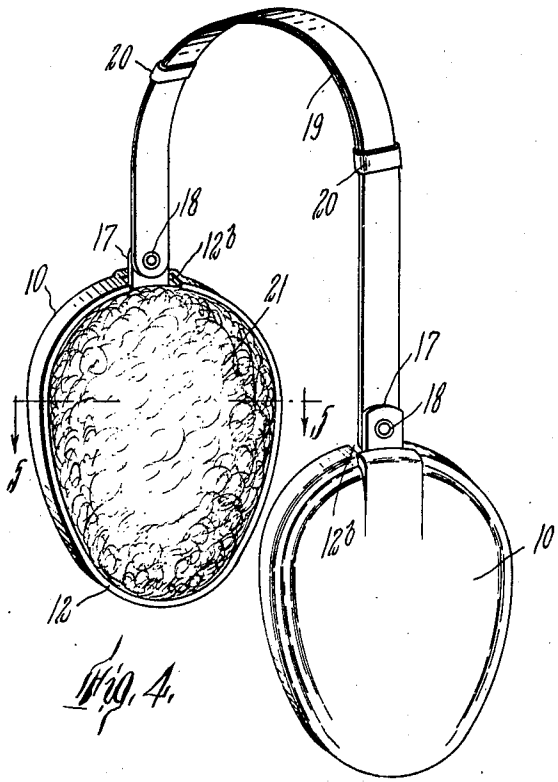


Fig. 4.

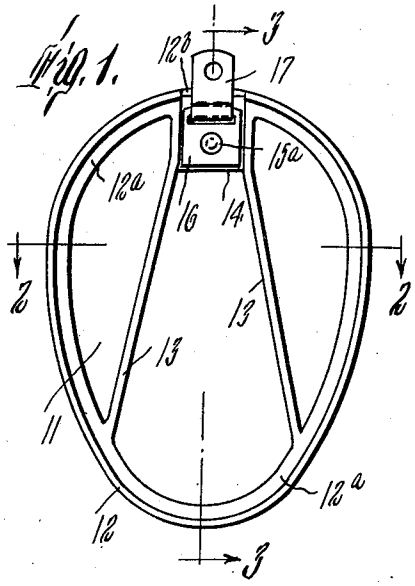


Fig. 1.

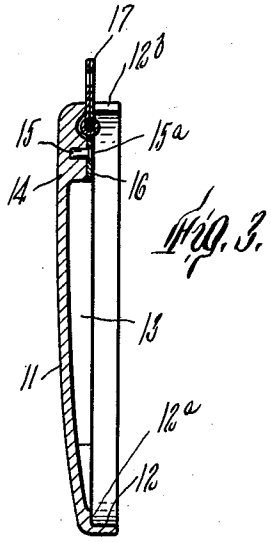


Fig. 3.

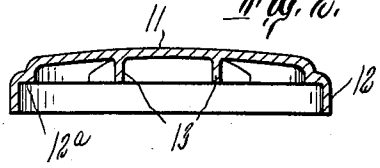


Fig. 2.

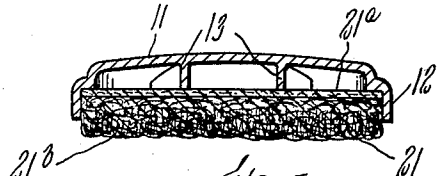


Fig. 5.

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EAR MUFF

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Application March 17, 1941, Serial No. 383,723

6 Claims. (Cl. 2—209)

This invention relates to an earmuff and more particularly to a muff comprising a casing or holder for the fur piece or equivalent covering for the ear.

In accordance with the present invention, the muff holder or casing consists essentially of a molded, one-piece plastic structure, preferably being composed of such heat-moldable artificial resin composition as urea-formaldehyde resin ("Beetle" resin), phenol-formaldehyde resin ("Bakelite" resin), or the like. The casing is formed as a thin but rigid shell having a peripheral wall whose contour is generally like that of the ear to be received therein; and its base or bottom is preferably reinforced internally by one or more ribs protruding substantially to the same level as that of an internal shoulder or ledge in the peripheral wall, such ribs and shoulder affording the base elements for the adhesive securement of the ear-covering or insulating piece. Such a casing is advantageous in that it constitutes a light-weight, inexpensive, durable, and attractive structure which can be suitably fastened as one of a pair at each end of the usual arcuate head-band or as one of a pair to a cap, hat, or other headgear.

With the foregoing and other features and objects in view, the present invention will now be described in further detail with particular reference to the accompanying drawing, wherein

Fig. 1 represents in plan view the interior of the casing hereof as equipped with a hinge bracket.

Fig. 2 is a transverse section through the casing on the line 2—2 of Fig. 1.

Fig. 3 is a vertical medial section through the casing on the line 3—3 of Fig. 1.

Fig. 4 shows in perspective a pair of earmuffs embodying the casing hereof and secured to the ends of a head-band.

Fig. 5 is a transverse section through the complete muff on the line 5—5 of Fig. 4.

The rigid or stiff casing 10 for the purpose hereof may be advantageously molded as a one-piece structure from any one of the various heat-moldable artificial resin compositions suitable for such purpose now available on the market or from such other suitable heat-moldable plastic as "Celluloid," cellulose acetate composition, rubber composition, or the like. Thus, it may consist of so-called "Beetle" resin compounded with suitable pigment, dye, or filler and presenting, if desired, an attractive pastel color. The base or bottom 11 of the casing may be substantially flat, as appears best in Figs. 2 and 3. Such bottom may be defined or surrounded by a peripheral wall 12 of a contour generally akin to that of an ear and of stepped cross-sectional configuration so as to afford an interior ledge or shoulder 12a on which the fur piece or the like may be seated. The thin, shallow shell constituting the casing is preferably reinforced over its relatively large internal bottom area by one or more ribs 13, which are shown herein as a pair extending in diverging relationship from a relatively thick block or boss 14 at the upper end portion of the casing to the peripheral wall at its lower end portion. The ribs 13 are shown projecting substantially to the level or plane of the peripheral wall shoulder 12a so as to furnish together with such shoulder ample base or foundation for the desired adhesive securement of the fur piece or the like for the ear.

