

[54] **EYEGLASS CLIP FOR HEADSETS**

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[22] Filed: **Apr. 9, 1973**

[21] Appl. No.: **349,220**

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[52] U.S. Cl. **24/81 PH, 224/5 A**

[51] Int. Cl. **A44b 21/00**

[58] Field of Search..... **24/81 BA, 3 A, 3 B, 3 C,**
24/3 M, 3 R, 3 J, 3 L, 81 CC, 81 CR, 81 FC,
81 CL, 81 CT, 81 G, 81 H, 81 PA, 81 PH, 81
B, 49 C, 49 CC, 49 K, 11 FE, 11 PP, 255 AS,
255 CT, 255 PH, 259 FF, 255 G, 255 P, 259
R, 255 R, 257 R, 84 A, 84 B, 84 H; 24/29 A,
5 A, 5 J

Primary Examiner—Donald A. Griffin

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[57]

ABSTRACT

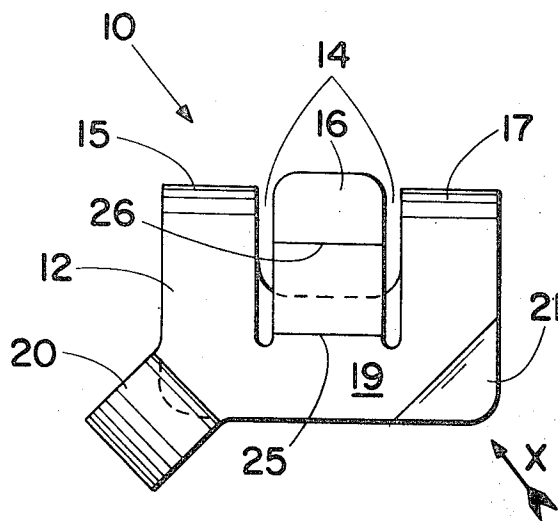
A clip for holding a telephone headset, the clip fitting over a leg of the eyeglasses worn by the user. The clip has a plurality of legs, of spring material, giving different spring combinations. The legs are arranged to provide differing gaps so that a wide variation of thicknesses of eyeglass legs can be accommodated.

References Cited

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3 Claims, 10 Drawing Figures



