

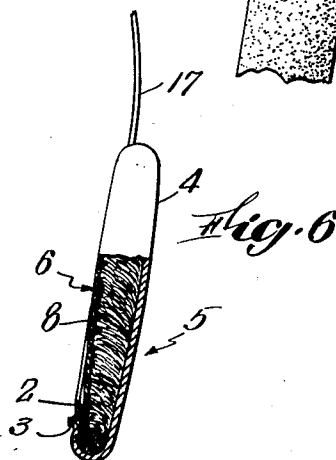
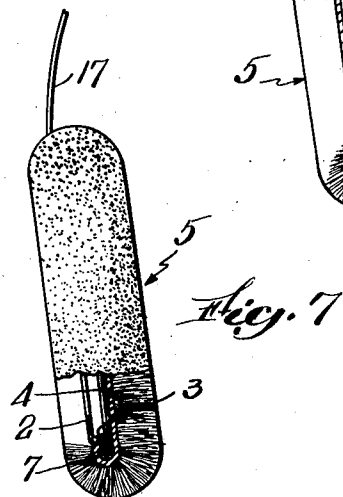
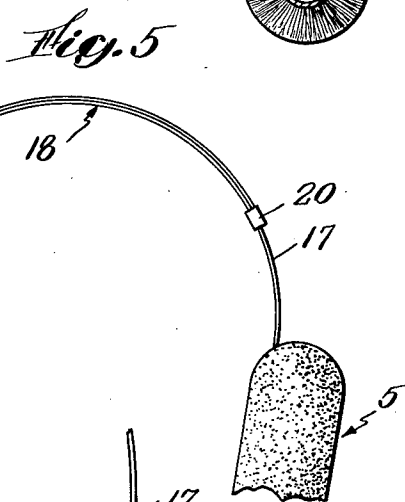
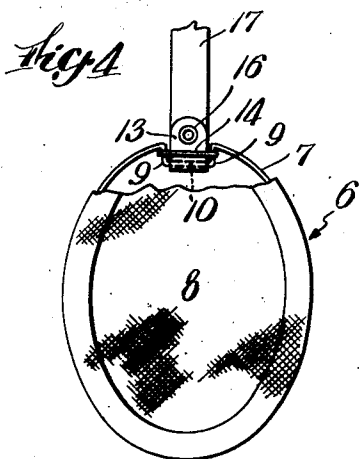
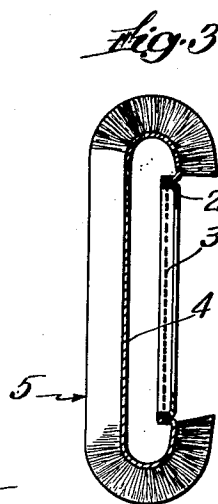
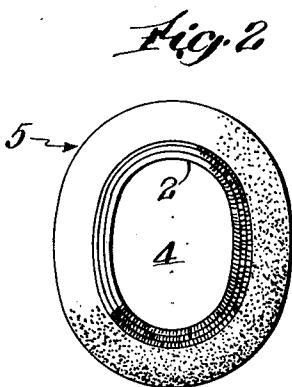
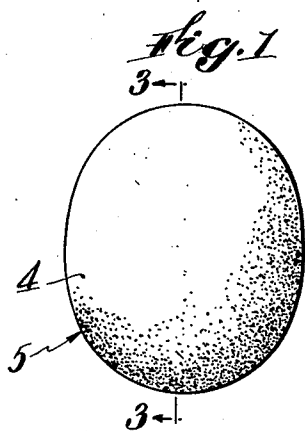
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2,149,383

EAR MUFF

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UNITED STATES PATENT OFFICE

2,149,383

EAR MUFF

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4 Claims. (Cl. 2—209)

This invention relates to improved ear-muffs and to combinations of the same with ear-muff supporting assemblies. Such assemblies ordinarily are provided with oval portions to fit over the ears, these portions being connected by a member designed to extend over the head of the wearer of the ear-muffs. The sheet material of the ear-muffs has been secured on the oval supports by stitching and, in many cases, this has involved a laborious and relatively expensive stitching operation which could only be performed satisfactorily by hand, particularly with ear-muffs provided with villous or furry outer surfaces. Such ear-muffs have been permanently secured to the supports in such a manner that the furry or villous surface was necessarily disposed outwardly from the ear.

The present invention provides an arrangement of ear-muffs permitting the facile attachment of the muffs to the oval supports and the ready removal of the muffs therefrom. Furthermore, this invention permits ready reversal of the position of the muffs on the supports by the wearer, so that, for example, the villous portions of the muffs can be turned inwardly toward the ears, thus permitting additional warmth when desired. Furthermore, while one surface of the muff may conveniently be provided by fur or the like, the opposite surface may be smooth and continuous, so that when the muffs are turned inside out, the appearance thereof is materially altered. If desired, for example, the opposite surfaces of the muffs may have entirely different colors, permitting the muffs to be reversed to harmonize with different costumes.