Embedded in a block or boss 14 at the upper end portion of the shell is shown a rivet 15, whose head end portion 15a may project beyond the face of the block so as to be engageable through the aperture of a lower bracket piece 16 hingedly secured to an upper bracket piece 17. The latter piece may be swingably connected as by a pivot 18 to one end of an arcuate head-band 19 of spring steel or the like, which may, as shown in Fig. 4, consist of two adjustably overlapping strips of steel held together in the desired relationship by clips 20. The peripheral wall 12 is shown as being recessed or open at its upper end portion 12b immediately above the block 14 to enable the upper bracket piece 17 to pass substantially vertically upwardly therethrough. The lower bracket piece 16 may be held fast to the block by the clenching or heading thereover of the head end portion 15a of the rivet, as best shown in Figs. 1 and 3.

The back face of the ear-covering piece, which may be the skin side of such fur as lambskin or the cloth base of such furlike or furry pile fabric as velvet or velveteen, is adhesively secured within the casing so as to rest upon the peripheral ledge 12a and the reinforcing ribs 13 as the anchoring elements. It might be noted that the fur piece or the like is cut to a shape to be fitted acurately as a lining within the casing so as to occupy substantially the entire interior of the casing, up to its internal peripheral wall, as represented by the lambskin piece 21 in Fig. 5, and that its back face or skin side 21a may

be coated with any suitable adhesive, such as pyroxylin cement, rubber latex, or the like, prior to its insertion into the casing. It is preferable that the fur or pile **21***b* of such piece be sufficiently long or shaggy to be flush with or, as shown, even project externally of the rim **12***b* of the peripheral wall, thereby ensuring an adequately deep bedding or warm cushioning for the ear as the casing is placed in position over the ear to receive it therein. The casing is of a size to accommodate the ear inside of it when such casing and its fur-piece lining **21** is pressed or placed in position over the ear. If desired, the cavity or vacant space between the ribs **13** and/or between such ribs and the peripheral ledge **12***a* may be filled with cotton padding or like fluffy or felted material, which may be adhesively secured against shifting movement or displacement. It is, however, unnecessary to provide a soft or compressible backing for the lambskin or similar fur, since such material itself is sufficiently bulky, soft, and yieldable to take up or expand into such vacant space as may exist behind it in the shell or casing.

While the earmuff hereof has been described and illustrated as being useful at the end of the usual head-band, it is to be understood that such muff might also form part of a cap, or hat, or even be used by itself as a separate article of manufacture. The scope of the instant invention should hence be ascertained from the appended claims, which are intended to be imbued with the broadest meaning permissible in the light of the prior art.

We claim:

1. An earmuff comprising a molded, rigid plastic casing lined with an ear-covering lining piece, said casing having a bottom portion and a peripheral wall of a contour generally like that of an ear, said lining piece being fitted into said casing so as to occupy substantially the entire area defined by said peripheral wall.

2. An earmuff comprising a molded, rigid plastic casing lined with an ear-covering lining piece, said casing having a bottom portion and a peripheral wall of a contour generally like that of an ear, said lining piece being fitted into and adhesively secured to said casing so as to occupy substantially the entire area defined by said peripheral wall and said lining piece comprising a furry exterior pile at least sufficiently long to be substantially flush with the rim of said peripheral wall.

3. An earmuff comprising a molded, rigid plastic casing lined with an ear-covering lining piece, said casing having a substantially flat bottom portion and a peripheral wall, the interior of said wall being provided with a shoulder and said bottom portion being provided with a rib projecting practically to the plane of said shoulder, said lining piece being fitted into said casing so as to occupy substantially the entire interior thereof up to said peripheral wall and being adhesively secured to said shoulder and rib surfaces.

4. An earmuff comprising a molded, artificial resin casing lined with an ear-covering lining piece, said casing having a substantially flat bottom portion and a peripheral wall, the interior of said wall being provided with a shoulder and said bottom portion being provided with a rib projecting practically to the plane of said shoulder, said lining piece being fitted into said casing so as to occupy substantially the entire interior thereof up to said peripheral wall and being adhesively secured to said shoulder and rib surfaces, said lining piece comprising a furry exterior pile at least sufficiently long to be substantially flush with the rim of said peripheral wall.

5. An earmuff comprising a molded, artificial resin casing lined with an ear-covering lining piece, said casing having a bottom portion and a peripheral wall of a contour generally like that of an ear, said lining piece being fitted into and adhesively secured to said casing so as to occupy substantially the entire interior thereof up to said peripheral wall, and a bracket fixed to said casing at its upper end portion and including a rivet embedded in said casing and headed over said bracket.

6. An earmuff comprising a molded artificial resin casing lined with an ear-covering lining piece, said casing having a bottom portion and a peripheral wall of a contour generally like that of an ear, said lining piece being fitted into and adhesively secured to said casing so as to occupy substantially the entire interior thereof up to said peripheral wall, and a two-piece hinge bracket fixed to said casing at its upper end portion, said bracket including a lower piece, a rivet embedded in said casing and headed over said lower piece, and an upper piece to which said lower piece is hingedly secured, the peripheral wall of said casing having a recess at its upper end portion and said upper piece passing upwardly through said recess.

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