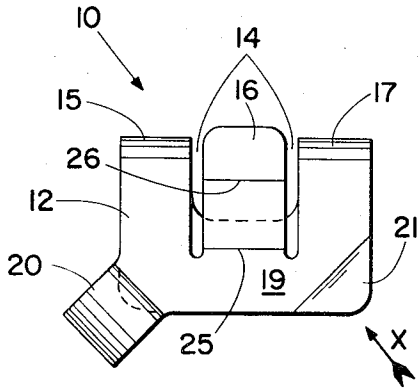


Fig. 1

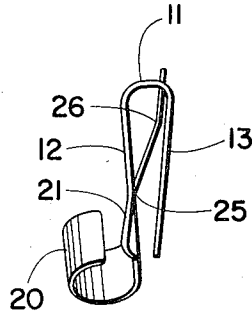


Fig. 2

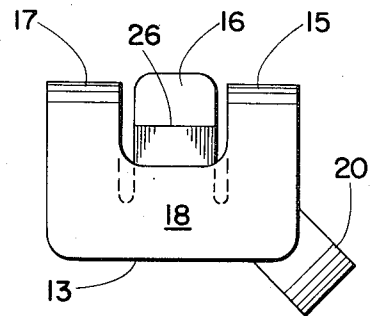


Fig. 3

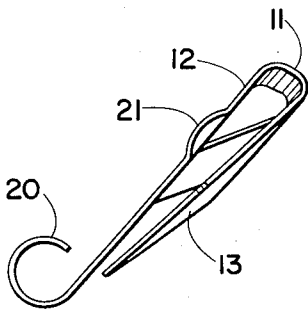


Fig. 4

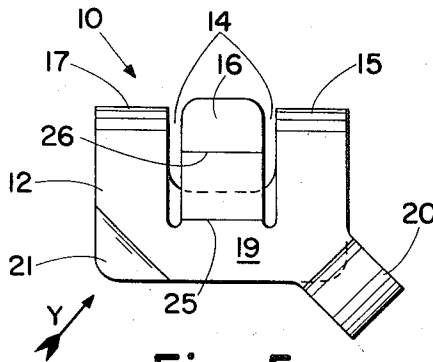


Fig. 5

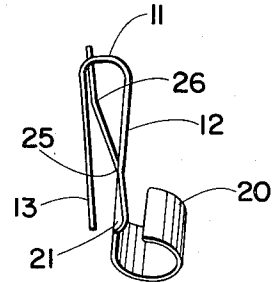


Fig. 6

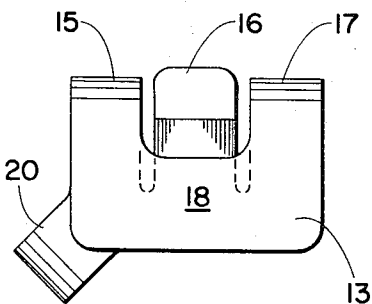


Fig. 7

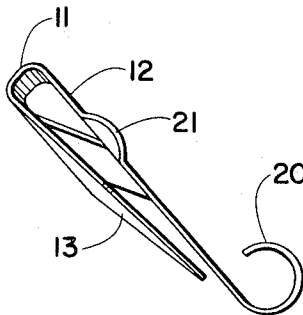


Fig. 8

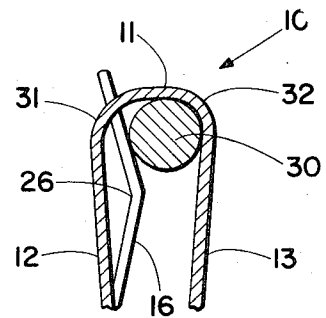


Fig. 9

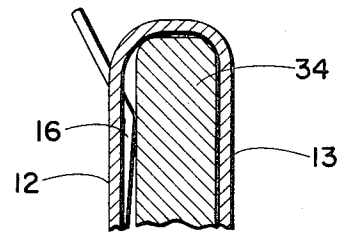


Fig. 10

EYEGGLASS CLIP FOR HEADSETS

This invention relates to eyeglass clips for headsets, particularly for holding or positioning lightweight headsets as used by telephone operators and similar operators.

Difficulty arises in providing a clip for holding and/or positioning a headset with operators wearing glasses. The form of frame and legs of eyeglasses varies considerably and hitherto clips have not been capable of satisfactorily gripping all of the various forms and types. An operator may vary the form of eyeglass frame from time-to-time and it therefore becomes necessary to change the clip and to provide more than one clip, of various forms, to cater for the differing forms and types of frames and legs. This is inconvenient, clips not in use easily get lost, and there is a tendency to avoid changing clips with change in form or type of glasses, resulting in unsatisfactory holding and positioning of the headset.

The present invention provides a clip which is effective for a large number of different frame designs. It is capable of accepting a wide range of leg sizes—from small diameter round legs to the large rectangular shaped legs. A clip, in accordance with the present invention, comprises a shaped piece of metal having some resilience or "spring," the shaping producing at least two spring combinations, the springs acting sequentially depending upon the thickness, or size, of the legs of the eyeglass.

The invention will be readily understood by the following description of an embodiment, by way of example, in conjunction with the accompanying drawings, in which:

FIG. 1 is a front view of a clip for use on the right hand side of a users' head;

FIG. 2 is a side view of the clip in FIG. 1;

FIG. 3 is a back view of the clip in FIG. 1;

FIG. 4 is a view in the direction of the arrow X in FIG. 1,

FIGS. 5, 6, 7 and 8 correspond to FIGS. 1, 2, 3 and 4 respectively but for a clip for use on the left hand side of the head, FIG. 8 is a view in the direction of the arrow Y in FIG. 5;

FIG. 9 is a cross-section, to a larger scale, through the top portion of a clip for the right hand side of the head, as positioned on a normal leg of an eyeglass frame; and

FIG. 10 is a similar cross-section to that of FIG. 9, but with the clip on a large rectangular cross-sectioned leg.

The clip 10 illustrated in FIGS. 1 to 4 is formed from a single piece of material, in the particular example stainless steel, of generally rectangular form with an extension at one corner. The material is folded transversely at the mid-point along the longest dimension as seen at 11, to form a front panel or face 12 and a rear panel or face 13. Two slots 14 are spaced apart and normal to the fold 11 to divide the front panel into three parts 15, 16 and 17, the slots extending only part-way from the fold 11. The center part 16 is cut across at approximately the position of the fold 11 to form a leg, the remainder of the center part being removed. Thus, as seen in FIG. 3, the rear panel 13 comprises only the two outer parts 15 and 17 joined at their ends by a transverse section 18. As seen in the drawings, the front panel has three fingers 15, 16 and 17, the center

finger 16 stopping short at the fold line 11, the outer fingers 15 and 17 continuing over the fold and into the rear panel 13 and being joined by section 18. The three fingers are joined in the front panel by a transverse part 19.

Extending diagonally from one corner of the front panel 12 is an extension which is bent into a partial loop 20. As seen in FIG. 1, looking at the front panel 12, the loop 20 is formed at the left side. The right hand corner 21 of the front panel is bent upward—away from the rear panel 13—for ease in inserting a leg of the eyeglasses. The loop 20 is also formed to extend upward—away from the rear panel 13. Loop 20 grips a cooperative part on the headset.

