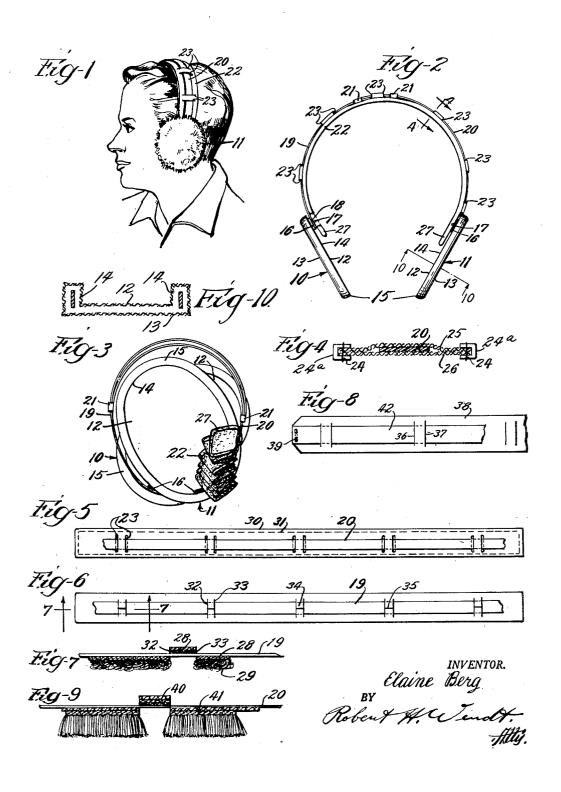
EAR MUFF

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## UNITED STATES PATENT OFFICE

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## EAR MUFF

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3 Claims. (Cl. 2-209)

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The present invention relates to improvements in ear muffs, and in particular to that type of ear muff in which the two muffs are pivotally supported at the ends of a pair of telescoping steel spring bands.

One of the disadvantages of such an ear muff assembly is that the steel band which supports the muffs is very cold and consequently uncomfortable for contact with the head or skin in cold weather, when the muffs are most likely to be 10 worn. The steel bands are particularly uncomfortable on bald heads, not only because of their being so cold, but because they are sharp and stiff and narrow; and they are also uncomfortable when the band is worn behind the neck, 15 as many people wear it.

One of the objects of the invention is the provision of an improved ear muff structure in which the head and neck are protected from the steel band which is used to support the ear 20 muffs of a certain construction.

Another object of the invention is the provision of an improved ear muff construction which is collapsible into a minimum amount of

Another object of the invention is the provision of an improved ear muff construction of the class described, which assists in holding the hair in place, and which may be made in a two tone different effect when garments of different color are worn.

Another object of the invention is the provision of an improved protected ear muff construction which is simple, capable of economi- 35 cal manufacture, durable, attractive, and adapted to be used for a long period of time without necessity for repair or replacement of any of its parts.

Other objects and advantages of the invention 40 will be apparent from the following description and the accompanying drawings, in which similar characters of reference indicate similar parts through the several views.

Referring to the single sheet of drawings ac- 45 companying this specification,

Fig. 1 is a view in perspective, showing a pair of ear muffs embodying the present invention, being worn by a user;

Fig. 2 is a front elevational view of the ear 50 muff assembly of Fig. 1.

Fig. 3 is a front elevational view, showing how the ear muff assembly looks when it is completely collapsed;

Fig. 4 is a fragmentary sectional view on an 55 enlarged scale, taken on the plane of the line 4-4 of Fig. 2, looking in the direction of the

Fig. 5 is a fragmentary plan view showing

springs from which the band protects the wearer;

Fig. 6 is a fragmentary plan view of another modification;

Fig. 7 is a fragmentary longitudinal sectional view taken on the plane of the line 7—7 of

Fig. 8 is a fragmentary plan view of another modification;

Fig. 9 is a fragmentary longitudinal sectional view of another modification.

Fig. 10 is a fragmentary sectional view taken on the plane of the line 10—10 of Fig. 2, looking in the direction of the arrows.

The ear muffs to which the present invention relates are of the type in which each ear muff 10 and 11 is covered by inner and outer layers of fabric 12 and 13 stitched together at the point 14 about an oval reinforcing ring 15.

The reinforcing ring pivotally supports a metal tab 16 on a pintle 17, this tab being pivoted to one of the steel bands at 18. The two steel bands 19 and 20 are identically secured to the ear muffs, are curved at a smaller curvature than 25 the head, and are secured to each other by steel sliders 21 so that they telescope upon each other or may be collapsed to a minimum length, that is, the length of one steel strap.

Such ear muff assemblies are well known in construction so that it is reversible, to give a 30 the prior art and are worn with the steel band over the head and behind the neck, and are very uncomfortable because of the contact with the metal, which is cold, hard, stiff, and has sharp edges.

> The spring band protector 22 embodied in the invention is shown in one form in Fig. 1; and it consists of a rectangular fabric member provided with regularly spaced pairs of slots 23, through which the steel bands 19 and 20 extend.

> In the embodiment of Figs. 1-4 the protector is preferably made of two layers of felt fabric of different color secured together completely around their edges by a single line of stitching 24, and the folded binding tape 24a.