To permit these desirable results, I secure an elastic element to the edge of the oval sheet member from which the muff is formed in such a manner that the marginal portion of this sheet tends to be drawn inwardly over the adjoining sheet portions, thus causing the sheet member to assume the form of a shallow, open-mouthed pouch. Preferably the elastic element may be in the form of an elastic tape which may be stitched by machine onto the edge of the sheet element. The resulting muff may have its marginal portion secured over the edge of the oval support upon stretching of the elastic tape, thus being firmly positioned in place, but being readily removable when desired.

Since the sheet material of the pouch-like muff is readily distortable and since the elastic element may be stretched, the muff may be turned inside out, thus permitting its inner and outer surfaces to be reversed and allowing a

change in the appearance of the muff as applied to the support and permitting, if a villous surface is provided, the arrangement of such a surface either inwardly or outwardly of the support.

In the accompanying drawing:

Fig. 1 is a side elevational view of a single ear muff constructed in accordance with this invention;

Fig. 2 is a similar elevational view of the opposite side of the ear-muff;

Fig. 3 is a transverse section on line 3—3 of Fig. 1;

Fig. 4 is an elevational view of a portion of an oval support to which the ear muff may be applied, parts being broken away;

Fig. 5 is an elevational view of an ear-muff assembly, one of the supports and ear-muffs being shown in section and a part being broken away;

Fig. 6 is an elevational view of one ear-muff support with the ear-muff applied thereto, but with parts broken away and shown in section, the ear-muff being shown in a reversed position in this figure; and

Fig. 7 is a similar view but showing the ear-muff applied to the support in a different position.

In accordance with this invention, each ear-muff may be formed of an oval sheet member, which may preferably have one villous woolly or furry surface and an opposite surface, such as is provided by the dressed leather from which the fur of the opposite surface extends or which may be provided by any suitable sheet element secured to this leather. Thus, if desired, both the fur and the opposite surface may be provided with matching colors, or these surfaces may be provided with contrasting colors if preferred. While I prefer fur for this purpose, the principles of this invention may advantageously be employed with other sheet materials either with or without villous surfaces, such as are provided by woolly materials, pile fabrics, or the like.

In accordance with this invention, an elastic element having a normal length less than the extent of the edge of the sheet member is secured to the edge of that member, thereby tending to draw the marginal portions of the member inwardly. For this purpose an elastic tape 2 may be secured by a line of stitchings 3 to the sheet member 4. Preferably, as shown more particularly in Fig. 3, one edge of the tape 2 may be stitched in overlapping relation to the edge of the sheet member 4 from which the fur, pile, or the like may be substantially removed. When the elastic tape is secured to the member 4 in this manner, it tends to draw the marginal portion

of the sheet member 4 inwardly so that the latter has the general form of a shallow open-mouthed pouch. Ordinarily the resulting ear-muff 5 will be applied to an ear-muff support with its villous surface disposed outwardly.

The ear-muff support may form part of an ear-muff supporting assembly of suitable construction, such an assembly being shown, for example, in Figs. 4 and 5. This assembly comprises a pair of ear-muff supports 6 provided with ring-like wire frames 7, which preferably may be oval. Each frame is covered with a sheet material 8 such as flannel, the marginal portion of the sheet material being turned over the wire and secured in place by any suitable means such as an adhesive or stitching. The wire 7 at the upper part of the support has short downwardly extending portions 9 which are connected by a transverse pintle portion 10. The latter is disposed in the looped end of a sheet metal ear 13, and a transverse wire 14 is welded to the wire portions 9 above the pintle 10 to afford a stop engageable with the ear 13, thus limiting outward swinging movement of the support relative to the ear 13, but permitting the support to swing inwardly.

The ear 13 is connected by a hollow rivet 16 or the like to one of the arcuate elements 17 of a connector 18, the rivet 16 affording a pivotal connection which allows the ear-muff support 6 to swing in its own plane relative to the adjoining portion of the connector. The connector members 17 are formed of thin resilient metal strips and are provided with curved overlapping portions which slide in mutual engagement, there being flattened ball elements 20 secured to the end of each member 17 and slidably engaging the other member 17, thus holding the members in proper slidable overlapping engagement.

An ear-muff constructed in accordance with the present invention may be secured on each support 6. For this purpose the elastic element 2 is stretched to permit the marginal portion of the sheet member 4 to pass over the edge of the support. It is evident that when the muff has been applied to the support in this manner, the elastic tape 2 tends to draw the outer portion of the muff taut on the support and to hold the muff firmly in position. However, when desired, the muff may be removed from the support upon stretching the elastic tape 2 so that the edge of the sheet member may be drawn over the edge of the support.