As can be seen in FIGS. 2 and 4, the center part or finger 16 is bent out of the plane of the front panel 12 toward the rear panel 13. A first bend occurs at 25, the lower part of the finger 16 extending upward and rearwardly. A second bend occurs at 26, the remainder of the finger 16 extending substantially parallel to the rear panel 13.

To attach the clip, it is pushed onto the eyeglass leg by inserting the leg between the front and rear panels 12 and 13 at the corner at which is formed the bent upward portion 21. Thus a leg is inserted generally in the same direction as the arrow X. As the leg is inserted the clip is swung, relative to the leg, so that the leg extends across the clip, being gripped between the front panel 12 and the transverse section 18 of the rear panel 13. The leg eventually contacts the center finger 16. For a leg of small dimensions, that is of a diameter or thickness less than the distance between the front and back panels 12 and 13, the leg is held between the center finger 16 and the rear panel 13. For a thicker leg, or a leg of longer diameter, the finger 16 is pushed right out and the leg is gripped between the front and rear panels. Thus initially a first spring retaining action is provided by the center finger 16. A second spring action is provided by the two opposed panels—giving a two stage action. This ensures good gripping action independent of leg dimensions.

The clip as illustrated in FIGS. 1 to 4 is for use on the right-hand leg of eyeglasses. The headset would extend on the right hand side of the face of the user. The clip is attached to the headset by inserting a part of the headset into the loop 20. In the particular example the loop is formed to be a spring fit over the casing of a pivotal joint connecting the boom of the headset to the earpiece.

For holding a headset on the other side of the head a similar clip is used but of opposite hand. This is illustrated in FIGS. 5 to 8. The same reference numerals are used for the same items and the action and application of the clip to eyeglass leg and to the headset is the same as for the clip illustrated in FIGS. 1 to 4 except that the clips are attached to the left hand leg of the eyeglass.

As seen in FIG. 9, a leg 30 of circular cross-section is positioned in the clip 10. The leg is of relatively small diameter and as the clip is pushed onto the leg 30 it first displaces the center finger 16 until the leg passes the bend 26. As the leg is pushed in further, the finger 16 urges the leg against the rear panel 13 and also into the fold 11. As will be seen the fold 11 can have two portions, a larger radius portion 31 and a smaller radius portion 32. The finger 16 pushes the leg into the smaller radius portion 32.

FIG. 10 illustrates the clip in position on a leg 34 of large rectangular cross-section. On insertion of the leg 34 the finger 16 is displaced and also the rear panel 13 is flexed outward. Thus the leg 34 is held between the rear panel 13 and the front panel 12 and finger 16. The finger 16 is more easily flexed than the rear panel 13 and an increased holding force is provided for the large cross-section leg 34. For the smaller normal leg, as at 30 in FIG. 9, the force is mainly provided by the finger 16.

The clip is particularly useful for anchoring a headset when additional support is needed. For example, for users who move their heads while using a headset—such as when looking up catalogues or other reference and similar books, or for users who need to move about to some limited extent, it is advisable to provide additional anchorages. Particularly with the type of headset referred to above and described in the aforementioned patent application, it is useful to provide additional support or anchorage. While the headset fits snugly over the ear and can be stabilized by a stabilizer engaging with a formation of the ear, undue movement or tilting of the head can cause the headset to move or even fall off. Where the user wears glasses, then the glasses can be made use of to provide additional anchorage and stability. The clip also transfers the weight of the headset from the ear to the glasses.

What is claimed is:

1. An eyeglass clip for a headset, comprising: an elongate piece of resilient material; a fold extending transversely of said material to define a front panel and a rear panel; said panels in opposed spaced apart relationship and extending in planes inclined toward each other from said fold; there being two slots in said front panel extending partway from and normal to said fold, said slots de-

- fining a center finger and two outer fingers, said fingers joined in said front panel by a transverse portion remote from said fold; said slots extending across said fold and partway in said rear panel; said outer fingers extending across said fold into said rear panel and joined by a section remote from said fold; said center finger extending approximately only to said fold and having a free edge; said outer fingers and said section in said rear panel defining an aperture extending to said fold; a first bend in said center finger approximately at its junction with said transverse portion, the finger bent out of the plane of said front panel toward said rear panel; a second bend in said center finger intermediate said first bend in said free edge, the finger bent to a plane substantially parallel with the plane of said rear panel, the free end of the center finger extending into said aperture; an extension on one corner of said front panel said extension extending from the transverse portion of said front panel diagonally relative to said fold, said extension formed into a partial loop.
2. An eyeglass clip as claimed in claim 1, said fold of substantially hemispherical cross-section.
3. An eyeglass clip as claimed in claim 1, said fold extending through an angle of approximately 180°, said fold comprising: a first portion extending from said front panel and having a radius approximately equal to half the distance between said panels at said fold; and a second portion extending from said rear panel and having a radius smaller than the radius of said first portion.

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