Oct. 2, 1956 A. J. EVANS 2,764,881

SPRING CLIP TYPE EARRING WITH ADJUSTABLE SPRING ENGAGING CAM

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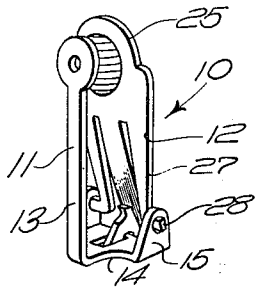


FIG. 1

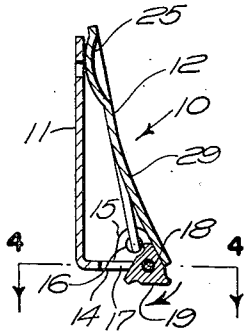


FIG. 2

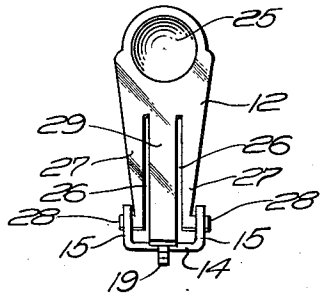


FIG. 3

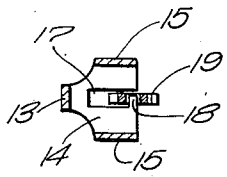


FIG. 4

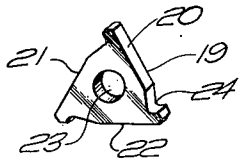


FIG. 5

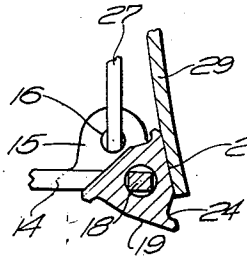


FIG. 6

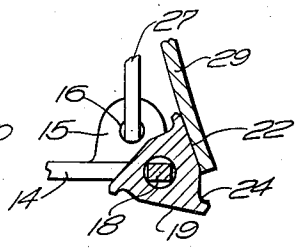


FIG. 7

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SPRING CLIP TYPE EARRING WITH ADJUSTABLE SPRING ENGAGING CAM

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1 Claim. (Cl. 63—14)

My present invention relates to the jewelry art, and more particularly to an adjustable clip for an earring or other article of jewelry.

The principal object of the present invention is to provide a jewelry spring clip having an adjustable spring tension.

Another object of the present invention is to provide a jewelry spring clip with a simple adjustment permitting the wearer to select the proper spring tension.

A further object of the present invention is to provide a jewelry spring clip with an adjustable tension which is simple in construction and easy and economical to manufacture and assemble.

With the above and other objects and advantageous features in view, my invention consists of a novel arrangement of parts, more fully disclosed in the detailed description following, in conjunction with the accompanying drawings, and more particularly defined in the appended claims.

In the drawings:

Fig. 1 is a perspective view of a spring clip embodying my invention.

Fig. 2 is a vertical section thereof.

Fig. 3 is a rear view thereof.

Fig. 4 is a section taken on line 4—4 on Fig. 2.

Fig. 5 is an enlarged perspective view of the cam element.

Fig. 6 is an enlarged section showing the cam at one adjustable position.

Fig. 7 is a view similar to Fig. 6 showing the cam at another adjustable position.

In the jewelry art, certain articles such as earrings are provided with spring clips for attaching the article of jewelry to the person or clothing. These clips usually comprise two members hinged to each other at one end with a leaf spring extending from one member resting on a portion of the other member at the hinge to provide a spring clamping pressure. Since most jewelry items are mounted on cards for display purposes, the spring tension is made strong enough to clamp the clip on the thickness of a piece of cardboard. This provides sufficient pressure to clamp the earrings to the ear lobes or to clamp a brooch to an article of clothing.

However, the thickness of the human ear lobe varies greatly and it has been found that such clamps are usually uncomfortably tight to start with and then become worn and too loose. Different materials also vary in thickness and may become injured by too tight a clamp. The end of the spring rides frictionally over a cam edge of one of the members and rapidly wears away loosening the clamp.

All of the above disadvantages have been corrected by the spring clip of the present invention. By providing a simple adjustment of the spring pressure, the wearer can immediately provide the most comfortable and proper tension of the clip. Furthermore, the point of greatest wear has been shifted and the incidence of friction reduced.