The slots 23 preferably pass through only one of the pieces of fabric 25; and the band is completely covered on the other side by the piece of fabric 26. The length of the protector 22 is sufficient to extend from ear muff to ear muff when the steel bands  ${\bf 19}$  and  ${\bf 20}$  are fully extended; but the protector has its lowermost slots 23 located so that the protector has its end portions 27 overlapping the steel band pivots 18, as well as the metal tab 16 and its pintle 17.

This extension 27, which projects beyond the endmost slots 23, permits some adjustment in length of the steel band without having any folds in the protector. The protector may, however, be folded up like an accordion, as shown in Fig. 3; a lamb's wool band in connection with the steel 60 and in some cases may be worn in the manner

shown in Fig. 2, if the user is in too much of a hurry to extend it.

Referring to Fig. 6, this shows an alternative form of protector, which comprises a rectangular strip of native lamb's wool, consisting of a leather 5 side 23 and a lamb's wool side 29. In this case the binding tape has been eliminated and the amount of labor in making the protector has been reduced to a minimum, as no sewing of any kind is required and it is only necessary to provide the lamb's wool strip with slots or apertures.

At regularly spaced points the lamb's wool strip is provided with pairs of rectangular slots or apertures 32, 33 for passing the steel bands of the ear muff assembly. The steel bands are located 15 on the leather side of this protector and are exposed below the pairs of slots on the fur side, as shown in Fig. 6. The bands, however, tend to cut into the fur between the slots 32, 33, as shown in Fig. 7, so that the fur effectively spaces the steel band from the head or skin, even where the steel bands are exposed on top of the fur between the slots 32, 33.

In some embodiments of the invention the leather straps 34, between the slots 32, 33, may 25 be provided with a transverse cut 35, which extends longitudinally of the protector and which permits the tabs that are thus formed to be spread apart to apply the protector to existing ear muff assemblies.

When the straps 34 are cut at 35 they tend to spring back to their usual position to hold the protector on the steel springs, but it is no longer necessary to slide the steel springs into the slots 32, 33 longitudinally.

Referring to Fig. 7, this shows how the steel springs are imbedded into the fur of the straps 34 so that the steel band does not come into contact with the head.

Referring to Fig. 8, this is a modification in 40 which a strip of felt, indicated at 42, is threaded through the slots 36, 37, of another wider strip of soft fabric 33. The two ends of these strips are secured together by a wire clip 39 at each end of the assembly.

In this case the steel bands may be threaded through the same slots above the band 42, keeping the steel entirely out of contact with the head. The two strips 38 and 42 may be of different colored fabric, and the assembly involves no sew- 50 ing of any kind.

Referring to Fig. 9, this is another modification in which a strip of felt, indicated at 48, is used to back up a strip of native lamb's wool, indicated at 41. The steel band 20 is threaded through the registering slots in both these bands and the felt strip 40 provides a finished ornamental appearance for the rear side of the native lamb's wool. No sewing of any kind is necessary in this type as the steel springs hold both strips in place.

It will thus be observed that I have invented a plurality of simple forms of protectors for the steel springs of a commonly used form of ear muffs. These protectors can be folded up, as shown in Fig. 3, and they can also be worn folded above one ear in the event the wearer chooses to do so. The cold steel springs are kept out of contact with the head or with the neck, and one of the major disadvantages of this type of ear muff has thus been eliminated.

While I have illustrated a preferred embodiment of my invention, many modifications may be made without departing from the spirit of the invention, and I do not wish to be limited to the

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precise details of construction set forth, but desire to avail myself of all changes within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

ent of the United States, is: 1. In an ear muff assembly of the type having a pair of muffs, each muff comprising a pair of layers of fabric stitched about a reinforcing ring, each muff being supported at one end of a steel band, and the steel bands being slidably mounted upon each other and curved to extend about the head of a wearer and to press the muffs against the ears of the wearer, the improvement which comprises a protective rectangular strip of native lamb's wool having a leather side and a lamb's wool side, the said strip being provided with a plurality of pairs of transverse slots located at regularly spaced points, the length of said slots being sufficient for the slots to receive said steel bands, the slots of each pair being located close to each other, forming leather straps between each pair of slots, the said protective strip being slidably mounted on said steel bands with the major portions of the steel bands located on the leather side of said strip and the steel bands being received in the slots, with the lamb's wool facing inwardly toward the head of the wearer and the straps between each pair of slots being located outside said steel bands, the lamb's wool side of said straps being recessed by pressure of the steel bands against the adjacent lamb's wool so that the steel bands are embedded in the lamb's wool of said straps and the steel bands are located outwardly of the major portion of the lamb's wool, and substantially in the plane of the leather side of said strip, the lamb's wool inside the steel bands spacing the bands from the head at all points, said strip being of sufficient length to extend under the steel bands from one end to the other end when the steel bands are fully extended, and the muffs overlapping the ends of the protective strip, to prevent contact of metal parts with the head, said protective strip being adapted to be gathered into adjacent folds on said steel bands.

2. The improvement described in claim 1 in which the leather side of the protective strip is covered by a layer of fabric having slots registering with the slots in the protective strip, and in which the fabric is held on the protective strip by having the steel band located in the slots of both the protective strip and the fabric layer.

3. The improvement described in claim 1 in which each said strap is provided with a transverse cut, so that the free ends of each strap may be spread to receive the steel bands in said slots, the strap ends springing back to hold the protective strip on the steel bands.

## ELAINE BERG.

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