It is thus evident that this invention permits the ready application of the muffs to the respective supports of the ear-muff assembly or the ready detachment of the muffs therefrom. However, this invention also permits the ear-muff to be turned inside out so that the position of its surfaces on the support are reversed. Such a feature is particularly advantageous with an ear-muff having a smooth continuous surface and an opposite villous or furry surface, and is also advantageous when the opposite surfaces of the ear-muff have distinctly different appearances due either to the villous character of one surface and the smooth even character of the other, or due to differences in color or the like.

Fig. 6 shows an ear-muff 5 of the type shown in Figs. 3 and 5, which has been reversed so that the dressed surface of the leather may be disposed outwardly and the fur may be disposed inwardly next to the flannel 8 of the support 6. Such an arrangement permits the fur to provide more effective heat insulating ability and permits a distinct alteration in the appearance of the ear-

muff. It is evident that when the muff is applied in the position shown in Fig. 6, the elastic tape 2 is still effective in holding the muff firmly on the support. In addition to the arrangement just described, the present invention permits a third possible position of the ear-muff on the support. In this position of the muff, the body portion of the sheet member 4 may be disposed inwardly of the support 6, as shown in Fig. 7, the elastic 2 holding the muff in engagement with the lower part of the support in the manner which has been described and extending upwardly over the support, but being flexed laterally about the end of the corresponding connector member 17, with portions of the elastic, however, at each side of this member 17 fitting over the upper edge of the support, thus to hold the upper part of the muff in place. This arrangement permits the fur or the like to be worn directly in contact with the ear, thus affording great warmth. By omitting the flannel 8 and applying the muff in the manner shown in Fig. 6, directly upon the uncovered frame 7, the fur surface may be brought directly against the ear of the wearer.

A further advantage of the invention is that, apart from the feature of removability above described, and even if the muff 5 were sewed or otherwise fastened in place so as not to be readily removable, the elastic tape or strand 2 secured to the edge of the fabric 4 of the muff member tends to draw the fabric inwardly over the ring-like wire support 7 and to form the fabric into a shallow pouch embracing the wire support within its open mouth. When the pouch-shaped muff is applied in the position shown in Fig. 5, with a woolly or furry surface outside and the margin drawn inwardly by the elastic over and around the wire frame 7, the woolly or furry surface of the margin faces toward the head of the wearer and acts as a soft, warm closure surrounding a concave interior which accommodates the ear of the wearer.

Without intending to restrict the invention or to limit the generality and inclusiveness of the flexible sheet material of which the muffs may be made, it is suggested that lambskin constitutes an excellent material for the muffs.

It is evident that the present invention affords an advantageous ear-muff construction permitting ear-muffs quickly to be applied to the corresponding supports, to be firmly held in place thereon but, if desired, readily to be detached from the supports, and further, that this invention permits the detachable ear-muffs to be reversed and located in different positions on the supporting assembly to suit the individual tastes and requirements of the user of the muffs.

I claim:

1. The combination comprising a pair of ear-muffs, oval supports on which the muffs are detachably mounted, and a curved connector secured to said supports and adapted to extend over the head of the wearer, each of said ear-muffs being formed from a flexible sheet with an elastic element extending along its edge and yieldably drawing the marginal portions of the sheet inwardly to fit over the edge of the corresponding oval support, the elastic element being stretchable to permit the detachment of the muff from the corresponding support.

2. The combination comprising a pair of ear-muffs, oval supports on which the muffs are detachably mounted, and a curved connector secured to said supports and adapted to extend over the head of the wearer, each of said ear-muffs being

5 formed from a flexible sheet with an elastic element extending along its edge and yieldably drawing the marginal portions of the sheet inwardly to fit over the edge of the corresponding oval support, the elastic element being stretchable to permit the detachment of the muff from the corresponding support, the detached muff being reversible so that its previously inner surface may become its outer surface and in its reversed condition again being capable of fitting over the support.

10 3. The combination comprising a ring-like support, and an ear-muff detachably mounted thereon, comprising a flexible fabric and an elastic strand secured to the edge of the fabric yieldingly tending to draw the margin inwardly to define a shallow pouch and adapted to be stretched to

pass over the support to enable the ear-muff to be applied to or removed from the support.

4. The combination comprising a pair of supports for covering the human ears, a flexible connector secured to said supports and adapted to engage the head of the wearer, an ear-muff detachably mounted on each support, each muff comprising a flexible fabric provided with a marginal strand, said strand normally being effective in drawing the margin of the fabric inwardly at the inner marginal surface of the support, so that the muff is normally in the form of a shallow pouch, said strand being capable of passing over the edge of the support while permitting the margin of the fabric to be extended, thereby enabling the ear-muff to be applied to and removed from the support.

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