Referring more in detail to the drawings illustrating my

invention, Figs. 1, 2 and 3 show the adjustment applied to a conventional earring clip. The clip **10** comprises a front member **11** and a rear spring member **12** hinged to each other. The front member **11** is generally L-shaped, the vertical leg **13** varying in length to accommodate different types of jewelry ornaments which may be attached thereto. The horizontal portion **14** is substantially wider than the portion **13** and is turned upwardly at each side edge to form integral spaced ears **15** having aligned pivot openings **16**.

Referring to Fig. 4, the portion **14** is provided with a rectangular cutout **17** extending parallel with the ears **15** and extending rearwardly just short of the rear edge to leave a thin strip of stock **18** which forms a pivot pin for the cam element **19** mounted thereon. The cam element **19** is shown in detail in Fig. 5. It comprises a triangular member having sides **20**, **21** and **22**. The pivot opening **23** is so located as to be of varying distances from each side. For example, the opening **23** is closest to the side **20**, slightly further from the side **21**, and furthest from the side **22**. Each corner of the element **19** is provided with a cutout portion for easy engagement with a finger tip, **24**.

The cam element **19** has been illustrated and described as being triangular in shape. It is to be understood that this is for illustrative purposes only. Since each side will provide a separate adjustment, as will be hereinafter described, the triangular shape will give three adjustable positions. Similarly, a square will give four adjustments, a pentagon will give five, and so forth. The cam may even be circular, thus providing adjustments through 360°.

The rear spring portion **12** is shown in Figs. 1, 2 and 3. It is generally elongated in shape and wider at the top **25** and tapering downwardly. The top **25** may be dished as shown to provide a gripping surface. The portion **12** is provided with spaced parallel longitudinal slots **26** extending from the bottom edge to cut the portion into three sections. The outer sections **27** terminate in laterally extending lugs **28** which are mounted in the pivot openings **16** in the ears **15**. The central section **29** is longer than the side sections **27** and forms a resilient spring tongue with the lower end resting on the cam element **19**.

With the parts assembled as shown in Fig. 2, the pressure of the member **12** against the member **11** depends on the tension of the spring **29** which is resting against one side, **20** in Fig. 2, of the cam element **19**. Since the tension of the spring will depend on the distance from the point of pivot, rotation of the cam **19** causes a change of tension. If the portion **12** is pivoted away from the portion **11** to receive an ear lobe, it will also cause the cam **19** to turn with it as shown in Fig. 6. The wear is not on the spring but on the pivot. Should the tension be too little, the user engages one of the corners **24** of the cam **19** and snaps it, in the direction of arrow in Fig. 2, until the spring **29** rests on a new side of the cam. Fig. 7 illustrates the increased tension on the spring **29** when resting on the side **22** which is furthest from the pivot.

The above adjustment is simple and easy to make and provides a plurality of tension positions to accommodate the individual user. The device can readily be used as an earring clip or for any other article of jewelry requiring a clamping action. Since the parts can be readily stamped and assembled, the device is easy and economical to manufacture.

Other advantages of the present invention will be readily apparent to a person skilled in the art.

I claim:

An earring comprising a generally L-shaped front member and a generally flat rear member, said front member having a vertical and a horizontal leg, means pivotally attaching one end of the rear member to the horizontal leg above the plane thereof so that the front and rear

members are movable relative to each other with the rear member being in confronting clamping relation with the vertical leg so as to clampingly engage on an ear lobe, a flat multi-sided cam element, pivot means lying in the plane of the horizontal leg and disposed transversely thereof, said cam element being eccentrically mounted for rotation on the pivot means and having a plurality of cam sides with finger engaging portions interposed between said sides and said cam element having one of its finger engaging portions always extending below the horizontal leg so as to dispose one of the finger engaging portions in an accessible position below the horizontal leg, a longitudinal resilient portion formed in the rear

member and defining a leaf spring and having a free end extending substantially to the axis of the cam element and disposed in constant engagement with one of the sides of the cam element which forms a stop therefor and on which the sides of the cam element slide in manually rotating the cam element, while the front and rear members are clamped on an ear lobe, so as to vary the tension of the resilient portion and adjust the clamping engagement between the vertical leg and the rear member.

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